

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, February 15, 2011

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 11/1/10 **Collection Time:**

Sampled By: Kim Michaelis

Lab Order Number: WW-102385

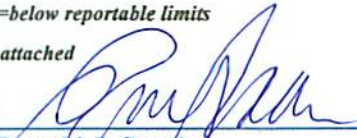
Date Received: 11/01/10

Sample Type	Sample Time	Sample Date	Comments			
DW-1 A	0900	11/1/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	71.0	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	0.81	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	BRL	0.01	11/03/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/10/10	RIA*	245.1
Boron	mg/L	0.033	0.010	11/03/10	MC	200.7
Copper	mg/L	BRL	0.003	11/03/10	MC	200.7
Nitrate-N	mg/L	1.56	0.01	11/02/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/02/10	LL	300.0
Ammonia-N *	mg/L	<0.1	0.02	11/10/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	24.8	3.0	11/02/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.070	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.55	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	1.56	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.07	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/02/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.26	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.63	NA	11/15/10	MC	Calculation

$$TN = DON(0.07) + PON(0.14) + NH_3(0.01) + NO_3(1.56) + NO_2(0.002) = 1.782$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102385 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	11/10/10	KES
TOC Low Level	0.81	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	0.55	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/9/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/9/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/9/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/9/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/9/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/9/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM

R.I. Analytical Laboratories, Inc.

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Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102385 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/9/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/9/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/9/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/9/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/9/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/9/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/9/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/9/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/9/10	MMM
Surrogates			RANGE	SW-846 8260B	11/9/10	MMM
Dibromofluoromethane	96		86-118%	SW-846 8260B	11/9/10	MMM

R.I. Analytical Laboratories, Inc.
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Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102385 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	99		88-110%	SW-846 8260B	11/9/10	MMM
4-Bromofluorobenzene	93		86-115%	SW-846 8260B	11/9/10	MMM
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260B	11/9/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/10/10	PJC

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Tuesday, February 15, 2011

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

Project Name: GW Eel River

Comments:

Project Number:

Collection Date: 11/01/10 Collection Time:

Sampled By: Kim Michaelis

Lab Order Number: WW-102386

Date Received: 11/01/10

Sample Type	Sample Time	Sample Date	Comments			
A17 A	1040	11/01/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	68.0	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	0.93	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	0.01	0.01	11/03/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/10/10	RIA*	245.1
Boron	mg/L	0.026	0.010	11/03/10	MC	200.7
Copper	mg/L	BRL	0.003	11/03/10	MC	200.7
Nitrate-N	mg/L	1.56	0.01	11/02/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/02/10	LL	300.0
Ammonia-N *	mg/L	<0.1	0.02	11/10/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	24.8	3.0	11/02/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.070	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	1.56	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.07	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/02/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.93	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.63	NA	11/15/10	MC	Calculation

$$TN = DON(0.07) + PON(0.14) + NH_3(0.07) + NO_3(1.56) + NO_2(0.002) = 1.782$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102386 A 17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 10:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	11/10/10	KES
TOC Low Level	0.93	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	<0.50	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102386 A 17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 10:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	98		86-118%	SW-846 8260B	11/10/10	MMM

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SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 10:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	97		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	94		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	101		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/10/10	PJC

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

8 Jan Sebastian Drive
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Tuesday, February 15, 2011

Plymouth Environmental Management
 ATTN Kim Michaelis
 #11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 11/01/10 **Collection Time:**

Sampled By: Kim Michaelis

Lab Order Number: WW-102387

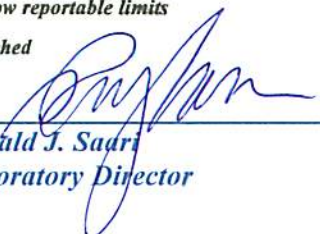
Date Received: 11/01/10

Sample Type	Sample Time	Sample Date	Comments			
GW-1 A	12:00	11/01/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	183	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	0.64	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	BRL	0.01	11/03/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/10/10	RIA*	245.1
Boron	mg/L	0.018	0.010	11/03/10	MC	200.7
Copper	mg/L	BRL	0.003	11/03/10	MC	200.7
Nitrate-N	mg/L	0.14	0.01	11/02/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/02/10	LL	300.0
Ammonia-N *	mg/L	<0.1	0.02	11/10/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	63.6	3.0	11/02/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/02/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.64	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.35	NA	11/15/10	MC	Calculation

$$TN = DON(0.21) + PON(0.1) + NH_3(0.01) + NO_3(0.14) + NO_2(0.002) = 0.462$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Sauri
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102387 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.02	0.02	mg/l	SM 4500-NH3 C	11/10/10	KES
TOC Low Level	0.64	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	<0.50	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102387 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	95		86-118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.**CERTIFICATE OF ANALYSIS**

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102387 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	101		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	114		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/10/10	PJC

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, February 15, 2011

Plymouth Environmental Management
 ATTN Kim Michaelis
 #11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 11/01/10 **Collection Time:**

Sampled By: Kim Michaelis

Lab Order Number: WW-102388

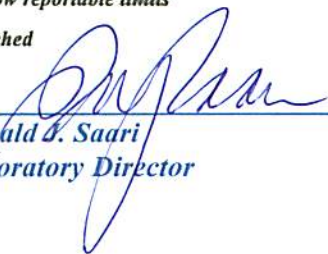
Date Received: 11/01/10

Sample Type	Sample Time	Sample Date	Comments			
A15 A	1335	11/01/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	102	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	1.2	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	BRL	0.01	11/03/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/10/10	RIA*	245.1
Boron	mg/L	0.016	0.010	11/03/10	MC	200.7
Copper	mg/L	BRL	0.003	11/03/10	MC	200.7
Nitrate-N	mg/L	1.67	0.01	11/02/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/02/10	LL	300.0
Ammonia-N *	mg/L	<0.1	0.02	11/10/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	36.1	3.0	11/02/10	LL	300.0
Total Phosphorous (P)	mg/L	0.043	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.50	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	1.67	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.35	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.038	0.005	11/02/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.70	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	2.02	NA	11/15/10	MC	Calculation

$$TN = DON(0.35) + PON(0.1) + NO_3(1.67) + NO_2(0.002) + NH_3(0.01) = 2.132$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-102388 AZ1 15 H

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 09:00 1355

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.09	0.02	mg/l	SM 4500-NH3 C	11/10/10	KES
TOC Low Level	1.2	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	0.50	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-102388 A215 μ

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 09:00 1335

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	100		86-118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21920

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-102388 AZ1 1< 12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/01/2010 @ 09:00 1355

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	98		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	99		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/10/10	PJC

1

Laboratory:

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

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
11/1/10	0900	DW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4
11/1/10	1040	A17	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4

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 Michaelis 11/1/10

Received By:

Date/Time:

[Signature] 11/1/10 1515

Laboratory:

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

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
NW-102387 11/1/10	1200	GW-1	2	Glass Vial	VOC	HCL
		GW-1	1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4
NW-102388 11/1/10	1335	A15	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4

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 Michaelis 11/1/10

Received By:

Date/Time:

[Signature] 11/1/10 1508

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, February 15, 2011

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: A 13 **Comments:**
Project Number:
Collection Date: 11/03/10 **Collection Time:** 1015
Sampled By: Kim Michaelis
Lab Order Number: WW-102415
Date Received: 11/03/10

Sample Type	Sample Time	Sample Date	Comments			
A 13 A	1015	11/03/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	417	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	2.2	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	7.20	0.01	11/22/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/12/10	RIA*	245.1
Boron	mg/L	0.019	0.010	11/16/10	MC	200.7
Copper	mg/L	BRL	0.003	11/16/10	MC	200.7
Nitrate-N	mg/L	0.30	0.01	11/04/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/04/10	LL	300.0
Ammonia-N *	mg/L	0.12	0.02	11/11/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	194	3.0	11/08/10	LL	300.0
Total Phosphorous (P)	mg/L	0.043	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.1	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.42	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.37	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.015	0.005	11/04/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.50	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.79	NA	11/15/10	MC	Calculation

$$TN = DON(0.49) + NO_3(0.30) + NH_3(0.12) + NO_2(0.002) = 0.892$$

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102415 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.12	0.10	mg/l	SM 4500-NH3 C	11/11/10	KA
TOC Low Level	2.2	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	2.1	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102415 A 13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	100		86-118%	SW-846 8260B	11/10/10	MMM

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, February 15, 2011

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 11/02/10 Collection Time: 0920

Sampled By: Kim Michaelis

Lab Order Number: WW-102396

Date Received: 11/02/10

Sample Type	Sample Time	Sample Date	Comments			
7SR A	0920	11/02/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	371	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	0.65	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	BRL	0.01	11/03/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/10/10	RIA*	245.1
Boron	mg/L	0.013	0.010	11/03/10	MC	200.7
Copper	mg/L	BRL	0.003	11/03/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	11/03/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/03/10	LL	300.0
Ammonia-N *	mg/L	<0.1	0.02	11/10/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	182	3.0	11/05/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.54	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/02/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.5	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.28	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.21	NA	11/15/10	MC	Calculation

$$TN = DON(0.21) + PON(0.28) + NH_3(0.01) + NO_3(0.005) + NO_2(0.01) = 0.515$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102396 7 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.07	0.02	mg/l	SM 4500-NH3 C	11/10/10	KES
TOC Low Level	0.65	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	0.54	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102396 7 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	100		86-118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.**CERTIFICATE OF ANALYSIS**

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102396 7 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 09:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	98		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	97		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	101		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/10/10	PJC

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, February 15, 2011

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 11/02/10 Collection Time: 1235

Sampled By: Kim Michaelis

Lab Order Number: WW-102397

Date Received: 11/02/10

Sample Type	Sample Time	Sample Date	Comments			
2SR A	1235	11/02/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	208	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	0.98	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	0.03	0.01	11/03/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/10/10	RIA*	245.1
Boron	mg/L	0.024	0.010	11/03/10	MC	200.7
Copper	mg/L	BRL	0.003	11/03/10	MC	200.7
Nitrate-N	mg/L	4.26	0.01	11/03/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/03/10	LL	300.0
Ammonia-N *	mg/L	0.10	0.02	11/10/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.70	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	81.7	3.0	11/03/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.56	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.67	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	4.36	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.46	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/02/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.50	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	4.87	NA	11/15/10	MC	Calculation

$$TN = DON(0.46) + PON(0.1) + NH_3(0.10) + NO_3(4.26) + NO_2(0.002) = 4.922 *$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102397 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.100	0.10	mg/l	SM 4500-NH3 C	11/10/10	KES
TOC Low Level	0.98	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	0.67	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102397 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	99		86-118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102397 2 SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	96		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	96		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	106		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/10/10	PJC

✓

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, February 15, 2011

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number:

Collection Date: 11/02/10 **Collection Time:** 1325

Sampled By: Kim Michaelis

Lab Order Number: WW-102398

Date Received: 11/02/10

Sample Type	Sample Time	Sample Date	Comments			
2DR A	1325	11/02/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	252	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	1.4	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	18.5	0.01	11/04/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/10/10	RIA*	245.1
Boron	mg/L	0.061	0.010	11/03/10	MC	200.7
Copper	mg/L	BRL	0.003	11/03/10	MC	200.7
Nitrate-N	mg/L	0.16	0.01	11/03/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/03/10	LL	300.0
Ammonia-N *	mg/L	0.10	0.02	11/10/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	134	3.0	11/05/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.1	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.26	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.32	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/02/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.50	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.58	NA	11/15/10	MC	Calculation

$$TN = DON(0.32) + PON(0.1) + NH_3(0.10) + NO_3(0.16) + NO_2(0.002) = 0.682$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102398 2 DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.10	0.10	mg/l	SM 4500-NH3 C	11/10/10	KES
TOC Low Level	1.4	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	1.1	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102398 2 DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	98		86-1118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/3/10

Work Order #: 1011-21921

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102398 2 DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/02/2010 @ 13:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	97		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	95		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	98		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/10/10	PJC

Laboratory:

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

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW-102396

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
11/2/10	0920	4SR	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4
11/2/10	1235	2SR	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4

DW-102397

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 Michaelis

Received By: Date/Time:

[Signature] 11/2/10 1515

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

W-102398

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
11/2/10	1325	2 DL	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4

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 Michaelis

Received By: Date/Time:

[Signature] 11/2/10 1515

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, February 15, 2011

Plymouth Environmental Management
 ATTN Kim Michaelis
 #11 Lincoln Stre Plymouth 02360

ProjectName: 5S

Comments:

Project Number:

Collection Date: 11/03/10 Collection Time: 1110

Sampled By: Kim Michaelis

Lab Order Number: WW-102416

Date Received: 11/03/10

Sample Type	Sample Time	Sample Date	Comments			
5S A	1110	11/03/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	402	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	0.86	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	14.1	0.01	11/22/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/12/10	RIA*	245.1
Boron	mg/L	0.038	0.010	11/16/10	MC	200.7
Copper	mg/L	BRL	0.003	11/16/10	MC	200.7
Nitrate-N	mg/L	0.24	0.01	11/04/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/04/10	LL	300.0
Ammonia-N *	mg/L	<0.10	0.02	11/11/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	244	3.0	11/08/10	LL	300.0
Total Phosphorous (P)	mg/L	0.23	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.70	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.24	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.42	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/04/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.50	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.66	NA	11/15/10	MC	Calculation

$$TN = DON (0.42) + PON (0.1) + NH_3 (0.0) + NO_3 (0.24) + NO_2 (0.002) = 0.772$$

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102416 5S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.10	0.10	mg/l	SM 4500-NH3 C	11/11/10	KA
TOC Low Level	0.86	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	0.70	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	2	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102416 5S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	100		86-118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 002

SAMPLE DESCRIPTION: WW-102416 SS

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	103		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	107		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	104		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/12/10	PJC

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, February 15, 2011

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: A21-A

Comments:

Project Number:

Collection Date: 11/03/10 Collection Time: 1220

Sampled By: Kim Michaelis

Lab Order Number: WW-102417

Date Received: 11/03/10

Sample Type	Sample Time	Sample Date	Comments			
A21-A A	1220	11/03/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	59.0	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	1.1	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	1.96	0.01	11/16/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/12/10	RIA*	245.1
Boron	mg/L	BRL	0.010	11/16/10	MC	200.7
Copper	mg/L	BRL	0.003	11/16/10	MC	200.7
Nitrate-N	mg/L	0.09	0.01	11/04/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/04/10	LL	300.0
Ammonia-N *	mg/L	0.24	0.02	11/11/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	24.6	3.0	11/04/10	LL	300.0
Total Phosphorous (P)	mg/L	0.040	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.90	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.33	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.25	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.032	0.005	11/04/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.50	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.58	NA	11/15/10	MC	Calculation

$$TN = DON(0.25) + PON(0.1) + NH_3(0.24) + NO_3(0.09) + NO_2(0.002) = 0.682$$

BRL=below reportable limits

*see attached

By: 

Ronald L. Saari
Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102417 A 21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.24	0.10	mg/l	SM 4500-NH3 C	11/11/10	KA
TOC Low Level	1.1	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	0.90	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102417 A 21-A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	99		86-118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.**CERTIFICATE OF ANALYSIS**

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 003

SAMPLE DESCRIPTION: WW-102417 A 21-A**SAMPLE TYPE:** GRAB**SAMPLE DATE/TIME:** 11/03/2010 @ 12:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	104		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	104		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	105		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/12/10	PJC

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, February 15, 2011

Plymouth Environmental Management
 ATTN Kim Michaelis
 #11 Lincoln Stre Plymouth 02360

ProjectName: Bradford

Comments:

Project Number:

Collection Date: 11/03/10 **Collection Time:** 1320

Sampled By: Kim Michaelis

Lab Order Number: WW-102418

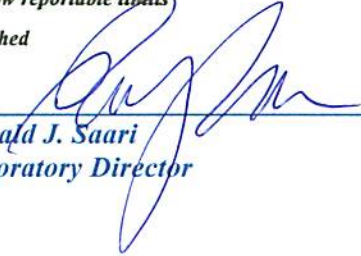
Date Received: 11/03/10

Sample Type	Sample Time	Sample Date	Comments			
Bradford Well A	1320	11/03/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	51.0	6.0	12/07/10	MC	2540 C
Total Organic Carbon*	mg/L	0.97	0.5	11/11/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	11/10/10	RIA*	*
Total Iron	mg/L	1.66	0.01	11/29/10	MC	200.7
Mercury*	mg/L	<0.0005	0.0005	11/12/10	RIA*	245.1
Boron	mg/L	BRL	0.010	11/16/10	MC	200.7
Copper	mg/L	0.028	0.003	11/16/10	MC	200.7
Nitrate-N	mg/L	0.10	0.01	11/04/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	11/04/10	LL	300.0
Ammonia-N *	mg/L	<0.10	0.02	11/11/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.70	0.2	11/15/10	MC	SM4500 NH3 C
Chloride	mg/L	11.5	3.0	11/04/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	11/16/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.63	0.2	11/15/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.82	0.5	11/11/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.63	NA	11/16/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	BRL	0.005	11/04/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.50	NA	11/11/10	RIA*	SM 5310 C
Particulate Organic Nitrogen	mg/L	<0.2	NA	11/16/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.73	NA	11/15/10	MC	Calculation

$$TN = DON (0.63) + PON (0.1) + NH_3 (0.01) + NO_3 (0.1) + NO_2 (0.002) = 0.842$$

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-102418 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 13:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.10	0.10	mg/l	SM 4500-NH3 C	11/11/10	KA
TOC Low Level	0.97	0.5	mg/l	EPA 415.2	11/11/10	ML
Dissolved TOC	0.82	0.5	mg/l	EPA 415.1	11/11/10	ML
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	11/10/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-102418 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 13:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	11/10/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	11/10/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
4-Methyl-2-pentanone(MIBK)	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	11/10/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	11/10/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	11/10/10	MMM
Surrogates			RANGE	SW-846 8260B	11/10/10	MMM
Dibromofluoromethane	102		86-118%	SW-846 8260B	11/10/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 11/5/10

Work Order #: 1011-22116

PLYMOUTH ENV.

Sample # 004

SAMPLE DESCRIPTION: WW-102418 BRADFORD

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 11/03/2010 @ 13:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Toluene-d8	105		88-110%	SW-846 8260B	11/10/10	MMM
4-Bromofluorobenzene	105		86-115%	SW-846 8260B	11/10/10	MMM
1,2 Dichloroethane-d4	101		80-120%	SW-846 8260B	11/10/10	MMM
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	11/12/10	PJC

Laboratory:

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

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

11/3/10 1015 A13

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
11/3/10	1015	A13	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4
11/3/10	1110	SS*	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4

11/3/10 1110 SS* Please Filter

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 Michaelis 11/10

Received By: Date/Time:

Kim Michaelis 11/03/10 1602

Laboratory:

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

Chain of CustodyClient:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WN102417

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
11/3/10	1220	A21-A	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4

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 Michaelis 11/3/10

Received By: Date/Time:

Blair 11/03/10 1600

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW102418

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
11/3/10	1320	Bradford	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, NO ₂ , NO ₃ , Chloride, Cu, Iron, Mercury	NONE
			1	Plastic	TOC	H2SO4

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 Michaelis 11/3/10

Received By:

Date/Time:

[Signature] 11/03/10 1600

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River-Plymouth. MA **Comments:**
Project Number: NA
Collection Date: 4/26/10 **Collection Time:** 9:50
Sampled By: Kim Michaelis
Lab Order Number: WW-100780
Date Received: 04/26/10

Sample Type	Sample Time	Sample Date	Comments			
GW - 1 A	9:50	4/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	219	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.77*	0.5	05/04/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/10	RIA*	*
Total Iron	mg/L	0.06	0.01	04/29/10	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	04/30/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/29/10	MC	200.7
Nitrate-N	mg/L	0.09	0.01	04/26/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/10	LL	300.0
Ammonia-N *	mg/L	0.49*	0.02	05/01/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	66.3	3.0	04/26/10	LL	300.0
Total Phosphorous (P)	mg/L	0.015	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.76*	0.5	05/04/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.58	0.2	05/18/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.03	0.2	05/18/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.015	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.01	0.5	05/18/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.04	0.2	05/18/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.61	0.2	05/18/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Sauri
 Laboratory Director

$$TN = DON (0.03) + PON (0.04) + NH_3 (0.49) + NO_3 (0.09) + NO_2 (0.002) = 0.652$$

CERTIFICATE OF ANALYSIS

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

Date Received: 4/27/10
Date Reported: 5/5/10
P.O. #:
Work Order #: 1004-07667

DESCRIPTION: PLYMOUTH ENVIRONMENTAL

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:



Data Reporting

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100780 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.49	0.10	mg/l	SM 4500-NH3 C	5/1/10	KA
TOC Low Level	0.77	0.5	mg/l	SM 5310C	5/4/10	JJP
Dissolved TOC	0.76	0.5	mg/l	EPA 415.1	5/4/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	5/4/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100780 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	5/4/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/10	MMM
Surrogates			RANGE	SW-846 8260B	5/4/10	MMM
Dibromofluoromethane	91		86-118%	SW-846 8260B	5/4/10	MMM
Toluene-d8	92		88-110%	SW-846 8260B	5/4/10	MMM
4-Bromofluorobenzene	97		86-115%	SW-846 8260B	5/4/10	MMM
1,2 Dichloroethane-d4	92		80-120%	SW-846 8260B	5/4/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100780 GW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 09:50

PARAMETER

SAMPLE
RESULTSDET.
LIMIT

UNITS

METHOD

DATE
ANALYZED

ANALYST

Total Metals

Mercury

<0.0005

0.0005

mg/l

EPA 245.1

4/30/10

SPD

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River-Plymouth, MA **Comments:**
Project Number: NA
Collection Date: 4/26/10 **Collection Time:** 10:55
Sampled By: Kim Michaelis
Lab Order Number: WW-100781
Date Received: 04/26/10

Sample Type	Sample Time	Sample Date	Comments			
A - 13 A	10:55	4/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	304	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	2.2*	0.5	05/04/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/10	RIA*	*
Total Iron	mg/L	6.33	0.01	04/27/10	LL	200.7
Mercury*	mg/L	<0.0005*	0.0005	04/30/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/27/10	LL	200.7
Nitrate-N	mg/L	0.22	0.01	04/26/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/10	LL	300.0
Ammonia-N *	mg/L	0.40*	0.02	05/01/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.26	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	162	3.0	04/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.027	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.84	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.2*	0.5	05/04/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.62	0.2	05/18/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.44	0.2	05/18/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.013	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	BRL	0.5	05/18/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.42	0.2	05/18/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.06	0.2	05/18/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saqri
 Laboratory Director

$$TW = DON(0.44) + PON(0.42) + NH_4(0.40) + NO_3(0.22) + NO_2(0.002) = 1.482$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100781 A13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 10:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.40	0.10	mg/l	SM 4500-NH3 C	5/1/10	KA
TOC Low Level	2.2	0.5	mg/l	SM 5310C	5/4/10	JJP
Dissolved TOC	2.2	0.5	mg/l	EPA 415.1	5/4/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	5/4/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100781 A13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 10:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	5/4/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/10	MMM
Surrogates			RANGE	SW-846 8260B	5/4/10	MMM
Dibromofluoromethane	94		86-118%	SW-846 8260B	5/4/10	MMM
Toluene-d8	93		88-110%	SW-846 8260B	5/4/10	MMM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	5/4/10	MMM
1,2 Dichloroethane-d4	93		80-120%	SW-846 8260B	5/4/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.
Date Received: 4/27/10
Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100781 A13

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 10:55

PARAMETER**SAMPLE
RESULTS****DET.
LIMIT****UNITS****METHOD****DATE
ANALYZED****ANALYST**

Total Metals

Mercury

<0.0005

0.0005

mg/l

EPA 245.1

4/30/10

SPD

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: GW Eel River-Plymouth, MA

Comments:

Project Number: NA

Collection Date: 4/26/10 **Collection Time:** 13:35

Sampled By: Kim Michaelis

Lab Order Number: WW-100782

Date Received: 04/26/10

Sample Type	Sample Time	Sample Date	Comments			
A - 17 A	13:35	4/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	64	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	05/04/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	05/04/10	RIA*	*
Total Iron	mg/L	0.02	0.01	04/29/10	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	04/30/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/29/10	MC	200.7
Nitrate-N	mg/L	1.07	0.01	04/26/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/10	LL	300.0
Ammonia-N *	mg/L	0.13*	0.02	05/01/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	28.3	3.0	04/26/10	LL	300.0
Total Phosphorous (P)	mg/L	0.047	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	05/04/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	1.2	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.08	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.023	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.5*	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.28	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

by:

Ronald J. Saari
 Laboratory Director

$$TN = DON(0.08) + PON(0.07) + NH_3(0.13) + NO_3(1.07) + NO_2(0.002) = 1.352$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100782 A17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 13:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.13	0.10	mg/l	SM 4500-NH3 C	5/1/10	KA
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	5/4/10	JJP
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	5/4/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	5/4/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	5/4/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100782 A17

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 13:35

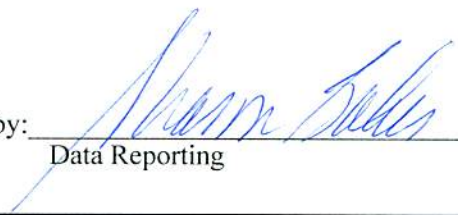
PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	5/4/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	5/4/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	5/4/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	5/4/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	5/4/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	5/4/10	MMM
Surrogates			RANGE	SW-846 8260B	5/4/10	MMM
Dibromofluoromethane	91		86-118%	SW-846 8260B	5/4/10	MMM
Toluene-d8	93		88-110%	SW-846 8260B	5/4/10	MMM
4-Bromofluorobenzene	97		86-115%	SW-846 8260B	5/4/10	MMM
1,2 Dichloroethane-d4	94		80-120%	SW-846 8260B	5/4/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100782 A17**SAMPLE TYPE:** GRAB**SAMPLE DATE/TIME:** 4/26/2010 @ 13:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/30/10	SPD

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: GW Eel River-Plymouth, MA **Comments:**

Project Number: NA

Collection Date: 4/26/10 **Collection Time:** 13:45

Sampled By: Kim Michaelis

Lab Order Number: WW-100783

Date Received: 04/26/10

Sample Type	Sample Time	Sample Date	Comments			
DW - 1 A	13:45	4/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	92	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.58*	0.5	05/04/10	RIA*	SM 5310 C
Volatle Organic Compounds*	ug/L	ND*	*	04/30/10	RIA*	*
Total Iron	mg/L	0.02	0.01	04/29/10	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	04/30/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/29/10	MC	200.7
Nitrate-N	mg/L	1.07	0.01	04/26/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/26/10	LL	300.0
Ammonia-N *	mg/L	0.11*	0.02	05/01/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	28.1	3.0	04/26/10	LL	300.0
Total Phosphorous (P)	mg/L	0.025	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.58*	0.5	05/04/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	1.18	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.10	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.017	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.5	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.28	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.28	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON (0.10) + PON (0.28) + NH_3 (0.49) + NO_3 (1.07) + NO_2 (0.002) = 1.942$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 004

SAMPLE DESCRIPTION: WW-100783 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.11	0.10	mg/l	SM 4500-NH3 C	5/1/10	KA
TOC Low Level	0.58	0.5	mg/l	SM 5310C	5/4/10	JJP
Dissolved TOC	0.58	0.5	mg/l	EPA 415.1	5/4/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	4/30/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM

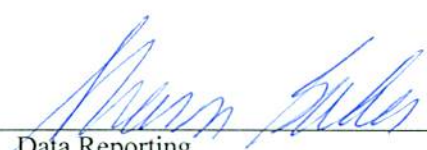
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 004

SAMPLE DESCRIPTION: WW-100783 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
Surrogates			RANGE	SW-846 8260B	4/30/10	MMM
Dibromofluoromethane	93		86-118%	SW-846 8260B	4/30/10	MMM
Toluene-d8	90		88-110%	SW-846 8260B	4/30/10	MMM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	4/30/10	MMM
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/27/10

Work Order #: 1004-07667

Approved by: 

Data Reporting

Sample # 004

SAMPLE DESCRIPTION: WW-100783 DW-1

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/26/2010 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	4/30/10	SPD

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

UW100780

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/26/10	0950	GW-1	2	Glass Vial	VOC	HCL
↓	↓	↓	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
UW100781						
4/26/10	1055	A-13	2	Glass Vial	VOC	HCL
↓	↓	↓	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	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 Michaelis

Received By: Date/Time:

R. Hawley 04/26/10 1515

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

W100782

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/26/10	1335	A17	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
			1	1 Liter Glass	Chlorophyll a	NONE
4/26/10	1345	DW-1	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
			1	1 Liter Glass	Chlorophyll a	NONE

W100783

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 Michaelis

Received By: Date/Time:

Blawiey 04/26/10 1515

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, June 03, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: GW Eel River
Project Number: A15
Collection Date: 4/27/10
Sampled By: K. Michaelis
Lab Order Number: WW-100792
Date Received: 04/27/10

Comments:

Sample Type	Sample Time	Sample Date	Comments			
GW Eel River/ A15 A	11:05	4/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	113	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.61*	0.5	05/05/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/30/10	RIA*	*
Total Iron	mg/L	0.03	0.01	04/29/10	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/04/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/29/10	MC	200.7
Nitrate-N	mg/L	1.21	0.01	04/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/27/10	LL	300.0
Ammonia-N *	mg/L	0.045*	0.02	05/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	29.5	3.0	04/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.060	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.61*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	1.26	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.24	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.052	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.5	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.49	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

$$TN = DON(0.24) + PON(0.07) + NH_3(0.045) + NO_3(1.21) + NO_2(0.002) = 1.567$$

CERTIFICATE OF ANALYSIS

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

Date Received: 4/29/10
Date Reported: 5/6/10
P.O. #:
Work Order #: 1004-07906

DESCRIPTION: PLYMOUTH ENV.

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

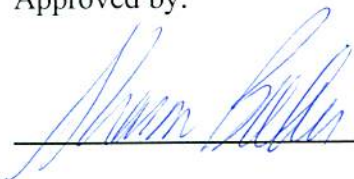
Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:



Data Reporting

enc: Chain of Custody

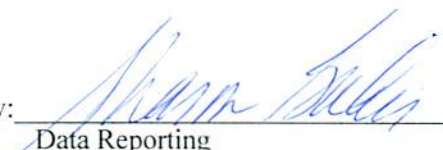
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100792 A15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2010 @ 11:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.045	0.02	mg/l	SM 4500-NH3 C	5/6/10	TV
TOC Low Level	0.61	0.5	mg/l	EPA 415.2	5/5/10	JJP
Dissolved TOC	0.61	0.5	mg/l	EPA 415.1	5/5/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	4/30/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM

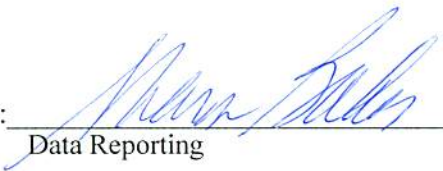
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100792 A15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2010 @ 11:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
Surrogates			RANGE	SW-846 8260B	4/30/10	MMM
Dibromofluoromethane	94		86-118%	SW-846 8260B	4/30/10	MMM
Toluene-d8	92		88-110%	SW-846 8260B	4/30/10	MMM
4-Bromofluorobenzene	99		86-115%	SW-846 8260B	4/30/10	MMM
1,2 Dichloroethane-d4	96		80-120%	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100792 A15

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2010 @ 11:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/10	SPD

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 07, 2010

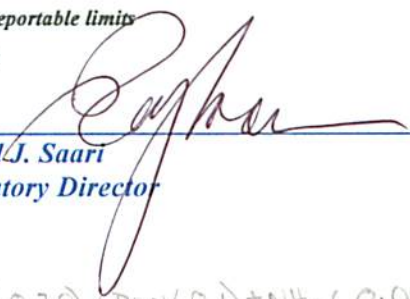
Plymouth Environmental Management
 ATTN Kim Michaelis
 #11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River **Comments:**
Project Number: 7SR
Collection Date: 4/27/10 **Collection Time:** 13:00
Sampled By: K. Michaelis
Lab Order Number: WW-100793
Date Received: 04/27/10

Sample Type	Sample Time	Sample Date	Comments			
GW Eel River/ 7SR A	13:00	4/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	215	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.66*	0.5	05/05/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/30/10	RIA*	*
Total Iron	mg/L	0.02	0.01	04/29/10	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/04/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/29/10	MC	200.7
Nitrate-N	mg/L	0.12	0.01	04/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/27/10	LL	300.0
Ammonia-N *	mg/L	0.052*	0.02	05/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	113	3.0	04/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.033	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.66*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.17	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.30	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.010	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	<0.5	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.47	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached


 Ronald J. Saari
 Laboratory Director

$$TN = DON(0.30) + PON(0.1) + NH_3(0.052) + NO_3(0.12) + NO_2(0.002) = 0.574$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100793 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2010 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.052	0.02	mg/l	SM 4500-NH3 C	5/6/10	TV
TOC Low Level	0.66	0.5	mg/l	EPA 415.2	5/5/10	JJP
Dissolved TOC	0.66	0.5	mg/l	EPA 415.1	5/5/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	4/30/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100793 7SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2010 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
Surrogates			RANGE	SW-846 8260B	4/30/10	MMM
Dibromofluoromethane	94		86-118%	SW-846 8260B	4/30/10	MMM
Toluene-d8	92		88-110%	SW-846 8260B	4/30/10	MMM
4-Bromofluorobenzene	101		86-115%	SW-846 8260B	4/30/10	MMM
1,2 Dichloroethane-d4	99		80-120%	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100793 7SR**SAMPLE TYPE:** GRAB**SAMPLE DATE/TIME:** 4/27/2010 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/10	SPD

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 07, 2010

Plymouth Environmental Management
 ATTN Kim Michaelis
 #11 Lincoln Stre Plymouth 02360

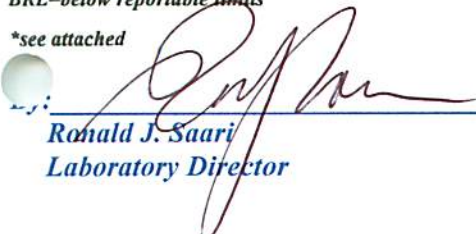
ProjectName: GW Eel River
Project Number: 5S
Collection Date: 4/27/10
Sampled By: K. Michaelis
Lab Order Number: WW-100794
Date Received: 04/27/10

Comments:

Sample Type	Sample Time	Sample Date	Comments			
GW Eel River/ 5S A	13:45	4/27/10	**Chloroform			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	437	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.96*	0.5	05/05/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	2**	*	04/30/10	RIA*	*
Total Iron	mg/L	1.34	0.01	04/29/10	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/04/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/29/10	MC	200.7
Nitrate-N	mg/L	0.32	0.01	04/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/27/10	LL	300.0
Ammonia-N *	mg/L	0.039*	0.02	05/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	232	3.0	04/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.217	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.96*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.36	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.24	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.010	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	ND	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.60	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached


 Ronald J. Saari
 Laboratory Director

$$TN = DON(0.24) + PON(0.21) + NH_3(0.039) + NO_3(0.32) + NO_2(0.002) = 0.811$$

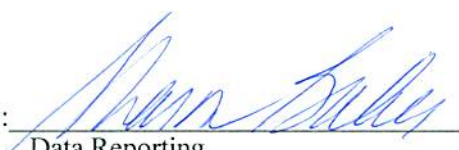
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100794 5S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2010 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.039	0.02	mg/l	SM 4500-NH3 C	5/6/10	TV
TOC Low Level	0.96	0.5	mg/l	EPA 415.2	5/5/10	JJP
Dissolved TOC	0.96	0.5	mg/l	EPA 415.1	5/5/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	4/30/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Chloroform	2	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100794 5S

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/27/2010 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
Surrogates			RANGE	SW-846 8260B	4/30/10	MMM
Dibromofluoromethane	93		86-118%	SW-846 8260B	4/30/10	MMM
Toluene-d8	91		88-110%	SW-846 8260B	4/30/10	MMM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	4/30/10	MMM
1,2 Dichloroethane-d4	92		80-120%	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07906

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100794 5S**SAMPLE TYPE:** GRAB**SAMPLE DATE/TIME:** 4/27/2010 @ 13:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/4/10	SPD

2

Laboratory:

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

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
1W-100792 4/27/10	1105	A15	2	Glass Vial	VOC	HCL
↓	↓	↓	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
1W-100793 4/27/10	1300	75R	2	Glass Vial	VOC	HCL
↓	↓	↓	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	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 Michaelis

Received By:

Date/Time:

[Signature] 4/27/10 1436

6

Laboratory:

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

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

1W-100794

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/27/10	1345	55(55)		Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho-Phosphate	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
			1	Liter Glass	Chlorophyll-a	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 Michaelis

Received By: Date/Time:

[Signature] 4/27/10 1420

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River

Comments: 21

Project Number: NA

Collection Date: 4/28/10 **Collection Time:** 9:10

Sampled By: Kim M

Lab Order Number: WW-100810

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
2 - SR A	9:10	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	220	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.89*	0.5	05/05/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/30/10	RIA*	*
Nitrate-N	mg/L	10.8	0.01	04/29/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.04*	0.02	05/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.12	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	88.0	3.0	04/29/10	LL	300.0
Total Phosphorous (P)	mg/L	0.015	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.89*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	10.8	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.31	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.003	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	ND	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.77	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	11.2	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
 Laboratory Director

$$TN = DON(0.31) + KDN(0.77) + NH_3(0.04) + NO_3(+10.8) + NO_2(0.002) = 11.922 \text{ } \# \text{ checking w/126}$$



CERTIFICATE OF ANALYSIS

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

Date Received: 4/29/10
Date Reported: 5/7/10
P.O. #:
Work Order #: 1004-07907

DESCRIPTION: PLYMOUTH ENV.

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:

Data Reporting

enc: Chain of Custody

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07907

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100810 2SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 09:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.04	0.02	mg/l	SM 4500-NH3 C	5/6/10	TV
TOC Low Level	0.89	0.5	mg/l	EPA 415.2	5/5/10	JJP
Dissolved TOC	0.89	0.5	mg/l	EPA 415.1	5/5/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	4/30/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07907

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100810 2SR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 09:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
Surrogates			RANGE	SW-846 8260B	4/30/10	MMM
Dibromofluoromethane	99		86-118%	SW-846 8260B	4/30/10	MMM
Toluene-d8	94		88-110%	SW-846 8260B	4/30/10	MMM
4-Bromofluorobenzene	99		86-115%	SW-846 8260B	4/30/10	MMM
1,2 Dichloroethane-d4	97		80-120%	SW-846 8260B	4/30/10	MMM

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10 **Collection Time:** 9:50

Sampled By: Kim M

Lab Order Number: WW-100811

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
2 - DR A	9:50	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	380	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.95*	0.5	05/05/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/30/10	RIA*	*
Nitrate-N	mg/L	BRL	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	0.15	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.19*	0.02	05/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	225	3.0	04/29/10	LL	300.0
Total Phosphorous (P)	mg/L	0.053	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.56	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.88*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.34	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.37	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.050	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.07	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.71	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

by:

Ronald L. Sagri
Laboratory Director

$$TN = DON(0.32) + PON(0.1) + NH_4(0.19) + NO_3(0.005) + NO_2(0.15) = 0.815$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07907

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100811 2DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.19	0.10	mg/l	SM 4500-NH3 C	5/6/10	TV
TOC Low Level	0.95	0.5	mg/l	EPA 415.2	5/5/10	JJP
Dissolved TOC	0.88	0.5	mg/l	EPA 415.1	5/5/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	4/30/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07907

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: WW-100811 2DR

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
Surrogates			RANGE	SW-846 8260B	4/30/10	MMM
Dibromofluoromethane	92		86-118%	SW-846 8260B	4/30/10	MMM
Toluene-d8	91		88-110%	SW-846 8260B	4/30/10	MMM
4-Bromofluorobenzene	100		86-115%	SW-846 8260B	4/30/10	MMM
1,2 Dichloroethane-d4	94		80-120%	SW-846 8260B	4/30/10	MMM

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: GW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10 **Collection Time:** 11:10

Sampled By: Kim M

Lab Order Number: WW-100812

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
A - 21 A	11:10	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	31	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	0.87*	0.5	05/05/10	RIA*	SM 5310 C
Volatile Organic Compounds*	ug/L	ND*	*	04/30/10	RIA*	*
Total Iron	mg/L	2.13	0.01	04/29/10	MC	200.7
Mercury*	mg/L	<0.0005*	0.0005	05/05/10	RIA*	245.1
Boron	mg/L	BRL	0.010	04/29/10	MC	200.7
Copper	mg/L	BRL	0.003	04/29/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.24*	0.02	05/07/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.84	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	23.5	3.0	04/28/10	LL	300.0
Total Phosphorous (P)	mg/L	0.045	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.70	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.87*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.24	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.46	0.2	06/03/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.027	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	ND	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.70	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
 Laboratory Director

$$TN = DON(0.46) + PON(0.14) + NH_3(0.24) + NO_3(0.005) + NO_2(0.002) = 0.847$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07907

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100812 A21

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.24	0.10	mg/l	SM 4500-NH3 C	5/7/10	TV
TOC Low Level	0.87	0.5	mg/l	EPA 415.2	5/5/10	JJP
Dissolved TOC	0.87	0.5	mg/l	EPA 415.1	5/5/10	JJP
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	4/30/10	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3-Dichloropropene (total)	<1	1	ug/l	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07907

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100812 A21

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Styrene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Toluene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	4/30/10	MMM
Carbon Disulfide	<5	5	ug/l	SW-846 8260B	4/30/10	MMM
Acetone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
2-Butanone(MEK)	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
4-Methyl-2-pentanone(MIBK)	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
2-Hexanone	<10	10	ug/l	SW-846 8260B	4/30/10	MMM
cis-1,3-Dichloropropene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
trans-1,3-Dichloropropylene	<1	1	ug/l	SW-846 8260B	4/30/10	MMM
Vinyl Acetate	<50	50	ug/l	SW-846 8260B	4/30/10	MMM
Surrogates			RANGE	SW-846 8260B	4/30/10	MMM
Dibromofluoromethane	97		86-118%	SW-846 8260B	4/30/10	MMM
Toluene-d8	95		88-110%	SW-846 8260B	4/30/10	MMM
4-Bromofluorobenzene	101		86-115%	SW-846 8260B	4/30/10	MMM
1,2 Dichloroethane-d4	93		80-120%	SW-846 8260B	4/30/10	MMM

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.
Date Received: 4/29/10
Work Order #: 1004-07907

Approved by: _____


Data Reporting

Sample # 003

SAMPLE DESCRIPTION: WW-100812 A21

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Total Metals						
Mercury	<0.0005	0.0005	mg/l	EPA 245.1	5/5/10	SPD

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

VW-1008/2

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/28/10	1110	A21	2	Glass Vial	VOC	HCL
↓	↓	↓	1	1 Liter Plastic	Dissolved, NO2, Ortho- NO3, Phosphate	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
			2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved, NO2, Ortho- NO3, Phosphate	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
			1	Liter Glass	Chlorophyll-a	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 Michaelis

Received By: Date/Time:

[Signature] 4/28/10 1455

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: GW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/28/10	0910	2512	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved, NO2, Ortho-Phosphate <i>chl</i>	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
			1	Liter-Glass	Chlorophyll-a <i>TOC</i>	NONE
4/28/10	0950	2512	2	Glass Vial	VOC	HCL
			1	1 Liter Plastic	Dissolved, NO2, Ortho-Phosphate <i>chl</i>	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Metals: Boron, NO2, NO3, Chloride, Cu, Iron, Mercury	NONE
			1	Liter-Glass	Chlorophyll-a <i>TOC</i>	NONE

NO METALS

NO METALS

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 Michaelis

Received By:

Date/Time:

[Signature] 4/28/10 0455

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10

Collection Time: 12:15

Sampled By: Kim M

Lab Order Number: WW-100813

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
S - 8B A	12:15	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	210	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	ND*	0.5	05/05/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	04/29/10	MC	200.7
Nitrate-N	mg/L	0.09	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.07*	0.02	05/07/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	66.4	3.0	04/28/10	LL	300.0
Total Phosphorous (P)	mg/L	0.027	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	BRL*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.16	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	0.2	06/03/10	MC	Calculation
Chlorophyll-a	*	1.3*	*	05/07/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.012	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	ND	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.37	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
 Laboratory Director

$$TN = DON(0.2) + PON(0.07) + NH_3(0.07) + NO_3(0.09) + NO_2(0.002) = 0.442$$

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
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FAX (508)888-6446

Thursday, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10 Collection Time: 12:35

Sampled By: Kim M

Lab Order Number: WW-100814

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
S - 5B A	12:35	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	98	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	2.6*	0.5	05/05/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	04/29/10	MC	200.7
Nitrate-N	mg/L	0.12	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.05*	0.02	05/07/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	37.1	3.0	04/28/10	LL	300.0
Total Phosphorous (P)	mg/L	0.048	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.14	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.4*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.17	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.09	0.2	06/03/10	MC	Calculation
Chlorophyll-a	*	7.5*	*	05/07/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.010	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.20	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.26	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.09) + PON(0.07) + NH_3(0.05) + NO_3(0.12) + NO_2(0.002) = 0.332$$

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

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Thursday, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10

Collection Time: 12:45

Sampled By: Kim M

Lab Order Number: WW-100815

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
S - 8A A	12:45	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	36	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	2.4*	0.5	05/05/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	04/29/10	MC	200.7
Nitrate-N	mg/L	0.12	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.10*	0.02	05/07/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	37.1	3.0	04/28/10	LL	300.0
Total Phosphorous (P)	mg/L	0.025	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.3*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.22	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.11	0.2	06/03/10	MC	Calculation
Chlorophyll-a	*	15*	*	05/07/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.10	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.33	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
 Laboratory Director

$$TN = DON(0.11) + PON(0.14) + NH_3(0.10) + NO_3(0.12) + NO_2(0.002) = 0.472$$

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
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Thursday, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10

Collection Time: 13:05

Sampled By: Kim M

Lab Order Number: WW-100816

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
S - 4A A	13:05	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	52	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	2.1*	0.5	05/05/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	04/29/10	MC	200.7
Nitrate-N	mg/L	0.09	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.08*	0.02	05/07/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	26.0	3.0	04/28/10	LL	300.0
Total Phosphorous (P)	mg/L	0.015	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.1*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.17	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.13	0.2	06/03/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	05/07/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	ND	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	ND	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.30	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Sakri
Laboratory Director

$$TN = DON(0.13) + PON(0.1) + NH_3(0.08) + NO_3(0.09) + NO_2(0.002) = 0.402$$

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10 **Collection Time:** 13:20

Sampled By: Kim M

Lab Order Number: WW-100817

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
S - 3A A	13:20	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	70	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	2.5*	0.5	05/05/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	04/29/10	MC	200.7
Nitrate-N	mg/L	0.14	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.07*	0.02	05/07/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	26.4	3.0	04/28/10	LL	300.0
Total Phosphorous (P)	mg/L	0.025	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.2*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.21	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.14	0.2	06/03/10	MC	Calculation
Chlorophyll-a	*	22*	*	05/07/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.30	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.35	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
 Laboratory Director

$$TN = DON(0.14) + PON(0.07) + NH_3(0.07) + NO_3(0.14) + NO_2(0.002) = 0.422$$

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, June 03, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: NA

Collection Date: 4/28/10

Collection Time: 13:35

Sampled By: Kim M

Lab Order Number: WW-100818

Date Received: 04/28/10

Sample Type	Sample Time	Sample Date	Comments			
S - 2B A	13:35	4/28/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	68	6.0	04/29/10	MC	2540 C
Total Organic Carbon*	mg/L	2.3*	0.5	05/05/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	04/29/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	04/28/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	04/28/10	LL	300.0
Ammonia-N *	mg/L	0.04*	0.02	05/07/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	05/07/10	MC	SM4500 NH3 C
Chloride	mg/L	24.1	3.0	04/28/10	LL	300.0
Total Phosphorous (P)	mg/L	0.027	0.005	05/11/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.14	0.2	05/07/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.1*	0.5	05/05/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.04	0.2	06/03/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.10	0.2	06/03/10	MC	Calculation
Chlorophyll-a	*	13*	*	05/07/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	04/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.20	0.5	06/03/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	06/03/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.14	0.2	06/03/10	MC	Calculation

BRL=below reportable limits

*see attached

by:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.10) + PON(0.07) + NH_3(0.04) + NO_3(0.005) + NO_2(0.002) = 0.217$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07863

Approved by: 

Data Reporting

Sample # 005

SAMPLE DESCRIPTION: WW-100817 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 13:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.07	0.02	mg/l	SM 4500-NH3 C	5/7/10	TV
Chlorophyll A	22	1.1	mg/m ³	SM 10200-H	5/7/10	ML
TOC Low Level	2.5	0.5	mg/l	SM 5310C	5/5/10	JJP
Dissolved TOC	2.2	0.5	mg/l	EPA 415.1	5/5/10	JJP

Sample # 006

SAMPLE DESCRIPTION: WW-100818 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 13:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.04	0.02	mg/l	SM 4500-NH3 C	5/7/10	TV
Chlorophyll A	13	1.1	mg/m ³	SM 10200-H	5/7/10	ML
TOC Low Level	2.3	0.5	mg/l	SM 5310C	5/5/10	JJP
Dissolved TOC	2.1	0.5	mg/l	EPA 415.1	5/5/10	JJP

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 4/29/10

Work Order #: 1004-07863

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-100813 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 12:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.07	0.02	mg/l	SM 4500-NH3 C	5/7/10	TV
Chlorophyll A	1.3	1.1	mg/m ³	SM 10200-H	5/7/10	ML
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	5/5/10	JJP
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	5/5/10	JJP

Sample # 002

SAMPLE DESCRIPTION: WW-100814 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 12:35

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.05	0.02	mg/l	SM 4500-NH3 C	5/7/10	TV
Chlorophyll A	7.5	1.1	mg/m ³	SM 10200-H	5/7/10	ML
TOC Low Level	2.6	0.5	mg/l	SM 5310C	5/5/10	JJP
Dissolved TOC	2.4	0.5	mg/l	EPA 415.1	5/5/10	JJP

Sample # 003

SAMPLE DESCRIPTION: WW-100815 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 12:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.10	0.02	mg/l	SM 4500-NH3 C	5/7/10	TV
Chlorophyll A	15	1.1	mg/m ³	SM 10200-H	5/7/10	ML
TOC Low Level	2.4	0.5	mg/l	SM 5310C	5/5/10	JJP
Dissolved TOC	2.3	0.5	mg/l	EPA 415.1	5/5/10	JJP

Sample # 004

SAMPLE DESCRIPTION: WW-100816 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 4/28/2010 @ 13:05

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.08	0.02	mg/l	SM 4500-NH3 C	5/7/10	TV
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	5/7/10	ML
TOC Low Level	2.1	0.5	mg/l	SM 5310C	5/5/10	JJP
Dissolved TOC	2.1	0.5	mg/l	EPA 415.1	5/5/10	JJP

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

NW-100813

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
4/28/10	1215	S-8B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
4/28/10	1235	S-5B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

JW-100814

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By:

[Signature]

Date/Time:

4/28/10 1455

Laboratory:

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

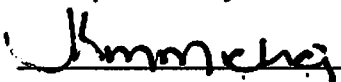
Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

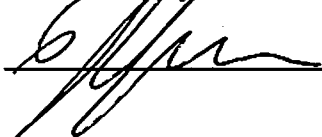
Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
JW-100815 4/28/10	1245	S-8A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
JW-100816 4/28/10	1305	S-4A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time



Received By: Date/Time:


4/28/10 1455

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
JW-100817 4/28/10	1320	S-3A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
JW-100818 4/28/10	1335	S-2B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time

[Signature] 4/28/10 1455

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Wednesday, September 15, 2010

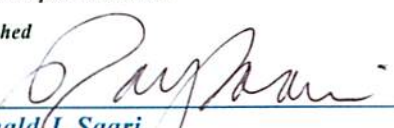
Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River **Comments:**
Project Number: SW Eel River
Collection Date: 06/22/10 **Collection Time:** 1320
Sampled By: Kim Michaelis
Lab Order Number: WW-101267
Date Received: 06/22/10

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	1320	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	42.0	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	2.1*	0.5	06/29/10	RIA*	SM 5310 C
on	mg/L	0.010	0.010	06/23/10	MC	200.7
ate-N	mg/L	0.11	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	0.08*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	17.5	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.038	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.56	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.0*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.19	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.48	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.031	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.67	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

$$TN = DON(0.48) + PON(0.1) + NH_3(0.08) + NO_3(0.11) + NO_2(0.002) = 0.772$$

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Wednesday, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

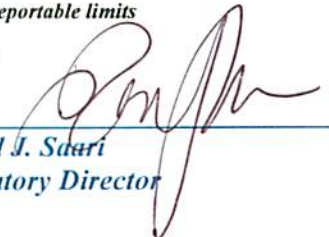
ProjectName: SW Eel River
Project Number: SW Eel River
Collection Date: 06/22/10 **Collection Time:** 1330
Sampled By: Kim Michaelis
Lab Order Number: WW-101268
Date Received: 06/22/10

Comments:

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	13:30	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	56.0	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	2.8*	0.5	06/29/10	RIA*	SM 5310 C
on	mg/L	0.013	0.010	06/23/10	MC	200.7
ate-N	mg/L	0.08	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	0.09*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.91	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	15.7	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.049	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.77	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.7*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.17	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.68	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.032	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.85	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

$$TN = DON(0.68) + PON(0.14) + NH_3(0.09) + NO_3(0.08) + NO_2(0.002) = 0.992$$

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Wednesday, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln Stre Plymouth 02360

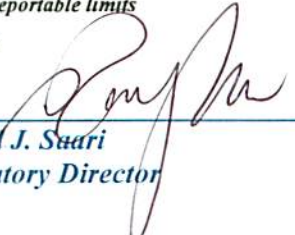
ProjectName: SW Eel River
Project Number: SW Eel River
Collection Date: 06/22/10 **Collection Time:** 1120
Sampled By: Kim Michaelis
Lab Order Number: WW-101269
Date Received: 06/22/10

Comments:

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	1120	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	68.0	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	2.0*	0.5	06/29/10	RIA*	SM 5310 C
Carbon	mg/L	BRL	0.010	06/28/10	MC	200.7
Nitrate-N	mg/L	0.09	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	0.10*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.63	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	26.1	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.127	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.7*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.19	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.39	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	7.2*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.020	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.3	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.58	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

$$TN = DON(0.39) + PON(0.14) + NH_3(0.10) + NO_3(0.09) + NO_2(0.002) = 0.722$$

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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Wednesday, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 06/22/10 **Collection Time:** 1140

Sampled By: Kim Michaelis

Lab Order Number: WW-101270

Date Received: 06/22/10

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	1140	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	65.0	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	2.0*	0.5	06/29/10	RIA*	SM 5310 C
on	mg/L	BRL	0.010	06/23/10	MC	200.7
ate-N	mg/L	BRL	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	0.05*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.05	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	24.2	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.090	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.91	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.9*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.05	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.86	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	5.1*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.91	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.86) + PON(0.14) + NH_3(0.05) + NO_3(0.005) + NO_2(0.002) = 1.057$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 06/22/10 **Collection Time:** 1045

Sampled By: Kim Michaelis

Lab Order Number: WW-101271

Date Received: 06/22/10

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	1045	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	54.0	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	2.3*	0.5	06/29/10	RIA*	SM 5310 C
Boron	mg/L	0.011	0.010	06/23/10	MC	200.7
ate-N	mg/L	0.05	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	0.12*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.05	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	37.2	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.035	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.84	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.3*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.17	0.2	09/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.72	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	12*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.011	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.89	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Sauri

Laboratory Director

$$TN = DON(0.72) + PON(0.21) + NH_3(0.12) + NO_3(0.05) + NO_2(0.002) = 1.102$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 06/22/10 **Collection Time:** 1105

Sampled By: Kim Michaelis

Lab Order Number: WW-101272

Date Received: 06/22/10

Sample Type	Sample Time	Sample Date	Comments			
SW-4A A	1105	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	58.0	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	2.2*	0.5	06/29/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	06/23/10	MC	200.7
Nitrate-N	mg/L	0.04	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	0.09*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.91	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	25.9	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.054	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.1*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.13	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.40	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	2.7*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.014	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.42	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.53	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

by: 
Ronald J. Suari
Laboratory Director

$$TN = DON(0.40) + PON(0.42) + NH_3(0.09) + NO_3(0.04) + NO_2(0.002) = 0.952$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 06/22/10 **Collection Time:** 1015

Sampled By: Kim Michaelis

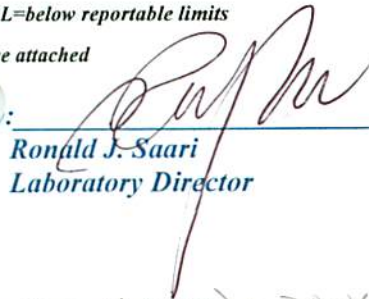
Lab Order Number: WW-101273

Date Received: 06/22/10

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	1015	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	184	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	06/29/10	RIA*	SM 5310 C
Boron	mg/L	<0.010	0.010	06/23/10	MC	200.7
ate-N	mg/L	0.11	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.84	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	63.4	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.051	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.11	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.42	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.011	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.42	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.53	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached


Ronald J. Saari
Laboratory Director

$$TN = DON(0.42) + PON(0.42) + NH_3(0.01) + NO_3(0.11) + NO_2(0.002) = 0.962$$

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

8 Jan Sebastian Drive
Sandwich, MA 02563
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FAX (508)888-6446

Wednesday, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River
Project Number: SW Eel River
Collection Date: 06/22/10 **Collection Time:** 1030
Sampled By: Kim Michaelis
Lab Order Number: WW-101274
Date Received: 06/22/10

Comments:

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	1030	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	95	6.0	06/28/10	MC	2540 C
Total Organic Carbon*	mg/L	1.4	0.5	06/29/10	RIA*	SM 5310 C
Iron	mg/L	0.012	0.010	06/23/10	MC	200.7
Nitrate-N	mg/L	0.04	0.01	06/23/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	06/23/10	LL	300.0
Ammonia-N *	mg/L	0.11*	0.02	07/06/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.70	0.2	06/24/10	MC	SM4500 NH3 C
Chloride	mg/L	37.3	3.0	06/23/10	LL	300.0
Total Phosphorous (P)	mg/L	0.084	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.70	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.1*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.15	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.59	0.2	07/10/10	MC	Calculation
Chlorophyll-a	*	8.8*	*	06/30/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.032	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.3	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.74	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

$$TN = DON(0.59) + PON(0.1) + NH_3(0.11) + NO_3(0.04) + NO_2(0.002) = 0.842$$

✓

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: Harbor Sampling

Comments:

Project Number: Harbor Sampling

Collection Date: 06/22/10 **Collection Time:** 0900

Sampled By: Kim Michaelis

Lab Order Number: WW-101275

Date Received: 06/22/10

Sample Type	Sample Time	Sample Date	Comments			
S-7 A	0900	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	3.3*	0.5	06/29/10	RIA*	SM 5310 C
Nitrate-N	mg/L	BRL	0.01	06/22/10	MC	300.0
Nitrite-N	mg/L	BRL	0.004	06/22/10	MC	300.0
Ammonia-N *	mg/L	<0.02*	0.02	06/29/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.77	0.2	06/24/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.089	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.77	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.1*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.77	0.2	07/10/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.038	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	1.2	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.77	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.77) + DON(0.0) + NH_3(0.01) + NO_3(0.005) + NO_2(0.002) = 0.887$$

✓

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: Harbor Sampling

Comments:

Project Number: Harbor Sampling

Collection Date: 06/22/10 **Collection Time:** 0915

Sampled By: Kim Michaelis

Lab Order Number: WW-101276

Date Received: 06/22/10

Sample Type	Sample Time	Sample Date	Comments			
S-10 A	0915	06/22/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Organic Carbon*	mg/L	0.71	0.5	06/29/10	RIA*	SM 5310 C
Nitrate-N	mg/L	BRL	0.01	06/22/10	MC	300.0
Nitrite-N	mg/L	BRL	0.004	06/22/10	MC	300.0
Ammonia-N *	mg/L	0.06*	0.02	06/29/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.26	0.2	06/24/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.080	0.005	07/08/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.70	0.2	06/24/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.57*	0.5	06/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.06	0.2	07/10/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.64	0.2	07/10/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.017	0.005	06/22/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	07/10/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.56	0.2	07/10/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.70	0.2	07/10/10	MC	Calculation

BRL=below reportable limits

*see attached

Signed:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.64) + PON(0.56) + NH_3(0.06) + NO_3(0.005) + NO_2(0.002) = 1.267$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 6/23/10

Work Order #: 1006-11878

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-101267 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 13:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	0.08	0.02	mg/l	SM 4500-NH3 C	7/6/10	KA
TOC Low Level	2.1	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	2.0	0.5	mg/l	EPA 415.1	6/29/10	ML

Sample # 002

SAMPLE DESCRIPTION: WW-101268 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 13:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	0.09	0.02	mg/l	SM 4500-NH3 C	7/6/10	KA
TOC Low Level	2.8	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	2.7	0.5	mg/l	EPA 415.1	6/29/10	ML

Sample # 003

SAMPLE DESCRIPTION: WW-101269 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 11:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	7.2	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	0.10	0.02	mg/l	SM 4500-NH3 C	7/6/10	KA
TOC Low Level	2.0	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	1.7	0.5	mg/l	EPA 415.1	6/29/10	ML

Sample # 004

SAMPLE DESCRIPTION: WW-101270 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 11:40

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	5.1	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	0.05	0.02	mg/l	SM 4500-NH3 C	7/6/10	KA
TOC Low Level	2.0	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	1.9	0.5	mg/l	EPA 415.1	6/29/10	ML

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 6/23/10

Work Order #: 1006-11878

Approved by: 

Data Reporting

Sample # 005

SAMPLE DESCRIPTION: WW-101271 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	12	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	0.12	0.02	mg/l	SM 4500-NH3 C	7/6/10	KA
TOC Low Level	2.3	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	2.3	0.5	mg/l	EPA 415.1	6/29/10	ML

Sample # 006

SAMPLE DESCRIPTION: WW-101272 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	2.7	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	0.09	0.02	mg/l	SM 4500-NH3 C	7/6/10	KA
TOC Low Level	2.2	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	2.1	0.5	mg/l	EPA 415.1	6/29/10	ML

Sample # 007

SAMPLE DESCRIPTION: WW-101273 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	6/29/10	KA
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	6/29/10	ML

Sample # 008

SAMPLE DESCRIPTION: WW-101274 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 10:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	8.8	1.1	mg/m ³	SM 10200-H	6/30/10	ML
Ammonia (as N)	0.11	0.02	mg/l	SM 4500-NH3 C	6/29/10	KA
TOC Low Level	1.4	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	1.1	0.5	mg/l	EPA 415.1	6/29/10	ML

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 6/23/10

Work Order #: 1006-11914

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-101275 S-7

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 09:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.10	mg/l	SM 4500-NH3 C	6/29/10	KA
TOC Low Level	3.3	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	2.1	0.5	mg/l	EPA 415.1	6/29/10	ML

Sample # 002

SAMPLE DESCRIPTION: WW-101276 S-10

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 6/22/2010 @ 09:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	6/29/10	KA
TOC Low Level	0.71	0.5	mg/l	SM 5310C	6/29/10	ML
Dissolved TOC	0.57	0.5	mg/l	EPA 415.1	6/29/10	ML

Laboratory:

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

Chain of Custody

④

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW/01268

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/22/10	1320	S-6A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
6/22/10	1330	S-12	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

WW/01268

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 6/22/10 1620

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW101270

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/22/10	1120	S-3A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
6/22/10	1140	S-2B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

WW101270

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis 6/22/10

Received By: Date/Time:

[Signature] 6/22/10 1620

Laboratory:

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

Chain of Custody

⑨

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW/01221

WW/01222

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/22/10	1045	S-8A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
6/22/10	1105	S-4A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis 6/22/10

Received By:

Date/Time:

[Signature] 6/22/10 1620

4

Laboratory:

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

Chain of Custody

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

6/22/10 1015 S-8B

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/22/10	1015	S-8B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
6/22/10	1030	S-5B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

6/22/10 1030 S-5B

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis 6/22/10

Received By: Date/Time:

[Signature] 6/22/10 1620

Laboratory:

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

Chain of Custody

⑨

Client:

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: Harbor Sampling -Plymouth MA
Sampler: Kim Michaelis (KM)

ww101275

ww101276

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
6/22/10	0900	S-7	1	Plastic	TOC	H2SO4
		S-7	1	Plastic	NO3, NO2, Ortho	NONE
		S-7	1	1 Liter Plastic	TKN, NH3, TP	H2SO4
		S-7	1	1 Liter Plastic	Dissolved	NONE
6/22/10	0915	S-10	1	Plastic	TOC	H2SO4
		S-10	1	Plastic	NO3, NO2, Ortho	NONE
		S-10	1	1 Liter Plastic	TKN, NH3, TP	H2SO4
		S-10	1	1 Liter Plastic	Dissolved	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

Relinquished By: Date/Time

Kim Michaelis 6/22/10

Received By:

Date/Time:

[Signature] 6/24/10 1620

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, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 **Collection Time:** 0800

Sampled By: Kim Michaelis

Lab Order Number: WW-101560

Date Received: 07/27/10

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	0800	07/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	194	6.0	09/02/10	MC	2540 C
Chloride grab	mg/L	64.0	3.0	07/27/10	LL	300.0
Total Organic Carbon*	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
on	mg/L	0.013	0.010	08/12/10	MC	200.7
Nitrate-N	mg/L	0.11	0.01	07/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	07/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/04/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	08/27/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.070	0.005	08/09/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.14	0.2	08/27/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.11	0.2	09/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.14	0.2	09/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	07/29/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	07/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.25	0.2	09/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Suari

Laboratory Director

$$TN = DON(0.14) + PON(0.07) + NH_4(0.01) + NO_3(0.11) + NO_2(0.002) = 0.332$$

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, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 **Collection Time:** 0810

Sampled By: Kim Michaelis

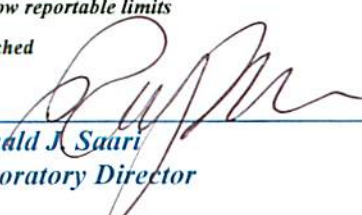
Lab Order Number: WW-101562

Date Received: 07/27/10

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	0810	07/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	103	6.0	09/02/10	MC	2540 C
Chloride grab	mg/L	35.7	3.0	07/27/10	LL	300.0
Total Organic Carbon*	mg/L	2.6*	0.5	07/29/10	RIA*	SM 5310 C
Ammonia-N	mg/L	0.016	0.010	08/12/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	07/27/10	LL	300.0
Ammonia-N *	mg/L	0.19*	0.02	08/04/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	08/27/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.013	0.005	08/09/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	08/27/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.19	0.2	09/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.09	0.2	09/14/10	MC	Calculation
Chlorophyll-a	*	15*	*	07/29/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	07/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	2.6	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.28	0.2	09/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 
Ronald J. Saari
Laboratory Director

$$TN = DON(0.09) + PON(0.07) + NH_3(0.19) + NO_3(0.005) + NO_2(0.002) = 0.357$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 **Collection Time:** 0820

Sampled By: Kim Michaelis

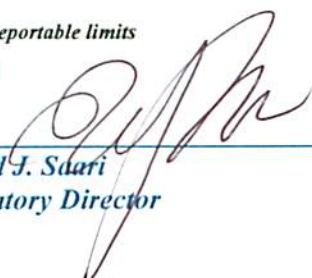
Lab Order Number: WW-101563

Date Received: 07/27/10

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	0820	07/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	86.0	6.0	09/02/10	MC	2540 C
Chloride grab	mg/L	35.8	3.0	07/27/10	LL	300.0
Total Organic Carbon*	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Iron	mg/L	0.016	0.010	08/12/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	07/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/04/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	08/27/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.007	0.005	08/09/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.14	0.2	08/27/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0	0.2	09/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.14	0.2	09/14/10	MC	Calculation
Chlorophyll-a	*	34*	*	07/29/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	07/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	0.2	09/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.14	0.2	09/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

$$TN = DON(0.14) + PON(0.14) + NH_3(0.01) + NO_3(0.005) + NO_2(0.002) = 0.297$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 **Collection Time:** 0830

Sampled By: Kim Michaelis

Lab Order Number: WW-101564

Date Received: 07/27/10

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	0830	07/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	94.0	6.0	09/02/10	MC	2540 C
Chloride grab	mg/L	26.7	3.0	07/27/10	LL	300.0
Total Organic Carbon*	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
on	mg/L	0.011	0.010	08/12/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	07/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/04/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	08/27/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.008	0.005	08/09/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	08/27/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0	0.2	09/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	0.2	09/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	07/29/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.005	0.005	07/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.28	0.2	09/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.28) + PON(0.07) + NH_3(0.01) + NO_3(0.005) + NO_2(0.002) = 0.367$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 Collection Time: 0850

Sampled By: Kim Michaelis

Lab Order Number: WW-101565

Date Received: 07/27/10

Sample Type		Sample Time	Sample Date	Comments		
S-3A	A	0850	07/27/10			
Parameters		Units	Test Results	Reportable Limits	Date Analyzed	Analyst
Total Dissolved Solids		mg/L	79.0	6.0	09/02/10	MC
Chloride grab		mg/L	26.1	3.0	07/27/10	LL
Total Organic Carbon*		mg/L	<0.5*	0.5	07/29/10	RIA*
Dissolved Organic Carbon		mg/L	0.013	0.010	08/12/10	MC
Nitrate-N		mg/L	0.08	0.01	07/27/10	LL
Nitrite-N		mg/L	BRL	0.004	07/27/10	LL
Ammonia-N *		mg/L	<0.02*	0.02	08/04/10	RIA*
Total Kjeldhal Nitrogen		mg/L	0.35	0.2	08/27/10	MC
Total Phosphorous (P)		mg/L	0.022	0.005	08/09/10	MC
Dissolved Kjeldhal Nitrogen		mg/L	0.28	0.2	08/27/10	MC
Dissolved Total Organic Carbon		mg/L	<0.5*	0.5	07/29/10	RIA*
Dissolved Inorganic Nitrogen		mg/L	0.08	0.2	09/14/10	MC
Dissolved Organic Nitrogen		mg/L	0.28	0.2	09/14/10	MC
Chlorophyll-a		*	5.9*	*	07/29/10	RIA*
Ortho Phosphorous (P)		mg/L	BRL	0.005	07/27/10	MC
Particulate Organic Carbon		mg/L	0	0.5	09/14/10	MC
Particulate Organic Nitrogen		mg/L	0.07	0.2	09/14/10	MC
Total Dissolved Nitrogen		mg/L	0.36	0.2	09/14/10	MC

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.28) + PON(0.07) + NH_3(0.01) + NO_3(0.08) + NO_2(0.002) = 0.442$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 **Collection Time:** 0930

Sampled By: Kim Michaelis

Lab Order Number: WW-101566

Date Received: 07/27/10

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	0930	07/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	71.0	6.0	09/02/10	MC	2540 C
Chloride grab	mg/L	24.6	3.0	07/27/10	LL	300.0
Total Organic Carbon*	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
on	mg/L	0.014	0.010	08/12/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	07/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/04/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	08/27/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.005	0.005	08/09/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	08/27/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0	0.2	09/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.21	0.2	09/14/10	MC	Calculation
Chlorophyll-a	*	17*	*	07/29/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	07/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.21	0.2	09/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Sabri
Laboratory Director

$$TN = DON(0.21) + PON(0.07) + NH_3(0.01) + NO_3(0.005) + NO_2(0.002) = 0.297$$

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, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 **Collection Time:** 1010

Sampled By: Kim Michaelis

Lab Order Number: WW-101567

Date Received: 07/27/10

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	1010	07/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	62.0	6.0	09/02/10	MC	2540 C
Chloride grab	mg/L	17.5	3.0	07/27/10	LL	300.0
Total Organic Carbon*	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Iron	mg/L	0.015	0.010	08/12/10	MC	200.7
Nitrate-N	mg/L	0.03	0.01	07/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	07/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/04/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	08/27/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.013	0.005	08/09/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	08/27/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.03	0.2	09/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	0.2	09/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	07/29/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.010	0.005	07/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.31	0.2	09/14/10	MC	Calculation

BRL=below reportable limits

*see attached

by:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.28) + PON(0.07) + NH_4(0.01) + NO_3(0.03) + NO_2(0.002) = 0.392$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

Project Name: SW Eel River

Comments:

Project Number:

Collection Date: 07/27/10 Collection Time: 1030

Sampled By: Kim Michaelis

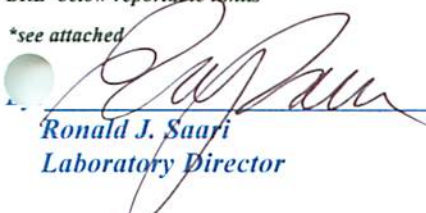
Lab Order Number: WW-101568

Date Received: 07/27/10

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	1030	07/27/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	51.0	6.0	09/02/10	MC	2540 C
Chloride grab	mg/L	16.1	3.0	07/27/10	LL	300.0
Total Organic Carbon*	mg/L	5.6*	0.5	07/29/10	RIA*	SM 5310 C
on	mg/L	0.015	0.010	08/12/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	07/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	07/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/04/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	08/27/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.020	0.005	08/09/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	08/27/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	07/29/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0	0.2	09/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	0.2	09/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	07/29/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.013	0.005	07/27/10	MC	4500-P
Particulate Organic Carbon	mg/L	5.6	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0	0.2	09/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.28	0.2	09/14/10	MC	Calculation

BRL=below reportable limits

*see attached


Ronald J. Saari
Laboratory Director

$$TN = DON(0.28) + PON(0.1) + NH_3(0.01) + NO_3(0.005) + NO_2(0.002) = 0.397$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 7/28/10

Work Order #: 1007-14685

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: WW-101560 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

Sample # 002

SAMPLE DESCRIPTION: WW-101562 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 08:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	15	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	0.19	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	2.6	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

Sample # 003

SAMPLE DESCRIPTION: WW-101563 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 08:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	34	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

Sample # 004

SAMPLE DESCRIPTION: WW-101564 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 7/28/10

Work Order #: 1007-14685

Approved by: 

Data Reporting

Sample # 005

SAMPLE DESCRIPTION: WW-101565 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 08:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	5.9	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

Sample # 006

SAMPLE DESCRIPTION: WW-101566 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 09:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	17	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

Sample # 007

SAMPLE DESCRIPTION: WW-101567 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 10:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

Sample # 008

SAMPLE DESCRIPTION: WW-101568 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 7/27/2010 @ 10:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	7/29/10	ML
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/4/10	KES
TOC Low Level	5.6	0.5	mg/l	SM 5310C	7/29/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	7/29/10	ML

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW101800

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/27/10	0800	S-8B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
7/27/10	0810	S-5B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

WW101562

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 7/27/10 12:30

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/27/10	0820	S-8A	1	1 Liter Plastic	Dissolved,NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
7/27/10	0830	S-4A	1	1 Liter Plastic	Dissolved,NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 7/27/10 1230

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 / 508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW09565

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/27	0850	S-3A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
7/27	0930	S-2B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

WW09566

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 7/27/10 1230

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW101568

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
7/27	1010	S-6A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
7/27	1030	S-12	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

WW101568

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 7/27/10 1230

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, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln Stre Plymouth 02360

ProjectName: Harbor Sampling

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 1310

Sampled By: K. Michaelis

Lab Order Number: WW-101831

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-7 A	13:10	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Nitrate-N/Nitrite-N	mg/L	BRL	0.01 / 0.004	08/27/10	MC	4500-NO3
Total Organic Carbon*	mg/L	1.2*	0.5	08/31/10	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.06*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	09/01/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.070	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.06	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.36	0.2	09/15/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.017	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	1.2	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.42	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.36) + PON(0.07) + NH_3(0.06) + NO_3(0.005) + NO_2(0.002) = 0.497$$

✓

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, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: Harbor Sampling

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 1300

Sampled By: K. Michaelis

Lab Order Number: WW-101832

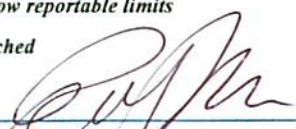
Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-10 A	13:00	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Nitrate-N/Nitrite-N	mg/L	BRL	0.01 / 0.004	08/27/10	MC	4500-NO3
Total Organic Carbon*	mg/L	2.0*	0.5	08/31/10	RIA*	SM 5310 C
Ammonia-N *	mg/L	0.06*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	09/01/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.057	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.3*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.06	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.43	0.2	09/15/10	MC	Calculation
Ortho Phosphorous (P)	mg/L	0.015	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.7	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.49	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

by:


Ronald J. Saari
Laboratory Director

$$TN = DON(0.43) + PON(0.07) + NH_3(0.06) + NO_3(0.005) + NO_2(0.002) = 0.567$$

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 8/27/10

Work Order #: 1008-17044

PLYMOUTH ENV.

Approved by: _____

Data Reporting _____

Sample # 001

SAMPLE DESCRIPTION: WW-101831 S-7

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 13:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
TOC Low Level	1.2	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	8/31/10	ML

Sample # 002

SAMPLE DESCRIPTION: WW-101832 S-10

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 13:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.06	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
TOC Low Level	2.0	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	8/31/10	ML

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 0800

Sampled By: K. Michaelis

Lab Order Number: WW-101833

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	8:00	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	283	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	<0.5*	0.5	08/31/10	RIA*	SM 5310 C
Carbon	mg/L	0.022	0.010	09/02/10	MC	200.7
ate-N	mg/L	0.12	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.63	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	63.6	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.012	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.56	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	<0.5*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.14	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.54	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.68	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

by:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.54) + PON(0.07) + NH_3(0.01) + NO_2(0.12) + NO_3(0.002) = 0.742$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 Collection Time: 0810

Sampled By: K. Michaelis

Lab Order Number: WW-101834

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	8:10	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	196	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	2.4*	0.5	08/31/10	RIA*	SM 5310 C
on	mg/L	0.141	0.010	09/02/10	MC	200.7
ate-N	mg/L	0.10	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	0.14*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.56	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	31.1	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.023	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.3*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.24	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.35	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.59	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.35) + PON(0.07) + NH_3(0.14) + NO_3(0.10) + NO_2(0.002) = 0.662$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 Collection Time: 0820

Sampled By: K. Michaelis

Lab Order Number: WW-101835

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-8A A	8:20	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	97.0	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	2.3*	0.5	08/31/10	RIA*	SM 5310 C
on	mg/L	0.041	0.010	09/02/10	MC	200.7
ate-N	mg/L	0.10	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	0.10*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.63	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	31.1	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.018	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.2*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.20	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.32	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.52	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.32) + PON(0.21) + NH_3(0.10) + NO_3(0.10) + NO_2(0.002) = 0.732$$

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, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 0830

Sampled By: K. Michaelis

Lab Order Number: WW-101836

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	8:30	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	93.0	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	5.0*	0.5	08/31/10	RIA*	SM 5310 C
Iron	mg/L	0.052	0.010	09/02/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	0.09*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	24.7	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.020	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	4.6*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.09	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.33	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	2.4*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.4	0.5	09/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.42	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.33) + PON(0.07) + NH_3(0.09) + NO_3(0.005) + NO_2(0.002) = 0.497$$

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Wednesday, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 0845

Sampled By: K. Michaelis

Lab Order Number: WW-101837

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	8:45	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	94.0	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	1.6*	0.5	08/31/10	RIA*	SM 5310 C
on	mg/L	0.036	0.010	09/02/10	MC	200.7
ate-N	mg/L	0.11	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	0.14*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.77	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	25.5	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.018	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.56	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.4*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.25	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.42	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	6.7*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.2	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.21	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.67	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.42) + PON(0.21) + NH_3(0.14) + NO_3(0.11) + NO_2(0.002) = 0.882$$

ENVIROTECH LABORATORIES, INC.
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Wednesday, September 15, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 0910

Sampled By: K. Michaelis

Lab Order Number: WW-101838

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-2B A	9:10	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	70.0	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	1.6*	0.5	08/31/10	RIA*	SM 5310 C
on	mg/L	0.035	0.010	09/02/10	MC	200.7
ate-N	mg/L	0.04	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	0.05*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.91	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	23.9	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.017	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.5*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.09	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.44	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	23*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.42	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.53	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
 Laboratory Director

$$TN = DON(0.44) + PON(0.42) + NH_3(0.05) + NO_3(0.04) + NO_2(0.002) = 0.952$$

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Wednesday, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 0930

Sampled By: K. Michaelis

Lab Order Number: WW-101839

Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	9:30	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	51.0	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	1.8*	0.5	08/31/10	RIA*	SM 5310 C
on	mg/L	0.045	0.010	09/02/10	MC	200.7
ate-N	mg/L	0.09	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.77	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	15.0	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.017	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.8*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.09	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.42	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	4.3*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.35	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.51	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.42) + PON(0.35) + NH_4(0.01) + NO_3(0.09) + NO_2(0.002) = 0.872$$

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

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Wednesday, September 15, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number:

Collection Date: 08/26/10 **Collection Time:** 0950

Sampled By: K. Michaelis

Lab Order Number: WW-101840

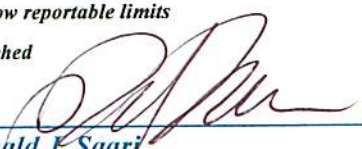
Date Received: 08/26/10

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	9:50	8/26/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	43.0	6.0	09/02/10	MC	2540 C
Total Organic Carbon*	mg/L	2.1*	0.5	08/31/10	RIA*	SM 5310 C
Iron	mg/L	0.048	0.010	09/02/10	MC	200.7
Nitrate-N	mg/L	0.06	0.01	08/27/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	08/27/10	LL	300.0
Ammonia-N *	mg/L	0.10*	0.02	08/31/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.70	0.2	09/01/10	MC	SM4500 NH3 C
Chloride	mg/L	13.0	3.0	08/27/10	LL	300.0
Total Phosphorous (P)	mg/L	0.020	0.005	09/01/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.56	0.2	09/01/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	2.0*	0.5	08/31/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.16	0.2	09/15/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.46	0.2	09/15/10	MC	Calculation
Chlorophyll-a	*	6.7*	*	08/31/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.016	0.005	08/26/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	0.5	09/15/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	0.2	09/15/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.62	0.2	09/15/10	MC	Calculation

BRL=below reportable limits

*see attached

By:


Ronald J. Saari
Laboratory Director

$$TN = DON(0.46) + PON(0.14) + NH_3(0.10) + NO_3(0.06) + NO_2(0.052) = 0.762$$

R.I. Analytical Laboratories, Inc.
CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 8/27/10

Work Order #: 1008-17027

Approved by: _____

Data Reporting

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-101833 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 08:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	8/31/10	ML
TOC Low Level	<0.5	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	<0.5	0.5	mg/l	EPA 415.1	8/31/10	ML

Sample # 002

SAMPLE DESCRIPTION: WW-101834 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 08:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.14	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	8/31/10	ML
TOC Low Level	2.4	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	2.3	0.5	mg/l	EPA 415.1	8/31/10	ML

Sample # 003

SAMPLE DESCRIPTION: WW-101835 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 08:20

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.10	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-II	8/31/10	ML
TOC Low Level	2.3	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	2.2	0.5	mg/l	EPA 415.1	8/31/10	ML

Sample # 004

SAMPLE DESCRIPTION: WW-101836 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 08:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.09	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	2.4	1.1	mg/m ³	SM 10200-H	8/31/10	ML
TOC Low Level	5.0	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	4.6	0.5	mg/l	EPA 415.1	8/31/10	ML

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 8/27/10

Work Order #: 1008-17027

Approved by: _____

Data Reporting _____

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-101837 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 08:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.14	0.10	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	6.7	1.1	mg/m ³	SM 10200-H	8/31/10	ML
TOC Low Level	1.6	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	1.4	0.5	mg/l	EPA 415.1	8/31/10	ML

Sample # 006

SAMPLE DESCRIPTION: WW-101838 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 09:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.05	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	23	1.1	mg/m ³	SM 10200-H	8/31/10	ML
TOC Low Level	1.6	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	1.5	0.5	mg/l	EPA 415.1	8/31/10	ML

Sample # 007

SAMPLE DESCRIPTION: WW-101839 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 09:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	4.3	1.1	mg/m ³	SM 10200-H	8/31/10	ML
TOC Low Level	1.8	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	8/31/10	ML

Sample # 008

SAMPLE DESCRIPTION: WW-101840 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 8/26/2010 @ 09:50

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.10	0.02	mg/l	SM 4500-NH3 C	8/31/10	KA
Chlorophyll A	6.7	1.1	mg/m ³	SM 10200-H	8/31/10	ML
TOC Low Level	2.1	0.5	mg/l	SM 5310C	8/31/10	ML
Dissolved TOC	2.0	0.5	mg/l	EPA 415.1	8/31/10	ML

Laboratory:

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(508) 888-6460

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: Harbor Sampling -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/26	1310	S-7	1	Plastic	TOC	H2SO4
↓	↓	S-7	1	Plastic	NO3, NO2, Ortho, Dissolved	NONE
↓	↓	S-7	1	1 Liter Plastic	TKN, NH3, TP	H2SO4
8/26	1300	S-10	1	Plastic	TOC	H2SO4
↓	↓	S-10	1	Plastic	NO3, NO2, Ortho, Dissolved	NONE
↓	↓	S-10	1	1 Liter Plastic	TKN, NH3, TP	H2SO4

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

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

R. Daniels 08/26/10 1345

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/26	0800	S-8B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
8/26	0810	S-SB	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

R. Hawley 08/26/10 1545

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW101835

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/26	0820	S-8A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4
8/26	0830	S-4A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
			1	Plastic	Boron, TDS, Chloride	NONE
			1	Liter Glass	Chlorophyll-a	NONE
			1	Plastic	TOC	H2SO4

WW101836

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Blawie + 08/26/10 1545

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW101837

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/26	0845	S-3A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
8/26	0910	S-2B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

WW101838

①

②

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Received By: Date/Time:

Devala 08/26/10 1545

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
8/26	0930	S-6A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4
8/26	0950	S-12	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
↓	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
↓	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
↓	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
↓	↓	↓	1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

Wally 08/26/10 1545

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

Thursday, October 21, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 09/21/10 **Collection Time:**

Sampled By: Kim Michaelis

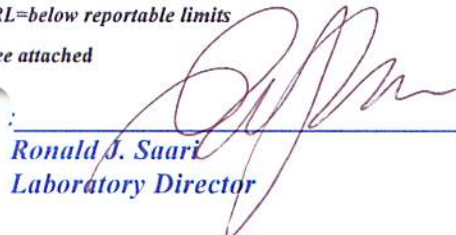
Lab Order Number: WW-102024

Date Received: 09/21/10

Sample Type	Sample Time	Sample Date	Comments			
S-6A A	1210	09/21/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	30.0	6.0	10/01/10	MC	2540 C
Total Organic Carbon*	mg/L	1.5*	0.5	09/28/10	RIA*	SM 5310 C
Boron	mg/L	0.014	0.010	09/23/10	MC	200.7
Nitrate-N	mg/L	0.13	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	<0.02*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.21	0.2	09/23/10	MC	SM4500 NH3 C
Chloride	mg/L	18.2	3.0	09/22/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.4*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.15	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.19	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.34	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached


Ronald J. Suari
Laboratory Director

$$TN = DO_{11} (0.19) + PON (0) + NH_3 (0.01) + NO_3 (0.13) + NO_2 (0.002) = 0.332$$

ENVIROTECH LABORATORIES, INC.

MA CERT. NO.: M-MA 063

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Thursday, October 14, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River
Project Number: SW Eel River
Collection Date: 09/21/10 **Collection Time:**
Sampled By: Kim Michaelis
Lab Order Number: WW-102025
Date Received: 09/21/10

Comments:

Sample Type	Sample Time	Sample Date	Comments			
S-12 A	1225	09/21/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	29.0	6.0	10/01/10	MC	2540 C
Total Organic Carbon*	mg/L	1.5*	0.5	09/28/10	RIA*	SM 5310 C
Iron	mg/L	0.016	0.010	09/23/10	MC	200.7
Nitrate-N	mg/L	0.10	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	0.08*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.35	0.2	09/23/10	MC	SM4500 NH3 C
Chloride	mg/L	16.4	3.0	09/22/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.5*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.18	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.20	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	3.7*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.38	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached

by:

Ronald J. Saari
Laboratory Director

$$TN = DON(0.20) + PON(0.07) + NH_3(0.08) + NO_3(0.10) + NO_2(0.002) = 0.452$$

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Thursday, October 14, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 09/21/10 **Collection Time:**

Sampled By: Kim Michaelis

Lab Order Number: WW-102026

Date Received: 09/21/10

Sample Type	Sample Time	Sample Date	Comments			
S-8B A	1015	9/21/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	340	6.0	10/01/10	MC	2540 C
Chloride grab	mg/L	95.2	3.0	09/22/10	LL	300.0
Total Organic Carbon*	mg/L	0.6*	0.5	09/28/10	RIA*	SM 5310 C
on	mg/L	BRL	0.010	09/23/10	MC	200.7
Nitrate-N	mg/L	0.04	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	0.16*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	09/23/10	MC	SM4500 NH3 C
Total Phosphorous (P)	mg/L	0.017	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.28	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	0.5*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.20	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.12	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.007	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.14	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.32	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.12) + PON(0.14) + NH_3(0.16) + NO_3(0.04) + NO_2(0.002) = 0.462$$

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Thursday, October 21, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 09/21/10 **Collection Time:**

Sampled By: Kim Michaelis

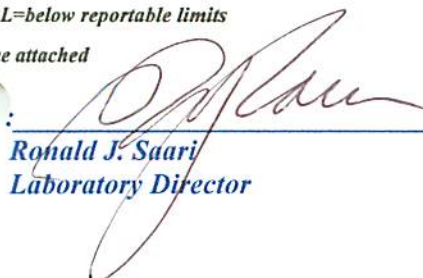
Lab Order Number: WW-102027

Date Received: 09/21/10

Sample Type	Sample Time	Sample Date	Comments			
S-5B A	1030	9/21/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	46.0	6.0	10/01/10	MC	2540 C
Total Organic Carbon*	mg/L	1.9*	0.5	09/28/10	RIA*	SM 5310 C
Boron	mg/L	0.012	0.010	09/23/10	MC	200.7
ate-N	mg/L	0.05	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	0.11*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	09/23/10	MC	SM4500 NH3 C
Chloride	mg/L	34.5	3.0	09/22/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.42	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.8*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.16	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.31	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.47	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached


 Ronald J. Saari
 Laboratory Director

$$TN = DON(0.31) + PON(0.07) + NH_3(0.11) + NO_3(0.05) + NO_2(0.002) = 0.542$$

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Thursday, October 21, 2010

Plymouth Environmental Management
ATTN Kim Michaelis
#11 Lincoln St Plymouth 02360

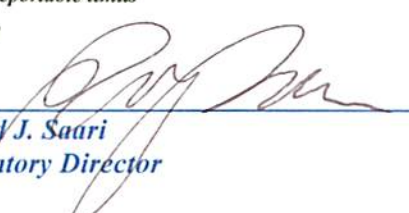
ProjectName: SW Eel River
Project Number: SW Eel River
Collection Date: 09/21/10
Sampled By: Kim Michaelis
Lab Order Number: WW-102028
Date Received: 09/21/10

Comments:

Sample Type		Sample Time	Sample Date	Comments		
S-8A	A	1045	09/21/10			
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	66.0	6.0	10/01/10	MC	2540 C
Total Organic Carbon*	mg/L	1.7*	0.5	09/28/10	RIA*	SM 5310 C
Boron	mg/L	0.010	0.010	09/23/10	MC	200.7
ate-N	mg/L	0.05	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	0.22*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.49	0.2	09/23/10	MC	SM4500 NH3 C
Chloride	mg/L	34.6	3.0	09/22/10	LL	300.0
Total Phosphorous (P)	mg/L	BRL	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.49	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.6*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.27	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.27	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.54	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached


Ronald J. Saari
Laboratory Director

$$TN = DON (0.27) + PON (0) + NH_3 (0.22) + NO_3 (0.05) + NO_2 (0.002) = 0.542$$

ENVIROTECH LABORATORIES, INC.

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Thursday, October 14, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 09/21/10 **Collection Time:**

Sampled By: Kim Michaelis

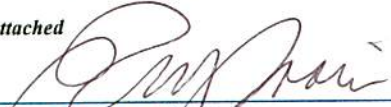
Lab Order Number: WW-102029

Date Received: 09/21/10

Sample Type	Sample Time	Sample Date	Comments			
S-4A A	1115	09/21/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	53.0	6.0	10/01/10	MC	2540 C
Total Organic Carbon*	mg/L	1.5*	0.5	09/28/10	RIA*	SM 5310 C
Iron	mg/L	BRL	0.010	09/23/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	0.91*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	1.75	0.2	09/23/10	MC	SM4500 NH3 C
Chloride	mg/L	27.2	3.0	09/22/10	LL	300.0
Total Phosphorous (P)	mg/L	0.040	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	1.68	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.5*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.92	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.77	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	<1.1*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	0.013	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	1.69	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By: 

Ronald J. Saari
Laboratory Director

$$TN = DON (0.77) + PON (0.07) + NH_3 (0.91) + NO_3 (0.005) + NO_2 (0.002) = 1.757$$

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

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Thursday, October 14, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln Stre Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 09/21/10 **Collection Time:**

Sampled By: Kim Michaelis

Lab Order Number: WW-102030

Date Received: 09/21/10

Sample Type	Sample Time	Sample Date	Comments			
S-3A A	1130	09/21/10				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	55.0	6.0	10/01/10	MC	2540 C
Total Organic Carbon*	mg/L	1.2*	0.5	09/28/10	RIA*	SM 5310 C
Iron	mg/L	0.011	0.010	09/30/10	MC	200.7
Nitrate-N	mg/L	0.09	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	0.07*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.42	0.2	09/23/10	MC	SM4500 NH3 C
Chloride	mg/L	26.4	3.0	09/22/10	LL	300.0
Total Phosphorous (P)	mg/L	0.005	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.35	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.5*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.16	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.28	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	7.7*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.44	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached

by:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.28) + PON(0.07) + NH_3(0.07) + NO_3(0.09) + NO_2(0.002) = 0.512$$

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

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Thursday, October 14, 2010

Plymouth Environmental Management

ATTN Kim Michaelis

#11 Lincoln St Plymouth 02360

ProjectName: SW Eel River

Comments:

Project Number: SW Eel River

Collection Date: 09/21/10 **Collection Time:**

Sampled By: Kim Michaelis

Lab Order Number: WW-102032

Date Received: 09/21/10

Sample Type	Sample Time	Sample Date	Comments			
S-2B A		1155				
Parameters	Units	Test Results	Reportable Limits	Date Analyzed	Analyst	Method
Total Dissolved Solids	mg/L	55.0	6.0	10/01/10	MC	2540 C
Total Organic Carbon*	mg/L	1.4*	0.5	09/28/10	RIA*	SM 5310 C
Iron	mg/L	0.011	0.010	09/30/10	MC	200.7
Nitrate-N	mg/L	BRL	0.01	09/22/10	LL	300.0
Nitrite-N	mg/L	BRL	0.004	09/22/10	LL	300.0
Ammonia-N *	mg/L	0.05*	0.02	09/23/10	RIA*	SM4500 NH3 C
Total Kjeldhal Nitrogen	mg/L	0.28	0.2	09/23/10	MC	SM4500 NH3 C
Chloride	mg/L	24.6	3.0	09/22/10	LL	300.0
Total Phosphorous (P)	mg/L	0.015	0.005	09/23/10	MC	4500-P
Dissolved Kjeldhal Nitrogen	mg/L	0.21	0.2	09/23/10	MC	SM4500 NH3 C
Dissolved Total Organic Carbon	mg/L	1.3*	0.5	09/28/10	RIA*	SM 5310 C
Dissolved Inorganic Nitrogen	mg/L	0.06	NA	10/14/10	MC	Calculation
Dissolved Organic Nitrogen	mg/L	0.16	NA	10/14/10	MC	Calculation
Chlorophyll-a	*	8.8*	*	09/28/10	RIA*	*
Ortho Phosphorous (P)	mg/L	BRL	0.005	09/21/10	MC	4500-P
Particulate Organic Carbon	mg/L	0.1	NA	10/14/10	MC	SM 5310 C
Particulate Organic Nitrogen	mg/L	0.07	NA	10/14/10	MC	Calculation
Total Dissolved Nitrogen	mg/L	0.22	NA	10/14/10	MC	Calculation

BRL=below reportable limits

*see attached

By:

Ronald J. Saari

Laboratory Director

$$TN = DON(0.16) + PON(0.07) + NH_3(0.05) + NO_3(0.005) + NO_2(0.002) = 0.287$$

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 9/22/10

Work Order #: 1009-18751

Approved by: 

Data Reporting

PLYMOUTH ENV.

Sample # 001

SAMPLE DESCRIPTION: WW-102024 S-6A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 12:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	<0.02	0.02	mg/l	SM 4500-NH3 C	9/23/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	1.5	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	1.4	0.5	mg/l	EPA 415.1	9/28/10	ML

Sample # 002

SAMPLE DESCRIPTION: WW-102025 S-12

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 12:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.08	0.02	mg/l	SM 4500-NH3 C	9/24/10	KES
Chlorophyll A	3.7	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	1.5	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	1.5	0.5	mg/l	EPA 415.1	9/28/10	ML

Sample # 003

SAMPLE DESCRIPTION: WW-102026 S-8B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 10:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.16	0.02	mg/l	SM 4500-NH3 C	9/23/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	0.6	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	0.5	0.5	mg/l	EPA 415.1	9/28/10	ML

Sample # 004

SAMPLE DESCRIPTION: WW-102027 S-5B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 10:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.11	0.02	mg/l	SM 4500-NH3 C	9/23/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	1.9	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	1.8	0.5	mg/l	EPA 415.1	9/28/10	ML

R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

Envirotech Laboratories, Inc.

Date Received: 9/22/10

Work Order #: 1009-18751

Approved by: 

Data Reporting

PLYMOUTH ENV.

Sample # 005

SAMPLE DESCRIPTION: WW-102028 S-8A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 10:45

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.22	0.02	mg/l	SM 4500-NH3 C	9/23/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	1.7	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	1.6	0.5	mg/l	EPA 415.1	9/28/10	ML

Sample # 006

SAMPLE DESCRIPTION: WW-102029 S-4A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 11:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.91	0.02	mg/l	SM 4500-NH3 C	9/23/10	KA
Chlorophyll A	<1.1	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	1.5	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	1.5	0.5	mg/l	EPA 415.1	9/28/10	ML

Sample # 007

SAMPLE DESCRIPTION: WW-102030 S-3A

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 11:30

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.07	0.02	mg/l	SM 4500-NH3 C	9/23/10	KA
Chlorophyll A	7.7	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	1.2	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	1.2	0.5	mg/l	EPA 415.1	9/28/10	ML

Sample # 008

SAMPLE DESCRIPTION: WW-102032 S-2B

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 9/21/2010 @ 11:55

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ammonia (as N)	0.05	0.02	mg/l	SM 4500-NH3 C	9/23/10	KA
Chlorophyll A	8.8	1.1	mg/m ³	SM 10200-H	9/28/10	ML
TOC Low Level	1.4	0.5	mg/l	SM 5310C	9/28/10	ML
Dissolved TOC	1.3	0.5	mg/l	EPA 415.1	9/28/10	ML

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW102024

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/21/10	1210	S-6A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
9/21/10			1	Plastic	Boron, TDS, Chloride	NONE
9/21/10			1	Liter Glass	Chlorophyll-a	NONE
9/21/10			1	Plastic	TOC	H2SO4
9/21/10	1225	S-12	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
9/21/10			1	Plastic	Boron, TDS, Chloride	NONE
9/21/10			1	Liter Glass	Chlorophyll-a	NONE
9/21/10			1	Plastic	TOC	H2SO4

WW102025

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By:

Date/Time:

[Signature] 9/21/10 1315

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

11/02/2010

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/21/10	1015	S-8B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10	1	1	1	1 Liter Plastic	NH3, T-Phosphorus, TKN	H2SO4
9/21/10	1	1	1	Plastic	Boron, TDS, Chloride	NONE
9/21/10	1	1	1	Liter Glass	Chlorophyll-a	NONE
9/21/10	1	1	1	Plastic	TOC	H2SO4
9/21/10	1030	S-5B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10	1	1	1	1 Liter Plastic	NH3, T-Phosphorus, TKN	H2SO4
9/21/10	1	1	1	Plastic	Boron, TDS, Chloride	NONE
9/21/10	1	1	1	Liter Glass	Chlorophyll-a	NONE
9/21/10	1	1	1	Plastic	TOC	H2SO4

11/02/2010

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 9/21/10 1315

Laboratory:

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Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

ww102028

ww102029

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/21/10	1045	S-8A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
9/21/10	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
9/21/10	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
9/21/10	↓	↓	1	Plastic	TOC	H2SO4
9/21/10	1115	S-4A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10	↓	↓	1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
9/21/10	↓	↓	1	Plastic	Boron, TDS, Chloride	NONE
9/21/10	↓	↓	1	Liter Glass	Chlorophyll-a	NONE
9/21/10	↓	↓	1	Plastic	TOC	H2SO4

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 9/21/10 1315

Laboratory:

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

Chain of Custody**Client:**

Town of Plymouth - DPW Environmental Management Attn: Kim Michaelis
11 Lincoln Street, Plymouth, MA 02360 /508-747-1620 x198, kmichaelis@townhall.plymouth.ma.us
Project Name: SW Eel River -Plymouth MA
Sampler: Kim Michaelis (KM)

WW107030

Date	Time	Sample ID	# bottles	Type bottle	Analysis	Preservative
9/21/10	1130	S-3A	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
9/21/10			1	Plastic	Boron, TDS, Chloride	NONE
9/21/10			1	Liter Glass	Chlorophyll-a	NONE
9/21/10			1	Plastic	TOC	H2SO4
9/21/10	1155	S-2B	1	1 Liter Plastic	Dissolved, NO2, NO3, Ortho	NONE
9/21/10			1	1 Liter Plastic	NH ₃ , T-Phosphorus, TKN	H2SO4
9/21/10			1	Plastic	Boron, TDS, Chloride	NONE
9/21/10			1	Liter Glass	Chlorophyll-a	NONE
9/21/10			1	Plastic	TOC	H2SO4

WW107032

NOTE: Analysis needed for reporting in lowest detection possible; Total Dissolved Solids, 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, Boron, Chlorophyll-a, Chloride

Relinquished By: Date/Time

Kim Michaelis

Received By: Date/Time:

[Signature] 9/21/10 1315