RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
8/19/09	Andover	Huss01	10:50	stone box	10' x 5'	na	None	light tea	Clear	None	2595	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal01	11:11	concrete	12"		None	orange	Clear	None	ND	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal02	11:15	concrete	12"		None	None	Clear	None	ND	NA	NA	0.20	NA	NA
8/19/09	Andover	York1	11:45	cement	3' x 3' box		None	None	Clear	None	16	NA	NA	ND	NA	NA
8/19/09	Andover	Plaza	12:15	cement	2.5'		None	None	Clear	None	8	NA	NA	0.10	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	23.8	618	Lawrence	0	0	Dry
NA	NA	NA	42.67231773	-71.14949411	left side, facing downs	front of Balmoral cond	1	20.6	1936	Lawrence	0	0	Dry
NA	NA	NA	42.67225719	-71.1493017	flow dropped to a trick	front of Balmoral cond	1.4	20.7	2780	Lawrence	0	0	Dry
NA	NA	NA	42.66847901	-71.14232625	some algae on rocks	little park of York St b	0.4	18.3	878	Lawrence	0	0	Dry
NA	NA	NA	42.66510433	-71.14546547	waded downstream to	park in Shawsheen pla	0.8	21.7	1600	Lawrence	0	0	Dry

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
8/19/09	Andover	Huss01	10:50	stone box	10' x 5'	na	None	light tea	Clear	None	2595	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal01	11:11	concrete	12"		None	orange	Clear	None	ND	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal02	11:15	concrete	12"		None	None	Clear	None	ND	NA	NA	0.20	NA	NA
8/19/09	Andover	York1	11:45	cement	3' x 3' box		None	None	Clear	None	16	NA	NA	ND	NA	NA
8/19/09	Andover	Plaza	12:15	cement	2.5'		None	None	Clear	None	8	NA	NA	0.10	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	23.8	618	Lawrence	0	0	Dry
NA	NA	NA	42.67231773	-71.14949411	left side, facing downs	front of Balmoral cond	1	20.6	1936	Lawrence	0	0	Dry
NA	NA	NA	42.67225719	-71.1493017	flow dropped to a trick	front of Balmoral cond	1.4	20.7	2780	Lawrence	0	0	Dry
NA	NA	NA	42.66847901	-71.14232625	some algae on rocks	little park of York St b	0.4	18.3	878	Lawrence	0	0	Dry
NA	NA	NA	42.66510433	-71.14546547	waded downstream to	park in Shawsheen pla	0.8	21.7	1600	Lawrence	0	0	Dry

Inspection Conclusion Data Sheet (ICDS)

FY2010

Inspector: Ted Lavery, Erin Trainor_____

Inspection Date: _October 5, 2011_____

Facility Name/Address: _Town of North Andover, Massachusetts MS4 – Various Locations____

Facility Manager/Title and Address (if different from facility address): _Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845_____

Facility Contact/Title and Address (if different from facility address): _Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845_____

1. Media Type: (Check one)

□ CAA-Stationary	□ CAA-Mobile Source	□ CAA-112r	
□ CAA-NESHAP			
□ CWA-NPDES	□ CWA-Pretreatment POTW	□ CWA-Pretreatment IU	
□ CWA 311	□ CWA 404	Ξ CWA-Stormwater	
□ EPCRA 313	□ EPCRA N313		
□ RCRA-C	□ RCRA-I		
□ SDWA-UIC	□ SDWA-PWSS		
□ TSCA-Lead Paint	□ TSCA-PCBs	□ TSCA-Core	□ TSCA-AHERA

2. Did you observe deficiencies (potential violations) during the inspection?

□ Yes Ξ No

3. If you observed deficiencies, did you communicate them to the facility during the inspection?

□ Yes Ξ No

4. Deficiencies observed?

_____ Potential violation of a compliance schedule in an enforceable order.

_____ Potential failure to maintain a record or failure to disclose a document.

_____ Potential failure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.

_____ Potential failure to complete or submit a notification, report, certification, or manifest.

_____ Potential failure to obtain a permit, product approval, or certification.

_____ Potential failure to follow a required sampling or monitoring procedure or laboratory procedure.

_____ Potential failure to follow or develop a required management practice or procedure.

_____ Potential failure to identify and manage a regulated waste or pollutant in any media.

_____ Potential failure to report regulated events such as spills, accidents, etc.

_____ Potential incorrect use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.

_____ Potential failure to follow a permit condition(s).

5 Did you observe or see the facility take any actions during the inspection to address the deficiencies communicated to the facility?

□ Yes □ No Ξ N/A only if #3 was NO.

If YES, check only the action(s) actually observed/seen or write in a short description of the action in the "optional" section. (Check all that apply)

Action(s) taken

_____ Complete(d) a Notification or Report

_____ Correct(ed) Monitoring Deficiencies

_____ Correct(ed) Record Keeping Deficiencies

_____ Implemented New or Improved Management Practices or Procedures

_____ Improved Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)

_____ Reduced Pollution (e.g., Use Reduction, Industrial Process Change, Emissions or Discharge Change, etc.)

_____ Request(ed) a Permit Application or Applied for a Permit

_____ Verified Compliance with Previously Issued Enforcement Action - Part or All Conditions

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water: □ Ammonia □ BOD □COD □TSS □O/G □Total Coliform □D.O.
□ Metals □Cyanide □ Other_____

Air: □ NOx □ SO2 □ PM □ VOC □ Metals □ HAPs □ CO
□ Other_____

6. Did you provide general compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

7. Did you provide site-specific compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

Optional Additional Information: EPA inspectors may wish to provide a narrative description of actions taken by the facility or assistance to help the facility come into compliance. (Narratives may be used in national or regional reports to provide examples of EPA inspection outcomes).

The water quality standard for E.Coli (235 MPN/100mL) was exceeded at the Rte. 114 North Andover sampling location with a result of 1,379 MPN/100mL. The water quality standard for Enterococcus (61 MPN/100mL) was exceeded at the same sampling location (Rte. 114 North Andover) with a result of 794 MPN/100mL.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/04/24	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
7:45AM 4/24/2012	August 2003
Exit Time/Date	**Permit Expiration Date**
12:00PM 4/24/2012	August 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data

Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.

John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Todd Borci	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/06/27	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
In-stream sample collected from the canal located upstream of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
Control sample collected from Merrimack River upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
8:25AM 6/27/2012	
Exit Time/Date	**Permit Expiration Date**
12:00PM 6/27/2012	

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data
Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.
John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	7/13/2012
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	7/13/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
8/19/09	Lawrence	SPR01	7:55	open stream	na	stream	None	None	Clear	None	96	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR02	8:00	open stream	na	stream	musty	None	Clear	None	96	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR03	8:10	open stream	na	stream	None	None	Clear	some suds*	319	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR04	8:15	x from concrete pipe			None	None	Clear	None	ND	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	light sewag	None	Clear	None	1741	NA	NA	0.25	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	157	NA	NA	0.10	NA	NA
8/19/09	Lawrence	UR012	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	174	NA	NA	NA	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'	strong, musty sewa		None	Clear	None	34	NA	NA	0.20	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.70688	-71.1476552	downstream of waterf	confluence of canal &	0.1	26.5	188	Lawrence	0	0	Dry
NA	NA	NA	42.70703754	-71.14815826	some algae on stream	just down stream of ca	0.1	25.6	192.9	Lawrence	0	0	Dry
NA	NA	NA	42.70747755	-71.14846649	shallow 1' aglae on ro	Upstream (~50') of Sp	0.2	23.2	480	Lawrence	0	0	Dry
NA	NA	NA	42.70725878	-71.14809783	on Merrimack river sid	leaky pipe under Spic	0.1	22.6	230	Lawrence	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	tace hemoglobin off u	pipe off Lawrence Hos	1.2	22.6	2291	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection															
													Surfact. (mg/l)			NH3 (mg/l)				
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha	Field	Nessler	DR-850	Test St.
9/22/09	Lawrence	SLE3	11:30	ncrete out	3'	na	light must	None	Clear	None	205	445	ND	~0.1	ND	ND	ND	0.4	ND	ND
9/22/09	Lawrence	UR018	11:30	ncrete out	3'	na	light must	None	Clear	None	279	249	ND	~0.1	ND	ND	ND	0.4	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	light must	None	Clear	Yes, pape	29870	19863	~0.05	0.25	0.05	7.02	>2	>3	2.26	6
3/24/10		Shaw01																		
6/10/10	Lawrence	SLE3	7:25	ncrete out	3'	NA	rong mus	hite/tan/gr	ghtly clou	amentous	1954	2359	NA	1	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	UR027	7:25	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	1741	1314	NA	0.2	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SLE3	8:25	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	899	4884	NA	0.2	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SLE3	9:00	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	806	2014	NA	0.5	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clea	none	NA	NA	NA	0.5	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	lean sme	none	none	none	30	10	NA	0.2	NA	NA	NA	NA	NA	0.2
8/4/10	Lawrence	SPRLGH	7:40	Open stre	NA	NA	none	none	clear	none	1164	1529	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Jackson	8:25	Open stre	NA	NA	none	light tea	some	sh and deb	606	512	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Willow	9:00	Open stre	NA	NA	none	med tea	none	sh and deb	325	158	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bac	1230	275	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Shaw01	9:50	Open stre	NA	NA	none	l sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA	NA	NA	NA	ND

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH3 - color key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L *** may give false positive at salinity greater than 1 ppt
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPORTING LIMITS

E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Alpha = 0.05 mg/L (Except where otherwise noted)
Surfactants Field = 0.1 mg/L
Surfactant DR-850 = 0.02 mg/L
Ammonia (Alpha) = 0.075 mg/L
Ammonia Field = 0.1 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia DR-850 = 0.08 mg/L
Ammonia Test Strip = 0.1 mg/L
Total Phosphorus = 5 ug/L
CL2 (Total Residual) = 0.02 mg/L
CL2 (Residual Free) = 0.05 mg/L
CL2 Field = 0.02 mg/L
CL2 Test Strip =
Flouride Alpha= 0.20 mg/L
Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Potassium = 2.5 mg/L
Potassium Field = 0.2 mg/L
Nitrogen, Nitrate/Nitrite = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

																			Coordi
P	PPCP ng/L									Cl2 (mg/l)				Flouride		Potassium (mg/L)		
EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha	DR-850	Alpha	Field	GPS North(+)
9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND	0.14	5.5	2.35	42.695971
22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND	0.1	5.8	2.30	42.695971
421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22	0.32	28	34.90	42.70991636
	920	8800	86	1800	12000	34	nd	79000	ND (0.5)									
NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA	NA	NA	3	42.70688
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2.35	42.70688
NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA	NA	NA	1.25	42.70688
NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA	NA	NA	1.65	42.70688
NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA	NA	NA	NA	42.70991636
12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA	NA	NA	NA	42.70991636
21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA	NA	NA	NA	42.70995636
6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA	NA	NA	NA	42.713273
24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA	NA	NA	NA	42.713893
52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA	NA	NA	NA	42.70688
23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA	NA	NA	NA	42.696984

nates			YSI Meter				Weather		
			Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inche	inches	
-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
-71.1476552	SLE3a' significant whi	South Lawrence Elem	0.5	14.6	045/83	Lawrence	0.04	0.04	Dry
-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/1	Lawrence	0.04	0.04	Dry
-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
-71.158219	upstream of Jackson	heavy sedimentation o	0.3	23.1	530	Lawrence	0	0	Dry
-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
-71.143777	Mainstem Shawsheen river sample		na	na	na	Lawrence	0	0	Dry

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
6/23/08	Melrose	Otis	8:50								3266	NA	0.09	NA	NA	0.77
6/23/08	Winchester	62Sun	9:30								533	NA	ND	NA	NA	ND
6/23/08	Woburn	1Merrell	10:00	open stream	na	stream					2069	NA	0.10	NA	NA	0.76
6/23/08	Woburn	1Kraft	10:17								5654	NA	0.27	NA	NA	ND
6/23/08	Woburn	2Merrell	10:23								2190	NA	0.08	NA	NA	0.41
6/23/08	Stoneham	100A	11:00	open stream	na	stream					14400	NA	0.19	NA	NA	ND
6/23/08	Stoneham	1Linden	11:16								6932	NA	0.20	NA	NA	ND
6/23/08	Stoneham	1West	11:42	stone	2x3						14100	NA	0.29	NA	NA	0.410
6/23/08	Stoneham	2dLinden	12:02	open stream	na	stream					13700	NA	0.30	NA	NA	ND
6/23/08	Stoneham	2Linden	12:02	open stream	na	stream					9600	NA	0.32	NA	NA	ND
6/30/08	Methuen	Mer1	8:43								1162	1495 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer2	9:06	open stream	na	stream					288	694 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer3	9:35	open stream	na	stream					590	590 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer4	10:00								580	590 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer4d	10:00								631	811 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer5	10:27	open stream	na	stream					883	739 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer6A	10:55								802	847 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer6	11:05								775	955 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer7	11:30	CM	3-4 ft						775	955 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer8	11:51	open stream	na	stream					568	649 Fecal	0.05	NA	NA	ND
7/10/08	Woburn	Mys01	8:15	open stream	na	stream					7945	NA	0.09	NA	NA	2.37
7/10/08	Woburn	Mys02	8:45								1230	NA	0.08	NA	NA	3.70
7/10/08	Woburn	Mys03	9:11								6932	NA	0.08	NA	NA	ND
7/10/08	Woburn	Mys04	9:20								5199	NA	0.10	NA	NA	0.50
7/10/08	Woburn	Mys05	9:38								239	NA	ND	NA	NA	ND
7/10/08	Woburn	Mys06	9:56								2452	NA	0.08	NA	NA	0.73
7/10/08	Woburn	Mys07	10:18	open stream	na	stream					27230	NA	0.07	NA	NA	4.29
7/10/08	Woburn	Mys08	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.57
7/10/08	Woburn	Mys8d	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.52
7/10/08	Woburn	Mys09	10:45	open stream	na	stream					1549	NA	0.06	NA	NA	4.93
7/10/08	Woburn	Mys10	11:13								2452	NA	0.06	NA	NA	1.25
7/15/08	Stoneham	1West	7:57	stone	2x3						3266	NA	0.05	NA	NA	ND
7/15/08	Stoneham	2Linden	8:15	open stream	na	stream					689	NA	0.05	NA	NA	ND
7/15/08	Stoneham	2Lincul	8:20	clay	8"						430	NA	0.06	NA	NA	ND
7/15/08	Woburn	WashC	8:55								316	NA	0.07	NA	NA	1.32
7/15/08	Woburn	Burb	9:08								599	NA	0.06	NA	NA	ND
7/15/08	Woburn	Aber	9:20								408	NA	0.06	NA	NA	ND
7/15/08	Woburn	Sal	9:40								430	NA	0.09	NA	NA	1.84
7/15/08	Woburn	US1	9:55								125	NA	0.07	NA	NA	ND
7/15/08	Woburn	US2	10:05								740	NA	1.60	NA	NA	ND
7/15/08	Woburn	Olym	10:35								606	NA	0.09	NA	NA	ND
7/15/08	Woburn	Fit	10:55								152	NA	0.09	NA	NA	3.91
7/15/08	Woburn	Fitd	10:55								152	NA	0.08	NA	NA	3.94
7/15/08	Woburn	Mys01	11:15	open stream	na	stream					164	NA	0.08	NA	NA	3.46
7/21/08	Boston	Con	7:55								54750	NA	0.09	NA	NA	ND
7/21/08	Boston	Bos014	8:10								3266	NA	0.08	NA	NA	ND
7/21/08	Revere	Hadd	9:00								612	NA	0.15	NA	NA	ND
7/21/08	Chelsea	Mill1	9:35								9330	NA	0.18	NA	NA	ND
7/21/08	Chelsea	Mill2	9:55	concrete	~30 inches						9678	NA	0.18	NA	NA	1.33
7/21/08	Chelsea	Mill3	10:10								15530	NA	0.09	NA	NA	ND
7/21/08	Chelsea	Rev06	10:30								7945	NA	0.08	NA	NA	ND
7/21/08	Chelsea	Mill4	10:35								3266	NA	0.11	NA	NA	ND
7/21/08	Chelsea	IsEnd01	11:20								2595	NA	0.08	NA	NA	ND
7/21/08	Chelsea	IsEnd02	11:25	CM, semi-round	7'						3080	NA	0.19	NA	NA	ND
7/21/08	Chelsea	IsEnd04	11:30								>241960	NA	0.14	NA	NA	13.0
7/21/08	Chelsea	IsEnd04d	11:30								>241960	NA	0.15	NA	NA	13.5
7/21/08	Medford	Mhb	12:30								7945	NA	0.06	NA	NA	ND
7/21/08	Medford	Mhb2	12:40								9678	NA	NA	NA	NA	NA
7/28/08	Winchester	M01	7:35								2452	NA	0.09	NA	NA	ND
7/28/08	Winchester	M02	7:58								4813	NA	0.09	NA	NA	ND
7/28/08	Winchester	M03	8:14								3683	NA	0.09	NA	NA	ND
7/28/08	Winchester	M04	8:31								156	NA	0.07	NA	NA	ND
7/28/08	Winchester	M05	8:42								126	NA	0.06	NA	NA	ND
7/28/08	Winchester	M06	9:10								44	NA	0.06	NA	NA	ND
7/28/08	Winchester	M07	9:26								4813	NA	0.08	NA	NA	ND
7/28/08	Winchester	M08	9:40								64	NA	0.07	NA	NA	3.11
7/28/08	Winchester	M09	9:55								6212	NA	0.07	NA	NA	ND
7/28/08	Winchester	M10	10:16								5654	NA	0.06	NA	NA	ND
7/28/08	Winchester	M10a	10:30								162	NA	0.07	NA	NA	ND
7/28/08	Winchester	M11	10:48								241	NA	0.07	NA	NA	ND
7/28/08	Winchester	M11d	10:48								248	NA	0.09	NA	NA	ND
7/28/08	Winchester	M12	11:35								6932	NA	0.05	NA	NA	ND
7/28/08	Winchester	M13	12:31								248	NA	NA	NA	NA	NA
8/4/08	Lawrence	SP01	7:16								458	NA	0.08	NA	NA	ND
8/4/08	Lawrence	SP02	7:40								445	NA	0.08	NA	NA	ND
8/4/08	Lawrence	SP03	8:00								395	NA	0.07	NA	NA	ND
8/4/08	Lawrence	SP04	8:23								12	NA	0.24	NA	NA	ND
8/4/08	Lawrence	SP05	8:35								363	NA	0.07	NA	NA	ND
8/4/08	Methuen	SP06	9:05								342	NA	0.08	NA	NA	ND

8/4/08	Methuen	SP07	9:55								12	NA	0.05	NA	NA	ND
8/4/08	Methuen	Mer1	10:45								293	NA	0.07	NA	NA	ND
8/4/08	Salem, NH	SP08	11:43								464	NA	0.07	NA	NA	0.108
8/4/08	Salem, NH	SP08d	11:43								847	NA	0.07	NA	NA	ND
8/4/08	Salem, NH	Mer2	12:02	open stream	na	stream					302	NA	0.07	NA	NA	ND
8/12/08	Stoneham	2Linden	7:18	open stream	na	stream					8800	NA	0.14	NA	NA	0.37
8/12/08	Stoneham	1West	7:29	stone	2x3						4813	NA	NA	NA	NA	0.18
8/12/08	Woburn	US3	7:53	stone	~16inches	na					>241960	NA	0.18	NA	NA	0.14
8/12/08	Woburn	US4	8:03	CM	~24 inches	na					198630	NA	0.17	NA	NA	0.12
8/12/08	Woburn	Mys01	8:35	open stream	na	stream					3922	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys07	8:46	open stream	na	stream					111990	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys08	8:47	open stream	na	stream					1954	NA	0.06	NA	NA	16.40
8/12/08	Woburn	Mys8d	8:47	open stream	na	stream					1954	NA	0.05	NA	NA	16.90
8/12/08	Woburn	Mys81	9:10	open stream	na	stream					992	NA	0.06	NA	NA	15.10
8/12/08	Woburn	Mys 9	9:15								445	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys72	9:45	open stream	na	stream					32550	NA	0.08	NA	NA	3.30
8/12/08	Woburn	Mys71	9:50	open stream	na	stream					57940	NA	0.16	NA	NA	106.00
8/12/08	Woburn	Mys10	10:00								4480	NA	NA	NA	NA	NA
8/12/08	Woburn	Olym1	10:45	open stream	na	stream					3922	NA	0.12	NA	NA	0.26
8/13/08	Methuen	MSPCA1	9:00								80	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA3	9:30								81	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA4	9:40								54	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA5	9:55								136	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA6	10:30								58	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA7	10:40								20	NA	NA	NA	NA	ND
8/21/08	Revere	LinB	7:55								2190	NA	0.07	NA	NA	0.27
8/21/08	Revere	Rt1trib	8:10								351	NA	0.07	NA	NA	0.14
8/21/08	Revere	TLB1	8:25								3266	NA	0.08	NA	NA	0.30
8/21/08	Malden	TLB2	8:47								312	NA	0.10	NA	NA	1.44
8/21/08	Revere	trifone	9:20								14010	NA	0.06	NA	NA	0.11
8/21/08	Chelsea	Mill3	9:55								1844	NA	0.07	NA	NA	0.27
8/21/08	Chelsea	Mill3A	10:04								271	NA	0.06	NA	NA	ND
8/21/08	Chelsea	IsEnd04	10:35								2595	NA	ND	NA	NA	2.68
8/21/08	Everett	IsEnd03A	10:45								11870	NA	0.11	NA	NA	0.82
8/21/08	Everett	IsEnd03B	10:50								3266	NA	0.08	NA	NA	1.17
8/21/08	Everett	Floyd	11:15								48	NA	0.05	NA	NA	0.11
8/21/08	Everett	AF1	11:56								138	NA	0.14	NA	NA	0.41
8/21/08	Medford	Tufts	12:09								91	NA	0.06	NA	NA	0.19
8/25/08	Melrose	Mal1	7:53								774	NA	0.06	NA	NA	0.12
8/25/08	Melrose	OM2	8:15								25	NA	0.16	NA	NA	1.18
8/25/08	Melrose	OM1	8:20								80	NA	0.13	NA	NA	0.14
8/25/08	Melrose	OM3	8:25								12	NA	ND	NA	NA	ND
8/25/08	Melrose	Mal2	9:08								749	NA	0.06	NA	NA	0.10
8/25/08	Melrose	Mal3	10:15								1462	NA	0.06	NA	NA	0.11
8/25/08	Melrose	SP1	10:45								186	NA	ND	NA	NA	0.15
8/25/08	Melrose	Ell1	11:15								1741	NA	0.53	NA	NA	ND
8/25/08	Melrose	Ell1d	11:15								1462	NA	0.21	NA	NA	ND
8/25/08	Melrose	Ell2	11:20								716	NA	0.20	NA	NA	ND
8/25/08	Melrose	Ell3	11:35								23820	NA	0.07	NA	NA	0.09
8/25/08	Melrose	Otis	11:52								96	NA	0.33	NA	NA	ND
8/25/08	Melrose	Roo1	12:12								9678	NA	0.08	NA	NA	0.13
8/25/08	Winchester	M07	12:55								806	NA	0.07	NA	NA	0.24
9/4/08	Medford	WB01	7:08								6212	NA	0.07	NA	NA	0.40
9/4/08	Medford	Ship01	7:42								4	NA	ND	NA	NA	0.49
9/4/08	Medford	Kohl01	8:40								68	NA	0.09	NA	NA	0.50
9/4/08	Everett	IsEnd03A	9:57								86640	NA	0.11	NA	NA	1.03
9/4/08	Everett	IsEnd03B	9:58								9678	NA	0.09	NA	NA	0.56
9/4/08	Chelsea	Mill1A	10:52								406	NA	0.13	NA	NA	0.78
9/4/08	Chelsea	Mill	11:00								7945	NA	0.08	NA	NA	ND
9/4/08	Chelsea	Mill2	11:20	concrete	~30 inches						38	NA	0.24	NA	NA	4.12
9/4/08	Chelsea	Mill2d	11:20								54	NA	0.22	NA	NA	4.01
9/4/08	Winchester	M08A	12:15								408	NA	0.25	NA	NA	0.994
9/11/08	Watertown	Saw1	8:08								395	NA	0.09	NA	NA	ND
9/11/08	Watertown	Saw2	9:04								416	NA	0.09	NA	NA	ND
9/11/08	Watertown	LB1	9:41								2190	NA	0.05	NA	NA	ND
9/11/08	Watertown	Wat5	10:25	concrete	4'						222	NA	0.08	NA	NA	ND
9/11/08	Watertown	Wat6	10:27	concrete	5'						260	NA	0.12	NA	NA	ND
9/11/08	Waltham	Wal23	11:10								4185	NA	0.09	NA	NA	ND
9/11/08	Waltham	Pars	12:01								714	NA	0.07	NA	NA	ND
9/11/08	Waltham	BB1	12:05								2595	NA	0.12	NA	NA	ND
9/11/08	Waltham	CB1	12:59								310	NA	0.09	NA	NA	ND
9/11/08	Waltham	CB1d	12:59								319	NA	0.11	NA	NA	ND
9/11/08	Waltham	1st	13:28								455	NA	0.14	NA	NA	ND
9/15/08	Winchester	MO8	7:35								7945	NA	0.08	NA	NA	0.615
9/15/08	Winchester	MO8main	7:40								5654	NA	0.08	NA	NA	0.876
9/15/08	Winchester	MO5	8:00								373	NA	0.07	NA	NA	ND
9/15/08	Winchester	M12	8:25								7945	NA	0.09	NA	NA	0.63
9/15/08	Woburn	1Merrell	8:40	open stream	na	stream					6212	NA	0.08	NA	NA	0.776
9/15/08	Woburn	1Kraft	8:50								767	NA	0.09	NA	NA	ND
9/15/08	Woburn	McDO1	9:20								5654	NA	0.09	NA	NA	1.02
9/15/08	Stoneham	100A	9:42	open stream	na	stream					1642	NA	0.07	NA	NA	ND
9/15/08	Stoneham	1Linden	9:54								1549	NA	0.06	NA	NA	ND
9/15/08	Stoneham	1Lindend	9:54								1844	NA	0.05	NA	NA	ND
9/15/08	Woburn	US3	10:38	stone	~16inches	na					7945	NA	0.08	NA	NA	ND
9/15/08	Woburn	US4	10:41	CM	~24 inches	na					1164	NA	0.09	NA	NA	ND
9/15/08	Woburn	US5	10:47	open stream	na	stream					2595	NA	0.07	NA	NA	ND

9/15/08	Woburn	Olym2	11:20								568	NA	0.08	NA	NA	ND
9/15/08	Woburn	Olym1	11:31	open stream	na	stream					258	NA	0.08	NA	NA	ND
9/22/08	Woburn	US3	7:14	stone	~16inches	na					1140	NA	0.07	NA	NA	0.132
9/22/08	Woburn	US5	7:24	open stream	na	stream					1102	NA	0.08	NA	NA	0.109
9/22/08	Woburn	Olym2	7:46								1549	NA	0.09	NA	NA	0.196
9/22/08	Woburn	Mys07	8:09	open stream	na	stream					3080	NA	0.06	NA	NA	6.22
9/22/08	Woburn	Mys72	8:51	open stream	na	stream					395	NA	0.07	NA	NA	4.45
9/22/08	Woburn	Mys71	9:00	open stream	na	stream					3466	NA	0.18	NA	NA	124
9/22/08	Stoneham	2dLinden	9:56	open stream	na	stream					3266	NA	0.06	NA	NA	0.098
9/22/08	Stoneham	2Linden	9:56	open stream	na	stream					2747	NA	0.07	NA	NA	0.217
9/22/08	Stoneham	2Lincul	10:10	clay	8"						9678	NA	0.06	NA	NA	0.078
9/22/08	Stoneham	1West	10:45	stone	2x3						54750	NA	0.05	NA	NA	ND
9/22/08	Everett	IsEnd03A	11:40								6932	NA	0.14	NA	NA	0.542
9/22/08	Everett	IsEnd03B	11:42								1164	NA	0.11	NA	NA	0.48
5/13/09	Medford	MHB	8:07	CM			None	None	Clear	None	455	NA	NA	0.10	NA	NA
5/13/09	Medford	MHB2	8:07	CM	24	5-10	None	Yellowish	Light	None	117	NA	NA	ND	NA	NA
5/13/09	Somerville	MysRR	8:39				None	None	Clear	None	39	NA	NA	0.10	NA	NA
5/13/09	Somerville	SOM004	9:29	clay	12	trickle	None	None	Clear	None	39	NA	NA	0.10	NA	NA
5/13/09	Somerville	MWRA205	10:07	CM	4x4 box	me in, some	None	Murky	Light	None	NA	10462	NA	1.80	NA	NA
5/13/09	Winchester	Swan1	11:11	metal	12	50	None	None	Clear	None	98	NA	NA	0.08	NA	NA
5/13/09	Winchester	Swan03	11:19	metal	12		None	None	Clear	None	ND	NA	NA	ND	NA	NA
5/13/09	Stoneham	1West	11:45	stone	2x3		None	None	Clear	None	913	NA	NA	0.10	NA	NA
5/13/09	Stoneham	2Linden	12:05	open stream	na	stream	None	None	Clear	None	2190	NA	NA	0.20	NA	NA
5/13/09	Stoneham	Toms	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	242	NA	NA	0.10	NA	NA
5/13/09	Stoneham	Tomsd	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	186	NA	NA	NA	NA	NA
5/13/09	Stoneham	BearH	12:45	?	6	10-15	None	None	Clear	None	21	NA	NA	0.05	NA	NA
5/19/09	Woburn	Comm1	7:57	open stream	na	stream	none	tea	none	few	82	~20	0.07	0.2	NA	0.174
5/19/09	Woburn	Halls2	8:51	open stream	na	stream	none	light tea	none	None	606	~146	0.06	~0.1	NA	0.161
5/19/09	Woburn	DRR1	9:33	open stream	na	/2 that of halls	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50
5/19/09	Woburn	Mys07	10:01	open stream	na	stream	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/19/09	Woburn	Mys08	10:20	open stream	na	stream	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
5/19/09	Woburn	Mys08d	10:20	open stream	na	stream	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
5/20/09	Woburn	Mys01	7:36	open stream	na	low flow	None	None	Clear	None	~250	NA	NA	0.10	NA	NA
5/20/09	Woburn	Mys01a	8:05	CM	18-24	15-20	None	None	Clear	None	458	NA	NA	0.25	NA	NA
5/20/09	Woburn	DRR1	8:35	open stream	na	stream	None	lightly cloud	Clear	None	126	NA	NA	0.10	NA	NA
5/20/09	Woburn	Halls2	8:35	open stream	na	stream	None	None	Clear	None	406	NA	NA	0.10	NA	NA
5/20/09	Woburn	Mys78	9:06	open stream	na	stream	None	None	Clear	None	160	NA	NA	0.10	NA	NA
5/20/09	Woburn	Comm1	9:30	open stream	na	stream	None	None	Clear	None	68	NA	NA	0.05	NA	NA
5/20/09	Woburn	Comm2	9:30	CM	3x6 box	50-100	ong petrole	None	Clear	None	442	NA	NA	0.10	NA	NA
5/20/09	Reading	WestS	10:15	CM	30	10-15	None	tea	Clear	None	8	NA	NA	NA	NA	NA
5/20/09	Reading	WestW	10:15	CM	5 foot		slight musty	tea	Clear	some suds	52	NA	NA	NA	NA	NA
5/20/09	Reading	Ivale	10:37	open stream	na	stream	None	None	Clear	Some	155	NA	NA	0.15	NA	NA
5/20/09	Reading	Birch	11:06	stone	5x3 ft		None	light tea	Clear	None	1379	NA	NA	0.05	NA	NA
5/20/09	Reading	BirchD	11:06	stone	5x3 ft		None	light tea	Clear	None	1642	NA	NA	0.05	NA	NA
5/20/09	Reading	RHSN	11:32	CM	24		None	None	Clear	None	52	NA	NA	0.20	NA	NA
5/20/09	Reading	RRR1	12:03	CM	4x4 box		None	None	Clear	None	621	NA	NA	NA	NA	NA
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
5/26/09	Chelsea	Mill2	10:06	concrete	~30 inches	5-10gal/min	strong odor	clear	none	some suds	44	20	0.19	1.5	NA	4.31
5/26/09	Chelsea	Mill2B	10:45	CM	~24 inches	1-2gal/min	strong odor	ay/black clou	med	None	100	ND	0.21	1	NA	4.92
5/26/09	Chelsea	Mill2A	11:10	CM	~24 inches	1 gal/min	none	clear	none	None	~4	ND	0.39	1	NA	7.02
5/26/09	Stoneham	SPB0	12:50	open stream	na	stream	none	clear	none	None	21	31	ND	ND	NA	ND
5/26/09	Stoneham	SPB0d	12:50	open stream	na	stream	none	clear	none	None	16	~10	~0.05	ND	NA	ND
5/27/09	Quincy	WollB1	7:58	CM	4x4 box	50-100	sewage odo	None	Clear	Some suds	NA	~12997	NA	1.00	NA	NA
5/27/09	Quincy	WollB2	8:20		18 feet		None	None	Clear	None	NA	~19863	NA	3.00	NA	NA
5/27/09	Quincy	WollB3	8:40	open stream	na	stream	None	None	Clear	None	~2190	NA	NA	0.25	NA	NA
5/27/09	Quincy	WollB4	8:52	open stream	na	stream	None	None	Clear	None	~1045	NA	NA	0.20	NA	NA
5/27/09	Quincy	SAG1	9:15	cement	10x10box		None	tea	cloudy	Yes	~6212	NA	NA	1.00	NA	NA
5/27/09	Boston	Bos090	9:42	CM	10x10box		strong petrole	light tea	very cloudy	None	NA	~1725	NA	1.80	NA	NA
5/27/09	Boston	Bos090d	9:42	CM	10x10box		strong petrole	light tea	very cloudy	None	NA	~10462	NA	NA	NA	NA
5/27/09	Dorcester	Ten1	10:10	Pipe Mat.	24-30		slight petroleu	tan	very muddy	None	NA	~41	NA	1.20	NA	NA
5/27/09	Quincy	Holbel	11:14	CM	30		None	tea	Clear	None	~1741	NA	NA	0.25	NA	NA
5/27/09	Milton	CunPk	11:40	open stream	na	stream	None	light tea	Clear	None	~2908	NA	NA	0.10	NA	NA
5/27/09	Milton	Pine1	12:11	open stream	na	stream	None	tea	Clear	None	~308	NA	NA	0.05	NA	NA
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None	534	78	ND	~0.1	ND	0.2
6/2/09	Medford	MHBup	8:07	open stream	na	stream	none	clear	none	None	48	142	ND	ND	NA	0.086
6/2/09	Belmont	WinB	9:10	open stream	na	stream	none	clear	none	None	6212	2908	ND	0.2	NA	0.21
6/2/09	Belmont	WinBd	9:10	open stream	na	stream	none	clear	none	None	6212	2452	ND	0.2	0.024	0.172
6/2/09	Arlington	91Mys	10:20	open stream	na	stream	musty	cloudy	none	None	>241960	13734	1.3	1.25	0.665	1.53
6/2/09	Arlington	MillB	10:50	CM	10x15ft	na	musty	very cloudy	none	None	550	445	0.06	0.2	0.031	0.206
6/3/09	Methuen	SP06	7:38	open stream	na	stream	None	None	Clear	None	124	NA	NA	0.10	NA	NA
6/3/09	Methuen	SP07	8:10	open stream	na	stream	None	None	Clear	None	86	NA	NA	ND	NA	NA
6/3/09	Methuen	SP071	8:12	Pipe Mat.	12	30	None	None	Clear	None	ND	NA	NA	ND	NA	NA
6/3/09	Methuen	Mer1	8:57	open stream	na	stream	None	tea	very	None	58	NA	NA	0.10	NA	NA
6/3/09	Salem, NH	Mer2	9:22	open stream	na	stream	None	reddish	med	None	48	NA	NA	0.10	NA	NA
6/3/09	Salem, NH	Mer3	9:46	open stream	na	stream	None	tea	Clear	None	75	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer5	10:45	open stream	na	stream	None	tea	Clear	None	465	NA	NA	0.15	NA	NA
6/3/09	Salem, NH	Mer6a	11:13				None	tea	Clear	None	293	NA	NA	0.20	NA	NA
6/3/09	Salem, NH	Mer6b	11:20				None	light tea	Clear	None	142	NA	NA	0.25	NA	NA
6/3/09	Salem, NH	Mer7	11:46	CM	3-4 ft		None	light tea	Clear	None	166	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer7d	11:46	CM	3-4ft		None	light tea	Clear	None	114	NA	NA	NA	NA	NA
6/3/09	Salem, NH	Mer8	12:07	open stream	na	low flow	None	None	Clear	None	126	NA	NA	ND	NA	NA
6/3/09	Salem, NH	Mer8a	12:08	Pipe Mat.	12	5	strong	orange-ish	Clear	None	4	NA	NA	0.05	NA	NA
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
6/9/09	Quincy	WollB5	8:25	CM	16	10-15gal/min	none	clear	none	None	ND	ND	ND	0.2	0.046	0.624
6/9/09	Dorchester	Ten1	9:35	Pipe Mat.	24-30	na	none	tan	very, very	None	96	21	0.08	2	0.048	1.28
6/9/09	Boston	Bos090	9:57	CM	10x10 box	na	musty	tea/tan	some	None	54750	149	0.14	2	0.091	0.823

6/9/09	Dorchester	CantB	11:35	open stream	na	stream	husty/sewag	blue/grayish	some	None	198630	34658	1.6	1.5	1.03	4.66
6/9/09	Dorchester	CantBD	11:35	open stream	na	stream	husty/sewag	blue/grayish	some	None	173290	48392	1.5	1.5	1.05	4.75
6/10/09	Haverhill	Broad	8:30	open stream	na	stream	None	None	Clear	None	250	NA	NA	ND	NA	NA
6/10/09	Haverhill	Coffin	8:48	metal	24	60	None	None	Clear	None	30	NA	NA	ND	NA	NA
6/10/09	Groveland	Main1	9:17	open stream	na	stream	None	tea	Clear	None	112	NA	NA	0.15	NA	NA
6/10/09	Groveland	Main2	9:26	open stream	na	stream	None	None	Clear	None	84	NA	NA	ND	NA	NA
6/10/09	Haverhill	Wash1	10:30	metal	12	5-10gal/min	None	None	some suds	None	154	NA	NA	0.75	NA	NA
6/10/09	Haverhill	LR1	10:48	CM	15ft 1/2 circle		musty	tea/tan	light	None	953	NA	NA	0.20	NA	NA
6/10/09	Haverhill	LR2	11:30	open stream	na	stream	None	None	cloudy	None	318	NA	NA	ND	NA	NA
6/10/09	Haverhill	LR2D	11:30	open stream	na	stream	None	None	Clear	None	445	NA	NA	NA	NA	NA
6/10/09	Lawrence	Shaw1	12:30	open stream	na	stream	musty	tea	yes	None	353	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE1	12:58	open stream	na	stream	None	light tea	Clear	None	251	NA	NA	0.10	NA	NA
6/10/09	Lawrence	SLE2	13:02	open stream	na	stream	None	light tea	Clear	None	328	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE3	13:11	concrete	3'		strong musty o	None	Clear	None	616	NA	NA	0.10	NA	NA
6/16/09	Danvers	Fish004	7:55	open stream	na	stream	none	light tan	none	None	250	468	~0.05	0.2	0.028	ND
6/16/09	Danvers	Fish005	8:35	open stream	na	stream	none	clear	none	None	333	714	ND	~0.1	0.022	ND
6/16/09	Marblehead	Stram01	10:05	open stream	na	stream	none	very light tea	none	None	489	434	~0.05	ND	0.029	0.37
6/16/09	Marblehead	Stram02	10:40	open stream	na	stream	none	very light tea	none	None	494	452	~0.05	ND	0.04	0.193
6/16/09	Lynn	Stacey	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	22398	0.31	0.4	0.216	1.04
6/16/09	Lynn	StaceyD	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	24066	0.29	0.4	0.208	0.949
6/17/09	Peabody	Pro01	8:00	nnelized stream	15-20ft		none	None	Clear	None	80	NA	NA	ND	NA	NA
6/17/09	Peabody	Strong01	8:02	nnelized stream	3-4ft		None	None	Clear	None	242	NA	NA	ND	NA	NA
6/17/09	Peabody	Pro02A	8:20	open stream	na	stream	None	tea	Clear	None	142	NA	NA	0.10	NA	NA
6/17/09	Peabody	Pro02	8:30	nnelized stream	na		none	tea	some suds	None	30	NA	NA	0.10	NA	NA
6/17/09	Peabody	Strong02	8:55	culverted stream	na		NS	light tannin	NS	NS	568	NA	NA	ND	NA	NA
6/17/09	Salem	Der01P	9:35	Pipe	2-2.5ft	5-10	sewage odo	None	Clear	NS	NA	223	NA	1.50	NA	NA
6/17/09	Salem	NorR01P	10:05	Concrete pipe	2-3ft	5-10	ht, musty od	NS	low	NS	NA	4106	NA	1.80	NA	NA
6/17/09	Marblehead	GO01	10:56	cement	36in	50	None	None	Clear	None	471	NA	NA	0.10	NA	NA
6/17/09	Marblehead	GO02	11:03	open stream	na	stream	ht, musty od	None	Clear	None	542	NA	NA	0.20	NA	NA
6/17/09	Marblehead	GO03	11:15	open stream	na	stream	None	ght tea/orang	some suds	None	933	NA	NA	0.20	NA	NA
6/17/09	Lynn	StaceyS	12:11	CM	4'x8'		NS	None	Clear	None	NA	14136	NA	0.70	NA	NA
6/17/09	Swampscot	StaceyN	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	0.50	NA	NA
6/17/09	Swampscot	StaceyND	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	NA	NA	NA
7/14/09	Milton	UNB016	8:36	open stream	na	stream	none	clear	none	None	599	109	ND	~0.1	ND	0.304
7/14/09	Milton	UNB002	9:02	CM bridge	3'x6' box	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37
7/14/09	Quincy	WollB2	9:50	open stream	na	ery strong flo	none	tea	yes	None	265	~8	ND	2	0.029	0.094
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
7/15/09	Winchester	UMLake1	7:50	open stream	na	stream	none	light tea	yes	none	~258	NA	NA	0.10	NA	NA
7/15/09	Winchester	Water1	8:02	open stream	na	stream	none	dark tea	cloudy	None	~410	NA	NA	0.13	NA	NA
7/15/09	Winchester	Swan1a	8:17	open stream	na	stream	none	light tea	Clear	None	~510	NA	NA	0.20	NA	NA
7/15/09	Winchester	Witt1	8:33	open stream	na	stream	none	light tea	Clear	None	~34	NA	NA	0.10	NA	NA
7/15/09	Woburn	1Merrell	8:55	open stream	na	stream	none	light tea	lightly turbi	None	~494	NA	NA	0.10	NA	NA
7/15/09	Woburn	Mys01bb	9:25	open stream	na	stream	None	None	Clear	None	~93	NA	NA	0.20	NA	NA
7/15/09	Woburn	Mys01a	9:35	CM	18-24	20-40	None	None	Clear	None	~12	NA	NA	0.40	NA	NA
7/15/09	Woburn	Halls2	9:50	open stream	na	stream	None	light tea	Clear	None	~448	NA	NA	0.10	NA	NA
7/15/09	Woburn	DRR1	9:52	open stream	na	stream	None	light tea	Clear	None	~268	NA	NA	0.10	NA	NA
7/15/09	Woburn	UR002	9:52	open stream	na	stream	None	light tea	Clear	None	NA	NA	NA	0.10	NA	NA
7/15/09	Reading	ArnoldA	11:00	open stream	na	stream	None	light tea	Clear	None	~1164	NA	NA	0.10	NA	NA
7/15/09	Reading	Birch	11:35	stone	5x3 ft		None	light tea	Clear	None	~125	NA	NA	0.20	NA	NA
7/15/09	Reading	RHSN	11:53	CM	24		None	light tea	Clear	ht scum on	~90	NA	NA	0.20	NA	NA
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
7/21/09	Stoneham	2Linden	9:35	open stream	na	stream	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
7/21/09	Stoneham	Elm1	10:10	open stream	na	40-50	lightly must	med tea	none	None	~51720	~5654	~0.12	0.3	0.083	0.578
7/21/09	Stoneham	Toms	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	UR003	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
7/21/09	Stoneham	Toms	11:30	tal w/asphalt bot	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
7/22/09	Winchester	Russ1	7:55	Stone (instream)	4'X4'		slightly must	None	Clear	some suds*	1954	NA	NA	0.10	NA	NA
7/22/09	Winchester	HPB2	8:00	open stream	na	stream	None	light tea	cloudy	None	30	NA	NA	0.05	NA	NA
7/22/09	Woburn	OF119	8:25	rugated black pla	12"	5-6	sewage odo	None	Clear	None	875	NA	NA	0.20	NA	NA
7/22/09	Woburn	OF118	8:30	concrete	30"	30	musty	None	cloudy	some suds	2452	NA	NA	0.24	NA	NA
7/22/09	Woburn	UR004	8:30	large concrete		30	musty	None	cloudy	some suds	3466	NA	NA	NA	NA	NA
7/22/09	Woburn	OF119a	9:05	rugated black pla	12"	10	ht sewage o	None	Clear	None	146	NA	NA	0.15	NA	NA
7/22/09	Woburn	OF118up	9:28	metal	18"-20"	20	None	None	Clear	None	5199	NA	NA	0.30	NA	NA
7/22/09	Woburn	Cumming1	9:55	open stream	na	stream	None	light tea	Clear	e trash and d	650	NA	NA	0.15	NA	NA
7/22/09	Woburn	Cumming2	10:16	open stream	na	stream	None	med tea	Clear	e trash and d	542	NA	NA	0.10	NA	NA
7/22/09	Woburn	LB1	10:17	Concrete pipe	3'	30	None	None	Clear	None	688	NA	NA	0.10	NA	NA
7/22/09	Woburn	LB2	10:35	stone	2'x3'	60-75	None	light tea	Clear	None	396	NA	NA	0.20	NA	NA
7/22/09	Woburn	SGB1	10:50	cement	7'across		None	light tea	lightly turbi	None	566	NA	NA	0.10	NA	NA
7/22/09	Woburn	SGB2	11:10	stone	2'x2'	20-30	None	None	Clear	None	326	NA	NA	0.20	NA	NA
7/28/09	Chelsea	Mill2	8:05	concrete	~30 inches	15	sharp sewa	clear	none	None	310	12	0.23	0.8	0.126	3.84
7/28/09	Everett	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None	9678	388	0.1	0.8	0.054	0.831
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'		strong petroleum	tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/28/09	Chelsea	IsEnd03	9:26	CM, semi-round	12'		strong petroleum	blue/grayish	cloudy	ome soap su	16740	368	0.09	1.5	0.055	1.76
7/28/09	Chelsea	UR005	9:26	CM, semi-round	12'		strong petroleum	blue/grayish	cloudy	ome soap su	15850	435	0.09	1.5	0.05	1.64
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box		slight sewage o	gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
7/29/09	Chelsea	Mill2	8:30	concrete	~30 inches	10	strong odor	clear	none	none	NA	52	NA	0.70	NA	NA
7/29/09	Chelsea	Mill2A	8:40			3	dor - chemi	None	none	None	NA	10	NA	0.75	NA	NA
7/29/09	Revere	SD08A	9:45	NS	NS	15-20	ht sewage o	NS	NS	None	NA	10	NA	0.60	NA	NA
7/29/09	Revere	SD10A	10:00	plastic	12"	3	ht sewage o	NS	NS	gnificant foa	NA	20	NA	0.25	NA	NA
7/29/09	Revere	WashN01	10:10	concrete	24		none	NS	NS	None	NA	2282	NA	0.75	NA	NA
7/29/09	Revere	SalesN	10:15	NS	NS		none	NS	NS	None	NA	295	NA	0.75	NA	NA
7/29/09	Revere	SalesE	10:25	NS	24"+		none	tan	y turbid; clo	None	NA	95	NA	0.70	NA	NA
7/29/09	Revere	Green01	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	0.70	NA	NA
7/29/09	Revere	UR006	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	NA	NA	NA

7/29/09	Revere	Wonder01	11:50	CM	4'		None	None	none	None	NA	185	NA	0.40	NA	NA
7/29/09	Revere	STRACC1	12:05	NS	NS		None	NS	NS	NS	NA	605	NA	0.40	NA	NA
7/29/09	Everett	IsEnd03B	12:40	NS	NS	20	slight musty	orange	very cloudy	None	NA	ND	NA	0.25	NA	NA
8/4/09	Winchester	Russ1	8:00	Stone (instream)	4'X4'	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
8/4/09	Woburn	US5	9:05	open stream	na	stream	none	light tea	clear	None	542	184	ND	ND	0.032	0.133
8/4/09	Woburn	Olym1	9:55	open stream	na	stream	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
8/5/09	Norwood	HABout01	7:38	CM	36in	30-40gal/min	None	light tannin	Clear	None	714	NA	NA	0.05	NA	NA
8/5/09	Norwood	HAB01	7:40	open stream	na	stream	None	None	Clear	None	92	NA	NA	ND	NA	NA
8/5/09	Norwood	HAB02	8:20	open stream	na	stream	None	heavy tea	Clear	some suds	25	NA	NA	0.05	NA	NA
8/5/09	Norwood	Htrib01	8:22	open stream	na	stream	None	light tea	Clear	None	445	NA	NA	0.10	NA	NA
8/5/09	Norwood	Htribout1	8:35	concrete	4'		None	None	ightly cloud	None	225	NA	NA	ND	NA	NA
8/5/09	Norwood	Htrib03	9:01	open stream	na	stream	None	light tea	Clear	None	818	NA	NA	ND	NA	NA
8/5/09	Norwood	Htrib03a	9:04	Concrete pipe	12"		None	None	ightly cloud	None	21	NA	NA	0.20	NA	NA
8/5/09	Norwood	Htrib04	9:14	open stream	na	stream	None	light tannin	Clear	None	714	NA	NA	0.10	NA	NA
8/5/09	Norwood	MB01	9:45	open stream	na	stream	None	None	Clear	some suds	740	NA	NA	0.25	NA	NA
8/5/09	Norwood	MB02	10:10	cement	4'		slight sewage o	None	ightly cloud	None	15760	NA	NA	0.25	NA	NA
8/5/09	Norwood	UR008	10:10	cement	4'		slight sewage o	None	ightly cloud	None	15650	NA	NA	0.25	NA	NA
8/5/09	Norwood	PB01	11:06	open stream	na	stream	None	light tea	Clear	None	953	NA	NA	0.10	NA	NA
8/5/09	Norwood	PB02	11:24		2-3ft	20	y and natur	None	Clear	None	4185	NA	NA	0.15	NA	NA
8/11/09	Quincy	Canal1	7:55	concrete	6'x8' box	na	slight musty	clear	none	None	1844	417	~0.05	0.15	0.038	0.22
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA
8/11/09	Quincy	WollB1B	9:40	concrete	3-4'	15	musty	clear	none	None	133	12	ND	2.2	ND	ND
8/11/09	Quincy	WollB1A	9:45	CM	3'x3' box	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/12/09	Milton	CunPk	8:05	open stream	na	stream	None	None	Clear	None	2069	NA	NA	0.20	NA	NA
8/12/09	Milton	CunPk02	8:12	cement	2, 2'	30	None	None	Clear	None	3466	NA	NA	0.30	NA	NA
8/12/09	Quincy	FBP02A	8:37	seep below pipe		3	None	None	Clear	None	12	NA	NA	0.20	NA	NA
8/12/09	Quincy	FBP02	8:40	open stream	na	stream	None	None	Clear	None	4813	NA	NA	0.20	NA	NA
8/12/09	Quincy	FBP03	9:10	cement	2, 3'		None	None	Clear	None	2069	NA	NA	0.10	NA	NA
8/12/09	Quincy	FBP04	9:20	block w/ granite	5' x 5 box'		None	None	Clear	None	714	NA	NA	0.05	NA	NA
8/12/09	Quincy	Broad1	9:46	cement	3' x 3' box		Odor*	light brown	ightly cloud	some suds	NA	578	NA	1.50	NA	NA
8/12/09	Quincy	SAG1	10:20	cement	10x10box		petroleum od	very brown	y turbid; clo	some suds	NA	2359	NA	2.00	NA	NA
8/12/09	Quincy	SAG2	10:22	seep	na	3 gal/min	strong sulfu	None	Clear	None	NA	ND	NA	0.60	NA	NA
8/12/09	Quincy	WollB1A	10:50	CM	3'x3' box		musty/sulfur	gray	cloudy	None	NA	2755	NA	2.00	NA	NA
8/12/09	Quincy	WolB1B	10:52	cement	3-4 ft		slight musty/su	None	clear	None	NA	262	NA	2.00	NA	NA
8/12/09	Quincy	WollB1	11:00	CM	4x4 box		sulfur	None	Clear	None	NA	1720	NA	0.75	NA	NA
8/12/09	Quincy	Canal1	11:30	cement	6' x 8' box		None	None	Clear	None	2747	NA	NA	0.15	NA	NA
8/12/09	Quincy	UR010	11:30	cement	6' x 8' box		None	None	Clear	None	4185	NA	NA	0.10	NA	NA
8/18/09	Plymouth	Eel1	9:20	open stream	na	stream	none	light tan	clear	None	30	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel2	9:30	open stream	na	stream	none	light tan	clear	None	70	82	ND	ND	ND	ND
8/18/09	Plymouth	UR011	9:30	open stream	na	stream	none	light tan	clear	None	140	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel3	9:40	open stream	na	stream	none	light tan	clear	None	1741	452	ND	ND	ND	0.092
8/18/09	Plymouth	SandRd1	10:00	clay	16	4	none	light tan	clear	None	265	172	ND	~0.1	0.021	ND
8/18/09	Plymouth	SandRd2	11:40	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088
8/19/09	Lawrence	SPR01	7:55	open stream	na	stream	None	None	Clear	None	96	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR02	8:00	open stream	na	stream	musty	None	Clear	None	96	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR03	8:10	open stream	na	stream	None	None	Clear	some suds*	319	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR04	8:15	k from concrete pipe			None	None	Clear	None	ND	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	light sewag	None	Clear	None	1741	NA	NA	0.25	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	157	NA	NA	0.10	NA	NA
8/19/09	Lawrence	UR012	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	174	NA	NA	NA	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'		strong, musty sewa	None	Clear	None	34	NA	NA	0.20	NA	NA
8/19/09	Andover	Huss01	10:50	stone box	10' x 5'	na	None	light tea	Clear	None	2595	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal01	11:11	concrete	12"		None	orange	Clear	None	ND	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal02	11:15	concrete	12"		None	None	Clear	None	ND	NA	NA	0.20	NA	NA
8/19/09	Andover	York1	11:45	cement	3' x 3' box		None	None	Clear	None	16	NA	NA	ND	NA	NA
8/19/09	Andover	Plaza	12:15	cement	2.5'		None	None	Clear	None	8	NA	NA	0.10	NA	NA
8/25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	husty/sewag	None	ightly cloud	None	33000	3683	0.22	0.4	0.133	0.4
8/25/09	Boston	Blueup	8:00	open stream	na	stream	none	tan	clear	None	226	64	~0.05	~0.1	0.028	ND
8/25/09	Boston	Mother	9:05	open stream	na	stream	none	light tea	clear	None	129	56	0.06	ND	0.046	ND
8/25/09	Boston	NR204	10:00	concrete	3 feet	15	g sewage/la	None	ightly cloud	hite/gray pa	>241960	>48392	8.7	>3	0.975	20.1
8/25/09	Boston	NR162	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	198630	5226	0.89	3	0.6	13.2
8/25/09	Boston	UR013	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	241960	5510	0.92	2.75	0.635	12.4
8/25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	1741	149	~0.05	0.25	0.023	0.598
8/25/09	Boston	Esp01	12:02	open stream	na	stream	none	tea	clear	None	241	58	0.07	~0.1	0.03	0.1
8/26/09	Milton	Milt01	8:10	open stream	na	stream	None	None	Clear	None	689	NA	NA	ND	NA	NA
8/26/09	Milton	Milt02	8:35	open stream	na	stream	None	None	Clear	None	407	NA	NA	ND	NA	NA
8/26/09	Boston	Milt03	8:36	concrete	18"	0.5	lightly must	None	Clear	None	32550	NA	NA	0.50	NA	NA
8/26/09	Boston	UR014	8:36	concrete	18"		slightly must	None	Clear	None	46110	NA	NA	0.50	NA	NA
8/26/09	Milton	Milt04	8:50	open stream	na	stream	None	light tea	Clear	some suds	302	NA	NA	0.05	NA	NA
8/26/09	Milton	Milt05A	9:15	clay tile	12"	5	None	None	Clear	None	132	NA	NA	ND	NA	NA
8/26/09	Milton	Milt05	9:20	open stream	na	stream	None	light tea	Clear	None	232	NA	NA	0.10	NA	NA
8/26/09	Boston	Bos5049	9:50	cement	24"	12	slight Cl2	None	Clear	None	ND	NA	NA	ND	NA	NA
8/26/09	Boston	NR285	10:40	cement	6'x4' semi-circle	30	g sewage/la	None	ightly cloud	Suds	9678	NA	NA	>3	NA	NA
8/26/09	Boston	MB03	12:00	open stream	na	stream	None	red/orange	cloudy	im on surfac	345	NA	NA	1.25	NA	NA
8/26/09	Boston	Mother01	12:05	open stream	na	stream	None	light tannin	Clear	None	80	NA	NA	ND	NA	NA
8/26/09	Boston	NR160	12:35	cement	2'	3	sewage odo	None	Clear	None	518	NA	NA	0.10	NA	NA
8/26/09	Boston	NR160A	12:40	cement	2'	5	None	None	Clear	some suds	113	NA	NA	ND	NA	NA
9/1/09	Woburn	Halls2	7:35	open stream	na	stream	None	light brown	clear	None	2595	602	ND	~0.1	0.029	0.218
9/1/09	Woburn	DRR1	7:45	open stream	na	stream	None	light brown	clear	None	4185	12976	ND	0.25	0.035	8.99
9/1/09	Woburn	Mys08	9:30	open stream	na	stream	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3

9/1/09	Woburn	UR015	9:30	open stream	na	stream	None	light brown	clear	None	422	148	ND	NA	0.021	14
9/1/09	Woburn	Mys78	10:15	open stream	na	stream	light oil sme	None	clear	None	5199	10344	ND	0.25	0.031	10.1
9/1/09	Woburn	Mys09	10:45	open stream	na	stream	None	None	clear	None	205	82	ND	~0.1	ND	16
9/8/09	Watertown	SawB01	8:45	open stream	na	50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage o	None	clear	None	~4	ND	NA	0.25	NA	NA
9/8/09	Newton	Hyde01	9:45	concrete	4x8 box	100	None	None	clear	None	5654	1424	ND	0.2	ND	ND
9/8/09	Newton	Laund01	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1462	492	ND	~0.1	ND	ND
9/8/09	Newton	UR016	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1954	544	~0.05	~0.1	ND	ND
9/8/09	Newton	Chee01	11:11	open stream	na	50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND
9/8/09	Waltham	Beav01	11:35	concrete	3x10 box	na	None	None	ightly cloud	some suds	713	292	~0.05	0.2	0.023	0.162
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None	44	40	~0.05	ND	0.03	0.266
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None	29090	2752	0.08	NA	0.19	1.12
9/15/09	Lowell	Beaver1a	7:37	concrete	4'	15	None	None	clear	None	8	75	ND	0.25	ND	ND
9/15/09	Lowell	Beaver1	7:40	open stream	na	stream	None	light tea	clear	None	117	63	NA	~0.1	NA	NA
9/15/09	Lowell	Suffolk1	8:40	open stream	na	stream	None	light tea	clear	None	208	41	ND	ND	0.024	ND
9/15/09	Lowell	Central1	9:15	open stream	na	stream	None	None	clear	some suds	58	~10	ND	~0.1	0.024	0.088
9/15/09	Lowell	RMB1	10:10	open stream	na	stream	None	light tea	clear	some suds	1844	281	~0.05	0.25	0.022	ND
9/15/09	Lowell	UR017	10:10	open stream	na	stream	None	light tea	clear	some suds	2069	465	~0.05	0.25	0.046	ND
9/15/09	Lowell	NewH1	10:50	open stream	na	stream	None	light tea	clear	some suds	164	275	NA	0.2	NA	NA
9/15/09	Lowell	BlackB1	11:25	open stream	na	stream	None	None	murky	None	154	798	0.07	0.25	0.028	0.443
9/15/09	Lowell	BlackB2	12:00	open stream	na	stream	None	None	clear	None	182	97	NA	0.2	NA	NA
9/22/09	Reading	RRR1	8:10	CM	4x4 box	na	None	None	clear	None	21	20	ND	0.25	0.022	ND
9/22/09	Andover	RogerD	9:00	concrete	5'	na	musty odor	rk tea staini	clear	some suds	442	657	~0.05	~0.1	0.67	0.098
9/22/09	Andover	Rogerup	9:32	open stream	na	stream	no odor	med tea	clear	some suds	44	6488	~0.05	0.2	1.31	ND
9/22/09	Andover	Huss01	10:20	stone box	10' x 5'	na	None	light tea	clear	some suds	2319	987	ND	0.2	0.036	0.079
9/22/09	Andover	Huss02	10:50	open stream	na	stream	None	light tea	clear	None	39	ND	NA	ND	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete	3'	na	slight musty	None	Clear	None	205	445	ND	~0.1	ND	ND
9/22/09	Lawrence	UR018	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	279	249	ND	~0.1	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	slight musty	None	Clear	Yes, paper	29870	19863	~0.05	0.25	0.05	7.02
9/22/09	Lowell	RMB1	13:20	open stream	na	stream	None	light tea	Clear	None	1642	199	ND	~0.1	0.031	0.138
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	d sewage sr	None	Mild	Leave, bubb	1954	6131	0.06	0.18	0.041	0.291
9/29/09	Milton	CunPk03	9:30	open stream	na	stream	None	None	Clear	Foam	1164	2098	0.06	~0.1	0.038	0.206
9/29/09	Norwood	PB02A	10:45		18"	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1
9/29/09	Norwood	PB02B	11:00	open stream	na	stream	None	light brown	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
4/21/10	Arlington	91Mys	8:00	open stream	na	stream	none	heavy tea	cloudy	some suds	152	41	NA	~0.1	NA	NA
4/21/10	Arlington	MillB	8:10	CM	10x15ft	na	strong must	heavy tea	fairly clear	suds	395	52	0.06	~0.1	NA	0.124
4/21/10	Arlington	MBike	8:50	Stone (instream)	10'X8'	stream	moderate	med tea	clear	none	268	233	NA	~0.1	NA	NA
4/21/10	Arlington	AHS	9:05	open stream	na	stream	none	light tea	clear	some	666	213	0.06	ND	NA	ND
4/21/10	Arlington	UR020	9:05	open stream	na	stream	none	light tea	clear	some	1549	173	0.06	ND	NA	ND
4/21/10	Arlington	Grove01	9:40	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	4480	529	0.06	~0.1	NA	0.079
4/21/10	Arlington	GroveS	9:45	concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
4/21/10	Arlington	Quinn2	10:30	concrete	12"	19.0040741	fresh	none	clear	none	ND	ND	0.05	0.3	NA	ND
4/21/10	Arlington	RyMill	11:05	concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
4/21/10	Arlington	RyMill2	11:10	hole in wall	na	2.00407407	none	none	clear	none	ND	ND	NA	0.2	NA	NA
4/21/10	Arlington	RyderE	11:20	concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
4/21/10	Arlington	RyderW	11:30	concrete	36"	20-30	none	none	clear	none	30	20	ND	ND	NA	ND
4/21/10	Arlington	30Park	12:25	open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
4/28/10	Winchester	ABR006	8:30	open stream	na	stream	none	none	fairly clear	leaves/bran	899	199	0.09	0.2	NA	0.528
4/28/10	Winchester	Wfield	8:50	open stream	na	stream	none	none	lightly turbi	some	839	317	NA	0.22	NA	NA
4/28/10	Winchester	Vern01	9:15	open stream	na	stream	none	none	lightly turbi	leaves/bran	643	108	NA	0.22	NA	NA
4/28/10	Winchester	Wedge01	9:32	open stream	na	stream	none	none	lightly turbi	some	58	10	NA	~0.1	NA	NA
4/28/10	Winchester	Skill01	9:50	oncrete (instrean	3'	stream	none	blueish/gray	turbid	some	913	148	0.1	0.25	NA	0.844
4/28/10	Winchester	UR021	9:50	oncrete (instrean	3'	stream	none	blueish/gray	turbid	some	1642	132	0.1	0.25	NA	0.837
4/28/10	Winchester	Skill02	9:55	concrete	12"	5-10	none	none	fairly clear	none	75	30	NA	~0.1	NA	NA
4/28/10	Winchester	Swan1	10:45	open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
4/28/10	Woburn	OF118	11:35	concrete	30"	50	none	none	clear	some suds	154	52	0.07	0.3	NA	0.381
4/28/10	Woburn	OF159A	12:04	Cor.Metal	18"	5-10	none	none	clear	none	268	156	NA	0.3	NA	NA
4/28/10	Woburn	OF159	12:05	Cor.Metal	24-30"	20-30	light sewag	none	clear	none	318	109	0.1	0.25	NA	1.38
4/28/10	Woburn	OF161	12:15	Cor. Metal	5'	stream	slight musty	none	lightly turbi	some	1642	148	ND	0.3	NA	0.153
5/5/10	Arlington	Grove01a	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2747	520	0.07	~0.1	NA	0.101
5/5/10	Arlington	GroveS	8:10	concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Arlington	Robin	8:45	bose joint grey til	24"	10-15	ght natural g	none	clear	none	9678	295	NA	0.4	NA	NA
5/5/10	Arlington	Brattle	9:10	open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	RyMill	9:25	concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	RyderE	9:32	concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
5/5/10	Arlington	Ryder01	9:35	Stone (instream)	6'	stream	none	light tea	fairly clear	some suds	1954	350	0.07	~0.1	NA	0.135
5/5/10	Arlington	30Park	10:10	open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	1395MA	10:30	open stream	na	stream	none	light tea	lightly turbi	none	689	323	0.06	ND	NA	0.133
5/5/10	Arlington	Drake01	10:55	open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/5/10	Arlington	ArlRes	11:05	concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
5/5/10	Lexington	Vine01	11:55	open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/12/10	Woburn	Halls2	8:00	open stream	na	stream	none	light brown	na	none	212	109	NA	~0.1	NA	NA
5/12/10	Woburn	DRR1	8:15	open stream	na	stream	none	light brown	clear	none	182	448	NA	~0.1	NA	NA
5/12/10	Woburn	Mys07	9:05	open stream	na	stream	hulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
5/12/10	Woburn	Mys08	9:10	open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/12/10	Woburn	Torr01	10:00	open stream	na	stream	none	light brown	clear	none	223	120	NA	0.25	NA	NA
5/12/10	Woburn	UR023	10:00	open stream	na	stream	none	light brown	clear	none	182	52	NA	0.25	NA	NA
5/12/10	Woburn	Dart1	10:30	open stream	na	stream	none	dark brown	clear	some suds	64	31	NA	0.2	NA	NA
5/12/10	Woburn	School01	11:05	open stream	na	stream	none	dark brown	clear	none	109	20	NA	0.25	NA	NA
5/19/10	Quincy	FBP02	8:15	open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
5/19/10	Quincy	UR024	8:15	open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA

5/19/10	Quincy	FBP03	8:55	open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/19/10	Quincy	Broad1	9:25	open stream	na	stream	none	none	clear	none	3466	2755	NA	2	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
5/26/10	Belmont	UR025	9:10	open stream	na	stream	g musty/se	med tea	lightly turbi	none	29090	7701	NA	0.2	NA	NA
5/26/10	Belmont	WEB013	9:10	open stream	na	stream	g musty/se	med tea	lightly turbi	none	11620	6488	NA	0.2	NA	NA
5/26/10	Arlington	ARL043	9:58	concrete	18-24	5	none	none	clear	none	79	109	NA	~0.1	NA	NA
5/26/10	Arlington	ARL137	10:25	clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	NA
5/26/10	Arlington	ARL207	11:07	seep	na	1-2	brassica	na	na	na	25	20	NA	~0.1	NA	NA
5/26/10	Arlington	Drake01	11:25	open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
5/26/10	Arlington	ArlRes	11:30	concrete	3'	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/26/10	Lexington	Bow01A	12:00	concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	NA
5/26/10	Lexington	Bow01	12:05	open stream	na	stream	none	med tea	lightly turbi	none	643	809	NA	~0.1	NA	NA
5/26/10	Lexington	Fott01	12:35	open stream	na	stream	none	med tea	lightly turbi	none	124	199	NA	ND	NA	NA
5/26/10	Lexington	GMS01	12:55	open stream	na	stream	none	heavy tea	very murky	thick film	72	52	NA	0.2	NA	NA
6/2/10	Revere	UR026	8:01	concrete	24	NA	none	brown	turbid	none	20640	9606	NA	0.4	NA	NA
6/2/10	Revere	WashN01	8:01	concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/2/10	Revere	Sales01	8:10	open stream	na	stream	none	light brown	fairly clear	trash	4813	2359	NA	0.4	NA	NA
6/2/10	Revere	Green01	8:40	open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
6/2/10	Boston	29M049	9:10	concrete	3ft	30-40	none	none	lightly turbi	none	714	3873	NA	3	NA	NA
6/2/10	Boston	25L058	9:50	concrete	6x6ft box	na	musty	grey	turbid	trash	2069	3448	NA	2	NA	NA
6/2/10	Boston	Bos017	10:20	concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
6/2/10	Boston	29J212	10:22	concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
6/2/10	Chelsea	Mill2A	11:20	concrete	24	<5	usty/chemic	none	clear	trash	58	175	NA	0.8	NA	NA
6/10/10	Lawrence	SLE3	7:25	concrete	3'	NA	strong must	vhite/tan/gra	ightly cloud	ilamentous	1954	2359	NA	1	NA	NA
6/10/10	Lawrence	UR027	7:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	1741	1314	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete	3'	NA	strong must	none	ightly cloud	ilamentous	899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete	3'	NA	strong must	none	ightly cloud	ilamentous	806	2014	NA	0.5	NA	NA
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clear	none	NA	NA	NA	0.5	NA	NA
6/16/10	Concord, M	PRIS01	11:00	concrete	2ft	2	sewage	none	clear	none	16160	10462	NA	0.8	NA	NA
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	NA
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	NA
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	NA
6/30/10	Falmouth	24IN01	9:30								25	ND	NA	0.25	NA	NA
6/30/10	Falmouth	INF01	9:30								461100	290900	NA	1	NA	NA
6/30/10	Falmouth	12INWA	9:40								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	STE01	9:45								547500	186000	NA	0.75	NA	NA
6/30/10	Falmouth	UR099	9:45								686700	119800	NA	0.75	NA	NA
7/7/10	Manchester	Dunbar	8:20	Stone culvert	3x4	150	ng petroleu	oil sheen	turbid	rash & debri	1089	422	NA	ND	NA	NA
7/7/10	Manchester	Granite	9:00	concrete	4ft	35	rong sewag	none	clear	none	125	110	NA	0.5	NA	NA
7/7/10	Manchester	047N	9:40	concrete	4ft	15-20	rong sewag	none	ightly cloud	none	4	ND	NA	0.25	NA	NA
7/7/10	Manchester	047	10:00	concrete	4ft	NA	e, musty (s	med tea	cloudy	some	64	52	NA	~0.1	NA	NA
7/7/10	Concord, NI	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	218	399	NA	1	NA	NA
7/7/10	Concord, NI	Mer4120a	10:45	concrete	36"	10	ilightly mus	none	ightly cloud	e leaves & d	25	ND	NA	0.5	NA	NA
7/7/10	Concord, NI	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	263	448	NA	1	NA	NA
7/7/10	Concord, NI	Clinton	11:55	open stream	na	low	none	none	clear	none	806	341	NA	0.75	NA	NA
7/7/10	Concord, NI	Pleasant	12:15	open stream	na	low	none	none	clear	none	1089	1722	NA	0.25	NA	NA
7/14/10	Boston	29J212	7:17	concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/14/10	Boston	Bos017	7:17	concrete	72"	na	musty	none	ightly cloud	some	129970	2489	NA	2.5	NA	NA
7/14/10	Boston	UR029	7:17	concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra	38730	68670	NA	0.2	NA	NA
7/14/10	Salem	Palmer1	9:05	clay	18-24	15-20	slight musty	none	clear	none	13540	17329	NA	3	NA	NA
7/14/10	Beverly	Lynch1	9:35	concrete	12"	25	none	none	clear	none	689	1178	NA	0.2	NA	NA
7/14/10	Beverly	Brac01	10:04	concrete/stone	4'box	na	Sulfur	none	clear	some suds	2452	1725	NA	2	NA	NA
7/14/10	Beverly	Brac02	10:31	open stream	na	stream	none	med tea	turbid	some	2595	3130	NA	ND	NA	NA
7/14/10	Beverly	Lynch02	10:50	plastic	8"	~4	none	none	clear	none	2069	4352	NA	2	NA	NA
7/21/10	Winchester	Swan01	7:25	open stream	na	stream	None	grey	very cloudy	some suds	452	305	NA	~0.1	NA	NA
7/21/10	Winchester	Wash01	7:50	open stream	na	stream	None	grey	very cloudy	some suds	484	512	NA	~0.1	NA	NA
7/21/10	Winchester	Wash02	7:55	concrete	24"	na	None	grey	very cloudy	some suds	857	318	NA	0.2	NA	NA
7/21/10	Woburn	Mer01up	8:30	open stream	na	stream	None	greyish	very cloudy	none	448	199	NA	0.2	NA	NA
7/21/10	Woburn	Sweet	8:35	open stream	na	stream	none	none	clear	some suds	518	148	NA	0.22	NA	NA
7/21/10	Woburn	Salem	9:25	open stream	na	stream	none	greyish	very cloudy	some	996	301	NA	0.15	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	stream	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/21/10	Woburn	Mys01b	10:00	concrete	16-18"	10-15	none	none	clear	none	4	20	NA	0.3	NA	NA
7/21/10	Woburn	Mys01c	10:10	plastic	4"	1/2	none	none	cloudy	none	ND (4)	ND (10)	NA	ND	NA	NA
7/21/10	Woburn	Halls2	10:55	open stream	na	stream	none	none	clear	none	2190	816	NA	ND	NA	NA
7/21/10	Woburn	DRR1	11:00	open stream	na	stream	none	grey	cloudy	none	1549	288	NA	~0.1	NA	NA
7/21/10	Woburn	UR030	11:00	open stream	na	stream	none	grey	cloudy	none	744	253	NA	~0.1	NA	NA
7/28/10	Boston	29J212	7:15	concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
7/28/10	Boston	Bos017	7:16	concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/28/10	Dorchester	CantB	8:28	open stream	na	stream	na	grey./green	lightly coud	rash & debri	169	86	NA	0.3	NA	NA
7/28/10	Dorchester	UR031	8:28	open stream	na	stream	na	grey./green	lightly coud	rash & debri	146	51	NA	0.3	NA	NA
7/28/10	Boston	15F288	9:02	Brick	5'	~10	sharp musty	none	clear	none	205	109	NA	0.2	NA	NA
7/28/10	Boston	Mudd1	9:55	stone	bridge	NA	none	na	cloudy	none	2318	703	NA	0.15	NA	NA
7/28/10	Brookline	VillB	10:40	stone	5'	NA	musty	green	cloudy	ves &sedim	258	52	NA	~0.1	NA	NA
7/28/10	Boston	OF233	11:00	concrete	20-30"		slightly must	ght oil shee	clear	e trash & de	198630	24196	NA	ND	NA	NA
7/28/10	Boston	Jpond	11:25	ubbling up from ground			none	none	none	none	43	ND	NA	ND	NA	NA
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	clean smell	none	none	none	30	10	NA	0.2	NA	NA
8/4/10	Lawrence	SPRLGH	7:40	open stream	na	stream	none	none	clear	none	1164	1529	NA	~0.1	NA	NA
8/4/10	Lawrence	Jackson	8:25	open stream	na	stream	none	light tea	some	ash and deb	606	512	NA	~0.1	NA	NA
8/4/10	Lawrence	Willow	9:00	open stream	na	stream	none	med tea	none	ash and deb	325	158	NA	~0.1	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact	1230	275	NA	~0.1	NA	NA

8/4/10	Lawrence	Shaw01	9:50	open stream	na	stream	none	il sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA
8/4/10	Andover	Huss01	10:35	stone box	10' x 5'	na	none	none	clear	surface suds	7945	109	NA	ND	NA	NA
8/4/10	Andover	Huss02	11:00	open stream	na	stream	cloudy	ight oil shee	ightly cloud	scum	34	ND (10)	NA	~0.1	NA	NA
8/4/10	Andover	URO32	11:00	open stream	na	stream	cloudy	ight oil shee	ightly cloud	scum	8	20	NA	~0.1	NA	NA
8/11/10	Stoneham	100A	7:42	open stream	na	stream	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
8/11/10	Stoneham	2Linden	8:25	open stream	na	stream	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
8/11/10	Stoneham	Elm2	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	6867	NA	0.2	NA	NA
8/11/10	Stoneham	URO33	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
8/11/10	Stoneham	Toms	9:50	tal w/asphalt bot	3'	~5 -7	hault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA
8/11/10	Woburn	Halls2	10:35	open stream	na	low	none	light tea	nsome trash and		1379	717	NA	~0.1	NA	NA
8/11/10	Woburn	Halls3	10:50	concrete	~12	< 1	or a few mir	none	clear	suds	4	ND (10)	NA	0.6	NA	NA
8/11/10	Stoneham	31Sixth	11:21	concrete	18"		none	none	clear	light film or	183	86	NA	0.3	NA	NA
8/11/10	Stoneham	2ndRd	11:50	open stream	na	stream	none	med tea	clear	none	430	226	NA	~0.1	NA	NA
8/18/10	Warwick, RI	CBW	8:10	Beach	NA	outgoing tide	none	none	clear	none	28 fecal	ND	NA	3	NA	NA
8/18/10	Warwick, RI	UNKBK	8:22	open stream	na	~ 0.3cfs	none	none	ightly cloud	none	504 fecal	4352	NA	2	NA	NA
8/18/10	Warwick, RI	MC01	8:25	open stream	na	stream	none	none	can't see bo	none	484 fecal	311	NA	2	NA	NA
8/18/10	Warwick, RI	BB08	8:50	open stream	na	stream	none	none	cloudy	none	1340 fecal	1014	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB08P	8:57	concrete	~16	~ 1	none	none	clear	none	1610 fecal	135	NA	1	NA	NA
8/18/10	Warwick, RI	LK04	9:20	open stream	na	stream	none	none	clear	and some o	1710 fecal	906	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB07	9:30	open stream	na	stream	none	none	clear	none	2870 fecal	1046	NA	0.2	NA	NA
8/18/10	Warwick, RI	WR02	9:45	double culvert			none	none	clear	he oil on sur	300 fecal	148	NA	0.15	NA	NA
8/18/10	Warwick, RI	LK02	10:55	open stream	na	stream	none	none	clear	some trash	7100 fecal	1374	NA	0.25	NA	NA
8/18/10	Warwick, RI	Emerson	11:11	erforated aluminu	2'	~1 -2	none	none	clear	none	580 fecal	31	NA	ND	NA	NA
8/18/10	Warwick, RI	MB01	11:30	stone	2'x2'box	~50	none	none	clear	none	484 fecal	161	NA	ND	NA	NA
8/18/10	Warwick, RI	SweetF	11:45	concrete	~16	~15 - 20	ong musty o	grey	cloudy	d grayish gro	ND fecal	ND	NA	0.2	NA	NA
8/18/10	Warwick, RI	URO34	11:45	concrete	~16	~15 - 21	ong musty o	grey	cloudy	d grayish gro	ND fecal	62	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none	21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	996-F	8:50	concrete	16	~10	none	none	clear	none	353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none	16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	GovB	10:40	Swale	NA	stagnant	none	light orange	ightly cloud	some scum	192	98	NA	0.2	NA	NA
8/25/10	Laconia, NH	GovB01	11:00	tone w/metal lining		~30	none	none	clear	none	857	1223	NA	0.22	NA	NA
8/25/10	Laconia, NH	996-F	11:11	concrete	16	~20	none	none	clear	some suds	6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	UR035	11:11	concrete	16	~20	none	none	clear	some suds	6978	17329	NA	0.2	NA	NA
8/25/10	Laconia, NH	Swale	11:40	concrete	16-18	~10	none	none	clear	none	17200	26030	NA	0.2	NA	NA
8/25/10	Laconia, NH	CBAdmin	11:50	concrete	18	~50	ght musty o	none	clear	none	621	1553	NA	0.2	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	he suds & de	38730	51720	NA	0.25	NA	NA
9/1/10	Revere	Green01	8:10	open stream	na	stream	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
9/1/10	Chelsea	Mill2A	8:30	concrete	24	<5	usty/chemic	none	clear	trash	8	ND	NA	0.6	NA	NA
9/1/10	Chelsea	Mill2	8:55	concrete	~30 inches	15	sharp sewa	clear	none	None	282	41	NA	0.5	NA	NA
9/1/10	Revere	Amelia	9:30	open stream	na	stream	none	light tea	suspended	some suds	3466	1430	NA	0.6	NA	NA
9/1/10	Revere	Sargent	9:55	concrete	36	NA	slight musty	none	clear	none	875	201	NA	0.2	NA	NA
9/1/10	Marblehead	DLaunch	11:10	concrete	4ft	40	none	none	clear	none	31300	2481	NA	0.75	NA	NA
9/1/10	Marblehead	UR036	11:10	concrete	4ft	40	none	none	clear	none	30760	3076	NA	0.75	NA	NA
9/1/10	Marblehead	Mneck02	11:35	concrete	24	5	none	nt green/yel	clear	ome fine suc	81640	120330	NA	0.2	NA	NA
9/1/10	Marblehead	GO01	12:00	concrete	36in	50	None	None	Clear	None	310	145	NA	0.2	NA	NA
9/1/10	Marblehead	StramB	12:30	Beach	NA	NA	none	none	clear	None	211	ND	NA	2	NA	NA
10/5/10	Watertown	SawB01	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
10/5/10	Watertown	UR037	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
10/5/10	Watertown	ARLEast	8:35	open stream	na	stream	none	none	clear	none	7946	823	NA	0.25	NA	NA
10/5/10	Watertown	ARL01	8:40	concrete	4'x4' box	na	none	none	clear	none	9678	1014	NA	NA	NA	NA
10/5/10	Watertown	ARL02	8:42	concrete	4'x4' box	na	none	none	clear	none	9678	738	NA	NA	NA	NA
10/5/10	Watertown	ARL03	8:45	concrete	5'x4' box	na	none	none	clear	none	3080	173	NA	NA	NA	NA
10/5/10	Watertown	Wat13	9:20	concrete	16"	1	none	none	clear	none	92080	2142	NA	0.25	NA	NA
10/5/10	Watertown	Wat12	9:30	concrete	36"	na	none	none	clear	none	111990	14136	NA	0.6	NA	NA
10/5/10	Watertown	Wat11	9:40	concrete	4'x3' box	na	none	med tea	turbid	none	19350	1723	NA	0.3	NA	NA
10/5/10	Watertown	LB01	10:35	concrete	10'x7'box	100	none	none	clear	none	6212	583	NA	0.2	NA	NA
10/5/10	Watertown	Wat5	11:07	concrete	4'	1	none	none	clear	none	64	20	NA	0.25	NA	NA
10/5/10	Watertown	Wat6	11:11	concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	NA
10/13/10	Marblehead	DLaunch	8:15	concrete	4ft	40	none	none	clear	none	1376	860	NA	2	NA	NA
10/13/10	Marblehead	UR038	8:15	concrete	4ft	40	none	none	clear	none	871	723	NA	2	NA	NA
10/13/10	Marblehead	MH19	8:38	stormdrain	na	~20	ong musty o	none	clear	none	TNTC	24196	NA	0.5	NA	NA
10/13/10	Marblehead	MH32	9:10	stormdrain	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	NA
10/13/10	Marblehead	MH48	9:30	stormdrain	na	~15	lightly must	none	clear	none	8	ND	NA	~0.1	NA	NA
10/13/10	Marblehead	MH29A	9:55	plastic stormdrain	18-24	~10	none	none	clear	none	689	41	NA	~0.1	NA	NA
10/13/10	Marblehead	MH2336	10:30	stormdrain	na	na	none	none	clear	small white	5654	2489	NA	0.25	NA	NA
10/13/10	Marblehead	MH2203	10:55	stormdrain	na	~15	musty	none	clear	none	5654	5475	NA	0.3	NA	NA
10/13/10	Marblehead	MHWinslow	11:11	stormdrain	na	na	musty	lightly yellov	clear	none	2452	118	NA	0.4	NA	NA
10/13/10	Marblehead	MHWinslowA	11:28	stormdrain	18"	~5-10	resh smellin	none	clear	none	43	98	NA	0.2	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
10/27/10	Quincy	WollB1B	8:18	concrete	3-4'	30-40	musty/sulfu	none	ightly cloud	some suds	58	20	NA	2.5	NA	NA
10/27/10	Dorchester	Ten1	8:55	Pipe Mat.	24-30	na	none	Tan/brown	very turbid	none	132	20	NA	1.5	NA	NA
10/27/10	Boston	10L094	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	4813	14136	NA	0.6	NA	NA
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	41060	9208	NA	0.8	NA	NA
10/27/10	Boston	10L094A	9:25	metal	24"	5	musty	grey	cloudy	none	34480	14136	NA	1.5	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	stream	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
10/27/10	Quincy	Sag1C	10:58	metal	30"	na	natural gas	light brown	clear	none	2452	2723	NA	0.6	NA	NA
10/27/10	Quincy	Bay1	11:40	Seep/pool	NA	NA	sewage	rk brown/gr	cloudy	none	173290	365400	NA	NA	NA	NA
10/27/10	Quincy	BayBch	11:45	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	NA
10/27/10	Quincy	WollBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	NA
10/27/10	Quincy	WollBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
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NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
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0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	NA	NA
1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	~0	NA	NA	ND (1.0)	11	ND (0.2)	9.1	56	ND (0.2)	ND (2.0)	31	~0.76	ND	ND	0.08	ND	ND
ND	NA	NA	ND	NA	NA	ND (1.0)	34	ND (0.2)	38	2600	ND (0.2)	ND (2.0)	96	2.2	ND	ND	0.05	ND	ND
1.5	NA	NA	1	NA	NA	ND (1.0)	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.14	ND	0.53
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
1.10	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2.00	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
>2.0	NA	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
>2.0	NA	NA	>6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	na	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	NA	NA	3	NA	~135	ND (2.0)	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
ND	NA	NA	ND	NA	11	ND (2.0)	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.23
ND	NA	NA	ND	NA	12	ND (2.0)	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.28
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.35*	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.60	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.60	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
~0.1	NA	NA	~0.10	NA	21	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	15	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	ND	ND	ND
ND	NA	NA	ND	NA	78	~4.2	1700	ND (0.4)	120	200	~1.0	ND (4.0)	2500	12	ND	ND	~0.01	ND	ND
~0.1	NA	0.14	0.25	NA	84	~4.9	1600	~0.34	130	240	~1.6	ND (4.0)	3300	7.5	ND	ND	ND	ND	ND
~0.75	NA	NA	3	NA	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0)	55000	200	ND	ND	NA	ND	ND
ND	NA	0.23	ND	NA	35	~5.9	73	~0.74	87	360	~1.1	ND (4.0)	320	10	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.71	0.50	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
NA	NA	0.15	0.6	NA	34	ND (1.0)	5.8	~0.29	12	34	ND (0.2)	ND (2.0)	2.5	1.5	ND	ND	0.07	ND	ND
NA	NA	0.41	3	NA	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2.0)	11	1.5	ND	ND	0.04	ND	0.54
NA	NA	0.19	~0.10	NA	174	~27	2600	~2.3	530	1100	8.7	ND (2.0)	600	3.2	NA	NA	ND	ND	0.81

>2	NA	1.08	5.5	NA	586	~150	27000	~13	3500	5000	61	ND (2.0)	17000	5.1	ND	ND	0.04	ND	0.37
NA	NA	1.1	6	NA	491	~140	24000	~12	3300	4500	48	ND(2.0)	14000	4.9	ND	ND	0.07	ND	0.36
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
1.7 nessle	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.4 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
ND	NA	ND	ND	NA	33	ND (1.0)	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2.0)	2	ND (0.2)	ND	ND	~0.02	ND	ND
ND	NA	ND	ND	NA	29	ND (1.0)	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2.0)	ND (2.0)	1.5	ND	ND	ND	ND	ND
~0	NA	ND	~0.10	NA	46	ND (1.0)	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	~0.01	ND	ND
ND	NA	ND	~0.10	NA	43	ND (1.0)	57	ND (0.2)	17	30	ND (0.2)	ND (2.0)	12	ND (0.2)	ND	ND	ND	ND	ND
~1.0	NA	0.24	3	NA	1080	ND (100.0)	6200	ND (20.0)	1600	4300	ND (20.0)	ND (200.0	7710	ND (20.0)	ND	ND	0.04	ND	0.3
~1.0	NA	0.31	2	NA	380	ND (100.0)	5500	ND (20.0)	1400	4200	ND (20.0)	ND (200.0	7200	ND (20.0)	ND	ND	ND	ND	0.29
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	5.00	NA	NA	ND (5.0)	3200	~29	1600	4800	ND (1.0)	ND (10.0)	1600	ND (1.0)	NA	NA	NA	ND	NA
NA	NA	NA	6.00	NA	NA	ND (5.0)	12000	~8.7	1800	890	ND (1.0)	ND (10.0)	5500	ND (1.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.25	NA	NA	0.75	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	~0.08	ND	NA	26	ND (1.0)	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2.0)	250	0.52	ND	ND	0.06	ND	ND
ND	NA	0.22	ND	NA	83	ND (1.0)	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2.0)	270	2.6	ND	ND	0.09	ND	ND
ND	NA	ND	ND	NA	72	ND (1.0)	2.9	ND (0.2)	~4.9	~11	ND (0.2)	ND (2.0)	9.2	0.56	ND	ND	ND	ND	0.75
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
0.5	1	0.24	1.5	NA	84	~62	1100	~3.7	500	980	39	5	2800	7.4	na	na	~0.0	ND	ND
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	ND	ND	NA
0.4	NA	NA	0.20	NA	NA										NA	NA	0.13	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.1	NA	NA	ND	NA	NA										NA	NA	0.08	ND	NA
0.5	NA	NA	2.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	~0.02	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	0.03	ND	NA
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
0.5	2	0.51	1	NA	72	~20	280	~1.6	120	360	2.4	ND (4.0)	680	2.9	ND	ND	ND	ND	0.62
0.5	2.5	0.49	0.3	NA	73	~24	310	~2.0	120	320	2.3	ND (4.0)	670	2.6	ND	ND	0.05	ND	0.66
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
1.1	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~1.1	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	ND (2.0)	ND (2.0)	ND (0.4)	6.4	9.7	ND (0.4)	ND (4.0)	28	3.9	NA	NA	NA	ND	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	4.00	NA	NA	~80	1400	~4.8	280	960	40	24	6500	28	NA	NA	NA	ND	NA
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	17	ND (2.0)	15	~0.46	7.1	56	ND (0.4)	ND (4.0)	100	4.7	ND	ND	0.14	ND	ND
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA
clear	1.35	ND	ND	NA	98	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	7	0.56	ND	ND	0.38	ND	0.75
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.60	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	5.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	0.5	0.09	0.2	NA	110	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	13	1.6	ND	ND	0.19	ND	ND
ND	0.4	ND	ND	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~0.88	ND (4.0)	14	1.4	ND	ND	0.18	ND	ND
ND	0.5	ND	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	15	1.5	ND	ND	NA	ND	ND
ND	0.8	~0.08	0.25	NA	77	ND (2.0)	ND (2.0)	ND (0.4)	4.4	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	1.2	ND	ND	0.11	ND	ND
~0.1	0.6	0.1	0.4	NA	101	ND (2.0)	ND (2.0)	ND (0.4)	53	5200	~0.52	ND (4.0)	ND (4.0)	17	ND	ND	0.10	ND	ND
ND	0.8	ND	0.5	NA	89	ND (2.0)	ND (2.0)	ND (0.4)	6.5	260	ND (0.4)	ND (4.0)	ND (4.0)	19	NA	NA	0.13	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	1.1	0.13	0.75	NA	148	~49	280	~4.7	100	230	7.7	ND (8.0)	3800	5.7	ND	ND	0.05	ND	ND
ND	0.3	ND	ND	NA	42	ND (4.0)	10	ND (0.8)	10	96	ND (0.8)	ND (8.0)	39	4.1	ND	ND	0.07	ND	ND
ND	0.4	ND	ND	NA	46	ND (4.0)	ND (4.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8.0)	12	14	ND	ND	0.03	ND	ND
>2	>3	23.1	>6	NA	4420	~1800	65000	~51	11000	66000	280	ND (440.0	340000	140	ND	ND	ND	ND	0.56
>2	>3	15	>6	NA	3630	ND (200.0)	590000	ND (40.0)	7300	4400	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.55
>2	>3	14.7	>6	NA	3390	ND (200.0)	600000	ND (40.0)	7500	4700	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.62
0.25	1.4	0.18	2	NA	201	ND (20.0)	69	~4.0	280	180	ND (4.0)	ND (40.0)	5900	ND (4.0)	ND	ND	0.04	ND	ND
ND	0.3	ND	ND	NA	46	ND (3.8)	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7.7)	12	4.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31	ND	NA
NA	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.8	ND	ND	NA	45	ND (2.0)	820	4	23	1400	ND (0.4)	ND (4.0)	180	~2.2	ND	ND	ND	ND	ND
>2	>3	9.3	6	NA	31	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	24	~1.2	ND	ND	0.08	ND	0.62
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2

NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
2	>3	9.8	>3	NA	45	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	14	~1.3	ND	ND	~0.0	ND	0.64
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
~0.1	0.4	0.31	ND	NA	27	ND (2.0)	38	ND (0.4)	4.4	16	ND (0.4)	ND (4.0)	440	6	ND	ND	~0.02	ND	ND
ND	0.4	ND	ND	NA	49	ND (2.0)	69	ND (0.4)	26	850	2.7	ND (4.0)	240	3.5	ND	ND	0.10	ND	ND
ND	0.4	ND	ND	NA	47	ND (2.0)	57	ND (0.4)	24	820	2.2	ND (4.0)	270	3.8	ND	ND	0.10	ND	ND
ND	0.4	0.1	ND	NA	20	ND (2.0)	3.1	ND (0.4)	7	30	ND (0.4)	ND (4.0)	61	5	ND	ND	0.06	ND	ND
ND	0.4	ND	ND	NA	39	ND (2.0)	93	ND (0.4)	14	17	ND (0.4)	ND (4.0)	66	2.5	ND	ND	0.07	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
ND	0.2	ND	ND	NA	~243	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.32
ND	0.4	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
ND	0.8	ND	~0.10	NA	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.9	ND	0.50	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.10	ND	ND
ND	0.8	ND	ND	NA	38	na	na	na	na	na	na	na	na	na	ND	ND	~0.02	ND	ND
ND	0.8	ND	ND	NA	36	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA
ND	1.6	0.22	2.00	NA	35	na	na	na	na	na	na	na	na	na	ND	ND	0.03	ND	ND
0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA
ND	0.3	ND	ND	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.7	ND	ND	NA	78	ND (2.0)	19	ND (0.4)	~8	25	ND (0.4)	ND (4.0)	42	1.1	ND	ND	0.03	ND	ND
~0.1	0.6	ND	ND	NA	65	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.4	ND	ND	NA	20	ND (2.0)	240	ND (0.4)	~20	40	ND (0.4)	ND (4.0)	16000	4.9	ND	ND	0.09	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
ND	0.4	ND	ND	NA	22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND
>2	>3	2.26	6	NA	421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22
ND	0.6	ND	~0.10	NA	28	ND (2.1)	10	ND (0.4)	~10	45	~0.28	ND (4.2)	280	3.4	ND	ND	0.06	ND	ND
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
ND	~0.1	ND	~0.30	NA	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND
ND	~0.1	ND	ND	NA	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
ND	ND	ND	ND	NA	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.1	28	4.1	~20	3.1	6	34	0.7	ND (4.0)	490	1.4	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.95	37	4.8	190	4.6	12	70	1.2	ND (4.0)	1400	0.93	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.78	47	12	280	4.7	30	170	2.9	ND (4.0)	2700	ND (0.4)	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	3	9.1	ND (2.0)	ND (2.0)	0.86	ND (2.0)	5.4	ND (0.4)	ND (4.0)	15	1.2	ND	ND	NA	ND	ND
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	ND	1.1	52	ND (2.5)	ND (2.5)	1	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	14	ND (0.5)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	2	1.2	28	2.3	21	21	7.9	170	ND (0.4)	ND (4.0)	360	0.85	ND	ND	0.06	ND	ND
NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	25	ND (2.0)	27	23	6.4	220	1.4	ND (4.0)	370	0.61	ND	ND	ND	ND	ND
NA	NA	NA	3	1.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.5	2	23	ND (2.0)	5.8	6.7	ND (2.0)	37	ND (0.4)	6.5	1300	4.8	ND	ND	0.04	ND	ND
NA	NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1	0.59	36	ND (2.0)	7.9	10	ND (2.0)	35	ND (0.4)	16	1000	1.2	ND	ND	ND	ND	ND
NA	NA	NA	ND	2.7	28	3.2	120	8.1	19	85	ND (0.5)	7.2	1500	8.6	ND	ND	0.06	ND	ND
NA	NA	NA	ND	0.59	58	8.5	53	10	12	130	ND (0.4)	ND (4.0)	750	0.42	ND	ND	0.09	ND	ND
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	0.37	54	9.1	100	7.7	13	73	0.65	ND (4.0)	1200	0.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	0.31	55	8	5.4	5.7	7.3	35	ND (0.4)	ND (4.0)	590	ND (0.4)	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	9.3	8.3	300	ND (0.5)	ND (5.0)	160	1.4	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	29	ND (2.0)	2.3	1.5	ND (2.0)	6.7	ND (0.4)	ND (4.0)	96	0.72	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	38	ND (2.0)	ND (2.0)	7.5	5.9	140	ND (0.4)	ND (4.0)	80	1.4	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	73	ND (2.0)	2.5	17	6.4	61	ND (0.4)	ND (4.0)	230	1.2	NA	NA	0.11	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA

NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	69	ND (2.0)	53	17	7.5	180	ND (0.4)	ND (4.0)	1300	0.84	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	79	45	1200	11	300	1100	4.8	ND (5.0)	12000	4.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	NA	23	ND (2.0)	ND (2.0)	4.3	4.2	39	ND (0.4)	ND (4.0)	37	ND (0.4)	NA	NA	0.71	1/0.3	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	0.25	NA	NA	ND (2.5)	ND (2.5)	2.4	ND (2.5)	11	ND (0.5)	7.4	30	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	84	3.1	19	2.8	5.1	22	0.63	ND (4.0)	440	ND (0.4)	NA	NA	0.08	ND	NA
NA	NA	NA	1	NA	93	ND (2.0)	ND (2.0)	2.2	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	36	ND (2.0)	ND (2.0)	0.45	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	0.7	NA	NA	4.7	210	53	26	180	0.56	ND (4.0)	1200	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	8	6.6	5.9	54	ND (0.4)	ND (4.0)	78	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	3.4	50	63	26	510	1.3	ND (4.0)	90	1.4	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA
NA	NA	NA	0.75	NA	NA	41	81	62	280	940	ND (0.5)	ND (5.0)	1800	5	NA	NA	0.6	ND	NA
NA	NA	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0)	17000	240	NA	NA	0.13	ND	NA
NA	NA	NA	0.75	NA	NA	450	14	19	31	170	1.3	ND (4.0)	870	170	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	NA	850	99	ND (0.5)	6.1	20	1.3	ND (5.0)	17	170	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.4)	ND (4.0)	ND (4.0)	87	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	NA	670	140	ND (0.4)	2.1	5.8	0.89	ND (4.0)	31	240	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	1800	41000	1300	7300	33000	510	ND (20.0)	550000	280	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	410	ND (2.0)	3.7	6.9	24	0.64	ND (4.0)	14	180	NA	NA	0.18	ND	NA
NA	NA	NA	6+	NA	NA	1400	44000	1900	6300	51000	760	ND (20.0)	580000	300	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	36	ND (2.0)	6.1	6.7	ND (2.0)	5.9	ND (0.4)	ND (4.0)	73	ND (0.4)	NA	NA	0.17	ND	NA
NA	NA	NA	0.25	NA	30	ND (2.5)	9.1	47	3.8	150	2.1	ND (5.0)	10	4.5	NA	NA	0.1	ND	NA
NA	NA	NA	ND	NA	34	ND (2.0)	ND (2.0)	0.99	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	28	18	ND (2.0)	1.8	2.8	6.3	2.1	ND (4.0)	49	3.9	NA	NA	0.22	ND	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	152	ND (2.0)	ND (2.0)	2.8	ND (2.0)	7.3	0.43	ND (4.0)	17	ND (0.4)	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	30	ND (2.0)	ND (2.0)	2.4	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	80	ND (0.4)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	ND (2.5)	ND (2.5)	1.4	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	170	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	112	23	87	12	18	200	4.6	ND (4.0)	790	1.3	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	32	ND (2.0)	ND (2.0)	3.3	ND (2.0)	110	ND (0.4)	ND (4.0)	22	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	45	ND (2.5)	ND (2.5)	1.8	ND (2.5)	6.3	ND (0.5)	ND (5.0)	60	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	59	ND (2.0)	ND (2.0)	1.3	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	92	ND (0.4)	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	46	ND (2.0)	ND (2.0)	8.9	ND (2.0)	5.6	ND (0.4)	ND (4.0)	210	1.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	32	ND (2.0)	ND (2.0)	9.9	ND (2.0)	8.6	ND (0.4)	ND (4.0)	35	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	ND	NA
NA	NA	NA	0.4	NA	27	ND (2.0)	ND (2.0)	8.7	ND (2.0)	7.3	ND (0.4)	ND (4.0)	27	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	53	30	5.3	31	18	82	3.9	4.6	270	10	NA	NA	0.15	ND	NA
NA	NA	NA	4	NA	27	ND (2.0)	ND (2.0)	11	ND (2.0)	55	ND (0.4)	ND (4.0)	45	0.42	NA	NA	0.08	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	26	ND (2.5)	11	8.6	13	470	ND (0.5)	ND (5.0)	35	1.2	NA	NA	0.08	ND	NA
NA	NA	NA	5	NA	35	ND (2.5)	ND (2.5)	2.7	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	470	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	5	NA	151	76	1700	71	270	1200	ND (0.4)	ND (4.0)	3800	ND (0.4)	NA	NA	0.37	ND	NA
NA	NA	NA	5	NA	147	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.37	ND	NA
NA	NA	NA	0.75	NA	74	29	11	3.9	53	40	ND (0.4)	ND (4.0)	750	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	5	NA	166	8.7	63	23	41	160	ND (0.4)	ND (4.0)	790	4.5	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	141	4.7	59	17	28	130	ND (0.4)	ND (4.0)	24	3.5	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	234	230	3900	35	430	3400	11	ND (4.0)	38000	15	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	16	ND (2.5)	17	ND (0.5)	ND (5.0)	20	ND (0.5)	NA	NA	0.06	ND	NA
NA	NA	NA	0.2	NA	12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA

NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	51	11	12	7.9	110	410	ND (0.4)	ND (4.0)	11000	0.55	NA	NA	0.2	ND	NA
NA	NA	NA	0.1	NA	40	ND (2.5)	ND (2.5)	3.3	4.7	36	ND (0.5)	ND (5.0)	44	1.8	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	93	320	240	77	700	1300	13	5.9	1100	5.7	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA
NA	NA	NA	ND	NA	33	ND (2.0)	ND (2.0)	3.6	18	470	ND (0.4)	ND (4.0)	ND (4.0)	0.4	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (4.0)	17	35	41	210	ND (0.8)	ND (8.0)	ND (8.0)	ND (0.8)	NA	NA	0.07	ND	NA
NA	NA	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	47	ND (2.5)	ND (2.5)	3.4	ND (2.5)	8.1	ND (0.5)	ND (5.0)	ND (5.0)	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	ND (2.0)	3.8	5.2	18	3.6	ND (4.0)	11	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	7.1	15	73	1.9	ND (4.0)	ND (4.0)	4.3	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	72	ND (2.0)	ND (2.0)	7.8	15	110	ND (0.4)	6	ND (4.0)	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	16	14	10	44	ND (0.4)	6.5	12	18	NA	NA	0.06	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	33	ND (2.5)	ND (2.5)	11	17	100	ND (0.5)	5.4	ND (5.0)	4.8	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	2.3	5.6	24	ND (0.5)	17	ND (5.0)	7.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	21	2.1	29	41	85	240	1.9	ND (4.0)	42	4.9	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	1	NA	40	19	ND (2.0)	1.3	4.8	11	ND (0.4)	130	ND (4.0)	3.7	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.0)	ND (2.0)	ND (0.4)	2.7	ND (4.0)	ND (2.0)	ND (4.0)	ND (4.0)	0.74	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	58	ND (2.0)	ND (2.0)	ND (0.4)	12	12	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.5)	ND (2.5)	ND (0.5)	11	4.5	ND (2.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	66	ND (2.0)	7	4.5	11	33	ND (0.4)	ND (4.0)	4.6	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	65	ND (2.5)	ND (2.5)	0.65	5.2	ND (5.0)	ND (0.5)	ND (5.0)	ND (5.0)	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	90	14	340	8.4	220	3000	ND (0.4)	ND (4.0)	980	6.5	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.75	NA	57	ND (2.0)	ND (2.0)	0.75	4.4	5.6	ND (0.4)	ND (4.0)	7.1	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	89	ND (2.0)	ND (2.0)	3.8	11	46	ND (0.4)	ND (4.0)	ND (4.0)	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	69	ND (2.5)	ND (2.5)	1.9	39	48	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	19	190	13	260	730	ND (0.8)	ND (8.0)	ND (8.0)	6.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	5	NA	NA	150	610	150	1400	940	ND (0.4)	ND (4.0)	120	11	NA	NA	0.08	ND	NA
NA	NA	NA	4	NA	NA	190	1100	43	980	12000	ND (4.0)	ND (40.0)	1200	200	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	NA	ND (10.0)	490	16	160	270	ND (2.0)	ND (20.0)	54	18	NA	NA	0.14	ND	NA
NA	NA	NA	ND	NA	NA	6.3	46	14	42	510	ND (0.5)	ND (4.7)	92	3.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.52	4.8	23	ND (0.4)	ND (4.0)	ND (4.0)	6.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	5.4	37	3.7	19	82	ND (0.4)	ND (4.2)	36	3.2	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	14	1.8	12	44	ND (0.4)	ND (4.0)	8.5	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	120	4500	37	2100	4300	ND (4.0)	ND (40.0)	~1500	82	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.4	8.4	6.6	210	120	ND (0.5)	ND (4.8)	~97	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.84	2.8	ND (4.0)	ND (0.4)	ND (4.0)	~4.3	0.52	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.2	21	1	9.4	50	ND (0.5)	ND (4.8)	~15	0.66	NA	NA	0.03	ND	NA
NA	NA	NA	0.75	NA	NA	13	310	19	1100	~48000	ND (0.4)	ND (4.0)	~29	68	NA	NA	0.03	ND	NA
NA	NA	NA	0.4	NA	NA	46	630	13	470	790	ND (0.8)	ND (8.0)	~81	ND (0.8)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	ND (2.0)	110	16	90	130	ND (0.4)	ND (4.0)	ND (4.0)	1.7	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	ND (10.0)	ND (10.0	2.6	10	ND (20.0)	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	47	16	13	~130	14	ND (20.0)	20	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	1800	190	400	~2700	4.3	ND (20.0)	180	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	270	970	170	~4100	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	NA	ND (10.0)	81	280	100	~3200	38	ND (20.0)	64	ND (2.0)	NA	NA	0.06	ND	NA
NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	ND (1000.0	20000	ND (100.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	1.9	~1.6	~16	ND (0.4)	ND (4.0)	~2.9	0.5	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	2.2	4.7	~11	ND (0.4)	ND (4.0)	4.4	0.46	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	2.2	2.4	7.5	~52	ND (0.4)	16	ND (4.0)	ND (0.4)	NA	NA	0.04	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivity	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch	4 gal/min flow est, Mu	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4733306	71.1187503	unnamed stream in W	No odor	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	No odor	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus	strong strawberry jello	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.477141	71.1176671	Aberjona upstream o	strong strawberry jello	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Slight musty odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Medium sewage odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Duplicate	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slight odor coming fro	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.743207	71.208453	walked in from small	Dry weather during sa	na	na	na		0.43		Wet
NA	NA	NA	42.755268	71.207933	Walked in behind autoparts/glass stor on righ		na	na	na		0.43		Wet
NA	NA	NA	42.762503	71.222746	Parked at Lancelot Court apartments behind		na	na	na		0.43		Wet
NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's storage on left off So.		na	na	na		0.43		Wet
NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's storage on left off So.		na	na	na		0.43		Wet
NA	NA	NA	42.767438	71.223016	Parked behind Kohl's		na	na	na		0.43		Wet
NA	NA	NA	42.774045	71.224331	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.774065	71.224326	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.778121	71.227147	Parked across from n	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	culvert to right not flo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.513504	71.138870	74 Commerce Way (M	No odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.515744	71.136289	Marshall's shipping lo	Marshalls shipping lo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.516016	71.136885	Across Street from las	some geese swimmin	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.517193	71.141968	Turn on Atlantic Ave p	No odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.513758	71.144110	where hulls brook crosses under New Boston		na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	water very turbid sligh	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Very turbid, foul odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Duplicate	Duplicate	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.520981	71.147709	Just upstream from M	were stream exits outf	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.517881	71.150535	Just upstream from M	walked in about 1-2 m	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Musty odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	sampled largest pipe -	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.485896	71.120882	Wash Cir, just off Wa	downstream side	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.491300	71.127027	Operator of AMR gran	Lots of seeds in the w	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.493138	71.124117	Washington street corner of Salem St		na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.491580	71.128834	1921yr culvert	Downstream side	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495445	71.134031	behind United Station	Lots of trash in the ar	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495411	71.133994	closer to culvert than	Very turbid water, bro	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.500145	71.141333	Olympia Ave	On N. side grass clipp	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.501121	71.134909	near 60 Olympia Ave	Pretty clear water	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.501121	71.134909	Duplicate	Duplicate	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Sampled main stream	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.383054	71.030131	Condor Urban Wild, o	Sewage odor, plaque	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.382423	71.027076	Upstream of Condor U	White plaque coverin	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.402480	71.010704	Revere Beach Parkwa	White PVC beside br	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403156	71.018129	Broadway at New Cro	Outfall on opposite st	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	Sewage odor (Gillool	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Plaque covering outfa	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.409914	71.028297	Downstream of Mill04 - walked culvert		na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.410125	71.028722	Head of Millcreek		na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394445	71.049817	End of beachum and	(closest to road) stron	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394436	71.049780	End of beachum and	(midpoint from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	End of beachum and	(farthest from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	Duplicate	Duplicate	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (W	Pretty clear	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.419214	71.117619	Culvert off Meeting H	Strong sewage odor c	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.441521	71.149149	Sandy Beach Location		na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.442878	71.142845	Mystic River pkwy, un	Downstream	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.444363	71.138845	commuter rail station	bacon street bridge M	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.455647	71.137980	Main street bridge bet	between car lot and g	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456789	71.138966	bridge across from W	Wedge Pond inlet	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464865	71.151279	Horn Pond outlet, lake	lake ave, near water	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Near Super Stop & S	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456399	71.136447	small pipe exiting ball	small pipe	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.460935	71.137149	down street from Abe	2 pipes on bridge bot	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464339	71.132424	Tufts school behind s	Next to Amtrack rail	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464200	71.131111	Tufts school stream near bus circle		na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.468186	71.130921	park near Forest rd, o	on cross culvert unde	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.468186	71.130921	Duplicate	Duplicate	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.469507	71.125285	behind hospital, MyRV	MyRWA baseline site	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.467019	71.120658	outlet to resevoir	Across from Highland	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42 42'31.12"	71 9'1.07"	Channel	No GPS taken at site,	na	na	na		0.12		Wet
NA	NA	NA	42.711980	71.152671	Fulton Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.714655	71.156191	Brook Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42 42'49.21"	71 10'21.11"	Exchange Street outfa	No odor, a little foam	na	na	na		0.12		Wet
NA	NA	NA	42 42'49.31"	71 10'20.89"	Exchange Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.724919	71.183033	RT 28 castle park	No noticable odor to s	na	na	na		0.12		Wet

NA	NA	NA	42.727453	71.188366	Outfall downstream e	Possible stream culve	na	na	na		0.12		wet
NA	NA	NA	42.743250	71.208438	walked in from small	Right on MA/NH borde	na	na	na		0.12		Wet
NA	NA	NA	42.751038	71.212086	Spencer Street	Took GPS from street	na	na	na		0.12		Wet
NA	NA	NA	42.751038	71.212086	duplicate		na	na	na		0.12		Wet
NA	NA	NA	42.755035	71.208086	Walked in behind auto	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.484033	71.103950	Sweetwater Brook @	(0.1" 48hrs prior to sa	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Unnamed tributary to	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Grey, turbid water	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Lots of green duck we	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Waded 3 ft upstream	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Film on water, low flo	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Suspended solids	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518739	71.146411	Duplicate	Duplicate	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.519578	71.146937	Just upstream from M	were driveway enters	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.520981	71.147709	Upstream of Mys 8 wh	Low flow, light brown	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518433	71.148226	upstream from 7 and	Thick layer of duck w	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518477	71.148139	Stream entering upstr	Thick sediment, oily, t	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.517881	71.150535	Upstream of Mys 7 an	Good flow	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dow	Sandy bottom, beave	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.729569	71.195557	mid-channel sample just past RR bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.731521	71.200097	downstream side of 1st 113 bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734448	71.199880	Just upstream of 2nd 113 bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734293	71.199230	pond Northwest of MS	Pond entirely covered	na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734889	71.200300	~ 50m upsreatm of MSPCA		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.736056	71.201397	~100m upsreatm of MSPCA		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.434553	71.020547	Linden Brook as it day	Heavy silt deposits on	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.434497	71.020322	Tributary to Linden Br	Good flow, high sedim	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.433793	71.021460	Town Line Brook at h	Very silty	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.424881	71.041827	Town Line Brook whe	Orange floc, oil slick,	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.425568	71.026803	Stream at the of Ame	Deer prints, low flow,	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Very little flow, greeni	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407993	71.027011	Small culvert opening	water clea,r gray bact	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	End of beachum and	not quite as black as l	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	orange all over the roc	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	very orange, very turb	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.412663	71.069288	Culvert near Madeline	1/4" growth/deposit of	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407709	71.069853	Down Air force road b	Scum on top, some pe	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.413180	71.076268	Little Creek near Tufts	slight film on top of wa	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.440652	71.070136	Malden River across f	6-8" in depth, slight tu	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441720	71.070899	Old Mill Sample smal	~2 gal/min. entering c	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441688	71.071068	Old Mill at head of str	flow 3x-4x in matter o	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441687	71.071070	12inch clay pipe next	2 or 3gal/min, clear flo	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.444227	71.069626	Just downstream of N	sampled western char	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.449076	71.069831	Outlet of Malden Rive	Highly turbid - orange	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.455333	71.080747	Corner of Philips Rd &	downstream of spot p	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069376	Across from 50 Tremo	slight flow, clear	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069376	Duplicate		na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069370	Across from 50 tremo	flow appeared to char	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461429	71.068840	culvert across from D	flow clear, some algae	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch	Had to move manhole	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.464603	71.070066	Roosevelt School off	Trash gate clogged –S	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.456149	71.136269	ambient stream samp	Murky, some foam on	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42 25'07.64	71 87'40.33	Whittmore Brook off A	Some plaque on rocks	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41539348	71.103014	Small pipe next to cul	Very fresh smelling	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.40717819	71.090874	broken down culvert o	culvert has collapsed	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	very silty, bacteria and	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.40334224	71.017761	Culvert across stream	Lots of orange flock a	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403301	71.017871	Mill Creek sample mid	Clear flow, low flow ro	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	water looks clear. Flo	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	Duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.456365	71.136337	flow from directly und	site has deep deposits	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.361991	-71.147963	Corner of Greenough	Green algae covering	na	na	na		0	0.35	Wet
NA	NA	NA	42.363675	-71.155668	Outfall - So. Sawins B	Good flow strong rush	na	na	na		0	0.35	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook just of	Fairly clear, no odor w	na	na	na		0	0.35	wet
NA	NA	NA	42.367449	-71.198957	Culvert on right, 290 F	light tannish tint to wa	na	na	na		0	0.35	Wet
NA	NA	NA	42.367489	-71.198853	Culvert on left, 290 P	very large snapping tu	na	na	na		0	0.35	Wet
NA	NA	NA	42.367267	-71.218116	Intersection of Pleasa	Water flowing approx.	na	na	na		0	0.35	Wet
NA	NA	NA	42.381394	-71.213800	Edwin Rd and Parson	Walked in along strea	na	na	na		0	0.35	Wet
NA	NA	NA	42.381368	-71.213770	Beaver Brook just ups	water tannish tea colo	na	na	na		0	0.35	Wet
NA	NA	NA	42.381687	-71.233383	DPW outfall flowing in	water fairly clear no o	na	na	na		0	0.35	wet
NA	NA	NA	42.381687	-71.233383	Duplicate		na	na	na		0	0.35	Wet
NA	NA	NA	42.397176	-71.265148	across street from 55c	sampled pond as it flo	na	na	na		0	0.35	Wet
NA	NA	NA	42.456399	71.136447	small pipe exiting ball	Occasional discharge	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.456425	71.136466	Main stream next to M	Lots of leaf litter, mar	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.456789	71.138966	bridge across from W	High flow pretty clear	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.469507	71.125285	behind hospital, MyRV	High flow no distinct c	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	Low TSS, tannish sta	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus	very little odor, may b	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.478598	71.118001		Manhole nearby with	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Clear flow, no obvious	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @	downstream	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4824877	71.1060371	Duplicate	Duplicate	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Med flow tannish colo	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Very little flow, believ	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, san	Clear flow	na	na	na	Bedford	0.33	0.33	Wet

NA	NA	NA	42.497445	71.134658	Off Olym Ave back o	Lots of duck weed. Li	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dow	Sandy bottom, med f	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Clear, good flow, no	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, san	Clear flow	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.497445	71.134658	Off Olym Ave back o	Clear, low flow (less t	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Water grayish/green	na	na	na	Bedford	0.15	0.15	wet
NA	NA	NA	42.518433	71.148226	upstream from 7 and 7	1, downstream of Mys	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.518477	71.148139	Stream entering upstr	most likiliy from lands	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.483930	71.1039388	Duplicate	Duplicate	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slightly musty odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	flow about 2-3 gal/mir	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	No distinct odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.399997	71.053984	Where stream exits u	plaque accumulation,	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.41921413	-71.11761932	Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41921413	-71.11761932	Pipe off Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41769678	-71.12871923	algae, possibly grey	bacterial growth	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41382298	-71.13243822	orange flocc at bottom	GPS reads SOM1	na	na	na	Boston-Logan	0	0	Dry
NA	NA	49.30	42.39401523	-71.07608867	Sample taken out out	flow	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.46084009	-71.13716417	90 degree angle on pipe	downward, very stro	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.46309465	-71.13622116	look like it drains cent	just upstream of Swar	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4826072	-71.1046187	Unnamed tributary to	Sweetwater Brook opp	na	na	na	Boston-Logan	0	0	Dry
NA	NA	2.65	42.48393	-71.1039388	Sweetwater Brook @	Lindenwood (upstream	na	na	na	Boston-Logan	0	0	Dry
NA	NA	0.40	42.490277	-71.101799	much less than 2linde	Off Toms Way in Stor	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.490277	-71.101799	duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.49784987	-71.09894694	small pipe exiting	Right next to corner o	na	na	na	Boston-Logan	0	0	Dry
NA	4.0	4.30	42.515744	-71.136289	Sample taken shady l	Commerce Way locat	na	na	na	Bedford	0	0.06	Dry
NA	5.4	6.30	42.513171	-71.142649	1 foot deep at samplin	Halls Brook behind 18	na	na	na	Bedford	0	0.06	Dry
NA	6.2	32.10	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broo	na	na	na	Bedford	0	0.06	Dry
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	NA	12.00	42.50317874	-71.13529801	warmer than yesterda	99 restaurant, Aberjor	na	na	na	Bedford	0	0	Dry
NA	NA	8.35	42.5026954	-71.1353458	orange staining at bot	99 restaurant outfall d	na	na	na	Bedford	0	0	Dry
NA	NA	37.40	42.51329075	-71.14253919	sampled near wooden	unnamed stream just	na	na	na	Bedford	0	0	Dry
NA	NA	6.65	42.51317075	-71.14264919	Halls Brook	185 New Boston, (cho	na	na	na	Bedford	0	0	Dry
NA	NA	26.40	42.51858	-71.146281	condition same as 5/1	confluence of Mys7 ar	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.5157443	-71.1362892	Marshall's shipping lo	Same as last years M	na	na	na	Bedford	0	0	Dry
NA	NA	23.30	42.51601573	-71.13688511	Across Street from las	Same as last years m	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.526348	-71.125516	side culvert	West street where sur	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.526348	-71.125516	Main culvert	West street where sur	na	na	na	Bedford	0	0	Dry
NA	NA	4.00	42.53154834	-71.11838639	very, very slow flow w	Near corner of Interva	na	na	na	Bedford	0	0	Dry
NA	NA	4.30	42.53558799	-71.11508232	mowing upsteam; abo	Birchmeadow South o	na	na	na	Bedford	0	0	Dry
NA	NA	2.85	42.53558799	-71.11508232	duplicate		na	na	na	Bedford	0	0	Dry
NA	NA	3.15	42.53679646	-71.10856436	about 12' deep, slight	Reading High School	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.52094043	-71.10497511	about 6 inches deep	shington and High stre	na	na	na	Bedford	0	0	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
NA	160	46.60	42.40397	-71.021087	odor, gray/black cloud	privately owned	na	na	na	Boston-Logan	0	0.42	Wet
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	clean location	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	duplicate	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	NA	>50	42.27867229	-71.01285912	covered w/metal grate	Between yacht clubs	15	12	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.26651286	-70.99713721	3 dam section slight gr	eenish water 6 inch flo	27	14	na	Boston-Logan	0	0	Dry
NA	NA	18.50	42.26101708	-71.00364142		culvert under bridge o	2.3	14	na	Boston-Logan	0	0	Dry
NA	NA	2.20	42.25707901	-71.01144528	sampled mixing zone	corner of Furnace Bro	0.3	12.3	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.27616359	-71.03722522	oil sheen, jelly fish co	Office park off Heritag	8.1	13.4	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.29837295	-71.04637927	NH3 kit clear, very litt	Victory Park off Vistor	20.2	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.29837295	-71.04637927	duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	50.00	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	28.5	14.3	na	Boston-Logan	0	0	Dry
NA	NA	0.55	42.2668462	-71.02928152	needed city to open g	corner of Hobart and E	na	na	na	Boston-Logan	0	0	Dry
NA	NA	6.30	42.25196531	-71.04783967	downstream side of b	running through Cunn	0.3	11.8	na	Boston-Logan	0	0	Dry
NA	NA	1.20	42.25917963	-71.08395335	downstream side of b	MR baseline site?	na	na	na	Boston-Logan	0	0	Dry
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	550/180	Boston-Logan	0	0.03	Dry
NA	ND	1.25	42.425963	-71.114988		Meeting house brook	0.1	14.1	291	Boston-Logan	0	0.03	Dry
NA	4.9	4.75	42.399303	-71.160888	waded in stream to co	Winns Brook of Bright	0.6	14.4	1085	Boston-Logan	0	0.03	Dry
0.14	4.7	5.00	42.399303	-71.160888	duplicate		na	na	na	Boston-Logan	0	0.03	Dry
NA	6.6	4.55	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.8	14.1	1625	Boston-Logan	0	0.03	Dry
0.07	6.1	6.30	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.8	13.7	1623	Boston-Logan	0	0.03	Dry
NA	NA	0.30	42.72491896	-71.18303334	sample collected just	RT 28 castle park	0.2	16.7	384.6	Lawrence	0	0	Dry
NA	NA	NA	42.72745251	-71.18836554	hydroelectric stream,	Osgood Street	na	na	na	Lawrence	0	0	Dry
NA	NA	12.30	42.72745251	-71.18836554	discharge under Osgo	od street bridge, strong	na	na	na	Lawrence	0	0	Dry
NA	NA	2.10	42.74320743	-71.20845291	needed reach	Hampshire Rd on boa	0.2	16.9	365.2	Lawrence	0	0	Dry
NA	NA	1.80	42.75526814	-71.20793271	red rusty color, some	By auto glass place of	0.2	313.5	17.2	Lawrence	0	0	Dry
NA	NA	2.15	42.76250258	-71.22274645	slightly more cloudy th	downstream of road, s	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.76743837	-71.22301615	low flow	behind Kohl's parked	0.4	16.2	757	Lawrence	0	0	Dry
NA	NA	0.50	42.77404525	-71.22433096	thick algae growth, ve	flow from east under F	0.3	19.6	638	Lawrence	0	0	Dry
NA	NA	2.70	42.77406535	-71.22432568	sampled upstream of	confluence with Mer6a	0.3	15.4	684	Lawrence	0	0	Dry
NA	NA	1.80	42.77812136	-71.22714727	flow from under Rockingham park		0.3	15.8	650	Lawrence	0	0	Dry
NA	NA	NA	42.77812136	-71.22714727	duplicate		na	na	na	Lawrence	0	0	Dry
NA	NA	0.20	42.77659345	-71.23104502	sample taken approx	main stream sample	0.3	18.6	665	Lawrence	0	0	Dry
NA	NA	ND	42.77659345	-71.23104502	strong odor, orange s	culvert that conveys b	na	na	na	Lawrence	0	0	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6m	Boston-Logan	0	0	Dry
0.25	12	9.25	42.287572	-71.022259	lots of orange flocc co	across from CVS on C	1	15	1913	Boston-Logan	0	0	Dry
1.34	350	50+	42.289355	-71.041773	Very, very muddy wat	Tenean Beach	24.5	16.3	38.36m	Boston-Logan	0	0	Dry
1.53	330	50+	42.298373	-71.046379	Started sprinkling abo	at dog park off Victory	24.5/24.6	16.3/16.3	.36/38.	Boston-Logan	0	0	Dry

0.31	7.2	3.75	42.288373	-71.092879	bacteria plague cover	Canterbury Brook, Bo	0.6	14.6	1156	Milton-Blue Hi	0.07	0.07	Dry
0.32	7.1	2.30	42.288373	-71.092879	duplicate		na	na	na	Milton-Blue Hi	0.07	0.07	Dry
NA	NA	ND	42.779551	-71.027841	misting, very light rain	sampled downstream	0.2	13.7	331	Lawrence	0.1	0.1	Wet
NA	NA	1.05	42.767101	-71.033431	culverted stream outf	across from 62 coffin	0.2	16.1	263	Lawrence	0.1	0.1	Wet
NA	NA	0.50	42.752001	-71.038431	sampled off bridge w/	off Main Street	0.2	14.1	376.6	Lawrence	0.1	0.1	Wet
NA	NA	1.00	42.74968	-71.041971	2 lamprey's in stream	further south on Main	0.1	14.1	259.4	Lawrence	0.1	0.1	Wet
NA	NA	5.75	42.772341	-71.084161	Coming out of retainir	on right side facing up	0	16.5	92.5	Lawrence	0.1	0.1	Wet
NA	NA	1.80	42.773051	-71.082001	Little River outfall into	Walked downstream a	0.2	17.2	438.2	Lawrence	0.1	0.1	Wet
NA	NA	0.20	42.776051	-71.087001	flow swift, about 1ft de	behind auto parts sup	0.2	17.3	431.7	Lawrence	0.1	0.1	Wet
NA	NA	NA	42.776051	-71.087001	duplicate		na	na	na	Lawrence	0.1	0.1	Wet
NA	NA	1.65	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks	0.3	16.6	700	Lawrence	0.1	0.1	Wet
NA	NA	0.35	42.696201	-71.1459901	Combined sample fro	Behind S. Lawrence e	0.3	16.7	577	Lawrence	0.1	0.1	Wet
NA	NA	2.35	42.696209	-71.1457001	Shawsheen River	main stream sample b	0.3	16.7	679	Lawrence	0.1	0.1	Wet
NA	NA	5.05	42.695971	-71.1455601	strong flow, lots and lo	Concrete outfall meta	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
0.13	2.8	0.30	42.57664155	-70.92825715		Frost Fish Brook, 34 S	0.3	13.3	585	Beverly	0	0.16	Dry
0.1	3	1.85	42.58395698	-70.92904291	Moss growing in pipe	Downstream of bridge	0.2	12.8	375	Beverly	0	0.16	Dry
0.09	3.5	1.00	42.51446323	-70.86578117	Some moss growing o	Sampled where brook	0.2	13.8	329	Beverly	0	0.16	Dry
0.14	4.6	2.70	42.51182185	-70.85955935		Between Rts. 134A ar	0.4	13.1	641	Beverly	0	0.16	Dry
0.34	5.3	1.70	42.466942	-70.92203147	Sample combined fro	Sampled about 15' do	0.5	14.2	826	Beverly	0	0.16	Dry
0.32	5.1	1.40	42.466942	-70.92203147	Ammonia kits - samples	recorded as 1.0 but	na	na	na	Beverly	0	0.16	Dry
NA	NA	NA	42.52474522	-70.92044643	Channelized streamb	Off Howley St, back c	0.5	17.1	930.1	Beverly	0	0	Dry
NA	NA	NA	42.52463018	-70.92029908	Channelized streamb	Strong Brook, off How	0.4	13.6	597	Beverly	0	0	Dry
NA	NA	NA	42.52857218	-70.92980508	Lots of snails and plar	End of Sawyer off RR	0.5	12.2	747	Beverly	0	0	Dry
NA	NA	NA	42.52780518	-70.93030508	Channelized stream b	Off RR Ave near corn	0.6	16.7	1004	Beverly	0	0	Dry
NA	NA	NA	42.52132281	-70.92246961	Culverted stream, mo	Upstream of Pierpont	0.4	13.1	568	Beverly	0	0	Dry
NA	NA	NA	42.52110337	-70.88711899	Duck bill pipe opening	On Derby St off Derby	10.1	16.4	14.41	Beverly	0	0	Dry
NA	NA	NA	42.5245133	-70.90032899	Concrete pipe; bird lif	Commercial St, acros	11	18.2	16.15	Beverly	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Swimming children in	Corner of Crowninshie	0.4	14.5	605	Beverly	0	0	Dry
NA	NA	NA	42.51482047	-70.84827695	Thick orange floc in s	Sampled downstream	0.4	14.2	618	Beverly	0	0	Dry
NA	NA	7.85	42.51312428	-70.8564196	Water irridescent in s	at Marblehead transfe	0.5	13.3	780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the S	0.5	14.2	1780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the N	1.1	14.8	1784	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	duplicate		na	na	na	Beverly	0	0	Dry
0.23	4.3	1.40	42.262068	-71.046682	sampled downstream	Unquity Brook off Chr	0.5	14.5	800	Milton-Blue Hi	0	0	Dry
0.24	4.1	1.85	42.253703	-71.068976	Heard dripping from u	downstream of Rando	0.5	15.4	797	Milton-Blue Hi	0	0	Dry
1.66	660	44.30	42.266485	-70.997104	Flow was very strong	Wollaston Beach upst	28.5	20.5	*40.4m	Milton-Blue Hi	0	0	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12m	Milton-Blue Hi	0	0	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55m	Milton-Blue Hi	0	0	Dry
NA	NA	1.85	42.44287759	71.14284459	used reach, sample c	Upper Mystic Lake sa	0.4	19.2	794	Boston-Logan	0	0	Dry
NA	NA	NA	42.451207	-71.13668	sample collected dow	downstream of downto	0.4	19.5	812	Boston-Logan	0	0	Dry
NA	NA	2.40	42.46084009	-71.13716417	sampled about 50ft up	Off Swanton Street, g	0.5	17.4	888	Boston-Logan	0	0	Dry
NA	NA	NA	42.46084009	-71.13716417	thick algae growth on	Whittmore pond outle	0.4	18.4	745	Boston-Logan	0	0	Dry
NA	NA	0.80	42.4764251	-71.1182001	name on data sheet is	Aberjona mainstem in	0.5	17	935	Bedford	0	0	Dry
NA	NA	6.25	42.5026954	-71.1353458	streambed wide and s	sampled downstream	0.5	17.9	891	Bedford	0	0	Dry
NA	NA	10.10	42.5026954	-71.1353458	orange staining at bot	99 restaurant outfall d	1.9	15.5	2907	Bedford	0	0	Dry
NA	NA	0.40	42.51317075	-71.14264919	sheetrock compound	Halls Brook at 185 Ne	0.5	16.7	813	Bedford	0	0	Dry
NA	NA	27.90	42.51329075	-71.14253919	strip was almost blue	unknown stream near	0.5	15	796	Bedford	0	0	Dry
NA	NA	28.50	42.51317075	-71.14264919	DRR1 duplicate	DRR1 duplicate	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.517998	-71.130612	Sampled just under cu	Walking in off Arnold	0.5	16.1	908	Bedford	0	0	Dry
NA	NA	0.80	42.53558799	-71.11508232	average flow	Birchmeadow South o	0.7	15.1	1195	Bedford	0	0	Dry
NA	NA	0.60	42.53679646	-71.10856436	slight scum on top of	Reading High School	0.8	15.5	1308	Bedford	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
0.12	4.6	1.30	42.48685	-71.0985788	Cl2 exceeded holding	Elm St in Stoneham, t	0.7	15.6	1434	Boston-Logan	0.08/0	0.08/0.	Wet
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.	0.1/0.2	Wet
NA	NA	NA	42.46345477	-71.14925777	very light rain, small w	at end of Sylvester St	0.4	17.4	775	Boston-Logan	0	0.47	Wet
NA	NA	NA	42.46345577	-71.14925707	warm water about 1 a	at end of Sylvester St	0.5	23.4	720	Boston-Logan	0	0.47	Wet
NA	NA	0.55	42.475449	-71.1600123	Jay Corey, city engine	Off Woburn Parkway	0.7	14.1	1353	Bedford	1.39	1.53	Wet
NA	NA	2.30	42.47549599	-71.15991194	rust/orange stain on ro	main stream outfall or	0.6	17.1	1267	Bedford	1.39	1.53	Wet
NA	NA	NA	42.47549599	-71.15991194	duplicate of OF118		na	na	na	Bedford	1.39	1.53	Wet
NA	NA	2.75	42.475349	-71.160112	city engineer requeste	small plastic pipe abo	0.7	13.4	**1.4m	Bedford	1.38	1.53	Wet
NA	NA	NA	42.4809258	-71.15751796	main outfall corrugate	Off Harrison Ave near	0.7	17.6	1445	Bedford	1.38	1.53	Wet
NA	NA	NA	42.47333227	-71.17269149	sampled mid-stream j	downstream of Cumm	0.4	16.7	828	Bedford	1.38	1.53	Wet
NA	NA	NA	42.48054493	-71.17539336	sampled downstream	Midway down So Bed	0.3	16	603	Bedford	1.35	1.53	Wet
NA	NA	NA	42.48093881	-71.17630129	moderate flow, severe	On corner of So. Bedf	0.2	15.3	441	Bedford	1.35	1.53	Wet
NA	NA	NA	42.48008835	-71.18316396	steep sides on bank, r	Near condo complex o	0.1	18	997	Bedford	1.35	1.53	Wet
NA	NA	0.95	42.46880482	-71.17869266	some flow coming ou	Shaker Glen Brook of	0.3	16.5	583	Bedford	1.35	1.53	Wet
NA	NA	2.45	42.46773317	-71.18022662	unknown tributary to S	57 Russel Street	0.4	16.8	988	Bedford	1.34	1.53	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston N	6.5	20.34	11.36	Boston-Logan	0	0	Dry
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
1.17	200	50*	42.394421	-71.049706	Surf., NH3 (EPA) and	other 500mL bottle sar	14.2	21.5	23.49	Boston-Logan	0	0	Dry
1.15	200	50*	42.394421	-71.049706	Duplicate of IsEnd03		na	na	na	Boston-Logan	0	0	Dry
0.81	130	46.10	42.41380356	-71.13242519	can hear running water in pipe; YSI measurm		9.1	17.7	15.1	Boston-Logan	0	0	Dry
NA	NA	NA	42.40333987	71.020587	gray plaque on bottom and below outfall		0.5	15.8	291-246	Boston-Logan	0	0	Dry
NA	NA	NA	42.40376623	-71.02130017	significant gray bacterial plaque; some suds.		1.1/0.1	17.5/17.5	517/142	Boston-Logan	0	0	Dry
NA	NA	NA	42.39960591	-70.99828284	slight gray plaque; lot	downstream - pipe on	1.8	18.1	3447	Boston-Logan	0	0	Dry
NA	NA	NA	42.40075317	-70.99738614	orange floc in pipe an	Site at intersection on	1.1	20.4	1982	Boston-Logan	0	0	Dry
NA	NA	NA	42.399852	-70.99260269	sample taken from ab	NE back corner of Sh	4.3	20.4	7.6	Boston-Logan	0	0	Dry
NA	NA	NA	42.400002	-70.991803	slight flow in channel	Upstream of WashN0	4.5	21.7	8.14	Boston-Logan	0	0	Dry
NA	NA	NA	42.399999	-70.991803	Pipe enters Sales from	East just South of fer	5.4	15.4	9.6	Boston-Logan	0	0	Dry
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled over pedestr	1.7	18.1	3271	Boston-Logan	0	0	Dry
NA	NA	NA	42.40269115	-71.00375656	Duplicate of Green01		na	na	na	Boston-Logan	0	0	Dry

NA	NA	NA	42.41458312	-70.9947105	Lots of film on surface	Very back of corner o	1.1	23	22.38	Boston-Logan	0	0	Dry
NA	NA	NA	42.41699849	-70.99015595	Used reach, lots of fra	End of Agawam St; of	1.4	21.2	2737	Boston-Logan	0	0	Dry
NA	NA	NA	42.4001152	-71.050172	Very cloudy, significa	Upstream of Island En	1	19.5	2014	Boston-Logan	0	0	Dry
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
NA	NA	NA	42.17433828	-71.21340789	2 metal corrugated ou	parked off Washingto	0.3	17.2	414.3	Norwood	0	0	Dry
NA	NA	NA	42.17436284	-71.2133808	mainstream sample fr	parked off Washingto	0.2	23.5	372	Norwood	0	0	Dry
NA	NA	NA	42.17568587	-71.21568311	about 300ft upstream	off Main St, turn into E	0.2	24	347.8	Norwood	0	0	Dry
NA	NA	NA	42.17568487	-71.21569311	tributary to Hawes Bro	Sampled right before	0.3	17.8	685	Norwood	0	0	Dry
NA	NA	NA	42.17460128	-71.21823127	Just upstream of HAB	off Main St, turn into E	0.3	17.8	688	Norwood	0	0	Dry
NA	NA	NA	42.17761815	-71.22424663	entered near no dump	Tributary to Hawes Br	0.4	16.5	713	Norwood	0	0	Dry
NA	NA	NA	42.17761815	-71.22424663	small pipe exiting abo	parked off corner of D	na	na	na	Norwood	0	0	Dry
NA	NA	NA	42.17761779	-71.22765971	2 outfalls @ headwall	parked off corner of D	0.3	15.9	589	Norwood	0	0	Dry
NA	NA	NA	42.17858119	-71.18783858	12' metal corrugated c	260 Dean St parked 2	0.7	19.6	1465	Norwood	0	0	Dry
NA	NA	NA	42.18465657	-71.19415004	some billowy stuff on	On Meadowbrook Rd,	0.8	18.2	1539	Norwood	0	0	Dry
NA	NA	NA	42.18465657	-71.19415004	duplicate of MB02		na	na	na	Norwood	0	0	Dry
NA	NA	NA	42.20501085	-71.18852597	Plantingfield Brook	On Codman Ave acro	0.4	20	766	Norwood	0	0	Dry
NA	NA	NA	42.20459437	-71.19851397	Plantingfield Brook, a	corner of Ash Rd and	0.3	16.9	663	Norwood	0	0	Dry
0.22	5.1	1.50	42.250692	-70.997793	Accessed via parking	Canal opening just off	0.5	19.7	1080	Boston-Logan	0.01	0.01	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3m	Boston-Logan	0.01	0.01	Dry
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry
1.65	530	50*	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	25	18.8	39.10m	Boston-Logan	0.01	0.01	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.25196531	-71.04783967	just upstream of samp	in Cunningham Park d	0.3	18.8	619	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25100306	-71.0519303	Stream 2ft deep. thick	corner of Fullers Roac	0.3	18.1	635	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25774194	-71.00885949	reached up to sample	downstream side of br	0.1	21.5	205	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25774194	-71.00886049	6 feet across	sampled just upstrean	0.3	18	709	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25623392	-71.02049266	2 cement culverts san	off Furnace Brook Par	0.4	17.1	790	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.245665	-71.02734872	Unnamed tributary to	Off Cresent street, wa	0.3	19.8	661	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25581841	-70.99401534	some DPW work migh	End of Broad street of	9.9	19.5	**15.03	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27616359	-71.03722522	sampled on incoming	Office park off Heritag	23.7	20	**37.4	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27616359	-71.03722522	groundwater seep, thi	just downstream of SA	2.3	16.4	3645	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27716403	-71.00777498	sampled after tide had	Wollaston Beach outf	29	19.4	44.56m	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27716413	-71.00777488	sampled inside of out	Wollaston beach outfa	23.3	17.1	**36.79	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27867229	-71.01285912	sampled inside of out	Wollaston Beach outf	3.2	18	*5.81m	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25069222	-70.99779295	Parked via lot at Bagr	Canal opening near E	0.4	21.2	771	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25069222	-70.99779295	duplicate of Canal1		na	na	na	Boston-Logan	0.05	0.06	Dry
0.07	ND	0.15	41.92559804	-70.61841863	lots of eel grass, used	downstream Eel River	0.1	22.8	142.9	Plymouth	0.01	0.01	Dry
ND	ND	0.20	41.92519001	-70.61918863	River: about 1.5' deep	downstream of bridge	0.1	22.6	145.3	Plymouth	0.01	0.01	Dry
~0.05	ND	ND	41.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0.01	0.01	Dry
0.1	ND	0.35	41.92517001	-70.61942993	some grass was gorw	upstream of Sandwich	0.1	21.5	187.7	Plymouth	0.01	0.01	Dry
0.08	4.2	0.60	41.92538204	-70.61810863	dead mouse floating i	directly behind 132 sa	0.2	17.6	326.3	Plymouth	0.01	0.01	Dry
0.15	NA	ND	41.92480601	-70.61774371	very akward sampling	Clean-out pipe, behin	0.2	20.4	315.3	Plymouth	0.01	0.01	Dry
NA	NA	NA	42.70688	-71.1476552	downstream of waterf	confluence of canal &	0.1	26.5	188	Lawrence	0	0	Dry
NA	NA	NA	42.70703754	-71.14815826	some algae on stream	just down stream of ca	0.1	25.6	192.9	Lawrence	0	0	Dry
NA	NA	NA	42.70747755	-71.14846649	shallow 1' aglae on ro	Upstream (~50') of Sp	0.2	23.2	480	Lawrence	0	0	Dry
NA	NA	NA	42.70725878	-71.14809783	on Merrimack river sid	leaky pipe under Spic	0.1	22.6	230	Lawrence	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	tace hemoglobin off u	pipe off Lawrence Hos	1.2	22.6	2291	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	23.8	618	Lawrence	0	0	Dry
NA	NA	NA	42.67231773	-71.14949411	left side, facing downs	front of Balmoral cond	1	20.6	1936	Lawrence	0	0	Dry
NA	NA	NA	42.67225719	-71.1493017	flow dropped to a trick	front of Balmoral cond	1.4	20.7	2780	Lawrence	0	0	Dry
NA	NA	NA	42.66847901	-71.14232625	some algae on rocks	little park of York St b	0.4	18.3	878	Lawrence	0	0	Dry
NA	NA	NA	42.66510433	-71.14546547	waded downstream to	park in Shawsheen pla	0.8	21.7	1600	Lawrence	0	0	Dry
0.12	3.4	1.05	42.266756	-71.094794	green algae and greyi	(actually NR104?) Bel	0.5	18.2	910	Boston-Logan	0.77	0.77	Wet
ND	ND	0.50	42.266710	-71.094816	waded into river for sa	just upstream of Dent	0.2	24.6	427.7	Boston-Logan	0.77	0.77	Wet
ND	3.7	1.65	42.251173	-71.128400	lots of trash in stream	parked off Reservatio	0.3	25.9	625	Boston-Logan	0.77	0.77	Wet
0.05	8.7	21.90	42.247956	-71.125339	difficult access, white	parked off Glenwood,	0.2	20.5	476.6	Boston-Logan	0.77	0.77	Wet
0.66	7.4	14.25	42.244799	-71.126989	green algae in outfall,	behind tennis courts o	0.5	18.4	968	Boston-Logan	0.77	0.77	Wet
0.74	7.2	14.80	42.244799	-71.126989	Duplicate of NR162		na	na	na	Boston-Logan	0.77	0.77	Wet
0.14	4.8	1.15	42.242826	-71.127704	some gray bacteria, g	behind Stop & Shop o	1.2	22.4	24.11	Boston-Logan	0.77	0.77	Wet
0.08	ND	1.00	42.242874	-71.127669	Mainstem Neponset R	behind Stop & Shop o	0.2	25	486	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27144045	-71.06754804	sampled majority of fl	Adams Street before I	0.2	23.6	518	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27041352	-71.07319096	Neponset mainstem,	Under Central Street E	0.2	23.8	580	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27049459	-71.07315433	"Bos103" bacterial pla	Outfall under Central	1.7	21.3	3148	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27049459	-71.07315433	Duplicate of Milt03		na	na	na	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27019179	-71.07283064	Pine Tree Brook	Pedestrian bridge nea	0.3	20.3	520	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.2660057	-71.07350454	disjointed clay tile pip	pipe coming out from	0.1	20.6	310.3	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.26591742	-71.07358271	Pine Tree Brook	sampled under bridge	0.3	20.4	518	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27034626	-71.07934437	Walked in about 50fe	corner of Desmond ar	0.2	19.5	625	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.26714745	-71.0936206	Thick white suds in po	Parked at condo comp	0.7	19.8	1547	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.24761793	-71.13018278	very low flow, lots of d	Upstream of Reservat	17.3	22.7	26.03m	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.250559	-71.129583	Across stream from B	Just downstream of R	0.3	25.9	593	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.24282649	-71.12770352	about 20 ft downstrea	Downstream outfall be	1.2	22.3	2276	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.242715	-71.127903	pool below outfall had	Upstream outfall behir	0.1	27.3	228.5	Boston-Logan	0.77	0.77	Wet
0.12	4.6	2.95	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	14.6	780	Bedford	0.01	0.01	Dry
0.74	7.3	26.60	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broc	0.5	14.4	932	Bedford	0.01	0.01	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry

1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
0.73	7.3	28.80	42.51858	-71.146281	after confluence of La	Just south of Landfill E	0.5	14.2	955	Bedford	0.01	0.01	Dry
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrear	0.3	15.3	806	Boston-Logan	0	0	Dry
0.09	3.1	1.05	42.3599847	-71.1809755	"New81" waded to lef	Outfall to Charles off	0.6	14.6	1308	Boston-Logan	0	0	Dry
0.14	ND	0.75	42.3646351	-71.1892039	Used waders	Laundry Brook off Cal	0.4	18	830	Boston-Logan	0	0	Dry
0.14	ND	na	42.3646351	-71.1892039	Duplicate of Laund01		na	na	na	Boston-Logan	0	0	Dry
0.14	3.6	1.35	42.3600600	-71.2169465	taken 6' downstream	Cheessecake Brook n	0.7	16.7	1378	Boston-Logan	0	0	Dry
0.17	4.4	2.20	42.3730420	-71.2283524	shallow stream, colleo	Beaver Brook near co	0.5	16.7	1035	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.41	7.8	7.80	42.659814	-71.318830	large duckbill coverin	Beaver Brook outfall	0.1	18.2	468.5	Lawrence	0	0	Dry
NA	NA	1.45	42.659837	-71.318833	sample taken just ups	Beaver Brook Mainste	0.2	16.9	358.8	Lawrence	0	0	Dry
0.15	ND	0.60	42.650395	-71.314502	west channel sampled	off Suffolk Street, clim	0.1	19.1	170	Lawrence	0	0	Dry
0.16	ND	0.10	42.643823	-71.307889	sampled open channe	downstream from Cen	0.1	19.2	168.7	Lawrence	0	0	Dry
0.11	4.1	2.25	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17.5	714	Lawrence	0	0	Dry
0.15	4	ND	42.633655	-71.302505	Duplicate of RMB1		na	na	na	Lawrence	0	0	Dry
NA	NA	1.10	42.631057	-71.305968	1ft at deepest, used re	sampled downstream	0.3	17.6	711	Lawrence	0	0	Dry
0.17	7.2	7.15	42.638346	-71.343658	Flow from 2 large me	Black Brook off Middle	0.6	17.8	1145	Lawrence	0	0	Dry
NA	NA	8.20	42.634459	-71.349404	rocks covered w/ alga	Black Brook off Baldw	0.5	19.5	1077	Lawrence	0	0	Dry
0.15	8.1	3.40	42.520940	-71.104975	about 6 inches deep (	corner of Washington	0.9	16.7	1682	Lawrence	0.01	0.01	Dry
0.2	6.9	4.35	42.65447823	-71.14660047	hiked down hill sampl	5 Dundee Park near Y	0.4	15.1	806	Lawrence	0.01	0.01	Dry
0.19	4.5	0.60	42.65573487	-71.13334922	some deeper pools	Off Chestnut Street, n	0.3	15.1	530	Lawrence	0.01	0.01	Dry
0.25	4.8	0.35	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	15.9	537	Lawrence	0.01	0.01	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	15.5	539	Lawrence	0.01	0.01	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
0.1	5.8	2.30	42.695971	-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
0.32	28	34.90	42.70991636	-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
0.14	8.5	0.80	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0.01	0.01	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
0.21	8.9	~10.5	42.24781922	-71.05546405	collected close to outfall	in pool	0.5	15.4	933	Boston-Logan	0.51	0.57	Wet
0.1	2.8	~0.85	42.20481659	-71.19661788	sampled right culvert		0.6	16.7	1146	Norwood	0.54	0.63	Wet
0.16	3.3	~1.6	42.20509841	-71.964841	sample collected before	two steams mix	0.2	15.5	515	Norwood	0.54	0.63	Wet
0.07	3.8	ND	42.204594	-71.198514	sample collected near	culvert	0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	1.8	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.5	11.3	910	Bedford	0	0	Dry
NA	4.2	6.35	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.5	11.7	921	Bedford	0	0	Dry
NA	NA	NA	42.41803618	-71.15649782	Start of culvert under	Mill Brook near bike p	0.4	11.6	884	Bedford	0	0	Dry
NA	3.6	1.05	42.41800384	-71.1599327	two 3 foot culverts an	Near Arlington High S	0.4	11.6	859	Bedford	0	0	Dry
NA	3.6	2.45	42.41800384	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry
NA	3.4	2.05	42.42030025	-71.16460763	6ft stone channel, foo	Mill Brook instream	0.4	12.1	755	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	8.3	6	42.42321769	-71.17286099	lots of green algae ins	ide pipe	1.4	11.4	2700	Bedford	0	0	Dry
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	2.65	42.42388575	-71.17372022	hole in wall/seep	East side of culvert wa	0.5	10.0	1394	Bedford	0	0	Dry
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, E	0.7	10.1	1450	Bedford	0	0	Dry
NA	ND	0.65	42.42443302	-71.17464016	waders, culvert just up	Outfall to Mill Brook, V	0.6	9.8	1280	Bedford	0	0	Dry
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	4.9	2	42.44732536	-71.13860428	near gauging station	Sampled above dam	0.4	10.3	821	Bedford	0	0.02	Dry
NA	NA	NA	42.45109149	-71.13689456	waterfall ~250ft upstre	Waterfield St bridge	0.4	10.2	806	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45284032	-71.13542441	used reach and wade	Mt Vernon St bridge b	0.4	10.2	794	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45571045	-71.13669402	used reach	Behind Stop & Shop	0.3	12.6	561	Bedford	0.16	0.18	Wet
NA	5.2	2.25	42.4564901	-71.13647243	outfall on far left looki	Skillings road from un	0.4	9.1	907	Bedford	0.16	0.18	Wet
NA	5.4	1.75	42.4564901	-71.13647243	duplicate of Skill01		na	na	na	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45646101	-71.13649804	very low flow - if any	small pipe exiting nea	0.4	9.1	908	Bedford	0.16	0.18	Wet
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	11	5.7	42.47549599	-71.15991194	rust/orange stain on ro	main stream outfall on	0.8	19.8	1655	Bedford	0.17	0.19	Wet
NA	NA	NA	42.48090577	-71.15755569	slightly crushed small	Off Harrison Ave near	0.5	12.2	1070	Bedford	0.17	0.19	Wet
NA	15	4.75	42.4809258	-71.15751796	Main outfall	Off Harrison Ave near	1.3	7.9	2495	Bedford	0.17	0.19	Wet
NA	9.7	3.35	42.47993991	-71.15617846	very slow flow	opposite side of ballpa	0.8	12.5	1578	Bedford	0.17	0.19	Wet
NA	4.3	0.9	42.42029396	-71.16475294	Just upstream of Grov	Mill Brook instream	0.4	15.9	850	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.422035	-71.170577	needed ladder/waders	At end of Robin Stree	0.8	12.5	1533	Bedford	0.12	0.12	Wet
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, E	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	3.9	1.35	42.424465	-71.174718	neighbor stopped ove	Just upstream of Ryde	0.4	17	729	Bedford	0.12	0.12	Wet
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	3.7	2	42.425348	-71.186230	PPCP bottle broke, re	behind 1395 Mass Av	0.3	18.2	684	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	NA	0.4	42.513171	-71.142649	machinery stored nea	Halls Brook behind 18	0.4	11.1	875	Bedford	0	0	Dry
NA	NA	11.3	42.513291	-71.142539	sampled before timbe	Unnamed stream just	0.4	10.1	839	Bedford	0	0	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	NA	3.85	42.51422481	-71.14551115	flow on downstream s	sampled from left ope	0.4	11.3	878	Bedford	0	0	Dry
NA	NA	3.55	42.51422481	-71.14551115	duplicate of Torr01		0.4	11.3	878	Bedford	0	0	Dry
NA	NA	2.65	42.51048269	-71.15492526	fair amount of litter	upstream of road cros	0.4	12.1	869	Bedford	0	0	Dry
NA	NA	2.7	42.5086557	-71.1583669	construction on bridge	bottom of stone run of	0.5	12.7	987	Bedford	0	0	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before	bridge	0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet

NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	10.8	42.25620978	-70.99314315			8.1	13.3	14.1	Milton-Blue Hi	1.5	0	Wet
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	2.2	42.39528219	-71.17631914	duplicate of WEB013		na	na	na	Bedford	0	0	Dry
NA	NA	1.1	42.39528219	-71.17631914	lots of suspended sed	Wellington Brook	0.7	12.6	1433	Bedford	0	0	Dry
NA	NA	NA	42.4225696	-71.14928822		Mystic Valley Parkway	0.6	13.8	1269	Bedford	0	0	Dry
NA	NA	0.25	42.41770489	-71.1574838	may be multiple pipe	pipe discharging to Mi	0.1	17.8	237	Bedford	0	0	Dry
NA	NA	NA	42.42471486	-71.17533266	collected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	2.45	42.42645629	-71.19436402		pipe discharging unde	1.3	17.6	2482	Bedford	0	0	Dry
NA	NA	ND	42.42648362	-71.19440958	6ft wide, rocky stream	Bow street, just downs	0.3	18.3	537	Bedford	0	0	Dry
NA	NA	1.45	42.42834205	-71.19676456	36" double culvert col	Just downstream of F	0.2	19.3	513	Bedford	0	0	Dry
NA	NA	0.05	42.42901218	-71.1975303	tributary, thick film co	Walked ~100yards up	0.2	20.9	362.9	Bedford	0	0	Dry
NA	NA	5.95	42.39988394	-70.99242127	duplicate of WashN01		na	na	na	Boston-Logan	0.08	0.43	Wet
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	11	42.39990454	-70.99237953	just upstream of Was	Sales Creek	1.3	18.2	2527	Boston-Logan	0.08	0.43	Wet
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	17.7	42.3830573	-71.03016877	40min before low tide	Condor Street outfall,	23.3	16.1	36.7mS	Boston-Logan	0.08	0.43	Wet
NA	NA	50*	42.36126566	-71.05083507	near Christopher Colu	Climbed down betwee	26.7	16.3	44.67mS	Boston-Logan	0.08	0.43	Wet
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	2.35	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/18	Lawrence	0.04	0.04	Dry
NA	NA	12.4	42.465157	-71.392813	pool at base of culver	<1/2 mile from bridge	0.2	27.6	90.3/37	Bedford	0	0	Dry
NA	NA	ND			Effluent of a membrane bioreactor			24	495.8	Falmouth	0.12	0.21	Wet
NA	NA	25.10			6" below surface, 6"sa	tip pans (24/day - 1galeach) sto		22.9	479	Falmouth	0.12	0.21	Wet
NA	NA	38.70			12" below surface	12"sand		21.1	602	Falmouth	0.12	0.21	Wet
NA	NA	ND						21.6	351	Falmouth	0.12	0.21	Wet
NA	NA	ND			24" below surface			20.1	571	Falmouth	0.12	0.21	Wet
NA	NA	2.5			Influent			19.3	479	Falmouth	0.12	0.21	Wet
NA	NA	36.80			12" with air			20.3	579	Falmouth	0.12	0.21	Wet
NA	NA	11.5								Falmouth	0.12	0.21	Wet
NA	NA	ND						20.3	606	Falmouth	0.12	0.21	Wet
NA	NA	NA	42.968332	-71.472794	Oil sheen across all ro	called EPA incident re	0.3	18.1	29/446.	Manchester	0	0	Dry
NA	NA	NA	42.985780	-71.469196	Strong musty odor, ta	sampled flow out of pi	1	17.6	934/165	Manchester	0	0	Dry
NA	NA	NA	42.998669	-71.468348	next to outfall 047, thi	outfall just north (adja	2.1	15.2	992/321	Manchester	0	0	Dry
NA	NA	NA	42.998660	-71.468348	steam coming out of p	just south of 047N, by	2.5	17.5	4750	Manchester	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.21004	-71.530441	grated outfall, flow is	approx. 10 gal/min poo	0.7	14	1070	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.193970	-71.542492	midstream sample ne	Concord District Cour	0.7	22.9	1458	Concord	0	0	Dry
NA	NA	NA	43.199674	-71.548718	Just upstream of Clin	off Pleasant Street	0.5	23.1	1080	Concord	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.51380064	-70.88804384	Palmer Cover, Salem	White bacterial growth	1.5	21.1	4209	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54714736	-70.86166491	Lynch Park, Beverly M	sampled 2hrs after low	0.7	17.6	1339	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55097916	-70.8503408	Down Brackenbury La	Brackenbury Beach	10	18.6	16.91mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55443402	-70.84983196	sampled under bridge	lots of ducks upstream	0.2	20.5	409.2	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54639263	-70.8616749	Lynch Park, Beverly	Small pipe exiting just	1.8	19.3	7.77mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.46084009	-71.13716417	Downstream of Swan	USGS gauge @ 0.9, d	0.5	20.6	1025	Boston-Logan	0	0	Dry
NA	NA	NA	42.469411	-71.1252171	Downstream of Wash	Water almost opaque	0.5	22	1083	Boston-Logan	0	0	Dry
NA	NA	NA	42.4694521	-71.1249571	Outfall upstream of W	OF more than 1/2 full	0.5	21.4	1004	Boston-Logan	0	0	Dry
NA	NA	NA	42.477141	-71.1176671	(previously '1Merrell')	low/slow flow could no	0.5	21.6	1096	Bedford	0.01	0.13	Dry
NA	NA	NA	42.4770646	-71.1175936	(previously '1Kraft')Sw	2 pipes just upstream	0.7	21.5	1366	Bedford	0.01	0.13	Dry
NA	NA	NA	42.491580	-71.128834	(previously 'Sal')1921	USGS field team mea	0.5	20.9	1086	Bedford	0.01	0.13	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026954	-71.1353458	Outfall downstream o	Raccoon prints in pipe	1.3	19.6	2743	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026965	-71.1351128	Stormdrain cover tipp	gray plaque at bottom	na	na	na	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	19.6	873	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	Unnamed stream just	Very low flow	0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	duplicate of DRR1		0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Canterbury Brook, Bo	fine sediments on bot	0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Duplicate of CantB		0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.308203	-71.12058	Arnold Arboretum off	sides of outfall deterio	0.7	13.6	1304	Boston-Logan	0	0	Dry
NA	NA	NA	42.340354	-71.099856	Muddy River in Back	Sampled just downstr	0.5	20.5	1058	Boston-Logan	0	0	Dry
NA	NA	NA	42.330289	-71.114017	Two stone 5' semi-circ	across from 33 Pondv	0.5	25.4	966	Boston-Logan	0	0	Dry
NA	NA	NA	42.326763	-71.114752	Off Riverdale Pkwy in	downstream of outfall	0.9	15.1	1738	Boston-Logan	0	0	Dry
NA	NA	NA	42.321703	-71.119080	Parked on Chestnut S	just downstream from	0.3	27.1	606	Boston-Logan	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
NA	NA	NA	42.70995636	-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
NA	NA	NA	42.713273	-71.158219	upstream of Jackson	heavy sedimentation o	0.3	23.1	530	Lawrence	0	0	Dry
NA	NA	NA	42.713893	-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry

NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen river sample		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.2	24.3	471.5	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	duplicate of Huss02		0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	Walked upstream fron	Large box culvert cov	0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.9	18.1	1701	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	20.6	848	Bedford	0	0.1	Dry
NA	NA	NA	42.51339681	-71.14295383	outfall about 100ft up	stream from Halls2 loca	0	24.8	50.3	Bedford	0	0.1	Dry
NA	NA	NA	42.51079059	-71.14820571	most of flow coming f	lots of frogs in stream	1	23.5	1960	Bedford	0	0.1	Dry
NA	NA	NA	42.51333787	-71.14802303	upstream of small pec	end of 2nd st, asked #	0.4	22.4	825	Bedford	0	0.1	Dry
NA	NA	NA	41.71543572	-71.36069556	sampled on outgoing	sampled between 2 ro	29.6	24.6	45.72mS	Providence TF	0	0	Dry
NA	NA	NA	41.71380905	-71.36475741		walked up 20 ft from b	20.6	22.4	32.83mS	Providence TF	0	0	Dry
NA	NA	NA	41.7135672	-71.36551541	Mill creek, 0.67 ng/L	Sulfamethoxazole was	20.7	23.5	33.13mS	Providence TF	0	0	Dry
NA	NA	NA	41.71213909	-71.37518941	leaky storm drain pipe	under bridge, layer of	1.3	21.1	2447	Providence TF	0	0	Dry
NA	NA	NA	41.71205509	-71.37524941	bacteria and kits only		na	na	na	Providence TF	0	0	Dry
NA	NA	NA	41.71372754	-71.37889632	downstream from roa	lockwood brook near b	0.2	20.2	314.2	Providence TF	0	0	Dry
NA	NA	NA	41.70908196	-71.38289364	racoon prints on bank	off westshore drive up	0.2	21.6	329	Providence TF	0	0	Dry
NA	NA	NA	41.70708421	-71.38031976	double culvert under t	upstream side of bridg	0.2	16.9	435.9	Providence TF	0	0	Dry
NA	NA	NA	41.71964024	-71.38696064	bacteria and kits only	upstream side of bridg	0.1	20.9	270	Providence TF	0	0	Dry
NA	NA	NA	41.71935982	-71.38618735	epipe designed to tak	at the end of emerson	0.1	20.1	225.8	Providence TF	0	0	Dry
NA	NA	NA	41.71461744	-71.38035705	bact and kits only	Meadowbrook road ou	0.1	22.2	173.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	1-2 in of green algae	end of sweetfern drive	0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	duplicate of SweetF		0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556520	-71.500969	Governor Brook	No distinct flow, light d	0.1	16.3	198.8	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556625	-71.499442	Road crossing upstrea	orange/green growth d	0.2	15.9	341.6	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.559021	-71.494120	sampled facility pipe b	sampled during storm	0	18.5	13.5	Laconia	0.21	0.21	Wet
NA	NA	NA	43.266493	-71.483356			0	15.5	14.5	Laconia	0.44	0.44	Wet
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	NA	NA	42.42547262	-71.02662504	walked upstream from	Sampled about 30ft u	2.4	21.5	4509	Boston-Logan	0	0	Dry
NA	NA	NA	42.42105874	-71.02615376	could see light at othe	Corner of Sargent and	0.3	18.3	687	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	near boat launch, sam	outfall across causewa	3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4891136	-70.84335607	green alge at bottom	Ocean Ave off Marble	0.3	19	680	Boston-Logan	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Grace Oliver Beach S	Corner of Crowninshie	0.2	21	632	Boston-Logan	0	0	Dry
NA	NA	NA	42.51447501	-70.86599014	Stamski Beach	sample 20ft from shor	28.3	23.5	43.87mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~10	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364451	-71.154419	downstream side of A	1 ft deep, started sprir	0.7	15.9	1407	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364313	-71.154481	Arlington St culvert - f	~30ft upstream, 8" pip	0.7	16	1414	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364256	-71.154481	Arlington St culvert - c	no inlet pipes can be s	0.7	15.9	1417	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364351	-71.154519	Arlington St culvert - f	sampled far rt of culve	0.7	15.9	1354	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364037	-71.183908	Watertown outfall #13	weather - still sprinklir	0.1	17.8	260.3	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364489	-71.184223	Watertown outfall #12	some small fish, could	0.5	16.8	1012	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364774	-71.184952	Watertown outfall #11	outfall opening under	0.6	16.2	1168	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook	sampled just inside op	0.3	15.5	565	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.367449	-71.198957	culvert on right, not a	lot of flow	0.7	18.1	1348	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.367489	-71.198853	About 1ft of outfall un	can hear running wate	0.7	17.7	1299	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.4922811	-70.85511019	Sampled left culvert,	more flow than last tir	20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492557	-70.859421	Opened drain manhol	Brick sides w/hard bot	0.7	16.3	1483	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.493467	-70.860430	Opened drain manhol	used reach	0.4	16.3	743	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492693	-70.860829	Opened drain manhol	gas odor	0.2	16	491.7	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.494598	-70.859443	Opened drain manhol	Sampled drain pipe en	0.2	16.9	440	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.496982	-70.856396	Opened drain manhol	double 36" pipes com	0.3	16.9	685	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.502967	-70.856873	Opened drain manhol	brick lined, used reach	0.4	16.4	744	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Opened drain manhol	Sampled main flow, 3	0.4	15.2	809	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Pipe flowing into storm	Started flowing after N	0.3	17.5	541	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	24.4	14.7	38.45mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	16.9	14.1	22.24mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.282780	-71.046962	large tide gate ~2? Ho	sampled center of sou	1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282780	-71.046962	duplicate of 10L094		1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282540	-71.046292	1/2 silted up	sampled about 10 fee	1.3	16.3	2514	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275941	-71.031767	green alge at bottom	former drainline that h	0	13.9	91.6	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273990	-71.030634	very dark sediments	Previously named Sag	1.5	16.9	33.20mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299943	-71.006177	seep from sewage line	to main interceptor or	8.4	17.9	834	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299779	-71.005800	Sample collected at b	waded ~ 6 ft	37.1	13.7	43.74mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.277051	-71.009467	Wollaston Beach Sam	waded ~ 6ft between V	31.3	13.2	41.01mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.278670	-71.013452	Wollaston Beach Sam	waded ~ 6ft near Wol	31.3	13.6	47.97mS	Boston-Logan	0.13	0.14	Wet

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
5/19/09	Woburn	Comm1	7:57	open stream	na	na	none	tea	none	few	82	~20	0.07	0.2	NA	0.174
5/19/09	Woburn	Halls2	8:51	open stream	na	na	none	light tea	none	None	606	~146	0.06	~0.1	NA	0.161
5/19/09	Woburn	DRR1	9:33	open stream	na	/2 that of halls	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50
5/19/09	Woburn	Mys07	10:01	open stream	na	na	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/19/09	Woburn	Mys08	10:20	open stream	na	na	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
5/19/09	Woburn	Mys08d	10:20	open stream	na	na	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
5/26/09	Chelsea	Mill2	10:06	CM	~30 inches	5-10gal/min	strong odor	clear	none	some suds	44	20	0.19	1.5	NA	4.31
5/26/09	Chelsea	Mill2b	10:45	CM	~24 inches	1-2gal/min	strong odor	ay/black clou	med	None	100	ND	0.21	1	NA	4.92
5/26/09	Chelsea	Mill2a	11:10	CM	~24 inches	1 gal/min	none	clear	none	None	~4	ND	0.39	1	NA	7.02
5/26/09	Stoneham	SPB0	12:50	open stream	na	na	none	clear	none	None	21	31	ND	ND	NA	ND
5/26/09	Stoneham	SPB0d	12:50	open stream	na	na	none	clear	none	None	16	~10	~0.05	ND	NA	ND
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None	534	78	ND	~0.1	ND	0.2
6/2/09	Medford	MHBup	8:07	open stream	na	na	none	clear	none	None	48	142	ND	ND	NA	0.086
6/2/09	Belmont	WinB	9:10	open stream	na	na	none	clear	none	None	6212	2908	ND	0.2	NA	0.21
6/2/09	Belmont	WinBd	9:10	open stream	na	na	none	clear	none	None	6212	2452	ND	0.2	0.024	0.172
6/2/09	Arlington	91Mys	10:20	open stream	na	na	musty	cloudy	none	None	>241960	13734	1.3	1.25	0.665	1.53
6/2/09	Arlington	MillB	10:50	CM	10x15ft	na	musty	very cloudy	none	None	550	445	0.06	0.2	0.031	0.206
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
6/9/09	Quincy	WollB5	8:25	CM	16	10-15gal/min	none	clear	none	None	ND	ND	ND	0.2	0.046	0.624
6/9/09	Dorchester	Ten1	9:35	Pipe Mat.	24-30	na	none	tan	very, very	None	96	21	0.08	2	0.048	1.28
6/9/09	Boston	Bos090	9:57	CM	10x10 box	na	musty	tea/tan	some	None	54750	149	0.14	2	0.091	0.823
6/9/09	Dorchester	CantB	11:35	open stream	na	na	husty/sewag	blue/grayish	some	None	198630	34658	1.6	1.5	1.03	4.66
6/9/09	Dorchester	CantBD	11:35	open stream	na	na	husty/sewag	blue/grayish	some	None	173290	48392	1.5	1.5	1.05	4.75
6/16/09	Danvers	Fish004	7:55	open stream	na	na	none	light tan	none	None	250	468	~0.05	0.2	0.028	ND
6/16/09	Danvers	Fish005	8:35	open stream	na	na	none	clear	none	None	333	714	ND	~0.1	0.022	ND
6/16/09	Marblehead	Stram01	10:05	open stream	na	na	none	very light tea	none	None	489	434	~0.05	ND	0.029	0.37
6/16/09	Marblehead	Stram02	10:40	open stream	na	na	none	very light tea	none	None	494	452	~0.05	ND	0.04	0.193
6/16/09	Lynn	Stacey	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	22398	0.31	0.4	0.216	1.04
6/16/09	Lynn	StaceyD	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	24066	0.29	0.4	0.208	0.949
7/14/09	Milton	UNB016	8:36	open stream	na	na	none	clear	none	None	599	109	ND	~0.1	ND	0.304
7/14/09	Milton	UNB002	9:02	CM bridge	3'x6' box	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37
7/14/09	Quincy	WollB2	9:50	open stream	na	ery strong flo	none	tea	yes	None	265	~8	ND	2	0.029	0.094
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
7/21/09	Stoneham	2Linden	9:35	open stream	na	na	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
7/21/09	Stoneham	Elm1	10:10	open stream	na	40-50	lightly must	med tea	none	None	~51720	~5654	~0.12	0.3	0.083	0.578
7/21/09	Stoneham	Toms	10:30	metal w/asphalt	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	UR003	10:30	metal w/asphalt	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
7/21/09	Stoneham	Toms	11:30	metal w/asphalt	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
7/28/09	Chelsea	Mill2	8:05	CM	~30 inches	15	sharp sewa	clear	none	None	310	12	0.23	0.8	0.126	3.84
7/28/09	Chelsea	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None	9678	388	0.1	0.8	0.054	0.831
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'	strong petroleum		tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/28/09	Chelsea	IsEnd03	9:26	CM, semi-round	12'	strong petroleum		blue/grayish	cloudy	ome soap su	16740	368	0.09	1.5	0.055	1.76
7/28/09	Chelsea	UR005	9:26	CM, semi-round	12'	strong petroleum		blue/grayish	cloudy	ome soap su	15850	435	0.09	1.5	0.05	1.64
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box	slight sewage o		gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
8/4/09	Winchester	Russ1	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
8/4/09	Woburn	US5	9:05	open stream		na	none	light tea	clear	None	542	184	ND	ND	0.032	0.133
8/4/09	Woburn	Olym1	9:55	open stream		na	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
8/11/09	Quincy	Canal1	7:55	concrete	6'x8' box	na	slight musty	clear	none	None	1844	417	~0.05	0.15	0.038	0.22
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA

8/11/09	Quincy	WollB1B	9:40	concrete	3-4'	15	musty	clear	none	None	133	12	ND	2.2	ND	ND
8/11/09	Quincy	WollB1A	9:45	concrete	3-4'	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/18/09	Plymouth	Eel1	9:20	open stream		na	none	light tan	clear	None	30	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel2	9:30	open stream		na	none	light tan	clear	None	70	82	ND	ND	ND	ND
8/18/09	Plymouth	UR011	9:30	open stream		na	none	light tan	clear	None	140	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel3	9:40	open stream		na	none	light tan	clear	None	1741	452	ND	ND	ND	0.092
8/18/09	Plymouth	SandRd1	10:00	clay	16	4	none	light tan	clear	None	265	172	ND	~0.1	0.021	ND
8/18/09	Plymouth	SandRd2	11:40	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088
8/25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	husty/sewag	None	ightly cloud	None	33000	3683	0.22	0.4	0.133	0.4
8/25/09	Boston	Blueup	8:00	open stream		na	none	tan	clear	None	226	64	~0.05	~0.1	0.028	ND
8/25/09	Boston	Mother	9:05	open stream		na	none	light tea	clear	None	129	56	0.06	ND	0.046	ND
8/25/09	Boston	NR204	10:00	concrete	3 feet	15	g sewage/la	None	ightly cloud	hite/gray pa	>241960	>48392	8.7	>3	0.975	20.1
8/25/09	Boston	NR162	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	198630	5226	0.89	3	0.6	13.2
8/25/09	Boston	UR013	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	241960	5510	0.92	2.75	0.635	12.4
8/25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	1741	149	~0.05	0.25	0.023	0.598
8/25/09	Boston	Esp01	12:02	open stream		na	none	tea	clear	None	241	58	0.07	~0.1	0.03	0.1
9/1/09	Woburn	Halls2	7:35	open stream		na	None	light brown	clear	None	2595	602	ND	~0.1	0.029	0.218
9/1/09	Woburn	DRR1	7:45	open stream		na	None	light brown	clear	None	4185	12976	ND	0.25	0.035	8.99
9/1/09	Woburn	Mys08	9:30	open stream		na	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3
9/1/09	Woburn	UR015	9:30	open stream		na	None	light brown	clear	None	422	148	ND	NA	0.021	14
9/1/09	Woburn	Mys78	10:15	open stream		na	light oil sme	None	clear	None	5199	10344	ND	0.25	0.031	10.1
9/1/09	Woburn	Mys09	10:45	open stream		na	None	None	clear	None	205	82	ND	~0.1	ND	16
9/8/09	Watertown	SawB01	8:45	open stream		50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage o	None	clear	None	~4	ND	NA	0.25	NA	NA
9/8/09	Newton	Hyde01	9:45	concrete	4x8 box	100	None	None	clear	None	5654	1424	ND	0.2	ND	ND
9/8/09	Newton	Laund01	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1462	492	ND	~0.1	ND	ND
9/8/09	Newton	UR016	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1954	544	~0.05	~0.1	ND	ND
9/8/09	Newton	Chee01	11:11	open stream		50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND
9/8/09	Waltham	Beav01	11:35	concrete	3x10 box	na	None	None	ightly cloud	some suds	713	292	~0.05	0.2	0.023	0.162
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None	44	40	~0.05	ND	0.03	0.266
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None	29090	2752	0.08	NA	0.19	1.12
9/15/09	Lowell	Beaver1a	7:37	concrete	4'	15	None	None	clear	None	8	75	ND	0.25	ND	ND
9/15/09	Lowell	Beaver1	7:40	open stream		na	None	light tea	clear	None	117	63	NA	~0.1	NA	NA
9/15/09	Lowell	Suffolk1	8:40	open stream		na	None	light tea	clear	None	208	41	ND	ND	0.024	ND
9/15/09	Lowell	Central1	9:15	open stream		na	None	None	clear	some suds	58	~10	ND	~0.1	0.024	0.088
9/15/09	Lowell	RMB1	10:10	open stream		na	None	light tea	clear	some suds	1844	281	~0.05	0.25	0.022	ND
9/15/09	Lowell	UR017	10:10	open stream		na	None	light tea	clear	some suds	2069	465	~0.05	0.25	0.046	ND
9/15/09	Lowell	NewH1	10:50	open stream		na	None	light tea	clear	some suds	164	275	NA	0.2	NA	NA
9/15/09	Lowell	BlackB1	11:25	open stream		na	None	None	murky	None	154	798	0.07	0.25	0.028	0.443
9/15/09	Lowell	BlackB2	12:00	open stream		na	None	None	clear	None	182	97	NA	0.2	NA	NA
9/22/09	Reading	RRR1	8:10	CM	4x4 box	na	None	None	clear	None	21	20	ND	0.25	0.022	ND
9/22/09	Andover	RogerD	9:00	concrete	5'	na	musty odor	rk tea staini	clear	some suds	442	657	~0.05	~0.1	0.67	0.098
9/22/09	Andover	Rogerup	9:32	open stream		na	no odor	med tea	clear	some suds	44	6488	~0.05	0.2	1.31	ND
9/22/09	Andover	Huss01	10:20	concrete	10' x 5'	na	None	light tea	clear	some suds	2319	987	ND	0.2	0.036	0.079
9/22/09	Andover	Huss02	10:50	open stream		na	None	light tea	clear	None	39	ND	NA	ND	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	205	445	ND	~0.1	ND	ND
9/22/09	Lawrence	UR018	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	279	249	ND	~0.1	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	slight musty	None	Clear	Yes, paper	29870	19863	~0.05	0.25	0.05	7.02
9/22/09	Lowell	RMB1	13:20	open stream		na	None	light tea	Clear	None	1642	199	ND	~0.1	0.031	0.138
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	mild sewag	None	Mild	Leave, bubb	1954	6131	0.06	0.18	0.041	0.291
9/29/09	Milton	CunPk03	9:30	open stream		na	None	None	Clear	Foam	1164	2098	0.06	~0.1	0.038	0.206
9/29/09	Norwood	PB02A	10:45		18"	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1
9/29/09	Norwood	PB02B	11:00	open stream		na	None	light brown	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
4/21/10	Arlington	91Mys	8:00	Open stream	na	na	none	heavy tea	cloudy	some suds	152	41	NA	~0.1	NA	NA
4/21/10	Arlington	MillB	8:10	Open stream	na	na	strong must	heavy tea	fairly clear	suds	395	52	0.06	~0.1	NA	0.124
4/21/10	Arlington	MBike	8:50	Stone (instream)	10'X8'	stream	moderate	med tea	clear	none	268	233	NA	~0.1	NA	NA
4/21/10	Arlington	AHS	9:05	Open stream	na	stream	none	light tea	clear	some	666	213	0.06	ND	NA	ND

4/21/10	Arlington	UR020	9:05	Open stream	na	stream	none	light tea	clear	some	1549	173	0.06	ND	NA	ND
4/21/10	Arlington	Grove01	9:40	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	4480	529	0.06	~0.1	NA	0.079
4/21/10	Arlington	GroveS	9:45	Concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
4/21/10	Arlington	Quinn2	10:30	Concrete	12"	19.0040741	fresh	none	clear	none	ND	ND	0.05	0.3	NA	ND
4/21/10	Arlington	RyMill	11:05	Concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
4/21/10	Arlington	RyMill2	11:10	hole in wall	na	2.00407407	none	none	clear	none	ND	ND	NA	0.2	NA	NA
4/21/10	Arlington	RyderE	11:20	Concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
4/21/10	Arlington	RyderW	11:30	Concrete	36"	20-30	none	none	clear	none	30	20	ND	ND	NA	ND
4/21/10	Arlington	30Park	12:25	Open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
4/28/10	Winchester	ABR006	8:30	Open stream	na	stream	none	none	fairly clear	leaves/bran	899	199	0.09	0.2	NA	0.528
4/28/10	Winchester	Wfield	8:50	Open stream	na	stream	none	none	lightly turbi	some	839	317	NA	0.22	NA	NA
4/28/10	Winchester	Vern01	9:15	Open stream	na	stream	none	none	lightly turbi	leaves/bran	643	108	NA	0.22	NA	NA
4/28/10	Winchester	Wedge01	9:32	Open stream	na	stream	none	none	lightly turbi	some	58	10	NA	~0.1	NA	NA
4/28/10	Winchester	Skill01	9:50	Concrete (instrea	3'	stream	none	blueish/gray	turbid	some	913	148	0.1	0.25	NA	0.844
4/28/10	Winchester	UR021	9:50	Concrete (instrea	3'	stream	none	blueish/gray	turbid	some	1642	132	0.1	0.25	NA	0.837
4/28/10	Winchester	Skill02	9:55	Concrete	12"	5-10	none	none	fairly clear	none	75	30	NA	~0.1	NA	NA
4/28/10	Winchester	Swan1	10:45	Open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
4/28/10	Woburn	OF118	11:35	Concrete	30"	50	none	none	clear	some suds	154	52	0.07	0.3	NA	0.381
4/28/10	Woburn	OF159A	12:04	Cor.Metal	18"	5-10	none	none	clear	none	268	156	NA	0.3	NA	NA
4/28/10	Woburn	OF159	12:05	Cor.Metal	24-30"	20-30	light sewag	none	clear	none	318	109	0.1	0.25	NA	1.38
4/28/10	Woburn	OF161	12:15	Cor. Metal	5'	stream	slight musty	none	lightly turbi	some	1642	148	ND	0.3	NA	0.153
5/5/10	Arlington	Grove01a	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2747	520	0.07	~0.1	NA	0.101
5/5/10	Arlington	GroveS	8:10	Concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Arlington	Robin	8:45	loose joint grey t	24"	10-15	ght natural g	none	clear	none	9678	295	NA	0.4	NA	NA
5/5/10	Arlington	Brattle	9:10	Open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	RyMill	9:25	Concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	RyderE	9:32	Concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
5/5/10	Arlington	Ryder01	9:35	Stone (instream)	6'	stream	none	light tea	fairly clear	some suds	1954	350	0.07	~0.1	NA	0.135
5/5/10	Arlington	30Park	10:10	Open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	1395MA	10:30	Open stream	na	stream	none	light tea	lightly turbi	none	689	323	0.06	ND	NA	0.133
5/5/10	Arlington	Drake01	10:55	Open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/5/10	Arlington	ArlRes	11:05	Concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
5/5/10	Lexington	Vine01	11:55	Open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/12/10	Woburn	Halls2	8:00	Open stream	na	stream	none	light brown	na	none	212	109	NA	~0.1	NA	NA
5/12/10	Woburn	DRR1	8:15	Open stream	na	stream	none	light brown	clear	none	182	448	NA	~0.1	NA	NA
5/12/10	Woburn	Mys07	9:05	Open stream	na	stream	nulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
5/12/10	Woburn	Mys08	9:10	Open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/12/10	Woburn	Torr01	10:00	Open stream	na	stream	none	light brown	clear	none	223	120	NA	0.25	NA	NA
5/12/10	Woburn	UR023	10:00	Open stream	na	stream	none	light brown	clear	none	182	52	NA	0.25	NA	NA
5/12/10	Woburn	Dart1	10:30	Open stream	na	stream	none	dark brown	clear	some suds	64	31	NA	0.2	NA	NA
5/12/10	Woburn	School01	11:05	Open stream	na	stream	none	dark brown	clear	none	109	20	NA	0.25	NA	NA
5/19/10	Quincy	FBP02	8:15	Open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
5/19/10	Quincy	UR024	8:15	Open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA
5/19/10	Quincy	FBP03	8:55	Open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/19/10	Quincy	Broad1	9:25			stream	none	none	clear	none	3466	2755	NA	2	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
5/26/10	Belmont	UR025	9:10	Open stream	na	stream	g musty/se	med tea	lightly turbi	none	29090	7701	NA	0.2	NA	NA
5/26/10	Belmont	WEB013	9:10	Open stream	na	stream	g musty/se	med tea	lightly turbi	none	11620	6488	NA	0.2	NA	NA
5/26/10	Arlington	ARL043	9:58	Concrete	18-24	5	none	none	clear	none	79	109	NA	~0.1	NA	NA

5/26/10	Arlington	ARL137	10:25	Clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	NA
5/26/10	Arlington	ARL207	11:07	Seep	na	1-2	brassica	na	na	na	25	20	NA	~0.1	NA	NA
5/26/10	Arlington	Drake01	11:25	Open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
5/26/10	Arlington	ArlRes	11:30	Open stream	na	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/26/10	Lexington	Bow01A	12:00	Concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	NA
5/26/10	Lexington	Bow01	12:05	Open stream	na	stream	none	med tea	lightly turbi	none	643	809	NA	~0.1	NA	NA
5/26/10	Lexington	Fott01	12:35	Open stream	na	stream	none	med tea	lightly turbi	none	124	199	NA	ND	NA	NA
5/26/10	Lexington	GMS01	12:55	Open stream	na	stream	none	heavy tea	very murky	thick film	72	52	NA	0.2	NA	NA
6/2/10	Revere	UR026	8:01	Concrete	24	NA	none	brown	turbid	none	20640	9606	NA	0.4	NA	NA
6/2/10	Revere	WashN01	8:01	Concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/2/10	Revere	Sales01	8:10	Open stream	na	stream	none	light brown	fairly clear	trash	4813	2359	NA	0.4	NA	NA
6/2/10	Revere	Green01	8:40	Open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
6/2/10	Boston	29M049	9:10	Concrete	3ft	30-40	none	none	lightly turbi	none	714	3873	NA	3	NA	NA
6/2/10	Boston	25L058	9:50	Concrete	6x6ft box	na	musty	grey	turbid	trash	2069	3448	NA	2	NA	NA
6/2/10	Boston	Bos017	10:20	Concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
6/2/10	Boston	29J212	10:22	Concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
6/2/10	Chelsea	Mill2A	11:20	Concrete	24	<5	usty/chemic	none	clear	trash	58	175	NA	0.8	NA	NA
6/10/10	Lawrence	SLE3	7:25	concrete outfall	3'	NA	strong must	white/tan/gra	ightly cloud	ilamentous	1954	2359	NA	1	NA	NA
6/10/10	Lawrence	UR027	7:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	1741	1314	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	806	2014	NA	0.5	NA	NA
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clear	none	NA	NA	NA	0.5	NA	NA
6/16/10	Concord, M	PRIS01	11:00	Concrete	2ft	2	sewage	none	clear	none	16160	10462	NA	0.8	NA	NA
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	NA
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	NA
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	NA
6/30/10	Falmouth	24IN01	9:30								25	ND	NA	0.25	NA	NA
6/30/10	Falmouth	INF01	9:30								461100	290900	NA	1	NA	NA
6/30/10	Falmouth	12INWA	9:40								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	STE01	9:45								547500	186000	NA	0.75	NA	NA
6/30/10	Falmouth	UR099	9:45								686700	119800	NA	0.75	NA	NA
7/7/10	Manchester	Dunbar	8:20	Stone culvert	3x4	150	ng petroleu	oil sheen	turbid	rash & debri	1089	422	NA	ND	NA	NA
7/7/10	Manchester	Granite	9:00	concrete	4ft	35	rong sewag	none	clear	none	125	110	NA	0.5	NA	NA
7/7/10	Manchester	047N	9:40	concrete	4ft	15-20	rong sewag	none	ightly cloud	none	4	ND	NA	0.25	NA	NA
7/7/10	Manchester	047	10:00	concrete	4ft	NA	e, musty (s	med tea	cloudy	some	64	52	NA	~0.1	NA	NA
7/7/10	Concord, NH	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	218	399	NA	1	NA	NA
7/7/10	Concord, NH	Mer4120a	10:45	concrete	36"	10	ilightly mus	none	ightly cloud	e leaves & d	25	ND	NA	0.5	NA	NA
7/7/10	Concord, NH	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	263	448	NA	1	NA	NA
7/7/10	Concord, NH	Clinton	11:55	Open stream	NA	low	none	none	clear	none	806	341	NA	0.75	NA	NA
7/7/10	Concord, NH	Pleasant	12:15	Open stream	NA	low	none	none	clear	none	1089	1722	NA	0.25	NA	NA
7/14/10	Boston	29J212	7:17	Concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/14/10	Boston	Bos017	7:17	Concrete	72"	na	musty	none	ightly cloud	some	129970	2489	NA	2.5	NA	NA
7/14/10	Boston	UR029	7:17	Concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra	38730	68670	NA	0.2	NA	NA
7/14/10	Salem	Palmer1	9:05	clay	18-24	15-20	slight musty	none	clear	none	13540	17329	NA	3	NA	NA
7/14/10	Beverly	Lynch1	9:35	concrete	12"	25	none	none	clear	none	689	1178	NA	0.2	NA	NA
7/14/10	Beverly	Brac01	10:04	concrete/stone	4'box	na	Sulfur	none	clear	some suds	2452	1725	NA	2	NA	NA
7/14/10	Beverly	Brac02	10:31	Open stream	na	na	none	med tea	turbid	some	2595	3130	NA	ND	NA	NA
7/14/10	Beverly	Lynch02	10:50	plastic	8"	~4	none	none	clear	none	2069	4352	NA	2	NA	NA
7/21/10	Winchester	Swan01	7:25	Open stream	na	na	None	grey	very cloudy	some suds	452	305	NA	~0.1	NA	NA
7/21/10	Winchester	Wash01	7:50	Open stream	na	na	None	grey	very cloudy	some suds	484	512	NA	~0.1	NA	NA
7/21/10	Winchester	Wash02	7:55	Concrete	24"	na	None	grey	very cloudy	some suds	857	318	NA	0.2	NA	NA
7/21/10	Woburn	Mer01up	8:30	Open stream	na	na	None	greyish	very cloudy	none	448	199	NA	0.2	NA	NA

7/21/10	Woburn	Sweet	8:35	Open stream	na	na	none	none	clear	some suds	518	148	NA	0.22	NA	NA
7/21/10	Woburn	Salem	9:25	Open stream	na	na	none	greyish	very cloudy	some	996	301	NA	0.15	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	na	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/21/10	Woburn	Mys01b	10:00	Concrete	16-18"	10-15	none	none	clear	none	4	20	NA	0.3	NA	NA
7/21/10	Woburn	Mys01c	10:10	plastic	4"	1/2	none	none	cloudy	none	ND (4)	ND (10)	NA	ND	NA	NA
7/21/10	Woburn	Halls2	10:55	open stream	na	na	none	none	clear	none	2190	816	NA	ND	NA	NA
7/21/10	Woburn	DRR1	11:00	Open stream	na	na	none	grey	cloudy	none	1549	288	NA	~0.1	NA	NA
7/21/10	Woburn	UR030	11:00	Open stream	na	na	none	grey	cloudy	none	744	253	NA	~0.1	NA	NA
7/28/10	Boston	29J212	7:15	Concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
7/28/10	Boston	Bos017	7:16	Concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/28/10	Dorchester	CantB	8:28	Open stream	na	na	na	grey./green	lightly coud	rash & debri	169	86	NA	0.3	NA	NA
7/28/10	Dorchester	UR031	8:28	Open stream	na	na	na	grey./green	lightly coud	rash & debri	146	51	NA	0.3	NA	NA
7/28/10	Boston	15F288	9:02	Brick	5'	~10	sharp musty	none	clear	none	205	109	NA	0.2	NA	NA
7/28/10	Boston	Mudd1	9:55	stone	bridge	NA	none	na	cloudy	none	2318	703	NA	0.15	NA	NA
7/28/10	Brookline	VillB	10:40	Stone	5'	NA	musty	green	cloudy	ves &sedim	258	52	NA	~0.1	NA	NA
7/28/10	Boston	OF233	11:00	Concrete	20-30"		slightly must	ght oil shee	clear	e trash & de	198630	24196	NA	ND	NA	NA
7/28/10	Boston	Jpond	11:25	spring bubbling up from ground			none	none	none	none	43	ND	NA	ND	NA	NA
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	clean smell	none	none	none	30	10	NA	0.2	NA	NA
8/4/10	Lawrence	SPRLGH	7:40	Open stream	NA	NA	none	none	clear	none	1164	1529	NA	~0.1	NA	NA
8/4/10	Lawrence	Jackson	8:25	Open stream	NA	NA	none	light tea	some	ash and deb	606	512	NA	~0.1	NA	NA
8/4/10	Lawrence	Willow	9:00	Open stream	NA	NA	none	med tea	none	ash and deb	325	158	NA	~0.1	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact	1230	275	NA	~0.1	NA	NA
8/4/10	Lawrence	Shaw01	9:50	Open stream	NA	NA	none	il sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA
8/4/10	Andover	Huss01	10:35	stone box	8-10ft		none	none	clear	surface suds	7945	109	NA	ND	NA	NA
8/4/10	Andover	Huss02	11:00	Open stream	NA	NA	cloudy	ight oil shee	ightly cloud	scum	34	ND (10)	NA	~0.1	NA	NA
8/4/10	Andover	URO32	11:00	Open stream	NA	NA	cloudy	ight oil shee	ightly cloud	scum	8	20	NA	~0.1	NA	NA
8/11/10	Stoneham	100A	7:42	Open stream	NA	NA	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
8/11/10	Stoneham	2Linden	8:25	open stream	na	na	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
8/11/10	Stoneham	Elm2	9:00	stone culvert wit	2' x 4'	~30 - 40	musty	none	clear	none	41060	6867	NA	0.2	NA	NA
8/11/10	Stoneham	URO33	9:00	stone culvert wit	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
8/11/10	Stoneham	Toms	9:50	metal w/asphalt	3'	~5 -7	hault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA
8/11/10	Woburn	Halls2	10:35	Open stream	NA	low	none	light tea		nsome trash and	1379	717	NA	~0.1	NA	NA
8/11/10	Woburn	Halls3	10:50	concrete	~12	< 1	or a few mir	none	clear	suds	4	ND (10)	NA	0.6	NA	NA
8/11/10	Stoneham	31Sixth	11:21	Concrete	18"		none	none	clear	light film or	183	86	NA	0.3	NA	NA
8/11/10	Stoneham	2ndRd	11:50	Open stream	NA	NA	none	med tea	clear	none	430	226	NA	~0.1	NA	NA
8/18/10	Warwick, RI	CBW	8:10	Beach	NA	outgoing tide	none	none	clear	none	28 fecal	ND	NA	3	NA	NA
8/18/10	Warwick, RI	UNKBK	8:22	Open stream	NA	~ 0.3cfs	none	none	ightly cloud	none	504 fecal	4352	NA	2	NA	NA
8/18/10	Warwick, RI	MC01	8:25	Open stream	NA		none	none	can't see bo	none	484 fecal	311	NA	2	NA	NA
8/18/10	Warwick, RI	BB08	8:50	Open stream	NA		none	none	cloudy	none	1340 fecal	1014	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB08P	8:57	concrete	~16	~ 1	none	none	clear	none	1610 fecal	135	NA	1	NA	NA
8/18/10	Warwick, RI	LK04	9:20	Open stream	NA		none	none	clear	and some o	1710 fecal	906	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB07	9:30	Open stream	NA		none	none	clear	none	2870 fecal	1046	NA	0.2	NA	NA
8/18/10	Warwick, RI	WR02	9:45	double culvert			none	none	clear	e oil on sur	300 fecal	148	NA	0.15	NA	NA
8/18/10	Warwick, RI	LK02	10:55	Open stream	NA	NA	none	none	clear	some trash	7100 fecal	1374	NA	0.25	NA	NA
8/18/10	Warwick, RI	Emerson	11:11	perforated alumi	2'	~1 -2	none	none	clear	none	580 fecal	31	NA	ND	NA	NA
8/18/10	Warwick, RI	MB01	11:30	Stone	2'x2'box	~50	none	none	clear	none	484 fecal	161	NA	ND	NA	NA
8/18/10	Warwick, RI	SweetF	11:45	Concrete	~16	~15 - 20	ong musty o	grey	cloudy	d grayish gro	ND fecal	ND	NA	0.2	NA	NA
8/18/10	Warwick, RI	URO34	11:45	Concrete	~16	~15 - 21	ong musty o	grey	cloudy	d grayish gro	ND fecal	62	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none	21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	996-F	8:50	Concrete	16	~10	none	none	clear	none	353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none	16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	GovB	10:40	Swale	NA	stagnant	none	light orange	ightly cloud	some scum	192	98	NA	0.2	NA	NA
8/25/10	Laconia, NH	GovB01	11:00	Stone w/metal lining		~30	none	none	clear	none	857	1223	NA	0.22	NA	NA

8/25/10	Laconia, NH	996-F	11:11	Concrete	16	~20	none	none	clear	some suds	6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	UR035	11:11	Concrete	16	~20	none	none	clear	some suds	6978	17329	NA	0.2	NA	NA
8/25/10	Laconia, NH	Swale	11:40	Concrete	16-18	~10	none	none	clear	none	17200	26030	NA	0.2	NA	NA
8/25/10	Laconia, NH	CBAdmin	11:50	Concrete	18	~50	ght musty o	none	clear	none	621	1553	NA	0.2	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	he suds & de	38730	51720	NA	0.25	NA	NA
9/1/10	Revere	Green01	8:10	Open stream	NA	NA	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
9/1/10	Chelsea	Mill2A	8:30	Concrete	24	<5	usty/chemic	none	clear	trash	8	ND	NA	0.6	NA	NA
9/1/10	Chelsea	Mill2	8:55	Concrete	~30 inches	15	sharp sewa	clear	none	None	282	41	NA	0.5	NA	NA
9/1/10	Revere	Amelia	9:30	Open stream	NA	NA	none	light tea	suspended	some suds	3466	1430	NA	0.6	NA	NA
9/1/10	Revere	Sargent	9:55	Concrete	36	NA	slight musty	none	clear	none	875	201	NA	0.2	NA	NA
9/1/10	Marblehead	DLaunch	11:10	Concrete	4ft	40	none	none	clear	none	31300	2481	NA	0.75	NA	NA
9/1/10	Marblehead	UR036	11:10	Concrete	4ft	40	none	none	clear	none	30760	3076	NA	0.75	NA	NA
9/1/10	Marblehead	Mneck02	11:35	Concrete	24	5	none	ht green/yel	clear	ome fine suc	81640	120330	NA	0.2	NA	NA
9/1/10	Marblehead	GO01	12:00	Concrete	36in	50	None	None	Clear	None	310	145	NA	0.2	NA	NA
9/1/10	Marblehead	StramB	12:30	Open water	NA	NA	none	none	clear	None	211	ND	NA	2	NA	NA
10/5/10	Watertown	SawB01	8:15	Open stream	na	na	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
10/5/10	Watertown	UR037	8:15	Open stream	na	na	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
10/5/10	Watertown	ARLEast	8:35	Open stream	na	na	none	none	clear	none	7946	823	NA	0.25	NA	NA
10/5/10	Watertown	ARL01	8:40	Concrete	4'x4' box	na	none	none	clear	none	9678	1014	NA	NA	NA	NA
10/5/10	Watertown	ARL02	8:42	Concrete	4'x4' box	na	none	none	clear	none	9678	738	NA	NA	NA	NA
10/5/10	Watertown	ARL03	8:45	Concrete	5'x4' box	na	none	none	clear	none	3080	173	NA	NA	NA	NA
10/5/10	Watertown	Wat13	9:20	Concrete	16"	1	none	none	clear	none	92080	2142	NA	0.25	NA	NA
10/5/10	Watertown	Wat12	9:30	Concrete	36"	na	none	none	clear	none	111990	14136	NA	0.6	NA	NA
10/5/10	Watertown	Wat11	9:40	Concrete	4'x3' box	na	none	med tea	turbid	none	19350	1723	NA	0.3	NA	NA
10/5/10	Watertown	LB01	10:35	Concrete	10'x7'box	100	none	none	clear	none	6212	583	NA	0.2	NA	NA
10/5/10	Watertown	Wat5	11:07	Concrete	4'	1	none	none	clear	none	64	20	NA	0.25	NA	NA
10/5/10	Watertown	Wat6	11:11	Concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	NA
10/13/10	Marblehead	DLaunch	8:15	Concrete	4ft	40	none	none	clear	none	1376	860	NA	2	NA	NA
10/13/10	Marblehead	UR038	8:15	Concrete	4ft	40	none	none	clear	none	871	723	NA	2	NA	NA
10/13/10	Marblehead	MH19	8:38	stormdrain	na	~20	ong musty o	none	clear	none	TNTC	24196	NA	0.5	NA	NA
10/13/10	Marblehead	MH32	9:10	stormdrain	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	NA
10/13/10	Marblehead	MH48	9:30	stormdrain	na	~15	lightly must	none	clear	none	8	ND	NA	~0.1	NA	NA
10/13/10	Marblehead	MH29A	9:55	plastic stormdrai	18-24	~10	none	none	clear	none	689	41	NA	~0.1	NA	NA
10/13/10	Marblehead	MH2336	10:30	stormdrain	na	na	none	none	clear	e small white	5654	2489	NA	0.25	NA	NA
10/13/10	Marblehead	MH2203	10:55	stormdrain	na	~15	musty	none	clear	none	5654	5475	NA	0.3	NA	NA
10/13/10	Marblehead	MHWinslow	11:11	stormdrain	na	na	musty	lightly yello	clear	none	2452	118	NA	0.4	NA	NA
10/13/10	Marblehead	MHWinslowA	11:28	stormdrain	18"	~5-10	resh smellin	none	clear	none	43	98	NA	0.2	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
10/27/10	Quincy	WollB1B	8:18	concrete	3-4'	30-40	musty/sulfu	none	ightly cloud	some suds	58	20	NA	2.5	NA	NA
10/27/10	Dorchester	Ten1	8:55	Pipe Mat.	24-30	na	none	Tan/brown	very turbid	none	132	20	NA	1.5	NA	NA
10/27/10	Boston	10L094	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	4813	14136	NA	0.6	NA	NA
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	41060	9208	NA	0.8	NA	NA
10/27/10	Boston	10L094A	9:25	metal	24"	5	musty	grey	cloudy	none	34480	14136	NA	1.5	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	na	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
10/27/10	Quincy	Sag1C	10:58	metal	30"	na	natural gas	light brown	clear	none	2452	2723	NA	0.6	NA	NA
10/27/10	Quincy	Bay1	11:40	Seep/pool	NA	NA	sewage	rk brown/gr	cloudy	none	173290	365400	NA	NA	NA	NA
10/27/10	Quincy	BayBch	11:45	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	NA
10/27/10	Quincy	WollBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	NA
10/27/10	Quincy	WollBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	NA

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH3 - color key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L *** may give false positive at salinity greater than 1 ppt
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPORTING LIMITS

E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Alpha = 0.05 mg/L (Except where otherwise noted)
Surfactants Field = 0.1 mg/L
Surfactant DR-850 = 0.02 mg/L
Ammonia (Alpha) = 0.075 mg/L
Ammonia Field = 0.1 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia DR-850 = 0.08 mg/L
Ammonia Test Strip = 0.1 mg/L
Total Phosphorus = 5 ug/L
CL2 (Total Residual) = 0.02 mg/L
CL2 (Residual Free) = 0.05 mg/L
CL2 Field = 0.02 mg/L
CL2 Test Strip =
Flouride Alpha= 0.20 mg/L
Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Potassium = 2.5 mg/L
Potassium Field = 0.2 mg/L
Nitrogen, Nitrate/Nitrite = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
ND	NA	NA	~0	NA	NA	ND (1.0)	11	ND (0.2)	9.1	56	ND (0.2)	ND (2.0)	31	~0.76	ND	ND	0.08	ND	ND
ND	NA	NA	ND	NA	NA	ND (1.0)	34	ND (0.2)	38	2600	ND (0.2)	ND (2.0)	96	2.2	ND	ND	0.05	ND	ND
1.5	NA	NA	1	NA	NA	ND (1.0)	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.14	ND	0.53
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	NA	NA	3	NA	~135	ND (2.0)	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
ND	NA	NA	ND	NA	11	ND (2.0)	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.23
ND	NA	NA	ND	NA	12	ND (2.0)	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.28
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
~0.1	NA	NA	~0.10	NA	21	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	15	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	ND	ND	ND
ND	NA	NA	ND	NA	78	~4.2	1700	ND (0.4)	120	200	~1.0	ND (4.0)	2500	12	ND	ND	~0.01	ND	ND
~0.1	NA	0.14	0.25	NA	84	~4.9	1600	~0.34	130	240	~1.6	ND (4.0)	3300	7.5	ND	ND	ND	ND	ND
~0.75	NA	NA	3	NA	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0)	55000	200	ND	ND	NA	ND	ND
ND	NA	0.23	ND	NA	35	~5.9	73	~0.74	87	360	~1.1	ND (4.0)	320	10	ND	ND	NA	ND	ND
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
NA	NA	0.15	0.6	NA	34	ND (1.0)	5.8	~0.29	12	34	ND (0.2)	ND (2.0)	2.5	1.5	ND	ND	0.07	ND	ND
NA	NA	0.41	3	NA	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2.0)	11	1.5	ND	ND	0.04	ND	0.54
NA	NA	0.19	~0.10	NA	174	~27	2600	~2.3	530	1100	8.7	ND (2.0)	600	3.2	NA	NA	ND	ND	0.81
>2	NA	1.08	5.5	NA	586	~150	27000	~13	3500	5000	61	ND (2.0)	17000	5.1	ND	ND	0.04	ND	0.37
NA	NA	1.1	6	NA	491	~140	24000	~12	3300	4500	48	ND(2.0)	14000	4.9	ND	ND	0.07	ND	0.36
ND	NA	ND	ND	NA	33	ND (1.0)	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2.0)	2	ND (0.2)	ND	ND	~0.02	ND	ND
ND	NA	ND	ND	NA	29	ND (1.0)	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2.0)	ND (2.0)	1.5	ND	ND	ND	ND	ND
~0	NA	ND	~0.10	NA	46	ND (1.0)	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	~0.01	ND	ND
ND	NA	ND	~0.10	NA	43	ND (1.0)	57	ND (0.2)	17	30	ND (0.2)	ND (2.0)	12	ND (0.2)	ND	ND	ND	ND	ND
~1.0	NA	0.24	3	NA	1080	ND (100.0)	6200	ND (20.0)	1600	4300	ND (20.0)	ND (200.0	7710	ND (20.0)	ND	ND	0.04	ND	0.3
~1.0	NA	0.31	2	NA	380	ND (100.0)	5500	ND (20.0)	1400	4200	ND (20.0)	ND (200.0	7200	ND (20.0)	ND	ND	ND	ND	0.29
ND	NA	~0.08	ND	NA	26	ND (1.0)	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2.0)	250	0.52	ND	ND	0.06	ND	ND
ND	NA	0.22	ND	NA	83	ND (1.0)	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2.0)	270	2.6	ND	ND	0.09	ND	ND
ND	NA	ND	ND	NA	72	ND (1.0)	2.9	ND (0.2)	~4.9	~11	ND (0.2)	ND (2.0)	9.2	0.56	ND	ND	ND	ND	0.75
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
0.5	1	0.24	1.5	NA	84	~62	1100	~3.7	500	980	39	5	2800	7.4	na	na	~0.0	ND	ND
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0)	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
0.5	2	0.51	1	NA	72	~20	280	~1.6	120	360	2.4	ND (4.0)	680	2.9	ND	ND	ND	ND	0.62
0.5	2.5	0.49	0.3	NA	73	~24	310	~2.0	120	320	2.3	ND (4.0)	670	2.6	ND	ND	0.05	ND	0.66
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
ND	0.2	ND	ND	NA	17	ND (2.0)	15	~0.46	7.1	56	ND (0.4)	ND (4.0)	100	4.7	ND	ND	0.14	ND	ND
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA

clear	1.35	ND	ND	NA	98	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	7	0.56	ND	ND	0.38	ND	0.75
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
~0.1	0.5	0.09	0.2	NA	110	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	13	1.6	ND	ND	0.19	ND	ND
ND	0.4	ND	ND	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~0.88	ND (4.0)	14	1.4	ND	ND	0.18	ND	ND
ND	0.5	ND	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	15	1.5	ND	ND	NA	ND	ND
ND	0.8	~0.08	0.25	NA	77	ND (2.0)	ND (2.0)	ND (0.4)	4.4	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	1.2	ND	ND	0.11	ND	ND
~0.1	0.6	0.1	0.4	NA	101	ND (2.0)	ND (2.0)	ND (0.4)	53	5200	~0.52	ND (4.0)	ND (4.0)	17	ND	ND	0.10	ND	ND
ND	0.8	ND	0.5	NA	89	ND (2.0)	ND (2.0)	ND (0.4)	6.5	260	ND (0.4)	ND (4.0)	ND (4.0)	19	NA	NA	0.13	ND	NA
~0.1	1.1	0.13	0.75	NA	148	~49	280	~4.7	100	230	7.7	ND (8.0)	3800	5.7	ND	ND	0.05	ND	ND
ND	0.3	ND	ND	NA	42	ND (4.0)	10	ND (0.8)	10	96	ND (0.8)	ND (8.0)	39	4.1	ND	ND	0.07	ND	ND
ND	0.4	ND	ND	NA	46	ND (4.0)	ND (4.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8.0)	12	14	ND	ND	0.03	ND	ND
>2	>3	23.1	>6	NA	4420	~1800	65000	~51	11000	66000	280	ND (440.0	340000	140	ND	ND	ND	ND	0.56
>2	>3	15	>6	NA	3630	ND (200.0)	590000	ND (40.0)	7300	4400	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.55
>2	>3	14.7	>6	NA	3390	ND (200.0)	600000	ND (40.0)	7500	4700	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.62
0.25	1.4	0.18	2	NA	201	ND (20.0)	69	~4.0	280	180	ND (4.0)	ND (40.0)	5900	ND (4.0)	ND	ND	0.04	ND	ND
ND	0.3	ND	ND	NA	46	ND (3.8)	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7.7)	12	4.6	ND	ND	0.05	ND	ND
ND	0.8	ND	ND	NA	45	ND (2.0)	820	4	23	1400	ND (0.4)	ND (4.0)	180	~2.2	ND	ND	ND	ND	ND
>2	>3	9.3	6	NA	31	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	24	~1.2	ND	ND	0.08	ND	0.62
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2
NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
2	>3	9.8	>3	NA	45	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	14	~1.3	ND	ND	~0.0	ND	0.64
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
~0.1	0.4	0.31	ND	NA	27	ND (2.0)	38	ND (0.4)	4.4	16	ND (0.4)	ND (4.0)	440	6	ND	ND	~0.02	ND	ND
ND	0.4	ND	ND	NA	49	ND (2.0)	69	ND (0.4)	26	850	2.7	ND (4.0)	240	3.5	ND	ND	0.10	ND	ND
ND	0.4	ND	ND	NA	47	ND (2.0)	57	ND (0.4)	24	820	2.2	ND (4.0)	270	3.8	ND	ND	0.10	ND	ND
ND	0.4	0.1	ND	NA	20	ND (2.0)	3.1	ND (0.4)	7	30	ND (0.4)	ND (4.0)	61	5	ND	ND	0.06	ND	ND
ND	0.4	ND	ND	NA	39	ND (2.0)	93	ND (0.4)	14	17	ND (0.4)	ND (4.0)	66	2.5	ND	ND	0.07	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
ND	0.2	ND	ND	NA	~243	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.32
ND	0.4	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
ND	0.8	ND	~0.10	NA	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.9	ND	0.50	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.10	ND	ND
ND	0.8	ND	ND	NA	38	na	na	na	na	na	na	na	na	na	ND	ND	~0.02	ND	ND
ND	0.8	ND	ND	NA	36	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA
ND	1.6	0.22	2.00	NA	35	na	na	na	na	na	na	na	na	na	ND	ND	0.03	ND	ND
0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA
ND	0.3	ND	ND	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.7	ND	ND	NA	78	ND (2.0)	19	ND (0.4)	~8	25	ND (0.4)	ND (4.0)	42	1.1	ND	ND	0.03	ND	ND
~0.1	0.6	ND	ND	NA	65	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.4	ND	ND	NA	20	ND (2.0)	240	ND (0.4)	~20	40	ND (0.4)	ND (4.0)	16000	4.9	ND	ND	0.09	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
ND	0.4	ND	ND	NA	22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND
>2	>3	2.26	6	NA	421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22
ND	0.6	ND	~0.10	NA	28	ND (2.1)	10	ND (0.4)	~10	45	~0.28	ND (4.2)	280	3.4	ND	ND	0.06	ND	ND
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
ND	~0.1	ND	~0.30	NA	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND
ND	~0.1	ND	ND	NA	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
ND	ND	ND	ND	NA	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.1	28	4.1	~20	3.1	6	34	0.7	ND (4.0)	490	1.4	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.95	37	4.8	190	4.6	12	70	1.2	ND (4.0)	1400	0.93	ND	ND	NA	ND	ND

NA	NA	NA	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.78	47	12	280	4.7	30	170	2.9	ND (4.0)	2700	ND (0.4)	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	3	9.1	ND (2.0)	ND (2.0)	0.86	ND (2.0)	5.4	ND (0.4)	ND (4.0)	15	1.2	ND	ND	NA	ND	ND
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	ND	1.1	52	ND (2.5)	ND (2.5)	1	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	14	ND (0.5)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	2	1.2	28	2.3	21	21	7.9	170	ND (0.4)	ND (4.0)	360	0.85	ND	ND	0.06	ND	ND
NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	25	ND (2.0)	27	23	6.4	220	1.4	ND (4.0)	370	0.61	ND	ND	ND	ND	ND
NA	NA	NA	3	1.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.5	2	23	ND (2.0)	5.8	6.7	ND (2.0)	37	ND (0.4)	6.5	1300	4.8	ND	ND	0.04	ND	ND
NA	NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1	0.59	36	ND (2.0)	7.9	10	ND (2.0)	35	ND (0.4)	16	1000	1.2	ND	ND	ND	ND	ND
NA	NA	NA	ND	2.7	28	3.2	120	8.1	19	85	ND (0.5)	7.2	1500	8.6	ND	ND	0.06	ND	ND
NA	NA	NA	ND	0.59	58	8.5	53	10	12	130	ND (0.4)	ND (4.0)	750	0.42	ND	ND	0.09	ND	ND
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	0.37	54	9.1	100	7.7	13	73	0.65	ND (4.0)	1200	0.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	0.31	55	8	5.4	5.7	7.3	35	ND (0.4)	ND (4.0)	590	ND (0.4)	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	9.3	8.3	300	ND (0.5)	ND (5.0)	160	1.4	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	29	ND (2.0)	2.3	1.5	ND (2.0)	6.7	ND (0.4)	ND (4.0)	96	0.72	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	38	ND (2.0)	ND (2.0)	7.5	5.9	140	ND (0.4)	ND (4.0)	80	1.4	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	73	ND (2.0)	2.5	17	6.4	61	ND (0.4)	ND (4.0)	230	1.2	NA	NA	0.11	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	69	ND (2.0)	53	17	7.5	180	ND (0.4)	ND (4.0)	1300	0.84	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	79	45	1200	11	300	1100	4.8	ND (5.0)	12000	4.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

NA	NA	NA	0.25	NA	23	ND (2.0)	ND (2.0)	4.3	4.2	39	ND (0.4)	ND (4.0)	37	ND (0.4)	NA	NA	0.71	1/0.3	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	0.25	NA	NA	ND (2.5)	ND (2.5)	2.4	ND (2.5)	11	ND (0.5)	7.4	30	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	84	3.1	19	2.8	5.1	22	0.63	ND (4.0)	440	ND (0.4)	NA	NA	0.08	ND	NA
NA	NA	NA	1	NA	93	ND (2.0)	ND (2.0)	2.2	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	36	ND (2.0)	ND (2.0)	0.45	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	0.7	NA	NA	4.7	210	53	26	180	0.56	ND (4.0)	1200	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	8	6.6	5.9	54	ND (0.4)	ND (4.0)	78	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	3.4	50	63	26	510	1.3	ND (4.0)	90	1.4	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA
NA	NA	NA	0.75	NA	NA	41	81	62	280	940	ND (0.5)	ND (5.0)	1800	5	NA	NA	0.6	ND	NA
NA	NA	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0)	17000	240	NA	NA	0.13	ND	NA
NA	NA	NA	0.75	NA	NA	450	14	19	31	170	1.3	ND (4.0)	870	170	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	NA	850	99	ND (0.5)	6.1	20	1.3	ND (5.0)	17	170	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.4)	ND (4.0)	ND (4.0)	87	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	NA	670	140	ND (0.4)	2.1	5.8	0.89	ND (4.0)	31	240	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	1800	41000	1300	7300	33000	510	ND (20.0)	550000	280	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	410	ND (2.0)	3.7	6.9	24	0.64	ND (4.0)	14	180	NA	NA	0.18	ND	NA
NA	NA	NA	6+	NA	NA	1400	44000	1900	6300	51000	760	ND (20.0)	580000	300	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	36	ND (2.0)	6.1	6.7	ND (2.0)	5.9	ND (0.4)	ND (4.0)	73	ND (0.4)	NA	NA	0.17	ND	NA
NA	NA	NA	0.25	NA	30	ND (2.5)	9.1	47	3.8	150	2.1	ND (5.0)	10	4.5	NA	NA	0.1	ND	NA
NA	NA	NA	ND	NA	34	ND (2.0)	ND (2.0)	0.99	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	28	18	ND (2.0)	1.8	2.8	6.3	2.1	ND (4.0)	49	3.9	NA	NA	0.22	ND	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	152	ND (2.0)	ND (2.0)	2.8	ND (2.0)	7.3	0.43	ND (4.0)	17	ND (0.4)	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	30	ND (2.0)	ND (2.0)	2.4	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	80	ND (0.4)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	ND (2.5)	ND (2.5)	1.4	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	170	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	112	23	87	12	18	200	4.6	ND (4.0)	790	1.3	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	32	ND (2.0)	ND (2.0)	3.3	ND (2.0)	110	ND (0.4)	ND (4.0)	22	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	45	ND (2.5)	ND (2.5)	1.8	ND (2.5)	6.3	ND (0.5)	ND (5.0)	60	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	59	ND (2.0)	ND (2.0)	1.3	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	92	ND (0.4)	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	46	ND (2.0)	ND (2.0)	8.9	ND (2.0)	5.6	ND (0.4)	ND (4.0)	210	1.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	32	ND (2.0)	ND (2.0)	9.9	ND (2.0)	8.6	ND (0.4)	ND (4.0)	35	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	ND	NA
NA	NA	NA	0.4	NA	27	ND (2.0)	ND (2.0)	8.7	ND (2.0)	7.3	ND (0.4)	ND (4.0)	27	ND (0.4)	NA	NA	ND	ND	NA

NA	NA	NA	ND	NA	53	30	5.3	31	18	82	3.9	4.6	270	10	NA	NA	0.15	ND	NA
NA	NA	NA	4	NA	27	ND (2.0)	ND (2.0)	11	ND (2.0)	55	ND (0.4)	ND (4.0)	45	0.42	NA	NA	0.08	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	26	ND (2.5)	11	8.6	13	470	ND (0.5)	ND (5.0)	35	1.2	NA	NA	0.08	ND	NA
NA	NA	NA	5	NA	35	ND (2.5)	ND (2.5)	2.7	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	470	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	5	NA	151	76	1700	71	270	1200	ND (0.4)	ND (4.0)	3800	ND (0.4)	NA	NA	0.37	ND	NA
NA	NA	NA	5	NA	147	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.37	ND	NA
NA	NA	NA	0.75	NA	74	29	11	3.9	53	40	ND (0.4)	ND (4.0)	750	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	5	NA	166	8.7	63	23	41	160	ND (0.4)	ND (4.0)	790	4.5	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	141	4.7	59	17	28	130	ND (0.4)	ND (4.0)	24	3.5	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	234	230	3900	35	430	3400	11	ND (4.0)	38000	15	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	16	ND (2.5)	17	ND (0.5)	ND (5.0)	20	ND (0.5)	NA	NA	0.06	ND	NA
NA	NA	NA	0.2	NA	12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	51	11	12	7.9	110	410	ND (0.4)	ND (4.0)	11000	0.55	NA	NA	0.2	ND	NA
NA	NA	NA	0.1	NA	40	ND (2.5)	ND (2.5)	3.3	4.7	36	ND (0.5)	ND (5.0)	44	1.8	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	93	320	240	77	700	1300	13	5.9	1100	5.7	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA
NA	NA	NA	ND	NA	33	ND (2.0)	ND (2.0)	3.6	18	470	ND (0.4)	ND (4.0)	ND (4.0)	0.4	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (4.0)	17	35	41	210	ND (0.8)	ND (8.0)	ND (8.0)	ND (0.8)	NA	NA	0.07	ND	NA
NA	NA	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	47	ND (2.5)	ND (2.5)	3.4	ND (2.5)	8.1	ND (0.5)	ND (5.0)	ND (5.0)	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	ND (2.0)	3.8	5.2	18	3.6	ND (4.0)	11	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	7.1	15	73	1.9	ND (4.0)	ND (4.0)	4.3	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	72	ND (2.0)	ND (2.0)	7.8	15	110	ND (0.4)	6	ND (4.0)	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	16	14	10	44	ND (0.4)	6.5	12	18	NA	NA	0.06	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	33	ND (2.5)	ND (2.5)	11	17	100	ND (0.5)	5.4	ND (5.0)	4.8	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	2.3	5.6	24	ND (0.5)	17	ND (5.0)	7.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	21	2.1	29	41	85	240	1.9	ND (4.0)	42	4.9	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	1	NA	40	19	ND (2.0)	1.3	4.8	11	ND (0.4)	130	ND (4.0)	3.7	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.0)	ND (2.0)	ND (0.4)	2.7	ND (4.0)	ND (2.0)	ND (4.0)	ND (4.0)	0.74	NA	NA	ND	ND	NA

NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	58	ND (2.0)	ND (2.0)	ND (0.4)	12	12	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.5)	ND (2.5)	ND (0.5)	11	4.5	ND (2.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	66	ND (2.0)	7	4.5	11	33	ND (0.4)	ND (4.0)	4.6	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	65	ND (2.5)	ND (2.5)	0.65	5.2	ND (5.0)	ND (0.5)	ND (5.0)	ND (5.0)	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	90	14	340	8.4	220	3000	ND (0.4)	ND (4.0)	980	6.5	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.75	NA	57	ND (2.0)	ND (2.0)	0.75	4.4	5.6	ND (0.4)	ND (4.0)	7.1	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	89	ND (2.0)	ND (2.0)	3.8	11	46	ND (0.4)	ND (4.0)	ND (4.0)	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	69	ND (2.5)	ND (2.5)	1.9	39	48	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0)	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	19	190	13	260	730	ND (0.8)	ND (8.0)	ND (8.0)	6.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	5	NA	NA	150	610	150	1400	940	ND (0.4)	ND (4.0)	120	11	NA	NA	0.08	ND	NA
NA	NA	NA	4	NA	NA	190	1100	43	980	12000	ND (4.0)	ND (40.0)	1200	200	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	NA	ND (10.0)	490	16	160	270	ND (2.0)	ND (20.0)	54	18	NA	NA	0.14	ND	NA
NA	NA	NA	ND	NA	NA	6.3	46	14	42	510	ND (0.5)	ND (4.7)	92	3.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.52	4.8	23	ND (0.4)	ND (4.0)	ND (4.0)	6.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	5.4	37	3.7	19	82	ND (0.4)	ND (4.2)	36	3.2	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	14	1.8	12	44	ND (0.4)	ND (4.0)	8.5	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	120	4500	37	2100	4300	ND (4.0)	ND (40.0)	~1500	82	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.4	8.4	6.6	210	120	ND (0.5)	ND (4.8)	~97	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.84	2.8	ND (4.0)	ND (0.4)	ND (4.0)	~4.3	0.52	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.2	21	1	9.4	50	ND (0.5)	ND (4.8)	~15	0.66	NA	NA	0.03	ND	NA
NA	NA	NA	0.75	NA	NA	13	310	19	1100	~48000	ND (0.4)	ND (4.0)	~29	68	NA	NA	0.03	ND	NA
NA	NA	NA	0.4	NA	NA	46	630	13	470	790	ND (0.8)	ND (8.0)	~81	ND (0.8)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	ND (2.0)	110	16	90	130	ND (0.4)	ND (4.0)	ND (4.0)	1.7	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	ND (10.0)	ND (10.0	2.6	10	ND (20.0)	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	47	16	13	~130	14	ND (20.0)	20	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	1800	190	400	~2700	4.3	ND (20.0)	180	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	270	970	170	~4100	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	NA	ND (10.0)	81	280	100	~3200	38	ND (20.0)	64	ND (2.0)	NA	NA	0.06	ND	NA
NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	ND (1000.0	20000	ND (100.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	1.9	~1.6	~16	ND (0.4)	ND (4.0)	~2.9	0.5	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	2.2	4.7	~11	ND (0.4)	ND (4.0)	4.4	0.46	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	2.2	2.4	7.5	~52	ND (0.4)	16	ND (4.0)	ND (0.4)	NA	NA	0.04	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	4.0	4.30	42.515744	-71.136289	Sample taken shady l	Commerce Way locat	na	na	na	Bedford	0	0.06	Dry
NA	5.4	6.30	42.513171	-71.142649	1 foot deep at samplir	Halls Brook behind 18	na	na	na	Bedford	0	0.06	Dry
NA	6.2	32.10	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broc	na	na	na	Bedford	0	0.06	Dry
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
NA	160	46.60	42.40397	-71.021087	odor, gray/black cloud	privately owned	na	na	na	Boston-Logan	0	0.42	Wet
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	clean location	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	duplicate	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	50/180	Boston-Logan	0	0.03	Dry
NA	ND	1.25	42.425963	-71.114988		Meeting house brook	0.1	14.1	291	Boston-Logan	0	0.03	Dry
NA	4.9	4.75	42.399303	-71.160888	waded in stream to co	Winns Brook of Bright	0.6	14.4	1085	Boston-Logan	0	0.03	Dry
0.14	4.7	5.00	42.399303	-71.160888	duplicate		na	na	na	Boston-Logan	0	0.03	Dry
NA	6.6	4.55	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.8	14.1	1625	Boston-Logan	0	0.03	Dry
0.07	6.1	6.30	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.8	13.7	1623	Boston-Logan	0	0.03	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6mS	Boston-Logan	0	0	Dry
0.25	12	9.25	42.287572	-71.022259	lots of orange flocc co	across from CVS on C	1	15	1913	Boston-Logan	0	0	Dry
1.34	350	50+	42.289355	-71.041773	Very, very muddy wat	Tenean Beach	24.5	16.3	38.36m	Boston-Logan	0	0	Dry
1.53	330	50+	42.298373	-71.046379	Started sprinkling abo	at dog park off Victory	24.5/24.6	16.3/16.3	.36/38.	Boston-Logan	0	0	Dry
0.31	7.2	3.75	42.288373	-71.092879	bacteria plague cover	Canterbury Brook, Bo	0.6	14.6	1156	Milton-Blue Hi	0.07	0.07	Dry
0.32	7.1	2.30	42.288373	-71.092879	duplicate		na	na	na	Milton-Blue Hi	0.07	0.07	Dry
0.13	2.8	0.30	42.57664155	-70.92825715		Frost Fish Brook, 34 S	0.3	13.3	585	Beverly	0	0.16	Dry
0.1	3	1.85	42.58395698	-70.92904291	Moss growing in pipe	Downstream of bridge	0.2	12.8	375	Beverly	0	0.16	Dry
0.09	3.5	1.00	42.51446323	-70.86578117	Some moss growing o	Sampled where brook	0.2	13.8	329	Beverly	0	0.16	Dry
0.14	4.6	2.70	42.51182185	-70.85955935		Between Rts. 134A ar	0.4	13.1	641	Beverly	0	0.16	Dry
0.34	5.3	1.70	42.466942	-70.92203147	Sample combined fro	Sampled about 15' do	0.5	14.2	826	Beverly	0	0.16	Dry
0.32	5.1	1.40	42.466942	-70.92203147	Ammonia kits - samples	recorded as 1.0 but	na	na	na	Beverly	0	0.16	Dry
0.23	4.3	1.40	42.262068	-71.046682	sampled downstream	Unquity Brook off Chr	0.5	14.5	800	Milton-Blue Hi	0	0	Dry
0.24	4.1	1.85	42.253703	-71.068976	Heard dripping from u	downstream of Rando	0.5	15.4	797	Milton-Blue Hi	0	0	Dry
1.66	660	44.30	42.266485	-70.997104	Flow was very strong	Wollaston Beach upst	28.5	20.5	*40.4mS	Milton-Blue Hi	0	0	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12mS	Milton-Blue Hi	0	0	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55mS	Milton-Blue Hi	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
0.12	4.6	1.30	42.48685	-71.0985788	Cl2 exceeded holding	Elm St in Stoneham, r	0.7	15.6	1434	Boston-Logan	0.08/0	0.08/0.	Wet
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.1	0.1/0.2	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston M	6.5	20.34	11.36	Boston-Logan	0	0	Dry
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
1.17	200	50*	42.394421	-71.049706	Surf., NH3 (EPA) and	other 500mL bottle sar	14.2	21.5	23.49	Boston-Logan	0	0	Dry
1.15	200	50*	42.394421	-71.049706	Duplicate of IsEnd03		na	na	na	Boston-Logan	0	0	Dry
0.81	130	46.10	42.41380356	-71.13242519	can hear running water	in pipe; YSI measurm	9.1	17.7	15.1	Boston-Logan	0	0	Dry
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
0.22	5.1	1.50	42.250692	-70.997793	Accessed via parking	Canal opening just off	0.5	19.7	1080	Boston-Logan	0.01	0.01	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3mS	Boston-Logan	0.01	0.01	Dry
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry

1.65	530	50*	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	25	18.8	39.10m	Boston-Logan	0.01	0.01	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
0.07	ND	0.15	41.92559804	-70.61841863	lots of eel grass, used	downstream Eel River	0.1	22.8	142.9	Plymouth	0.01	0.01	Dry
ND	ND	0.20	41.92519001	-70.61918863	River: about 1.5' deep	downstream of bridge	0.1	22.6	145.3	Plymouth	0.01	0.01	Dry
~0.05	ND	ND	41.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0.01	0.01	Dry
0.1	ND	0.35	41.92517001	-70.61942993	some grass was gorw	upstream of Sandwich	0.1	21.5	187.7	Plymouth	0.01	0.01	Dry
0.08	4.2	0.60	41.92538204	-70.61810863	dead mouse floating i	directly behind 132 sa	0.2	17.6	326.3	Plymouth	0.01	0.01	Dry
0.15	NA	ND	41.92480601	-70.61774371	very akward sampling	Clean-out pipe, behind	0.2	20.4	315.3	Plymouth	0.01	0.01	Dry
0.12	3.4	1.05	42.266756	-71.094794	green algae and greyi	(actually NR104?) Bel	0.5	18.2	910	Boston-Logan	0.77	0.77	Wet
ND	ND	0.50	42.266710	-71.094816	waded into river for sa	just upstream of Dent	0.2	24.6	427.7	Boston-Logan	0.77	0.77	Wet
ND	3.7	1.65	42.251173	-71.128400	lots of trash in stream	parked off Reservatio	0.3	25.9	625	Boston-Logan	0.77	0.77	Wet
0.05	8.7	21.90	42.247956	-71.125339	difficult access, white	parked off Glenwood,	0.2	20.5	476.6	Boston-Logan	0.77	0.77	Wet
0.66	7.4	14.25	42.244799	-71.126989	green algae in outfall,	behind tennis courts o	0.5	18.4	968	Boston-Logan	0.77	0.77	Wet
0.74	7.2	14.80	42.244799	-71.126989	Duplicate of NR162		na	na	na	Boston-Logan	0.77	0.77	Wet
0.14	4.8	1.15	42.242826	-71.127704	some gray bacteria, g	behind Stop & Shop o	1.2	22.4	24.11	Boston-Logan	0.77	0.77	Wet
0.08	ND	1.00	42.242874	-71.127669	Mainstem Neponset R	behind Stop & Shop o	0.2	25	486	Boston-Logan	0.77	0.77	Wet
0.12	4.6	2.95	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	14.6	780	Bedford	0.01	0.01	Dry
0.74	7.3	26.60	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broo	0.5	14.4	932	Bedford	0.01	0.01	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry
1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
0.73	7.3	28.80	42.51858	-71.146281	after confluence of La	Just south of Landfill E	0.5	14.2	955	Bedford	0.01	0.01	Dry
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrear	0.3	15.3	806	Boston-Logan	0	0	Dry
0.09	3.1	1.05	42.3599847	-71.1809755	"New81" waded to lef	Outfall to Charles off	0.6	14.6	1308	Boston-Logan	0	0	Dry
0.14	ND	0.75	42.3646351	-71.1892039	Used waders	Laundry Brook off Cal	0.4	18	830	Boston-Logan	0	0	Dry
0.14	ND	na	42.3646351	-71.1892039	Duplicate of Laund01		na	na	na	Boston-Logan	0	0	Dry
0.14	3.6	1.35	42.3600600	-71.2169465	taken 6' downstream	Cheessecake Brook n	0.7	16.7	1378	Boston-Logan	0	0	Dry
0.17	4.4	2.20	42.3730420	-71.2283524	shallow stream, collec	Beaver Brook near co	0.5	16.7	1035	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.41	7.8	7.80	42.659814	-71.318830	large duckbill coverin	Beaver Brook outfall	0.1	18.2	468.5	Lawrence	0	0	Dry
NA	NA	1.45	42.659837	-71.318833	sample taken just ups	Beaver Brook Mainste	0.2	16.9	358.8	Lawrence	0	0	Dry
0.15	ND	0.60	42.650395	-71.314502	west channel sampled	off Suffolk Street, clim	0.1	19.1	170	Lawrence	0	0	Dry
0.16	ND	0.10	42.643823	-71.307889	sampled open channe	downstream from Cen	0.1	19.2	168.7	Lawrence	0	0	Dry
0.11	4.1	2.25	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17.5	714	Lawrence	0	0	Dry
0.15	4	ND	42.633655	-71.302505	Duplicate of RMB1		na	na	na	Lawrence	0	0	Dry
NA	NA	1.10	42.631057	-71.305968	1ft at deepest, used re	sampled downstream	0.3	17.6	711	Lawrence	0	0	Dry
0.17	7.2	7.15	42.638346	-71.343658	Flow from 2 large me	Black Brook off Middle	0.6	17.8	1145	Lawrence	0	0	Dry
NA	NA	8.20	42.634459	-71.349404	rocks covered w/ alga	Black Brook off Baldw	0.5	19.5	1077	Lawrence	0	0	Dry
0.15	8.1	3.40	42.520940	-71.104975	about 6 inches deep (	corner of Washington	0.9	16.7	1682	Lawrence	0.01	0.01	Dry
0.2	6.9	4.35	42.65447823	-71.14660047	hiked down hill sampl	5 Dundee Park near Y	0.4	15.1	806	Lawrence	0.01	0.01	Dry
0.19	4.5	0.60	42.65573487	-71.13334922	some deeper pools	Off Chestnut Street, n	0.3	15.1	530	Lawrence	0.01	0.01	Dry
0.25	4.8	0.35	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	15.9	537	Lawrence	0.01	0.01	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	15.5	539	Lawrence	0.01	0.01	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
0.1	5.8	2.30	42.695971	-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
0.32	28	34.90	42.70991636	-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
0.14	8.5	0.80	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0.01	0.01	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
0.21	8.9	~10.5	42.24781922	-71.05546405	collected close to outfall in pool		0.5	15.4	933	Boston-Logan	0.51	0.57	Wet
0.1	2.8	~0.85	42.20481659	-71.19661788	sampled right culvert		0.6	16.7	1146	Norwood	0.54	0.63	Wet
0.16	3.3	~1.6	42.20509841	-71.964841	sample collected before two steams mix		0.2	15.5	515	Norwood	0.54	0.63	Wet
0.07	3.8	ND	42.204594	-71.198514	sample collected near culvert		0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	1.8	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.5	11.3	910	Bedford	0	0	Dry
NA	4.2	6.35	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.5	11.7	921	Bedford	0	0	Dry
NA	NA	NA	42.41803618	-71.15649782	Start of culvert under	Mill Brook near bike p	0.4	11.6	884	Bedford	0	0	Dry
NA	3.6	1.05	42.41800384	-71.1599327	two 3 foot culverts an	Near Arlington High S	0.4	11.6	859	Bedford	0	0	Dry

NA	3.6	2.45	42.41800384	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry
NA	3.4	2.05	42.42030025	-71.16460763	6ft stone channel, foo	Mill Brook instream	0.4	12.1	755	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	8.3	6	42.42321769	-71.17286099	lots of green algae inside pipe		1.4	11.4	2700	Bedford	0	0	Dry
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	2.65	42.42388575	-71.17372022	hole in wall/seep	East side of culvert wa	0.5	10.0	1394	Bedford	0	0	Dry
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	10.1	1450	Bedford	0	0	Dry
NA	ND	0.65	42.42443302	-71.17464016	waders, culvert just up	Outfall to Mill Brook, V	0.6	9.8	1280	Bedford	0	0	Dry
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	4.9	2	42.44732536	-71.13860428	near gauging station	Sampled above dam	0.4	10.3	821	Bedford	0	0.02	Dry
NA	NA	NA	42.45109149	-71.13689456	waterfall ~250ft upstre	Waterfield St bridge	0.4	10.2	806	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45284032	-71.13542441	used reach and wade	Mt Vernon St bridge b	0.4	10.2	794	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45571045	-71.13669402	used reach	Behind Stop & Shop	0.3	12.6	561	Bedford	0.16	0.18	Wet
NA	5.2	2.25	42.4564901	-71.13647243	outfall on far left looki	Skillings road from un	0.4	9.1	907	Bedford	0.16	0.18	Wet
NA	5.4	1.75	42.4564901	-71.13647243	duplicate of Skill01		na	na	na	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45646101	-71.13649804	very low flow - if any	small pipe exiting nea	0.4	9.1	908	Bedford	0.16	0.18	Wet
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	11	5.7	42.47549599	-71.15991194	rust/orange stain on r	main stream outfall on	0.8	19.8	1655	Bedford	0.17	0.19	Wet
NA	NA	NA	42.48090577	-71.15755569	slightly crushed small	Off Harrison Ave near	0.5	12.2	1070	Bedford	0.17	0.19	Wet
NA	15	4.75	42.4809258	-71.15751796	Main outfall	Off Harrison Ave near	1.3	7.9	2495	Bedford	0.17	0.19	Wet
NA	9.7	3.35	42.47993991	-71.15617846	very slow flow	opposite side of ballpa	0.8	12.5	1578	Bedford	0.17	0.19	Wet
NA	4.3	0.9	42.42029396	-71.16475294	Just upstream of Grov	Mill Brook instream	0.4	15.9	850	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.422035	-71.170577	needed ladder/waders	At end of Robin Stree	0.8	12.5	1533	Bedford	0.12	0.12	Wet
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	3.9	1.35	42.424465	-71.174718	neighbor stopped ove	Just upstream of Ryde	0.4	17	729	Bedford	0.12	0.12	Wet
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	3.7	2	42.425348	-71.186230	PPCP bottle broke, re	behind 1395 Mass Av	0.3	18.2	684	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	NA	0.4	42.513171	-71.142649	machinery stored nea	Halls Brook behind 18	0.4	11.1	875	Bedford	0	0	Dry
NA	NA	11.3	42.513291	-71.142539	sampled before timbe	Unnamed stream just	0.4	10.1	839	Bedford	0	0	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	NA	3.85	42.51422481	-71.14551115	flow on downstream s	sampled from left ope	0.4	11.3	878	Bedford	0	0	Dry
NA	NA	3.55	42.51422481	-71.14551115	duplicate of Torr01		0.4	11.3	878	Bedford	0	0	Dry
NA	NA	2.65	42.51048269	-71.15492526	fair amount of litter	upstream of road cros	0.4	12.1	869	Bedford	0	0	Dry
NA	NA	2.7	42.5086557	-71.1583669	construction on bridge	bottom of stone run of	0.5	12.7	987	Bedford	0	0	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before bridge		0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet
NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	10.8	42.25620978	-70.99314315			8.1	13.3	14.1	Milton-Blue Hi	1.5	0	Wet
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	2.2	42.39528219	-71.17631914	duplicate of WEB013		na	na	na	Bedford	0	0	Dry
NA	NA	1.1	42.39528219	-71.17631914	lots of suspended sed	Wellington Brook	0.7	12.6	1433	Bedford	0	0	Dry
NA	NA	NA	42.4225696	-71.14928822		Mystic Valley Parkway	0.6	13.8	1269	Bedford	0	0	Dry

NA	NA	0.25	42.41770489	-71.1574838	may be multiple pipe	pipe discharging to Mi	0.1	17.8	237	Bedford	0	0	Dry
NA	NA	NA	42.42471486	-71.17533266	collected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	2.45	42.42645629	-71.19436402		pipe discharging unde	1.3	17.6	2482	Bedford	0	0	Dry
NA	NA	ND	42.42648362	-71.19440958	6ft wide, rocky stream	Bow street, just downs	0.3	18.3	537	Bedford	0	0	Dry
NA	NA	1.45	42.42834205	-71.19676456	36" double culvert col	Just downstream of F	0.2	19.3	513	Bedford	0	0	Dry
NA	NA	0.05	42.42901218	-71.1975303	tributary, thick film co	Walked ~100yards up	0.2	20.9	362.9	Bedford	0	0	Dry
NA	NA	5.95	42.39988394	-70.99242127	duplicate of WashN01		na	na	na	Boston-Logan	0.08	0.43	Wet
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	11	42.39990454	-70.99237953	just upstream of Was	Sales Creek	1.3	18.2	2527	Boston-Logan	0.08	0.43	Wet
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	17.7	42.3830573	-71.03016877	40min before low tide	Condor Street outfall,	23.3	16.1	36.7mS	Boston-Logan	0.08	0.43	Wet
NA	NA	50*	42.36126566	-71.05083507	near Christopher Colu	Climbed down betwee	26.7	16.3	44.67mS	Boston-Logan	0.08	0.43	Wet
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	2.35	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/18	Lawrence	0.04	0.04	Dry
NA	NA	12.4	42.465157	-71.392813	pool at base of culver	<1/2 mile from bridge	0.2	27.6	90.3/37	Bedford	0	0	Dry
NA	NA	ND			Effluent of a membrane bioreactor			24	495.8	Falmouth	0.12	0.21	Wet
NA	NA	25.10			6" below surface, 6"sa	tip pans (24/day - 1galeach) sto		22.9	479	Falmouth	0.12	0.21	Wet
NA	NA	38.70			12" below surface	12"sand		21.1	602	Falmouth	0.12	0.21	Wet
NA	NA	ND						21.6	351	Falmouth	0.12	0.21	Wet
NA	NA	ND			24" below surface			20.1	571	Falmouth	0.12	0.21	Wet
NA	NA	2.5			Influent			19.3	479	Falmouth	0.12	0.21	Wet
NA	NA	36.80			12" with air			20.3	579	Falmouth	0.12	0.21	Wet
NA	NA	11.5								Falmouth	0.12	0.21	Wet
NA	NA	ND						20.3	606	Falmouth	0.12	0.21	Wet
NA	NA	NA	42.968332	-71.472794	Oil sheen across all ro	called EPA incident re	0.3	18.1	29/446.	Manchester	0	0	Dry
NA	NA	NA	42.985780	-71.469196	Strong musty odor, ta	sampled flow out of pi	1	17.6	934/165	Manchester	0	0	Dry
NA	NA	NA	42.998669	-71.468348	next to outfall 047, thi	outfall just north (adja	2.1	15.2	992/321	Manchester	0	0	Dry
NA	NA	NA	42.998660	-71.468348	steam coming out of p	just south of 047N, by	2.5	17.5	4750	Manchester	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.21004	-71.530441	grated outfall, flow is approx. 10 gal/min poo		0.7	14	1070	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.193970	-71.542492	midstream sample ne	Concord District Cour	0.7	22.9	1458	Concord	0	0	Dry
NA	NA	NA	43.199674	-71.548718	Just upstream of Clin	off Pleasant Street	0.5	23.1	1080	Concord	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.51380064	-70.88804384	Palmer Cover, Salem	White bacterial growth	1.5	21.1	4209	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54714736	-70.86166491	Lynch Park, Beverly N	sampled 2hrs after low	0.7	17.6	1339	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55097916	-70.8503408	Down Brackenbury La	Brackenbury Beach	10	18.6	16.91mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55443402	-70.84983196	sampled under bridge	lots of ducks upstream	0.2	20.5	409.2	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54639263	-70.8616749	Lynch Park, Beverly	Small pipe exiting just	1.8	19.3	7.77mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.46084009	-71.13716417	Downstream of Swan	USGS gauge @ 0.9, g	0.5	20.6	1025	Boston-Logan	0	0	Dry
NA	NA	NA	42.469411	-71.1252171	Downstream of Wash	Water almost opaque	0.5	22	1083	Boston-Logan	0	0	Dry
NA	NA	NA	42.4694521	-71.1249571	Outfall upstream of W	OF more than 1/2 full	0.5	21.4	1004	Boston-Logan	0	0	Dry
NA	NA	NA	42.477141	-71.1176671	(previously '1Merrell')	low/slow flow could no	0.5	21.6	1096	Bedford	0.01	0.13	Dry

NA	NA	NA	42.4770646	-71.1175936	(previously '1Kraft')Sw	2 pipes just upstream	0.7	21.5	1366	Bedford	0.01	0.13	Dry
NA	NA	NA	42.491580	-71.128834	(previously 'Sal')1921	USGS field team mea	0.5	20.9	1086	Bedford	0.01	0.13	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026954	-71.1353458	Outfall downstream o	Raccoon prints in pipe	1.3	19.6	2743	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026965	-71.1351128	Stormdrain cover tipp	gray plaque at bottom	na	na	na	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	19.6	873	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	Unnamed stream just	Very low flow	0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	duplicate of DRR1		0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82m	Boston-Logan	0	0	Dry
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67m	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Canterbury Brook, Bo	fine sediments on bot	0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Duplicate of CantB		0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.308203	-71.12058	Arnold Arboretum off	sides of outfall deteric	0.7	13.6	1304	Boston-Logan	0	0	Dry
NA	NA	NA	42.340354	-71.099856	Muddy River in Back	Sampled just downstr	0.5	20.5	1058	Boston-Logan	0	0	Dry
NA	NA	NA	42.330289	-71.114017	Two stone 5' semi-circ	across from 33 Pondv	0.5	25.4	966	Boston-Logan	0	0	Dry
NA	NA	NA	42.326763	-71.114752	Off Riverdale Pkwy in	downstream of outfall	0.9	15.1	1738	Boston-Logan	0	0	Dry
NA	NA	NA	42.321703	-71.119080	Parked on Chestnut S	just downstream from	0.3	27.1	606	Boston-Logan	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
NA	NA	NA	42.70995636	-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
NA	NA	NA	42.713273	-71.158219	upstream of Jackson	heavy sedimentation	0.3	23.1	530	Lawrence	0	0	Dry
NA	NA	NA	42.713893	-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen	river sample	na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.2	24.3	471.5	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	duplicate of Huss02		0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	Walked upstream fron	Large box culvert cov	0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Ston	0.9	18.1	1701	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	20.6	848	Bedford	0	0.1	Dry
NA	NA	NA	42.51339681	-71.14295383	outfall about 100ft upstream from Halls2 loca		0	24.8	50.3	Bedford	0	0.1	Dry
NA	NA	NA	42.51079059	-71.14820571	most of flow coming f	lots of frogs in stream	1	23.5	1960	Bedford	0	0.1	Dry
NA	NA	NA	42.51333787	-71.14802303	upstream of small pec	end of 2nd st, asked #	0.4	22.4	825	Bedford	0	0.1	Dry
NA	NA	NA	41.71543572	-71.36069556	sampled on outgoing	sampled between 2 ro	29.6	24.6	45.72m	Providence TF	0	0	Dry
NA	NA	NA	41.71380905	-71.36475741		walked up 20 ft from b	20.6	22.4	32.83m	Providence TF	0	0	Dry
NA	NA	NA	41.7135672	-71.36551541	Mill creek, 0.67 ng/L	Sulfamethoxazole was	20.7	23.5	33.13m	Providence TF	0	0	Dry
NA	NA	NA	41.71213909	-71.37518941	leaky storm drain pipe	under bridge, layer of	1.3	21.1	2447	Providence TF	0	0	Dry
NA	NA	NA	41.71205509	-71.37524941	bacteria and kits only		na	na	na	Providence TF	0	0	Dry
NA	NA	NA	41.71372754	-71.37889632	downstream from roa	lockwood brook near b	0.2	20.2	314.2	Providence TF	0	0	Dry
NA	NA	NA	41.70908196	-71.38289364	racoon prints on bank	off westshore drive up	0.2	21.6	329	Providence TF	0	0	Dry
NA	NA	NA	41.70708421	-71.38031976	double culvert under t	upstream side of bridg	0.2	16.9	435.9	Providence TF	0	0	Dry
NA	NA	NA	41.71964024	-71.38696064	bacteria and kits only	upstream side of bridg	0.1	20.9	270	Providence TF	0	0	Dry
NA	NA	NA	41.71935982	-71.38618735	epipe designed to tak	at the end of emerson	0.1	20.1	225.8	Providence TF	0	0	Dry
NA	NA	NA	41.71461744	-71.38035705	bact and kits only	Meadowbrook road ou	0.1	22.2	173.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	1-2 in of green algae	end of sweetfern drive	0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	duplicate of SweetF		0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556520	-71.500969	Governor Brook	No distinct flow, light	0.1	16.3	198.8	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556625	-71.499442	Road crossing upstrea	orange/green growth	0.2	15.9	341.6	Laconia	0.21	0.21	Wet

NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.559021	-71.494120	sampled facility pipe b	sampled during storm	0	18.5	13.5	Laconia	0.21	0.21	Wet
NA	NA	NA	43.266493	-71.483356			0	15.5	14.5	Laconia	0.44	0.44	Wet
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	NA	NA	42.42547262	-71.02662504	walked upstream from	Sampled about 30ft u	2.4	21.5	4509	Boston-Logan	0	0	Dry
NA	NA	NA	42.42105874	-71.02615376	could see light at othe	Corner of Sargent and	0.3	18.3	687	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	near boat launch, sam	outfall across causewa	3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4891136	-70.84335607	green alge at bottom	Ocean Ave off Marble	0.3	19	680	Boston-Logan	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Grace Oliver Beach S	Corner of Crowninshie	0.2	21	632	Boston-Logan	0	0	Dry
NA	NA	NA	42.51447501	-70.86599014	Stamski Beach	sample 20ft from shor	28.3	23.5	43.87mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~100	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364451	-71.154419	downstream side of A	1 ft deep, started sprin	0.7	15.9	1407	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364313	-71.154481	Arlington St culvert - f	~30ft upstream, 8" pip	0.7	16	1414	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364256	-71.154481	Arlington St culvert - d	no inlet pipes can be s	0.7	15.9	1417	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364351	-71.154519	Arlington St culvert - f	sampled far rt of culve	0.7	15.9	1354	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364037	-71.183908	Watertown outfall #13	weather - still sprinklir	0.1	17.8	260.3	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364489	-71.184223	Watertown outfall #12	some small fish, could	0.5	16.8	1012	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364774	-71.184952	Watertown outfall #11	outfall opening under	0.6	16.2	1168	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook	sampled just inside op	0.3	15.5	565	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.367449	-71.198957	culvert on right, not a	lot of flow	0.7	18.1	1348	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.367489	-71.198853	About 1ft of outfall un	can hear running wate	0.7	17.7	1299	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.4922811	-70.85511019	Sampled left culvert,	more flow than last tin	20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492557	-70.859421	Opened drain manhol	Brick sides w/hard bot	0.7	16.3	1483	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.493467	-70.860430	Opened drain manhol	used reach	0.4	16.3	743	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492693	-70.860829	Opened drain manhol	gas odor	0.2	16	491.7	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.494598	-70.859443	Opened drain manhol	Sampled drain pipe en	0.2	16.9	440	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.496982	-70.856396	Opened drain manhol	double 36" pipes com	0.3	16.9	685	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.502967	-70.856873	Opened drain manhol	brick lined, used reach	0.4	16.4	744	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Opened drain manhol	Sampled main flow, 3	0.4	15.2	809	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Pipe flowing into storm	Started flowing after M	0.3	17.5	541	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	24.4	14.7	38.45mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	16.9	14.1	22.24mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.282780	-71.046962	large tide gate ~2? Ho	sampled center of sou	1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282780	-71.046962	duplicate of 10L094		1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282540	-71.046292	1/2 silted up	sampled about 10 fee	1.3	16.3	2514	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275941	-71.031767	green alge at bottom	former drainline that h	0	13.9	91.6	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273990	-71.030634	very dark sediments	Previously named Sag	1.5	16.9	33.20mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299943	-71.006177	seep from sewage line	to main interceptor on	8.4	17.9	834	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299779	-71.005800	Sample collected at b	waded ~ 6 ft	37.1	13.7	43.74mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.277051	-71.009467	Wollaston Beach Sam	waded ~ 6ft between W	31.3	13.2	41.01mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.278670	-71.013452	Wollaston Beach Sam	waded ~ 6ft near Wol	31.3	13.6	47.97mS	Boston-Logan	0.13	0.14	Wet

RARE Stormwater Outfall Inspection & Samp ing Summary

Location				Outfall		Inspection					Sampling																								Coordinates		Comments	Additional Location Information	YSI Meter				Weather			Photo
													Surfact (mg/l)		NH3 (mg/l)		Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flouride	Potassium (mg/L)													
Date	own	Site Name	ime	Pipe Mat	Dia (in)	Est Flow (gpm)	Odor	Color	urbidity	Floatables	E coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	Alpha	est St	A pha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	D methy xanth ne	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha otal	Field	est St	Alpha	Alpha	Field	GPS North( )	GPS West ( )			Salinity ppt	emp C	Conductivity uS	Rain Gau Location	24hrs inche	48hrs inches	Wet/ Dry?	aken Y or N
/21/10	Arlington	91Mys	8:00	Open stre	na	na	none	eavy te	cloudy	me su	152	1	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	1.8	2. 18716	-71.151379	just downstream of bridge	Mill Brook @ Mystic Stree, next to 91	0.5	11 3	910	Bedford	0	0	Dry	Y
/21/10	Arlington	Mil B	8:10	Open stre	na	na	ong m	eavy te	irly cle	suds	395	52	0 06	~0.1	0.12	ND	1.1	28	.1	~20	3.1	6	3	0.7	ND (.0	90	1.	ND	ND	NA	ND	ND	.2	6.35	2. 18597	-71.1522 7	Sample taken from flow just below	Mill Brook @ opening in Cookes Hollo	0.5	11 7	921	Bedford	0	0	Dry	Y
/21/10	Arlington	MBike	8:50	Stone (ins	10'X8	stream	odera	med te	clear	none	268	233	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 1803618	-71.156 9782	Start of culvert under park at Cooke	Mill Brook near bike path off Mill Stree	0.	11 6	88	Bedford	0	0	Dry	Y
/21/10	Arlington	AHS	9:05	Open stre	na	stream	none	l ght te	clear	some	666	213	0 06	ND	ND	ND	0.95	37	.8	190	.6	12	70	1.2	ND (.0	1 00	0.93	ND	ND	NA	ND	ND	3.6	1.05	2. 180038	-71.1599327	two 3 foot culverts and one small <	Near Arlington High School o f Mi l Brc	0.	11 6	859	Bedford	0	0	Dry	Y
/21/10	Arlington	UR020	9:05	Open stre	na	stream	none	l ght te	clear	some	15 9	173	0 06	ND	ND	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND	3.6	2. 5	2. 180038	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry	Y
/21/10	Arlington	Grove01	9: 0	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	80	529	0 06	~0.1	0 079	ND	0.78	7	12	280	.7	30	170	2.9	ND (.0	2700	ND (0.)	ND	ND	NA	ND	ND	3.	2.05	2. 2030025	-71.16 60763	6ft stone channel, foot deep	Mill Brook instream	0.	12.1	755	Bedford	0	0	Dry	Y
/21/10	Arlington	GroveS	9: 5	Concrete	0	10-15	none	none	clear	none	7	7701	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2032 96	-71.16 7329	moss/algae growing on inside and	Outfa l to Mill Creek	0.6	10.	1200	Bedford	0	0	Dry	Y
/21/10	Arlington	Quinn2	10:30	Concrete	12	19	fresh	none	clear	none	ND	ND	0 05	0.3	ND	ND	3	9.1	ND (2.0	ND (2.0)	0.86	ND (2.0)	5.	ND (0.)	ND (.0	15	1.2	ND	ND	NA	ND	ND	8.3	6	2. 2321769	-71.17286099	lots of green algae inside pipe		1.	11.	2700	Bedford	0	0	Dry	Y
/21/10	Arlington	RyMill	11:05	Concrete	2'X3'	.00	fresh	none	clear	none	1302	0	0.16	0.3	0 677	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0	15000	ND (0.5)	ND	ND	0.08	ND	ND	6.	.15	2. 2389075	-71.1737 022	fresh smel ing	Off Ryder Street lot	1.1	12 8	2188	Bedford	0	0	Dry	Y
/21/10	Arlington	RyMil 2	11:10	hole in wa	na	2.00	none	none	clear	none	ND	ND	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	2.65	2. 2388575	-71.17372022	hole in wall/seep	East s de of culvert wa l	0.5	10 0	139	Bedford	0	0	Dry	Y
/21/10	Arlington	RyderE	11:20	Concrete	30	29	none	none	clear	none	271	336	0.16	0.25	0.13	ND	1.6	21	ND (2.0	ND (2.0)	1.1	5.8	11	0. 3	5.	230	1.3	ND	0.18	0.26	ND	ND	3.8	1.25	2. 2 0075	-71.17 58522	near Out of the Woods contracting	Outfa l to Mill Brook, East side of strea	0.7	10.1	1 50	Bedford	0	0	Dry	Y
/21/10	Arlington	RyderW	11:30	Concrete	36	20-30	none	none	clear	none	30	20	ND	ND	ND	ND	1.1	52	ND (2.5	ND (2.5)	1	ND (2.5)	ND (5.0	ND (0 5)	ND (5.0	1	ND (0.5)	ND	ND	0.05	ND	ND	ND	0.65	2. 2 3302	-71.17 6 016	waders, culvert just upstream s dry	Outfa l to Mill Brook, West s de of stre	0.6	9.8	1280	Bedford	0	0	Dry	Y
/21/10	Arlington	30Park	12:25	Open stre	na	stream	none	l ght te	clear	none	17 1	816	0 08	ND	ND	ND	0.57	56	1	76	.3	1	120	1.6	ND (.0	1900	0. 3	ND	ND	NA	ND	ND	3.3	0.75	2. 2 750 9	-71.181323 9	Park St behind Penzys	Mill Brook main stem, by Golds Gym	0.3	1 .1	612	Bedford	0	0	Dry	Y
/28/10	Winches	ABR006	8:30	Open stre	na	stream	none	none	irly cle	aves/b	899	199	0 09	0.2	0 528	2	1.2	28	2.3	21	21	7.9	170	ND (0.)	ND (.0	360	0.85	ND	ND	0.06	ND	ND	.9	2	2. 732536	-71.13860 28	near gauging station	Sampled above dam	0.	10 3	821	Bedford	0	0 02	Dry	Y
/28/10	Winches	Wf eld	8:50	Open stre	na	stream	none	none	htly tu	some	839	317	NA	0.22	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 51091 9	-71.13689 56	waterfall ~250ft upstream, one goo	Waterfie d St br dge	0.	10 2	806	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Vern01	9:15	Open stre	na	stream	none	none	htly tu	aves/b	6 3	108	NA	0.22	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 528 032	-71.135 2 1	used reach and waders	Mt Vernon St bridge by fire stat on	0.	10 2	79	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Wedge01	9:32	Open stre	na	stream	none	none	htly tu	some	58	10	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 55710 5	-71.13669 02	used reach	Behind Stop & Shop	0.3	12 6	561	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Skill01	9:50	Concrete	3'	stream	none	eish/g	turb d	some	913	1 8	0.1	0.25	0 8	3	1.	25	ND (2.0	27	23	6.	220	1.	ND (.0	370	0.61	ND	ND	ND	ND	ND	5.2	2.25	2. 56 901	-71.136 72 3	outfa l on far left ooking upstream	Skillings road from under ball ield	0.	9.1	907	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	UR021	9:50	Concrete	3'	stream	none	eish/g	turb d	some	16 2	132	0.1	0.25	0 837	3	1.	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	5.	1.75	2. 56 901	-71.136 72 3	duplicate of Skil 01		na	na	na	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Skill02	9:55	Concrete	12	5-10	none	none	irly cle	none	75	30	NA	~0.1	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 56 6101	-71.136 980	very low flow - f any	sma l pipe exiting near Sk ll01	0.	9.1	908	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Swan1	10: 5	Open stre	na	stream	none	l ght te	htly tu	me su	7 0	171	0 08	0.25	0 887	3	1.	23	ND (2.0	29	19	6.5	250	0.63	ND (.0	330	0.65	ND	ND	0.0	ND	ND	5.1	1.	2. 608915	-71.13718955	just downstream near gauging stat	Swanton Street bridge	0.	9.1	905	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Russ1	11:05	Stone (ins	'X '	stream	none	l ght te	clear	me su	38	359	0 07	0.25	0 083	ND	1.	22	ND (2.5	2.8	8.2	ND (2.5)		ND (0 5)	ND (5.0	75	1.8	ND	ND	ND	ND	ND	5.6	2.6	2. 63 55	-71.1 9258	samp ed far right of culvert opening	Russel Brook at the end of Sylvester S	0.5	9.7	965	Bedford	0.16	0.18	Wet	Y
/28/10	Woburn	OF118	11:35	Concrete	30	50	none	none	clear	me su	15	52	0 07	0.3	0 381	0.5	2	23	ND (2.0	5.8	6.7	ND (2.0)	37	ND (0.)	6.5	1300	.8	ND	ND	0.0	ND	ND	11	5.7	2. 75 9599	-71.1599119	rust/orange stain on rocks	main stream out all on corner of Ellis a	0.8	19 8	1655	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF159A	12:0	Cor.Metal	18	5-10	none	none	clear	none	268	156	NA	0.3	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 8090577	-71.15755569	sl ghtly crushed small outfa l pipe	Off Harrison Ave near ballpark, downs	0.5	12 2	1070	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF159	12:05	Cor.Metal	2 -30	20-30	ht sew	none	clear	none	318	109	0.1	0.25	1.38	1	0.59	36	ND (2.0	7.9	10	ND (2.0)	35	ND (0.)	16	1000	1.2	ND	ND	ND	ND	ND	15	.75	2. 809258	-71.15751796	Main outfall	Off Harrison Ave near ballpark, downs	1.3	7.9	2 95	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF161	12:15	Cor. Meta	5'	stream	ht mu	none	htly tu	some	16 2	1 8	ND	0.3	0.153	ND	2.7	28	3.2	120	8.1	19	85	ND (0 5)	7.2	1500	8.6	ND	ND	0.06	ND	ND	9.7	3.35	2. 7993991	-71.156178 6	very slow f ow	oppos te s de of ballpark on Harrison A	0.8	12 5	1578	Bedford	0.17	0.19	Wet	Y
5/5/10	Arlington	Grove01a	8:10	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	27 7	520	0 07	~0.1	0.101	ND	0.59	58	8.5	53	10	12	130	ND (0.)	ND (.0	750	0. 2	ND	ND	0.09	ND	ND	.3	0.9	2. 2029396	-71.16 7529	Just upstream of Grove01, be ore t	Mill Brook instream	0.	15 9	850	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	GroveS	8:10	Concrete	0	10-15	ight g	none	clear	none	202	15531	NA	0.22	NA	2	NA	NA	ND (2.0	2900	5.8	70	190	13	ND (.0	810	1.9	NA	NA	NA	ND	NA	NA	NA	2. 2032 96	-71.16 7329	moss/algae growing on inside and	Outfa l to Mill Creek	0.7	12.	1307	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	UR022	8:10	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	2069	583	0 07	~0.1	0 218	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.0	ND	ND	.2	1.8	2. 2029396	-71.16 7529	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Robin	8: 5	oose join	2	10-15	natur	none	clear	none	9678	295	NA	0.	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 22035	-71.170577	needed ladder/waders dark slimy c	At end of Robin Street, accessed thro	0.8	12 5	1533	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Bratt e	9:10	Open stre	na	stream	none	tea	ry turb	some	1 62	776	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 20 17	-71.168133	lots of suspended sediments, cons	Mill Brook instream near condo's off B	0.	16.1	8 7	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	RyMill	9:25	Concrete	2'X3'	3	mical/m	none	irly cle	none	2190	301	NA	~0.1	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2389075	-71.1737 022	1/2 the f ow from last sample da e,	Off Ryder Street lot	1.1	13 6	2257	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	RyderE	9:32	Concrete	30	29	none	none	clear	none	9	30	NA	0.2	NA	0.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2 0075	-71.17 58522	near Out of the Woods contracting	Outfa l to Mill Brook, East side of strea	0.7	11 7	1 07	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Ryder01	9:35	Stone (ins	6'	stream	none	l ght te	irly cle	me su	195	350	0 07	~0.1	0.135	0.25	0.37	5	9.1	100	7.7	13	73	0.65	ND (.0	1200	0.6	ND	ND	0.05	ND	ND	3.9	1.35	2. 2 65	-71.17 718	neighbor stopped over to say that h	Just upstream of Ryder St bridge and	0.	17	729	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	30Park	10:10	Open stre	na	stream	none	l ght te	clear	none	1302	350	0 07	ND	0.16	ND	0.35	5	10	1	6.7	9	72	0.6	ND (.0	920	0.5	ND	ND	ND	ND	ND	3.8	1.95	2. 2 750 9	-71.181323 9	Park St behind Penzys	Mill Brook main stem, by Golds Gym	0.3	17 6	71	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	1395MA	10:30	Open stre	na	stream	none	l ght te	htly tu	none	689	323	0 06	ND	0.133	ND	0.31	55	8	5.	5.7	7.3	35	ND (0.)	ND (.0	590	ND (0.)	ND	ND	0.0	ND	ND	3.7	2	2. 253 8	-71.186230	PPCP bottle broke, resampled at 1	behind 1395 Mass Ave, Sunrise assis	0.3	18 2	68	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Drake01	10:55	Open stre	na	stream	none	med te	htly tu	none	2318	960	0.1	ND	0 257	0.75	0.52	129	32	23	12	19	98	0.8	ND (.0	2700	1.9	ND	ND	ND	ND	ND	.1	2.3	2. 2689	-71.189660	Drake' slow flow, just upstream or r	Between condo comp ex s off Drake	0.	15 8	726	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	ArlRes	11:05	Concrete	3'	stream	none	l ght te	clear	me su	183	7	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 26882	-71.18958	just before confluence with Mill Bro	just downstream of Ar ington reservoir	0.3	20 2	660	Bedford	0.12	0.13	Wet	Y
5/5/10	Lexingto	WF01	11:25	Stone (ins	'X '	stream	none	none	cloudy	me sc	16	52	0 07	ND	ND	ND	1.	93	ND (2.5	2.6	1.5	ND (2.5)	5.8	ND (0 5)	ND (5.0	390	ND (0.5)	ND	ND	ND	ND	ND	6.3	1.2	2. 277872	-71.2050922	lots of duck weed on surface	Mass ave across from Wi son Farms	0.5	18	9 6	Bedford	0.12	0.13	Wet	Y
5/5/10	Lexingto	Vine01	11:55	Open stre	na	stream	none	eavy te	htly tu	me ea	1302	393	NA	~0.1	NA	3	NA	NA	.3	3	2.1	1	93	1.	ND (5.0	1700	2.9	NA	NA	ND	NA	NA	NA	NA	2. 503760	-71.2202638		Near corner Grant St & Hayes Ln	0.	12 3	7 1	Bedford	0.12	0.13	Wet	Y
5/12/10	Woburn	Ha ls2	8:00	Open stre	na	stream	none	ht bro	na	none	212	109	NA	~0.1	NA	ND	NA	NA	ND (2.5	ND (2.5)	9.3	8.3	300	ND (0 5)	ND (5.0	160	1.	NA	NA	ND	ND	NA	NA	0.	2.513171	-71.1 26 9	machinery stored nearby	Ha ls Brook behind 185 New Boston,	0.	11.1	875	Bedford	0	0	Dry	Y
5/12/10	Woburn	DRR1	8:15	Open stre	na	stream	none	ht bro	clear	none	182	8	NA	~0.1	NA		NA	29	ND (2.0	2.3	1.5	ND (2.0)	6.7	ND (0.)	ND (.0	96	0.72	NA	NA	ND	ND	NA	NA	11.3	2.513291	-71.1 2539	samp ed before timber in stream,	Unnamed stream just upstream of Ha	0.	10.1	839	Bedford	0	0	Dry	Y
5/12/10	Woburn	Mys07	9:05	Open stre	na	stream	ch/sew	rk bro	ry mu	algae	131	1 5	NA	~0.1	NA		NA	22	ND (2.5	ND (2.5)	1.3	ND (2.5)	5.6	ND (0 5)	ND (5.0	100	0.77	NA	NA	0.06	ND	NA	NA	19.5	2.518563	-71.1 6526	A gae and oil on surface. Dumpste	New Boston St where culvert enters, d	0.	9..9	815	Bedford	0	0	Dry	Y
5/12/10	Woburn	Mys08	9:10	Open stre	na	stream	ulch/s	ht bro	clear	none	92	ND	NA	ND	NA		NA	19	ND (2.0	3.3	1.7	ND (2.0)	ND (.0	ND (0.)	ND (.0	29	0.63	NA	NA	ND	ND	NA	NA	20	2.518739	-71.1 6 11	not as strong smelling as Mys07	Opposite stream from Mys7	0.	10 2	896	Bedford	0	0	Dry	Y
5/12/10	Woburn	Torr01	10:00	Open stre	na	stream	none	ht bro	clear	none	223	120	NA	0.25	NA	ND	NA	38	ND (2.0	ND (2.0)	7.5	5.9	1 0	ND (0.)	ND (.0	80	1.	NA	NA	ND	ND	NA	NA	3.85	2.51 22 81	-71.1 551115	flow on downstream side of road	samp ed from eft opening	0.	11 3	878	Bedford	0	0	Dry	
5/12/10	Woburn	UR023	10:00	Open stre	na	stream	none	ht bro	clear	none	182	52	NA	0.25	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	3.55	2.51 22 81	-71.1 551115	duplicate of Torr01		0.	11 3	878	Bedford	0	0	Dry	
5/12/10	Woburn	Dart1	10:30	Open stre	na	stream	none	rk bro	clear	me su	6	31	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	2.65	2.510 8269	-71.15 92526	fair amount of itter	upstream of road crossing	0.	12.1	869	Bedford	0	0	Dry	
5/12/10	Woburn	School01	11:05	Open stre	na	stream	none	rk bro	clear	none	109	20	NA	0.25	NA	0.25	NA	73	ND (2.0	2.5	17	6.	61	ND (0.)	ND (.0	230	1.2	NA	NA	0.11	ND	NA	NA	2.7	2.5086557	-71.1583669	construction on bridge above, lots o	bottom of stone run off channel	0.5	12 7	987	Bedford	0	0	Dry	
5/19/10	Quincy	FBP02	8:15	Open stre	na	stream	none	none	clear	none	813	3873	NA	0.25	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0	560	0.67	NA	NA	ND	ND	NA	NA	NA	2.25766282	-71.008968 9	samp ed stream before bridge		0.2	12 2	360.6	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	UR02	8:15	Open stre	na	stream	none	none	clear	none	3922	365	NA	0.3	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	0.05	2.25766282	-71.008968 9	duplicate of FBP02		na	na	na	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	FBP03	8:55	Open stre	na	stream	pt c sm	ht bro	nild	none	565	5172	NA	0.	NA	ND	NA	9	5	6	18	11	160	ND (0 5)	ND (5.0	600	0.68	NA	NA	ND	ND	NA	NA	ND	2.25627321	-71.02067588	onle t side of culvert		0.2	12 3	28.5	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Broad1	9:25			stream	none	none	clear	none	3 66	2755	NA	2	NA	ND	NA	69	ND (2.0	53	17	7.5	180	ND (0.)	ND (.0	1300	0.8	NA	NA	0.03	ND	NA	NA	10.8	2.25620978	-70.9931 315			8.1	13 3	1 .1	Milton-Blu	1.5	0	Wet	Y
5/19/10	Quincy	Sag1A	10:15		ft		s ight septic	ht bro	clear	none	133 0	2098	NA	1.7	NA	ND	NA	70	7.1	210	19	1	380	1.7	ND (.0	2700	3.6	NA	NA	0.15	ND	NA	NA	35.80	2.27602123	-71.0320993	samp ed inf ow from culvert		.3	12 6	7.78	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Wo lB1A	10: 0	CM	'x3' bo	.5L/mi	sewag	none	clear	none	80	3282	NA	0.5	NA	0.1	NA	108	21	56	16	5	190	9.3	ND (.0	3900	1.	NA	NA	ND	ND	NA	NA	11.3	2.277357	-71.008933	outfa l across from clam shack	just south of Wo lB1 on Wollaston Be	0.3	12.	675	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Wo lB1	11:00	CM	x bo	1	sewag	none	clear	none	27 7	6131	NA	0.75	NA	ND	NA	70	6.2	130	13	60	720	ND (0.)	ND (.0	15000	ND (0.)	NA	NA	0.07	ND	NA	NA	8.65	2.278672	-71.012859		outfa l between yacht clubs on Quincy	3.5	12 8	.87	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Sag1B	11: 5		5x6 t	slowly	sewag	ht bro	mi d	none	20980	365	NA	0.5	NA	1	NA	118	6	350	22	1 0	530	17	ND (.0	6100	3	NA	NA	0.05	ND	NA	NA	NA	2.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blu	1.5	0	Wet	
5/26/10	Belmont	UR025	9:10	Open stre	na	stream	musty	med te	htly tu	none	29090	7701	NA	0.2	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	2.2	2.39528219	-71.1763191	duplicate of WEB013		na	na	na	Bedford	0	0	Dry	
5/26/10	Belmont	WEB013	9:10	Open stre	na	stream	musty	med te	htly tu	none	11620	6 88	NA	0.2	NA	0.25	NA	79	5	1200	11	300	1100	.8	ND (5.0	12000	.3	NA	NA	0.0	ND	NA	NA	1.1	2.39528219	-71.1763191	lots of suspended sediments, wate	We lington Brook	0.7	12 6	1 33	Bedford	0	0	Dry	
5/26/10	Arlington	ARL0 3	9:58	Concrete	18-2	5	none	none	clear	none	79	109	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 225696	-71.1 928822		Mystic Val ey Parkway	0.6	13 8	1269	Bedford	0	0	Dry	
5/26/10	Arlington	ARL137	10:25	Clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	0.25	NA	23	ND (2.0	ND (2.0)	.3	.2	39	ND (0.)	ND (.0	37	ND (0.)	NA	NA	0.71	1/0.3	NA	NA	0.25	2. 1770 89	-71.157 838	may be multiple pipe coming togeth	pipe d scharging to Mill Brook, Under	0.1	17 8	237	Bedford	0	0	Dry	
5/26/10	Arlington	ARL207	11:07	Seep	na	1-2	brassic	na	na	na	25	20	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2 71 86	-71.17533266	col ected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry	
5/26/10	Arlington	Drake01	11:25	Open stre	na	stream	none	med te	htly tu	none	1230	663	NA	~0.1	NA	2	NA	205	3	99	1	67	230	1.3	ND (.0	3000	3.3	NA	NA	0.06	ND	NA	NA	1.05	2. 2689	-71.189660	slow f ow, just upstream or reservoi	Between condo comp ex s off Drake	0.5	21 5	665	Bedford	0	0	Dry	
5/26/10	Arlington	ArlRes	11:30	Open stre	na	stream	none	med te	htly tu	none	79	5 8	NA	~0.1	NA	2	NA	180	33	100	11	7	190	1	ND (.0	2000	2.8	NA	NA	~0.02	ND	NA	NA	0.18	2. 26882	-71.18958	before confluence with Mill Brook, f	just downstream of Ar ington reservoir	0.3	21 2	667	Bedford	0	0	Dry	
5/26/10	Lexingto	Bow01A	12:00	Concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	0.25	NA	NA	ND (2.5	ND (2.5)	2.	ND (2.5)	11	ND (0 5)	7.	30	6.6	NA	NA	0.11	ND	NA	NA	2. 5	2. 26 5629	-71.19 36 02		pipe d scharging under bow street br d	1.3	17 6	2 82	Bedford	0	0	Dry	
5/26/10	Lexingto	Bow01	12:05	Open stre	na	stream	none	med te	htly tu	none	6 3	809	NA	~0.1	NA	ND	NA	8	3.1	19	2.8	5.1	22	0.63	ND (.0	0	ND (0.)	NA	NA	0.08	ND	NA	NA	ND	2. 26 8362	-71.19 0958	6ft wide, rocky streambed flow <6in	Bow street, just downstream of bridge	0.3	18 3	537	Bedford	0	0	Dry	
5/26/10	Lexingto	Fott01	12:35	Open stre	na	stream	none	med te	htly tu	none	12	199	NA	ND	NA	1	NA	93	ND (2.0	ND (2.0)	2.2	ND (2.0)	ND (.0	ND (0.)	ND (.0	ND (.0	ND (0.)	NA	NA	0.06	ND	NA	NA	1. 5	2. 283 205	-71.19676 56	36 double culvert co lected compo	Just downstream of Fottler ave Bridge	0.2	19 3	513	Bedford	0	0	Dry	
5/26/10	Lexingto	GMS01	12:55	Open stre	na	stream	none	eavy te	ry mu	ick fil	72	52	NA	0.2	NA	0.25	NA	36	ND (2.0	ND (2.0)	0. 5	ND (2.0)	ND (.0	ND (0.)	ND (.0	ND (.0	ND (0.)	NA	NA	ND	ND	NA	NA	0.05	2. 2901218	-71.1975303	tributary, thick film covering surface	Walked ~100yards upstream from Fo	0.2	20 9	362.9	Bedford	0	0	Dry	
6/2/10	Revere	UR026	8:01	Concrete	2	NA	none	brown	turb d	none	206 0	9606	NA	0.	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	5.95	2.3998839	-70.992 2127	duplicate of WashN01		na	na	na	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	WashN01	8:01	Concrete	2	NA	none	brown	turb d	none	17250	16070	NA	0.3	NA	6	NA	NA	1	900	80	00	1900	13	ND (.0	2 000	1.8	NA	NA	0.0	ND	NA	NA	6.90	2.3998839	-70.992 2127	outfa l about 1ft under water, no no	Behind Shaw's back corner of parking	0.5	16 9	993	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	Sa es01	8:10	Open stre	na	stream	none	ht bro	irly cle	trash	813	2359	NA	0.	NA	0.7	NA	NA	.7	210	53	26	180	0.56	ND (.0	1200	1.8	NA	NA	0.03	ND	NA	NA	11	2.39990 5	-70.99237953	just upstream of WashN01 outfall	Sales Creek	1.3	18 2	2527	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	Green01	8: 0	Open stre	na	stream	musty	grey	turb d	trash	>2 1960	31300	NA	0.75	NA	2	NA	NA	1 0	3900	100	850	1800	3.5	ND (.0	2 000	13	NA	NA	0.06	ND	NA	NA	ND	2. 0260397	-71.003 6085	off 1A by esquire club	Green Street in Revere	0.5	17 8	9 3	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	29M0 9	9:10	Concrete	3ft	30- 0	none	none	htly tu	none	71	3873	NA	3	NA	ND	NA	NA	ND (2.0	8	6.6	5.9	5	ND (0.)	ND (.0	78	1.3	NA	NA	0.03	ND	NA	NA	17.7	2.3830573	-71.03016877	0min before low t de	Condor Street outfall, near park	23.3	16.1	36.7mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	25L058	9:50	Concrete	x6ft bo	na	musty	grey	turb d	trash	2069	3 8	NA	2	NA	ND	NA	NA	3.	50	63	26	510	1.3	ND (.0	90	1.	NA	NA	0.03	ND	NA	NA	50*	2.36126566	-71.05083507	near Christopher Columbus Park	Climbed down between Joe's Amer ca	26.7	16 3	67mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	Bos017	10:20	Concrete	72	na	none	none	cloudy	rticula	612	203	NA	2	NA	ND	NA	NA	.3	33	1	17	180	ND (0 5)	ND (5.0	120	1.3	NA	NA	0.03	ND	NA	NA	35.50	2.385 766	-71.06883007	Appeared to be mixed tidal flow, Ea	Behidnd Schra t's building down from	18.7	18 7	30 85mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	29J212	10:22	Concrete	60	na	none	none	cloudy	rticula	568	52	NA	2	NA	ND	NA	NA	5.	68	1	26	200	0.7	ND (5.0	510	3.2	NA	NA	0.05	ND	NA	NA	33.90	2.385 9883	-71.06886597	Outf ow w/some tidal mix, sampled	Behidnd Schra t's building down from	17.2	19 5	28.5mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Chelsea	Mil 2A	11:20	Concrete	2	<5	ty/che	none	clear	trash	58	175	NA	0.8	NA	6	NA	NA	ND (2.0	8.7	33	9.7	220	ND (0.)	ND (.0	7	ND (0.)	NA	NA	ND	ND	NA	NA	15.9	2. 0367	-71.020987	sign ficant gray bacter a growth	privately owned, drains Parks de Com	0.5	16 2	1688	Boston-Lo	0.08	0. 3	Wet	
6/10/10	Lawrence	SLE3	7:25	crete out	3'	NA	ong m	te/tan/	htly c o	mentou	195	2359	NA	1	NA	ND	NA	NA	ND (.0	7.5	16	5.3	51	ND (0 8)	ND (8.0	ND (8.0	3.3	NA	NA	ND	ND	NA	NA	3	2.70688	-71.1 76552	SLE3a' significant white/tan/gray ba	South Lawrence E ementary, behind t	0.5	1 6	10 5/835	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	UR027	7:25	crete out	3'	NA	ong m	none	htly c o	mentou	17 1	131	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	2.35	2.70688	-71.1 76552	sign ficant white/tan gray bacteria g	South Lawrence E ementary, behind t	na	na	na	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SLE3	8:25	crete out	3'	NA	ong m	none	htly c o	mentou	899	88	NA	0.2	NA	ND	NA	NA	ND (.0	28	78	2	00	ND (0 8)	ND (8.0	130	3.5	NA	NA	0.0	ND	NA	NA	1.25	2.70688	-71.1 76552	SLE3b' N trate: 2. Nitrite: 0.3. Phos	South Lawrence E ementary, behind t	0.5	1 8	98 /790	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SLE3	9:00	crete out	3'	NA	ong m	none	htly c o	mentou	806	201	NA	0.5	NA	ND	NA	NA	ND (5.0	2	9	18	310	ND (1 0)	ND (10.0	130	3	NA	NA	0.0	ND	NA	NA	1.65	2.70688	-71.1 76552	SLEc' Lawrence DPW stopped (did	South Lawrence E ementary, behind t	0.5	1 7	957/7 7	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SPR05	9:35	concrete	18	10	none	none	ery c e	none	NA	NA	NA	0.5	NA	ND	NA	NA	ND (2.5	ND (2.5)	35	6	130	3.3	ND (5.0	38	.8	NA	NA	0.15	ND	NA	NA	NA	2.70991636	-71.15129912	samp es sent for PCR	pipe o f Lawrence Hospital	0.1	18 8	12.18/18	Lawrence	0.0	0 0	Dry	
6/16/10	Concord	PRIS01	11:00	Concrete	2ft	2	sewag	none	clear	none	16160	10 62	NA	0.8	NA	0.75	NA	NA	1	81	62	280	9 0	ND (0 5)	ND (5.0	1800	5	NA	NA	0.6	ND	NA	NA	12.	2. 65157	-71.392813	pool at base of culvert (~3 t down) v	<1/2 mi e from br dge on rte 2E towar	0.2	27 6	390.3/37	Bedford	0	0	Dry	
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0	17000	2 0	NA	NA	0.13	ND	NA	NA	ND			E fluent of a membrane bioreactor			2	95.8	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	0.75	NA	NA	50	1	19	31	170	1.3	ND (.0	870	170	NA	NA	ND	ND	NA	NA	25.10			6 below sur ace, 6 sand btw so l in	tip pans (2 /day - 1galeach) stone trench wsar		22 9	79	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	1	NA	NA	850	99	ND (0.5	6.1	20	1.3	ND (5.0	17	170	NA	NA	0.06	ND	NA	NA	38.70			12 below sur ace	12 sand		21.1	602	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.)	ND (.0	ND (.0	87	NA	NA	0.07	ND	NA	NA	ND						21 6	351	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	2 IN01	9:30								25	ND	NA	0.25	NA	1	NA	NA	670	1 0	ND (0.	2.1	5.8	0.89	ND (.0	31	2 0	NA	NA	ND	ND	NA	NA	ND			2 below sur ace			20.1	571	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	NF01	9:30								61100	290900	NA	1	NA	ND	NA	NA	1800	1000	1300	7300	33000	510	ND (20.0	#####	280	NA	NA	ND	ND	NA	NA	2.5			Influent			19 3	79	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	12INWA	9: 0								ND	ND	NA	0.75	NA	ND	NA	NA	10	ND (2.0)	3.7	6.9	2	0.6	ND (.0	1	180	NA	NA	0.18	ND	NA	NA	36.80			12 w th air			20 3	579	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	STE01	9: 5								5 7500	186000	NA	0.75	NA	6	NA	NA	1 00	000	1900	6300	51000	760	ND (20.0	#####	300	NA	NA	ND	ND	NA	NA	11.5								Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	UR099	9: 5								686700	119800	NA	0.75	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND						20 3	606	Falmouth	0.12	0 21	Wet	N
7/7/10	Manches	Dunbar	8:20	Stone cul	3x	150	petrol	o l shee	turb d	h & de	1089	22	NA	ND	NA	ND	NA	36	ND (2.0	6.1	6.7	ND (2.0)	5.9	ND (0.)	ND (.0	73	ND (0.)	NA	NA	0.17	ND	NA	NA	NA	2.968332	-71. 7279	Oil sheen across all rocks, trash an	cal ed EPA incident response to repor	0.3	18.1	529/ 6.2	Mancheste	0	0	Dry	Y

10/5/10	Watertov	Wat12	9:30	Concrete	36	na	none	none	clear	none	111990	1 136	NA	0.6	NA		NA	NA	190	1100	3	980	12000	ND (0)	ND (0.0	1200	200	NA	NA	ND	ND	NA	NA	NA	2.36 89	-71.18 223	Wa ertown outfa l #12	some small fish, cou dn't determine f o	0.5	16 8	1012	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	Wat11	9: 0	Concrete	'x3' bo	na	none	med te	turb d	none	19350	1723	NA	0.3	NA	0.1	NA	NA	D (10.	90	16	160	270	ND (2.0)	ND (20.0	5	18	NA	NA	0.1	ND	NA	NA	NA	2.36 77	-71.18 952	Wa ertown outfa l #11	outfa l opening under water sampled a	0.6	16 2	1168	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	LB01	10:35	Concrete	0'x7'bo	100	none	none	clear	none	6212	583	NA	0.2	NA	ND	NA	NA	6.3	6	1	2	510	ND (0 5)	ND (.7	92	3.6	NA	NA	0.11	ND	NA	NA	NA	2.36 733	-71.189067	Laundry Brook	samp ed just ins de opening	0.3	15 5	565	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	Wat5	11:07	Concrete	'	1	none	none	clear	none	6	20	NA	0.25	NA	ND	NA	NA	ND (2.0	ND (2.0)	0.52	.8	23	ND (0.)	ND (.0	ND (.0	6.6	NA	NA	ND	ND	NA	NA	NA	2.367 9	-71.198957	culvert on right, not a ot of f ow		0.7	18.1	13 8	Boston-Lo	0.0	0 53	Wet	Y
10/5/10	Watertov	Wat6	11:11	Concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	ND	NA	NA	5.	37	3.7	19	82	ND (0.)	ND (.2	36	3.2	NA	NA	0.08	ND	NA	NA	NA	2.367 89	-71.198853	About 1ft of outfall underwater, som	can hear running water upstream	0.7	17 7	1299	Boston-Lo	0.0	0 53	Wet	Y
10/13/10	Marb ehe	DLaunch	8:15	Concrete	ft	0	none	none	clear	none	1376	860	NA	2	NA	ND	NA	NA	ND (2.0	1	1.8	12		ND (0.)	ND (.0	8.5	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	Sampled eft culvert, ooking upstre	more f ow than last time DPW & DPH	20.7	11 9	33.13mS	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	UR038	8:15	Concrete	ft	0	none	none	clear	none	871	723	NA	2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	duplicate of D aunch		20.7	11 9	33.13mS	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH19	8:38	stormdrai	na	~20	mus	none	clear	none	TNTC	2 196	NA	0.5	NA		NA	NA	120	500	37	2100	300	ND (0)	ND (0.0	~1500	82	NA	NA	ND	ND	NA	NA	NA	2. 92557	-70.859 21	Opened drain manhole at #62 Bea	Br ck sides w/hard bottom, Wide slow	0.7	16 3	1 83	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH32	9:10	stormdrai	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	ND	NA	NA	2.	8.	6.6	210	120	ND (0 5)	ND (.8	~97	ND (0.5)	NA	NA	ND	ND	NA	NA	NA	2. 93 67	-70.860 30	Opened drain manhole at #78 E. C	used reach	0.	16 3	7 3	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH 8	9:30	stormdrai	na	~15	htly m	none	clear	none	8	ND	NA	~0.1	NA	ND	NA	NA	ND (2.0	ND (2.0)	0.8	2.8	ND (.0	ND (0.)	ND (.0	~ .3	0.52	NA	NA	ND	ND	NA	NA	NA	2. 92693	-70.860829	Opened drain manhole at corner of	gas odor	0.2	16	91.7	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH29A	9:55	p ast c sto	18-2	~10	none	none	clear	none	689	1	NA	~0.1	NA	ND	NA	NA	2.2	21	1	9.	50	ND (0 5)	ND (.8	~15	0.66	NA	NA	0.03	ND	NA	NA	NA	2. 9 598	-70.859 3	Opened drain manhole at #37 Bub	Sampled drain pipe entering system	0.2	16 9	0	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH2336	10:30	stormdrai	na	na	none	none	clear	mall wh	565	2 89	NA	0.25	NA	0.75	NA	NA	13	310	19	1100	~ 8000	ND (0.)	ND (.0	~29	68	NA	NA	0.03	ND	NA	NA	NA	2. 96982	-70.856396	Opened drain manhole on Chestnu	double 36 pipes coming into 3 deep	0.3	16 9	685	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH2203	10:55	stormdrai	na	~15	musty	none	clear	none	565	5 75	NA	0.3	NA	0.	NA	NA	6	630	13	70	790	ND (0 8)	ND (8.0	~81	ND (0.8)	NA	NA	ND	ND	NA	NA	NA	2.502967	-70.856873	Opened drain manhole on Sewall S	brick lined, used reach	0.	16.	7	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MHWinslo	11:11	stormdrai	na	na	musty	htly ye	clear	none	2 52	118	NA	0.	NA	0.3	NA	NA	ND (2.0	110	16	90	130	ND (0.)	ND (.0	ND (.0	1.7	NA	NA	ND	ND	NA	NA	NA	2.506562	-70.856223	Opened drain manhole at corner of	Sampled main flow, 3'deep	0.	15 2	809	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MHWinslo	11:28	stormdrai	18	~5-10	h sme	none	clear	none	3	98	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.506562	-70.856223	Pipe flowing into stormdrain system	Star ed flowing after MHWins ow sam	0.3	17 5	5 1	Boston-Lo	0	0 05	Dry	Y
10/27/10	Quincy	Wo lB1	8:05	CM	x bo	50	musty	none	clear	none	1 7	197	NA	1.25	NA	ND	NA	NA	D (10.	120	8.1	6	~130	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	0.0	ND	NA	NA	NA	2.278672	-71.012859	Pungent 'corpse-y' odor, thick seaw	outfa l between yacht clubs on Quincy	17.3	13 8	28.18mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Quincy	Wo lB1A	8:10	CM	'x3' bo	30- 0	sty/su	none	htly c o	oily film	192	121	NA	2	NA	ND	NA	NA	D (10.	~6.7	2.	12	~22	ND (2.0)	ND (20.0	20	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.277357	-71.008933	trash in water and p astered on gra	just south of Wo lB1 on Wollaston Be	13.2	1 3	2 89mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Quincy	Wo lB1B	8:18	concrete	3- '	30- 0	sty/su	none	htly c o	me su	58	20	NA	2.5	NA	0.25	NA	NA	D (10.	ND (10.0)	2.6	10	D (20.	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.277357	-71.008933	barnac e encrusted outfall, must be	outfa l south of two yacht clubs, about	2 .	1 7	38. 5mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Dorchest	Ten1	8:55	Pipe Mat.	2 -30	na	none	an/brow	ry turb	none	132	20	NA	1.5	NA	3	NA	NA	D (10.	7	16	13	~130	1	ND (20.0	20	ND (2.0)	NA	NA	0.0	ND	NA	NA	NA	2.289355 7	-71.0 17732	Took Beach sample here as well (s	Tenean Beach, off Tenean Street and	16.9	1 .1	22 2 mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Boston	10L09	9:20	concrete	(2) 6'x	na	sewag	grey	cloudy	none	813	1 136	NA	0.6	NA	3	NA	NA	D (10.	1800	190	00	~2700	.3	ND (20.0	180	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.282780	-71.0 6962	large t de gate ~2? Holding back w	samp ed center of southern tide gate	1.8	1 8	33 68mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x	na	sewag	grey	cloudy	none	1060	9208	NA	0.8	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.282780	-71.0 6962	duplicate of 10L09		1.8	1 8	33 68mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Boston	10L09 A	9:25	metal	2	5	musty	grey	cloudy	none	3 80	1 136	NA	1.5	NA	3	NA	NA	D (10.	270	970	170	~ 100	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	0.03	ND	NA	NA	NA	2.2825 0	-71.0 6292	1/2 si ted up	samp ed about 10 feet from outfall	1.3	16 3	251	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1A	10:15	open stre	na	na	ht mu	/med b	ry turb	me su	5630	2909	NA	0.75	NA	6	NA	NA	D (10.	330	260	130	~ 100	8	3	910	ND (2.0)	NA	NA	0.03	ND	NA	NA	NA	2.275935	-71.031798	main chane l under her tage Drive	prev ously named SagA	3.	15 8	6.23mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.2759 1	-71.031767	green a ge at bottom of outfall	former drainline that had been plugge	0	13 9	91.6	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	lty/turb	none	80	2851	NA	0.5	NA	1	NA	NA	D (10.	320	99	110	~2000	ND (2.0)	ND (20.0	10	3.8	NA	NA	ND	ND	NA	NA	NA	2.273601	-71.03 010	large wooden tide gate ~5ft into ou	Previously named SagB	0.8	15.	1590	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1C	10:58	metal	30	na	tural g	ht bro	clear	none	2 52	2723	NA	0.6	NA	0.5	NA	NA	D (10.	81	280	100	~3200	38	ND (20.0	6	ND (2.0)	NA	NA	0.06	ND	NA	NA	NA	2.273990	-71.03063	very dark sediments 1/2 s lted, t de	Previously named SagC	1.5	16 9	33 20mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Bay1	11: 0	Seep/poo	NA	NA	sewag	brown	cloudy	none	173290	365 00	NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	D (1000	20000	ND (100.0	NA	NA	NA	ND	NA	NA	NA	2.2999 3	-71.006177	seep from sewage line to main interceptor on Bayside drive		8.	17 9	83	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	BayBch	11: 5	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	ND	NA	NA	ND (2.0	ND (2.0)	1.9	~1.6	~16	ND (0.)	ND (.0	~2.9	0.5	NA	NA	ND	ND	NA	NA	NA	2.299779	-71.005800	Sample collected at beach off Bays	waded ~ 6 ft	37.1	13 7	3 7 mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Wo lBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	ND	NA	NA	ND (2.0	ND (2.0)	2.2	.7	~11	ND (0.)	ND (.0	.	0. 6	NA	NA	ND	ND	NA	NA	NA	2.277051	-71.009 67	Wo laston Beach Sample	waded ~ 6ft between WollB1A & Wo l	31.3	13 2	1 01mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Wo lBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	ND	NA	NA	ND (2.0	2.2	2.	7.5	~52	ND (0.)	16	ND (.0	ND (0.)	NA	NA	0.0	ND	NA	NA	NA	2.278670	-71.013 52	Wo laston Beach Sample	waded ~ 6ft near WollB1	31.3	13 6	7 97mS	Boston-Lo	0.13	0.1	Wet	Y

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col 100ml
Entero - co or key: Red ≥ 1000 col/100ml, Orange ≥ 350 Ye low ≥ 61 col/100ml, Black < 61 col/100ml
NH3 - co or key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Ye low ≥ 0.5 mg/L, B ack < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Ye low ≥ 0.25 mg/L, B ack < 0.25 mg/L *** may give alse positive at sa inity greater than 1 ppt
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yel ow ≥ 0.02 mg L, B ack < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yel ow ≥ 0.5 mg/L, B ack < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPOR ING LIMI S

E. coli = MPN/100mL	Total Phosphorus = 5 ug/L
Enterococcus = 10 MPN/100mL	CL2 (Total Res dual) = 0.02 mg/L
Surfactants Alpha = 0.05 mg/L (Except where otherwise	CL2 (Residual Free) = 0.05 mg/L
Surfactants Field = 0.1 mg/L	CL2 Field = 0.02 mg/L
Surfactant DR-850 = 0.02 mg/L	CL2 Test Strip =
Ammonia (Alpha) = 0.075 mg/L	Flouride Alpha= 0.20 mg/L
Ammonia F eld = 0.1 mg/L	Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Ammonia Nessler = 0.2 mg/L	Potassium = 2.5 mg/L
Ammonia DR-850 = 0.08 mg/L	Potassium Field = 0.2 mg L
Ammonia Test Strip = 0.1 mg/L	N trogen, Nitrate/Nitr te = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
( ) data reported as estimate

RARE Stormwater Outfall Inspection & Sampl ng Summary

Location				Outfa l		Inspection																																	Coordinates				YSI Meter				Weather		
													Surfact (mg/l)			NH3 (mg/l)					P	PPCP ng/L									Cl2 (mg l)				Flouride		Potass um (mg/L)						Sal ni ty	emp	Cond uctivit	Rain Gauge	24hr s	48hr s	Wet Dry?
Date	own	Site Name	ime	Pipe Mat	D a (in)	Est Flow (gpm)	Odor	Color	urbidi ty	Floatabl es	E co i (MPN/100 m)	Entero (MPN/100 ml)	Alpha	Fie d	DR 850	Alpha	F eld	Nessle r	DR 850	est St	EPA (µg/L)	A enol ol	Aceta minop hen	Cotinin e	7- me xa e	Caffei ne	Azithrom ycin	Primid one	Urobi in	Carbamaz epine	Alpha Free	Alpha otal	F eld	est St	Alpha	DR 850	Alpha	Field	GPS North( )	GPS West ( )	Comments	Additional Location Information	ppt	C	uS	Location	inche	inches	
5 19/09	Woburn	Comm1	7:57	pen strea	na	na	none	ea	none	ew	82	~20	0.07	0.2	NA	0.17	ND	NA	NA	~0	NA	ND (1 0	11	ND (0.2)	9.1	56	ND (0.2)	ND (2 0	31	~0.76	ND	ND	0.08	ND	ND	NA	.0	.30	2.5157	-71.136289	Sample aken shady	Commerce Way loca	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Ha ls2	8:51	pen strea	na	na	none	light tea	none	None	606	~1 6	0.06	~0.1	NA	0.161	ND	NA	NA	ND	NA	ND (1 0	3	ND (0.2)	38	2600	ND (0.2)	ND (2 0	96	2.2	ND	ND	0.05	ND	ND	NA	5.	6.30	2.513171	-71.1 26 9	1 foot deep at sampl	Hal s Brook behind 1	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	DRR1	9:33	pen strea	na	that of ha	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50	1.5	NA	NA	1	NA	ND (1 0	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.1	ND	0.53	NA	6.2	32.10	2.513291	-71.1 2539	Unnamed stream just	upstream of Hal s Br	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Mys07	10:01	pen strea	na	na	none	ea	heavy	None	518	~63	0.06	~0.1	NA	.88	1.5	NA	NA	NA	NA	ND (1 0	.7	ND (0.2)	~ .8	18	~0.	10	150	1.8	ND	ND	0.03	ND	ND	NA	7.3	20.90	2.518563	-71.1 6526	Landfi l Brook, very s	Just south of Landf ll	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Mys08	10:20	pen strea	na	na	none	med tea	none	None	~	~10	~0.05	~0.1	NA	15.80	0.75	NA	NA	NA	NA	ND (1.1	7.6	ND (0.2)	~6.2	13	1.	ND (2 2	7	1.5	ND	ND	ND	ND	1.1	NA	.8	3 .60	2.518739	-71.1 6 11	some (very l ttle) sud	Southeast of Land ill	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Mys08d	10:20	pen strea	na	na	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50	0.5	NA	NA	NA	NA	ND (1 0	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2 0	86	1.5	ND	ND	0.0	ND	1.1	NA	.8	50.00	2.518739	-71.1 6 11	duplicate		na	na	na	Bedford	0	0.06	Dry
5 26/09	Somervil e	MWRA205	7:57	CM	x bo	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93	0.5	NA	NA	0.25	315	~30	1500	~2.9	650	2800	1	ND (2 0	13000	26	ND	ND	0.0	ND	0.67	NA	280	50	2. 1380356	-71.132 2519	some surface inf ow	Near Ame ia Earhart	12	12 5	**20mS	Boston-Log	0	0. 2	Wet
5 26/09	Chelsea	Mill2	10:06	CM	30 inch	-10gal/m	rong od	clear	none	some sud		20	0.19	1.5	NA	.31	0.25	NA	NA	3	155	ND (2 0	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	D (20.	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50	NA	150	50	2. 033 0	-71.020587	gray bacteria plaque	(Gil ooly) Cabot St be	7.5	11 5	na	Boston-Log	0	0. 2	Wet
5 26/09	Chelsea	Mill2b	10: 5	CM	inch	-2gal/mi	rong od	/black cl	med	None	100	ND	0.21	1	NA	.92	1.5	NA	NA	3	~135	ND (2 0	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52	NA	160	6.60	2. 0397	-71.021087	odor, gray/black clou	privately owned	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	Chelsea	Mill2a	11:10	CM	inch	1 gal/min	none	clear	none	None	~	ND	0.39	1	NA	7.02	>2	NA	NA	6	170	~1.8	21	~ 6	~67	1600	ND (2.0)	ND (2 0	1100	9.8	ND	ND	0.05	ND	0.22	NA	2	50	2. 0367	-71.020987	signi icant gray bacte	privately owned, drai	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	Stoneham	SPB0	12:50	pen strea	na	na	none	clear	none	None	21	31	ND	ND	NA	ND	ND	NA	NA	ND	11	ND (2 0	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2 0	ND (2 0	ND (0.2)	ND	ND	ND	ND	0.23	NA	ND	NA	2. 557 1	-71.08 0671	clean location	Spot Pond Brook	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	Stoneham	SPB0d	12:50	pen strea	na	na	none	clear	none	None	16	~10	~0.05	ND	NA	ND	ND	NA	NA	ND	12	ND (2 0	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2 0	ND (2 0	ND (0.2)	ND	ND	ND	ND	0.28	NA	ND	NA	2. 557 1	-71.08 0671	duplicate	Spot Pond Brook	na	na	na	Boston-Log	0	0. 2	Wet
6/2/09	Medford	MHB	7:25	CM	0	low	gas	gh ly clou	none	None	53	78	ND	~0.1	ND	0.2	0.2	NA	0.2	ND	23.0	~6.9	170.0	ND (0.)	21.0	33.0	~2.1	ND (0	230 0	6.0	ND	ND	~0.02	ND	ND	0.3	ND	0.85	2. 1921	-71.117619	clouder than normal	Meeting house brook	0.3/1	1.7/11.	550/180	Boston-Log	0	0.03	Dry
6/2/09	Medford	MHBup	8:07	pen strea	na	na	none	clear	none	None	8	1 2	ND	ND	NA	0.086	~0.1	NA	NA	~0.10	21	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	15	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	ND	ND	ND	NA	ND	1.25	2. 25963	-71.11 988		Meeting house brook	0.1	1 .1	291	Boston-Log	0	0.03	Dry
6/2/09	Belmont	WinB	9:10	pen strea	na	na	none	clear	none	None	6212	2908	ND	0.2	NA	0.21	ND	NA	NA	ND	78	~ .2	1700	ND (0.)	120	200	~1.0	ND (0	2500	12	ND	ND	~0.01	ND	ND	NA	.9	.75	2.399303	-71.160888	waded in stream o c	Winns Brook of Br gh	0.6	1 .	1085	Boston-Log	0	0.03	Dry
6/2/09	Belmont	WinBd	9:10	pen strea	na	na	none	clear	none	None	6212	2 52	ND	0.2	0.02	0.172	~0.1	NA	0.1	0.25	8	~ .9	1600	~0.3	130	2 0	~1.6	ND (0	3300	7.5	ND	ND	ND	ND	ND	0.1	.7	5.00	2.399303	-71.160888	duplicate		na	na	na	Boston-Log	0	0.03	Dry
6/2/09	Arlington	91Mys	10:20	pen strea	na	na	musty	cloudy	none	None	>2 1960	1373	1.3	1.25	0.665	1.53	~0.75	NA	NA	3	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0	55000	200	ND	ND	NA	ND	ND	NA	6.6	.55	2. 18716	-71.151379	just downstream of b	M ll Brook @ Myst c	0.8	1 .1	1625	Boston-Log	0	0.03	Dry
6/2/09	Arlington	MillB	10:50	CM	10x15f	na	musty	ery cloud	none	None	550	5	0.06	0.2	0.031	0.206	ND	NA	0.23	ND	35	~5.9	73	~0.7	87	360	~1.1	ND (0	320	10	ND	ND	NA	ND	ND	0.07	6.1	6.30	2. 18597	-71.1522 7	Sample aken from f	M ll Brook @ opening	0.8	13 7	1623	Boston-Log	0	0.03	Dry
6/9/09	Quincy	Wo lB1	7:35	CM	x bo	50-100	ick mus	clear	none	some sud	20	17 1	ND	1.5	ND	0.187	NA	NA	ND	ND	87	~1.9	55	~0.63	7	71	ND (0.2)	ND (2 0	78	0.58	ND	ND	ND	ND	0. 6	1.01	200	50	2.278672	-71.012859	Pungent 'corpse-y' o	outfa l between yach	.7	15 2	*10.6m	Boston-Log	0	0	Dry
6/9/09	Quincy	Wo lB5	8:25	CM	16	-15gal/m	none	clear	none	None	ND	ND	ND	0.2	0.0 6	0.62	NA	NA	0.15	0.6	3	ND (1 0	5.8	~0.29	12	3	ND (0.2)	ND (2 0	2.5	1.5	ND	ND	0.07	ND	ND	0.25	12	9.25	2.287572	-71.022259	lots of orange flocc c	across from CVS on	1	15	1913	Boston-Log	0	0	Dry
6/9/09	Dorcheste	Ten1	9:35	Pipe Mat	2 -30	na	none	an	ve y, ver	None	96	21	0.08	2	0.0 8	1.28	NA	NA	0. 1	3	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2 0	11	1.5	ND	ND	0.0	ND	0.5	1.3	350	50	2.289355	-71.0 1773	Very, very muddy wa	Tenean Beach	2 .5	16 3	38 36m	Boston-Log	0	0	Dry
6/9/09	Boston	Bos090	9:57	CM	x10 b	na	musty	tea/tan	some	None	5 750	1 9	0.1	2	0.091	0.823	NA	NA	0.19	~0.10	17	~27	2600	~2.3	530	1100	8.7	ND (2 0	600	3.2	NA	NA	ND	ND	0.81	1.53	330	50	2.298373	-71.0 6379	Started sprinkling ab	at dog park off Vic or	.5/2	6.3/16.	36/38	Boston-Log	0	0	Dry
6/9/09	Dorcheste	CantB	11:35	pen strea	na	na	sty sew	lue/grayi	some	None	198630	3 658	1.6	1.5	1.03	.66	>2	NA	1.08	5.5	586	~150	27000	~13	3500	5000	61	ND (2 0	17000	5.1	ND	ND	0.0	ND	0.37	0.31	7.2	3.75	2.288373	-71.092879	bacter a p ague cove	Can erbury Brook, Bo	0.6	1 6	1156	Milton-Blue	0 07	0.07	Dry
6/9/09	Dorcheste	CantBD	11:35	pen strea	na	na	sty sew	lue/grayi	some	None	173290	8392	1.5	1.5	1.05	.75	NA	NA	1.1	6	91	~1 0	2 000	~12	3300	500	8	ND 2.0	1 000	.9	ND	ND	0.07	ND	0.36	0.32	7.1	2.30	2.288373	-71.092879	duplicate		na	na	na	Milton-Blue	0 07	0.07	Dry
6 16/09	Danvers	F sh00	7:55	pen strea	na	na	none	light tan	none	None	250	68	~0.05	0.2	0.028	ND	ND	NA	ND	ND	33	ND (1 0	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2 0	2	ND (0.2)	ND	ND	~0.02	ND	ND	0.13	2.8	0.30	2.5766 155	-70.92825715		Frost F sh Brook, 3	0.3	13 3	585	Beverly	0	0.16	Dry
6 16/09	Danvers	F sh005	8:35	pen strea	na	na	none	clear	none	None	333	71	ND	~0.1	0.022	ND	ND	NA	ND	ND	29	ND (1 0	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2 0	ND (2 0	1.5	ND	ND	ND	ND	ND	0.1	3	1.85	2.58395698	-70.9290 291	Moss growing in pipe	Downstream of bridg	0.2	12 8	375	Beverly	0	0.16	Dry
6 16/09	Marblehe	Stram01	10:05	pen strea	na	na	none	ery ight t	none	None	89	3	~0.05	ND	0.029	0.37	~0	NA	ND	~0.10	6	ND (1 0	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2 0	ND (2 0	ND (0.2)	ND	ND	~0.01	ND	ND	0.09	3.5	1.00	2.51 6323	-70.86578117	Some moss growing	Sampled where broo	0.2	13 8	329	Beverly	0	0.16	Dry
6 16/09	Marblehe	Stram02	10: 0	pen strea	na	na	none	ery ight t	none	None	9	52	~0.05	ND	0.0	0.193	ND	NA	ND	~0.10	3	ND (1 0	57	ND (0.2)	17	30	ND (0.2)	ND (2 0	12	ND (0.2)	ND	ND	ND	ND	ND	0.1	.6	2.70	2.51182185	-70.85955935		Between Rts. 13 A a	0.	13.1	6 1	Beverly	0	0.16	Dry
6 16/09	Lynn	Stacey	11:25	CM	'x8'	>100	musty	NS	none	None	>2 1960	22398	0.31	0.	0.216	1.0	~1.0	NA	0.2	3	1080	D (100.	6200	ND (20.0	1600	300	ND (20.0)	D (200.	7710	ND (20.0)	ND	ND	0.0	ND	0.3	0.3	5.3	1.70	2. 669 2	-70.922031 7	Sample combined fr	Sampled about 15' d	0.5	1 2	826	Beverly	0	0.16	Dry
6 16/09	Lynn	StaceyD	11:25	CM	'x8'	>100	musty	NS	none	None	>2 1960	2 066	0.29	0.	0.208	0.9 9	~1.0	NA	0.31	2	380	D (100.	5500	ND (20.0	1 00	200	ND (20.0)	D (200.	7200	ND (20.0)	ND	ND	ND	ND	0.29	0.32	5.1	1. 0	2. 669 2	-70.922031 7	Ammonia k ts - samples recorded as 1.0 bu		na	na	na	Beverly	0	0.16	Dry
7 1 /09	Milton	UNB016	8:36	pen strea	na	na	none	clear	none	None	599	109	ND	~0.1	ND	0.30	ND	NA	~0.08	ND	26	ND (1 0	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2 0	250	0.52	ND	ND	0.06	ND	ND	0.23	.3	1. 0	2.262068	-71.0 6682	sampled downstream	Unquity Brook o f Ch	0.5	1 5	800	Milton-Blue	0	0	Dry
7 1 /09	Milton	UNB002	9:02	CM br dg	3'x6' bo	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37	ND	NA	0.22	ND	83	ND (1 0	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2 0	270	2.6	ND	ND	0.09	ND	ND	0.2	.1	1.85	2.253703	-71.068976	Heard dripping from	downstream of Rand	0.5	15.	797	Milton-Blue	0	0	Dry
7 1 /09	Quincy	Wo lB2	9:50	pen strea	na	y strong	none	ea	yes	None	265	~8	ND	2	0.029	0.09	ND	NA	ND	ND	72	ND (1 0	2.9	ND (0.2)	~ .9	~11	ND (0.2)	ND (2 0	9.2	0.56	ND	ND	ND	ND	0.75	1.66	660	.30	2.266 85	-70.99710	Flow was very strong	Wol as on Beach ups	28.5	20 5	* 0. m	Milton-Blue	0	0	Dry
7 1 /09	Quincy	Wo lB1A	11:08	CM	3'x3' bo	-15gal/m	ong mu	clear	none	e trash in	3080	18	ND	0.75	0.023	0.19	~0.1	NA	ND	ND	15	3.1	26	0. 3	~22	58	ND (0.2)	ND (2 0	290		ND	ND	0.53	ND	0.39	0.77	200	1.20	2.277357	-71.008933	trash in water and pl	just south of WollB1	2.7	17.1	**12mS	Milton-Blue	0	0	Dry
7 1 /09	Quincy	UR001	11:27	CM	x bo	50-100	ulfur od	clear	none	None	17 1	565	ND	NA	0.033	0.196	NA	NA	ND	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2 0	1900	0. 6	ND	ND	NA	ND	0.36	0.63	5	NA	2.278672	-71.012859	duplicate of Wo lB1	duplicate of WollB1	na	na	na	Milton-Blue	0	0	Dry
7 1 /09	Quincy	Wo lB1	11:27	CM	x bo	50-100	ulfur od	clear	none	None	2190	6932	~0.05	0.25	0.0	0.125	ND	NA	ND	ND	66	6.3	15	0.93	55	58	ND (0.2)	ND (2 0	2500	0. 8	ND	ND	0.10	ND	0.38	0.61	55	29.30	2.278672	-71.012859	water lowing out of b	outfa l between yach	3	16.1	*5.55m	Milton-Blue	0	0	Dry
7 21/09	Stoneham	1West	9:20	stone	2x3	50-100	htly mu	clear	none	None	~6 880	~2318	~0.28	0.6	0.1 8	0.117	~0.1	NA	ND	ND	8	ND (5 0	120	2	110	710	ND (1.0)	ND (10.0	680	ND (1.0)	na	na	~0.0	ND	ND	0.15	.8	0.25	2. 826072	-71.10 6187	Cl2 exceeded holdin	Unnamed tributary to	0.	1 5	798	Boston-Log	0.0	0.0	Wet
7 21/09	Stoneham	2Linden	9:35	pen strea	na	na	none	light tea	none	None	~79 5	~1302	~0.32	0.75	0.1 2	0.206	~0.1	0.9	ND	ND	56	~27	350	~3.1	9	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND	0.15	3.	0.90	2. 83930	-71.1039388	Cl2 exceeded holdin	Sweetwa er Brook @	0.	17	821	Boston-Log	0.0	0.0	Wet
7 21/09	Stoneham	Elm1	10:10	open stre	na	0-50	htly mu	med tea	none	None	~51720	~565	~0.12	0.3	0.083	0.578	0.5	1	0.2	1.5	8	~62	1100	~3.7	500	980	39	5	2800	7.	na	na	~0.0	ND	ND	0.12	.6	1.30	2. 8685	-71.0985788	Cl2 exceeded holdin	Elm St in Stoneham,	0.7	15 6	1 3	Boston-Log	0.08	0.08	Wet
7 21/09	Stoneham	Toms	10:30	metal w/	3'	50	htly mu	clear	none	None	~16070	~5818	~0. 3	0.75	0.176	0.20	ND	0.7	0.2	ND	7	ND (5 0	95	~2.	60	790	ND (1.0)	ND (10.0	D (10.	ND (1.0)	na	na	~0.02	ND	ND	0.11	3.2	0. 0	2. 90277	-71.101799	Cl2 exceeded holdin	Off Toms Way in S o	0.5	19.1	977	Boston-Log	0.08	0.08	Wet
7 21/09	Stoneham	UR003	10:30	metal w/	3'	50	htly mu	clear	none	None	~2069	~92	~0. 3	0.75	0.189	0.198	ND	0.8	ND	ND	9	ND (5 0	96	~3.0	69	900	ND (1.0)	ND (10.0	D (10.	ND (1.0)	NA	NA	ND	ND	ND	0.16	3.1	1.05	2. 90277	-71.101799	Cl2 exceeded holdin	duplicate of Toms	na	na	na	Boston-Log	0.08	0.08	Wet
7 21/09	Stoneham	Toms	11:30	metal w/	3'	250-500	ong mu	gray	cloudy	, sticks, p	~3080	~690	~0.08	0.6	0.169	0.193	0.3	0.6	0.22	0.3	203	ND (5 0	77	~2.3	67	5 0	ND (1.0)	ND (10.0	D (10.	ND (1.0)	NA	NA	ND	ND	ND	ND (0.1)	ND	ND	2. 90277	-71.101799	Cl2 exceeded holdin	same location as Tor	0.1	21	2 5	Boston-Log	0.1/0.	0.1/0.	Wet
7 28/09	Chelsea	Mill2	8:05	CM	30 inch	15	arp sew	clear	none	None	310	12	0.23	0.8	0.126	3.8	1.5	>3.0	1.11	6	1	ND (10.0	ND (10 0	ND (2.0)	ND (10.0)	ND (20.0	ND (2.0)	ND (20.0	0	ND (2.0)	ND	ND	~0.01	ND	0.	0.62	77	9.20	2. 033 0	-71.020587	grey bacterial plaque	Corner of Cabot and	0.7	16 7	3631	Boston-Log	0	0	Dry
7 28/09	Chelsea	IsEnd03A	9:05		open stre	na	or; sl gh	ish/yel o	none	None	9678	388	0.1	0.8	0.05	0.831	0.3	2.3	0.19	3	80	~11	70	~2.5	150	30	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6	0.96	1 0	50*	2.399997	-71.05398	thick bacteria/algae o	top corner of Boston	6.5	20.3	11.36	Boston-Log	0	0	Dry
7 28/09	Chelsea	IsEnd02	9:25	CM, sem	7'		strong petroleu	tea/tan	cloudy	None	565	122	0.16	0.6	0.068	0.252	1	1.6	ND	0.2	52	~3.0	200	~0.89	37	110	0 69	ND (0	250	1.	ND	ND	0.08	ND	0. 5	0.97	1 0	35.30	2.39 36	-71.0 9780	lots of trash; ground	Just a few feet West	8	20 2	12.28	Boston-Log	0	0	Dry
7 28/09	Chelsea	IsEnd03	9:26	CM, sem	12'		strong petroleu	lue/grayi	cloudy	me soap s	167 0	368	0.09	1.5	0.055	1.76	0.5	2	0.51	1	72	~20	280	~1.6	120	360	2.	ND (0	680	2.9	ND	ND	ND	ND	0.62	1.17	200	50*	2.39 21	-71.0 9706	Surf., NH3 (EPA) and	other 500mL bottle s	1 .2	21 5	23. 9	Boston-Log	0	0	Dry
7 28/09	Chelsea	UR005	9:26	CM, sem	12'		strong petroleu	lue/grayi	cloudy	me soap s	15850	35	0.09	1.5	0.05	1.6	0.5	2.5	0. 9	0.3	73	~2	310	~2.0	120	320	2.3	ND (0	670	2.6	ND	ND	0.05	ND	0.66	1.15	200	50*	2.39 21	-71.0 9706	Dupl cate of IsEnd03		na	na	na	Boston-Log	0	0	Dry
7 28/09	Somervil e	MWRA205	11:08	CM	x box		sl ght sewage	gray/gree	suspend	None	9678	1211	0.2	1.2	0.15	2.65	0.5	>3.0	0.96	1	300	~9	100	~18	970	5000	31	ND (0	20000	3 0	ND	ND	0.16	ND	0. 8	0.81	130	6.10	2. 1380356	-71.132 2519	can hear running water in pipe; YSI measu		9.1	17 7	15.1	Boston-Log	0	0	Dry
8/ /09	Winchest	Russ1	8:00	s one	3'x ' bo	na	musty	gray sh	h ly clou	None	1 7	196	~0.05	0.2	0.025	0.108	ND	0.2	ND	ND	18	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	15	~2.9	ND	ND	~0.01	ND	ND	0.13	5.8	.25	2. 63 55	-71.1 9258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0 01	0.02	Dry
8/ /09	Winchest	UR007	8:00	s one	3'x ' bo	na	musty	gray sh	h ly clou	None	176	118	ND	0.2	0.028	ND	ND	0.2	ND	ND	19	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	12	~2.2	ND	ND	0.09	ND	ND	0.16	6	1.30	2. 63 55	-71.1 9258	Dupl cate of Russ1		na	na	na	Bedford	0 01	0.02	Dry
8/ /09	Woburn	US3	8:50	s one	6inche	na	none	light tea	h ly clou	None	587	1 0	~0.05	ND	0.029	0.1	~0.1	0.6	ND	0.75	5	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	1	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	0.08	ND	ND	0.09	3.7	0*	2. 95550	-71.133700	flow out of small ston	plue panel covering t	0.3	22.1	660	Bedford	0 01	0.02	Dry
8/ /09	Woburn	US	8:55	CM	inch	na	none	light tan	h ly clou	None	806	222	~0.05	ND	0.026	0.167	0.2	0.7	~0.08	0.6	6	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	11	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	0.08	ND	ND	0.09	3.	0.90	2. 95 00	-71.133700	sampled on other sid	about 10 eet from U	0.3	21.	6 3	Bedford	0 01	0.02	Dry
8/ /09	Woburn	US5	9:05	open stream		na	none	light tea	clear	None	5 2	18	ND	ND	0.032	0.133	ND	0.6	ND	0.5		ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	1	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	0.06	ND	ND	0.11	3.7	0.70	2. 95 12	-71.13 111	about 6 inches deep	back corner of Uni ed	0	22 3	671	Bedford	0 01	0.02	Dry
8/ /09	Woburn	Olym1	9:55	open stream		na	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076	~0.1	0.65	ND	ND	50	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	7.8	ND (0.)	ND (0	ND (0	~0.71	ND	ND	0.0	ND	ND	0.11	5.6	2.35	2. 98925	-71.137 0	duck instream~ 0 aw	Off Olymp a Ave r gh	0.7	18	1 16	Bedford	0 01	0.02	Dry
8 11/09	Quincy	Canal1	7:55	concrete	6'x8' bo	na	ght mus	clear	none	None	18	17	~0.05	0.15	0.038	0.22	ND	0.2	ND	ND	17	ND (2 0	15	~0. 6	7.1	56	ND (0.)	ND (0	100	.7	ND	ND	0.1	ND	ND	0.22	5.1	1.50	2.250692	-70.997793	Accessed v a parking	Canal opening just o	0.5	19 7	1080	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	SAG1	8:25	concrete	x10 b	na	ght mus	brown	ery turbi	None	3922	1230	ND	2	0.025	0.	~0.25	1.6	ND	0.75	92	~3.3	81	ND (0.)	1	100	0 55	ND (0	700	2.9	ND	ND	0.11	ND	0.58	1.15	270	50*	2.27616	-71.037225	occasional ine soap	Sagamore Creek out	13	18 5	*23.3m	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	SAG2	8:50	ground seep		3-5	ong su	clear	none	None	ND	ND	NA	0.7	NA	NA	1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA	NA	NA	50*	2.27617	-71.037325	groundwa er seep, w	about 50ft downstrea	na	na	na	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	Wo lB1B	9: 0	concrete	3- '	15	musty	clear	none	None	133	12	ND	2.2	ND	ND	clear	1.35	ND	ND	98	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	7	0.56	ND	ND	0.38	ND	0.75	1.65	530	50*	2.277357	-71.008933	barnac e encrusted o	outfa l south of two y	25	18 8	39.10m	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	Wo lB1A	9: 5	concrete	3- '	na	usty/sul	clear	none	None	37	161	ND	1.5	0.026	0.136	~0.1	0.9	ND	ND	73	ND (2 0	3.8	ND (0.)	ND (2.0)	20	ND (0.)	ND (0	23	3.2	ND	ND	0.15	ND	0.	0.8	210	50*	2.277357	-71.008933	as tide comes in it ar	outfa l between Woll	12	19.	*30.7m	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	UR009	10:25	concrete	x bo	30- 0	ong su	ostly cle	none	None	89	363	ND	0.6	0.028	0.076	0.2	0.6	ND	~0.10	68	ND (2 0	0	~0.78	6.6	28	1.6	ND (0	260	0.5	ND	ND	~0.02	ND	0. 7	0.8	110	50*	2.278672	-71.012859	duplicate of Wo lB1		na	na	na	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	Wo lB1	10:25	concrete	x bo	30- 0	ong su	ostly cle	none	None	626	518	ND	0.7	0.02	ND	0.2	0.7	ND	~0.10	69	ND (2 0	1	~0.82	7	31	1.6	ND (0	250	0.6	ND	ND	~0.02	ND	0. 7	0.76	100	50*	2.278672	-71.012859	water drops into sma	outfa l between yach	1.9	19	172	Boston-Log	0 01	0.01	Dry
8 18/09	Plymouth	Eel1	9:20	pen stream		na	none	light tan	clear	None	30	82	ND	ND	ND	ND	~0.1	0.5	0.09	0.2	110	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~1.2	ND (0	13	1.6	ND	ND	0.19	ND	ND	0.07	ND	0.15	1.9255980	-70.618 1863	lots of eel grass, use	downstream Eel Rive	0.1	22 8	1 2.9	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	Ee 2	9:30	pen stream		na	none	light tan	clear	None	70	82	ND	ND	ND	ND	ND	0.	ND	ND	6	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~0 88	ND (0	1	1.	ND	ND	0.18	ND	ND	ND	ND	0.20	1.92519001	-70.61918863	River: about 1.5' dee	downstream of br dg	0.1	22 6	1 5.3	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	UR011	9:30	pen stream		na	none	light tan	clear	None	1 0	82	ND	ND	ND	ND	ND	0.5	ND	ND	68	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~1.2	ND (0	15	1.5	ND	ND	NA	ND	ND	~0.05	ND	ND	1.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	Ee 3	9: 0	pen stream		na	none	light tan	clear	None	17 1	52	ND	ND	ND	0.092	ND	0.8	~0.08	0.25	77	ND (2 0	ND (2.0)	ND (0.)	.	ND (0	ND (0.)	ND (0	ND (0	1.2	ND	ND	0.11	ND	ND	0.1	ND	0.35	1.92517001	-70.619 2993	some grass was gor	upstream of Sandwic	0.1	21 5	187.7	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	SandRd1	10:00	clay	16		none	light tan	clear	None	265	172	ND	~0.1	0.021	ND	~0.1	0.6	0.1	0.	101	ND (2 0	ND (2.0)	ND (0.)	53	5200	~0 52	ND (0	ND (0	17	ND	ND	0.10	ND	ND	0.08	.2	0.60	1.9253820	-70.61810863	dead mouse f oating	direc ly behind 132 s	0.2	17 6	326.3	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	SandRd2	11: 0	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088	ND	0.8	ND	0.5	89	ND (2 0	ND (2.0)	ND (0.)	6.5	260	ND (0.)	ND (0	ND (0	19	NA	NA	0.13	ND	NA	0.15	NA	ND	1.92 80601	-70.6177 371	very akward samp in	Clean-out pipe, behin	0.2	20.	315.3	Plymouth	0 01	0.01	Dry
8 25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	sty sew	None	h ly clou	None	33000	3683	0.22	0.	0.133	0.	~0.1	1.1	0.13	0.75	1 8	~ 9	280	~ .7	100	230	7.7	ND (8 0	3800	5.7	ND	ND	0.05	ND	ND	0.12	3.	1.05	2.266756	-71.09 79	green algae and grey	(actually NR10) Be	0.5	18 2	910	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	Blueup	8:00	open stream		na	none	an	clear	None	226	6	~0.05	~0.1	0.028	ND	ND	0.3	ND	ND	2	ND (0	10	ND (0.8)	10	96	ND (0.8)	ND (8 0	39	.1	ND	ND	0.07	ND	ND	ND	ND	0.50	2.266710	-71.09 816	waded in o river for s	just upstream of Den	0.2	2 6	27.7	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	Mother	9:05	open stream		na	none	light tea	clear	None	129	56	0.06	ND	0.0 6	ND	ND	0.	ND	ND	6	ND (0	ND (.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8 0	12	1	ND	ND	0.03	ND	ND	ND	3.7	1.65	2.251173	-71.128 00	lots of trash in stream	parked off Reservatio	0.3	25 9	625	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	NR20	10:00	concrete	3 feet	15	ewage	None	h ly clou	te/gray p	>2 1960	> 8392	8.7	>3	0.975	20.1	>2	>3	23.1	>6	20	~1800	65000	~51	11000	66000	280	D (0.	#####	1 0	ND	ND	ND	ND	0.56	0.05	8.7	21.90	2.2 7956	-71.125339	dif icult access, whit	parked off G enwood	0.2	20 5	76.6	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	NR162	11:00	concrete	36 inch	3	sewage	None	clear	None	198630	5226	0.89	3	0.6	13.2	>2	>3	15	>6	3630	D (200.	590000	ND (0.0	7300	00	ND (0.0)	D (00.	#####	ND (0.0)	ND	ND	ND	ND	0.55	0.66	7.	1 .25	2.2 799	-71.126989	green algae in out al	behind tennis courts	0.5	18.	968	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	UR013	11:00	concrete	36 inch	3	sewage	None	clear	None	2 1960	5510	0.92	2.75	0.635	12.	>2	>3	1 .7	>6	3390	D (200.	600000	ND (0.0	7500	700	ND (0.0)	D (00.	#####	ND (0.0)	ND	ND	ND	ND	0.62	0.7	7.2	1 .80	2.2 799	-71.126989	Dupl cate of NR162		na	na	na	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	17 1	1 9	~0.05	0.25	0.023	0.598	0.25	1.	0.18	2	201	ND (20.0	69	~ .0	280	180	ND (.0)	ND (0.0	5900	ND (.0)	ND	ND	0.0	ND	ND	0.1	.8	1.15	2.2 2826	-71.12770	some gray bacter a,	behind Stop & Shop	1.2	22.	2 .11	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	Esp01	12:02	open stream		na	none	ea	clear	None	2 1	58	0.07	~0.1	0.03	0.1	ND	0.3	ND	ND	6	ND (3 8	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7 7	12	.6	ND	ND	0.05	ND	ND	0.08	ND	1.00	2.2 287	-71.127669	Mainstem Neponset	behind Stop & Shop	0.2	25	86	Boston-Log	0 77	0.77	Wet
9/1/09	Woburn	Ha ls2	7:35	open stream		na	None	ight b ow	clear	None	2595	602	ND	~0.1	0.029	0.218	ND	0.8	ND	ND	5	ND (2 0	820		23	1 00	ND (0.)	ND (0	180	~2.2	ND	ND	ND	ND	ND	0.12	.6	2.95	2.513171	-71.1 26 9	1 ft deep at sampling	Hal s Brook behind 1	0.	1 6	780	Bedford	0 01	0.01	Dry
9/1/09	Woburn	DRR1	7: 5	open stream		na	None	ight b ow	clear	None	185	12976	ND	0.25	0.035	8.99	>2	>3	9.3	6	31	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	2	~1.2	ND	ND	0.08	ND	0.62	0.7	7.3	26.60	2.513291	-71.1 2539	Unnamed stream just	upstream of Hal s Br	0.5	1 .	932	Bedford	0 01	0.01	Dry
9/1/09	Woburn	Mys08	9:30	open stream		na	None	ight b ow	clear	None	363	150	ND	0.25	0.027	1 .3	2	>3	1 .7	>3	18	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	10	~1.1	ND	ND	0.08	ND	1.2	1.26	.6	31.50	2.518739	-71.1 6 11	Halls Brook across fr	Southeast of Land ill	0.5	1	9.17	Bedford	0 01	0.01	Dry
9/1/09	Woburn	UR015	9:30	open stream		na	None	ight b ow	clear	None	22	1 8	ND	NA	0.021	1	NA	NA	13.8	NA	23	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	15	~0.55	ND	ND	NA	ND	1.2	1.2	.	NA	2.518739	-71.1 6 11	duplicate of Mys08		na	na	na	Bedford	0 01	0.01	Dry
9/1/09	Woburn	Mys78	10:15	open stream		na	ht oil sr	None	clear	None	5199	103	ND	0.25	0.031	10.1	2	>3	9.8	>3	5	ND (2 2	ND (2.2)	ND (0.)	ND (2.2)	ND (.	ND (0.)	ND (.	1	~1.3	ND	ND	~0.0	ND	0.6	0.73	7.3	28.80	2.51858	-71.1 6281	after confluence of L	Just south of Landf ll	0.5	1 2	955	Bedford	0 01	0.01	Dry
9/1/09	Woburn	Mys09	10: 5	open stream		na	None	None	clear	None	205	82	ND	~0.1	ND	16	2	>3	16.7	>3	25	ND (2 2	ND (2.2)	ND (0.)	ND (2.2)	ND (.	ND (0.)	ND (.	7.5	~1.1	ND	ND	0.07	ND	1.2	1.28	.	27.80	2.520981	-71.1 7709	Upst eam of Mys08 w	Low flow, ight brow	0.5	16.1	935	Bedford	0 01	0.01	Dry
9/8/09	Watertow	SawB01	8: 5	open stream		50-100	petroleu	Orange	cloudy	some sud	16 2	10	~0.05	0.2	0.032	0.308	ND	0.8	0.11	0.35	2	~ .	250	~0.79	62	170	1.	ND (0	80	5.5	ND	ND	0.08	ND	0.29	0.31	5.2	3.00	2.3628777	-71.1509558	Sawins Brook, samp	Near lot off Arsenal S	0.8	16 2	1521	Boston-Log	0	0	Dry
9/8/09	Watertow	SawB01b	9:05	cast iron	12	5	sewage	None	clear	None	~	ND	NA	0.25	NA	NA	~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	NA	16.70	2.3636533	-71.1511559	pipe d scharging to S	about 30 eet upstrea	0.3	15 3	806	Boston-Log	0	0	Dry
9/8/09	Newton	Hyde01	9: 5	concrete	x8 bo	100	None	None	clear	None	565	1 2	ND	0.2	ND	ND	~0.1	0.	0.31	ND	27	ND (2 0	38	ND (0.)	.	16	ND (0.)	ND (0	0	6	ND	ND	~0.02	ND	ND	0.09	3.1	1.05	2.35998 7	-71.1809755	New81 waded o le	Outfall o Cha les off	0.6	1 6	1308	Boston-Log	0	0	Dry
9/8/09	Newton	Laund01	10:25	concrete	6x8 bo	na	None	light tea	clear	some sud	1 62	92	ND	~0.1	ND	ND	ND	0.	ND	ND	9	ND (2 0	69	ND (0.)	26	850	2.7	ND (0	2 0	3.5	ND	ND	0.10	ND	ND	0.1	ND	0.75	2.36 6351	-71.1892039	Used wade s	Laundry Brook off Ca	0.	18	830	Boston-Log	0	0	Dry
9/8/09	Newton	UR016	10:25	concrete	6x8 bo	na	None	light tea	clear	some sud	195	5	~0.05	~0.1	ND	ND	ND	0.	ND	ND	7	ND (2 0	57	ND (0.)	2	820	2.2	ND (0	270	3.8	ND	ND	0.10	ND	ND	0.1	ND	na	2.36 6351	-71.1892039	Dupl cate of Laund01		na	na	na	Boston-Log	0	0	Dry
9/8/09	Newton	Chee01	11:11	open stream		50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND	ND	0.	0.1	ND	20	ND (2 0	3.1	ND (0.)	7	30	ND (0.)	ND (0	61	5	ND	ND	0.06	ND	ND	0.1	3.6	1.35	2.3600600	-71.2169 65	taken 6' downstream	Cheessecake Brook	0.7	16 7	1378	Boston-Log	0	0	Dry
9/8/09	Wa tham	Beav01	11:35	concrete	3x10 b	na	None	None	h ly clou	some sud	713	292	~0.05	0.2	0.023	0.162	ND	0.	ND	ND	39	ND (2 0	93	ND (0.)	1	17	ND (0.)	ND (0	66	2.5	ND	ND	0.07	ND	ND	0.17	.	2.20	2.3730 20	-71.228352	shallow stream, co le	Beaver Brook near co	0.5	16 7	1035	Boston-Log	0	0	Dry
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	ght mus	None	clear	None		0	~0.05	ND	0.03	0.266	~0.1	1.1	ND	0.50	211	ND (2 2	ND (2.2)	ND (0.)	3.8	27	ND (0.)	ND (3	76	ND (0.)	ND	ND	0.06	ND	ND	0.11	7.9	6.90	2. 277872	-71.2050922	Lo s of duck weed on	Off Mass Ave	0.	17.1	819	Boston-Log	0	0	Dry
9/8/09	Lexington	Vine01	13:00	concrete	3x3 bo	na	Musty	rust/brow	cloudy	None	29090	2752	0.08	NA	0.19	1.12	2	2.2	ND	2.00	121	~ .7	600	ND (0.5)	100	750	2.9	ND (6	1300	.6	ND	ND	0.03	ND	ND	0.19	6.1	.55	2. 503760	-71.2202638		Near corner Grant St	0.	15 8	859	Boston-Log	0	0	Dry
9 15/09	Lowell	Beaver1a	7:37	concrete	'	15	None	None	clear	None	8	75	ND	0.25	ND	ND	ND	0.2	ND	ND	~2 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.32	0. 1	7.8	7.80	2.65981	-71.318830	large duckbi l coverin	Beaver Brook outfa l	0.1	18 2	68.5	Lawrence	0	0	Dry
9 15/09	Lowell	Beaver1	7: 0	open stream		na	None	light tea	clear	None	117	63	NA	~0.1	NA	NA	ND	0.	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	NA	1. 5	2.659837	-71.318833	sample taken just up	Beaver Brook Mainst	0.2	16 9	358.8	Lawrence	0	0	Dry
9 15/09	Lowell	Su folk1	8: 0	open stream		na	None	light tea	clear	None	208	1	ND	ND	0.02	ND	ND	0.8	ND	~0.10	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND	0.15	ND	0.60	2.650395	-71.31 502	west channel samp e	off Suffolk Street, c in	0.1	19.1	170	Lawrence	0	0	Dry
9 15/09	Lowell	Central1	9:15	open stream		na	None	None	clear	some sud	58	~10	ND	~0.1	0.02	0.088	ND	0.9	ND	0.50	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.10	ND	ND	0.16	ND	0.10	2.6 3823	-71.307889	sampled open chann	downstream from Ce	0.1	19 2	168.7	Lawrence	0	0	Dry
9 15/09	Lowell	RMB1	10:10	open stream		na	None	light tea	clear	some sud	18	281	~0.05	0.25	0.022	ND	ND	0.8	ND	ND	38	na	na	na	na	na	na	na	na	na	ND	ND	~0.02	ND	ND	0.11	.1	2.25	2.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17 5	71	Lawrence	0	0	Dry
9 15/09	Lowell	UR017	10:10	open stream		na	None	light tea	clear	some sud	2069	65	~0.05	0.25	0.0 6	ND	ND	0.8	ND	ND	36	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND	0.15		ND	2.633655	-71.302505	Dupl cate of RMB1		na	na	na	Lawrence	0	0	Dry
9 15/09	Lowell	NewH1	10:50	open stream		na	None	light tea	clear	some sud	16	275	NA	0.2	NA	NA	ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA	NA	NA	1.10	2.631057	-71.305968	1ft at deepest, used	samp ed downstream	0.3	17 6	711	Lawrence	0	0	Dry
9 15/09	Lowell	BlackB1	11:25	open stream		na	None	None	murky	None	15	798	0.07	0.25	0.028	0. 3	ND	1.6	0.22	2.00	35	na	na	na	na	na	na	na	na	na	ND	ND	0.03	ND	ND	0.17	7.2	7.15	2.6383 6	-71.3 3658	Flow from 2 large me	Black Brook off Midd	0.6	17 8	11 5	Lawrence	0	0	Dry
9 15/09	Lowell	BlackB2	12:00	open stream		na	None	None	clear	None	182	97	NA	0.2	NA	NA	0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA	NA	NA	8.20	2.63 59	-71.3 9 0	rocks covered w/ alg	Black Brook off Bald	0.5	19 5	1077	Lawrence	0	0	Dry
9 22/09	Reading	RRR1	8:10	CM	x bo	na	None	None	clear	None	21	20	ND	0.25	0.022	ND	ND	0.3	ND	ND	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND	0.15	8.1	3. 0	2.5209 0	-71.10 975	about 6 inches deep	corner of Washington	0.9	16 7	1682	Lawrence	0 01	0.01	Dry
9 22/09	Andover	RogerD	9:00	concrete	5'	na	usty od	k tea stai	clear	some sud	2	657	~0.05	~0.1	0.67	0.098	ND	0.7	ND	ND	78	ND (2 0	19	ND (0.)	~8	25	ND (0.)	ND (0	2	1.1	ND	ND	0.03	ND	ND	0.2	6.9	.35	2.65 7823	-71.1 6600 7	hiked down hill samp	5 Dundee Park near	0.	15.1	806	Lawrence	0 01	0.01	Dry
9 22/09	Andover	Rogerup	9:32	pen stream		na	no odor	med tea	clear	some sud		6 88	~0.05	0.2	1.31	ND	~0.1	0.6	ND	ND	65	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND	0.19	.5	0.60	2.65573 87	-71.1333 922	some deeper pools	Off Chestnut Street,	0.3	15.1	530	Lawrence	0 01	0.01	Dry
9 22/09	Andover	Huss01	10:20	concrete	10' x 5	na	None	light tea	clear	some sud	2319	987	ND	0.2	0.036	0.079	ND	0.	ND	ND	20	ND (2 0	2 0	ND (0.)	~20	0	ND (0.)	ND (0	16000	.9	ND	ND	0.09	ND	ND	0.25	.8	0.35	2.67330118	-71.1 97 812	2-3 feet deep	Across from Shawsh	0.3	15 9	537	Lawrence	0 01	0.01	Dry

9 22/09	Andover	Huss02	10:50	pen stream		na	None	light tea	clear	None	39	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	2.672 7656	-71.151 3865	lots of bacter al grow	Hussy Brook - sampl	0.3	15 5	539	Lawrence	0 01	0.01	Dry
9 22/09	Lawrence	SLE3	11:30	crete ou	3'	na	ght mus	None	Clear	None	205	5	ND	~0.1	ND	ND	ND	0.	ND	ND	9	ND (2.1	11	ND (0.)	ND (2.1)	17	ND (0.)	ND (2	82	6.3	ND	ND	0.11	ND	ND	0.1	5.5	2.35	2.695971	-71.1 55601	stream scoured, lots	South Lawrence Eler	0.6	15.1	1158	Lawrence	0 01	0.01	Dry
9 22/09	Lawrence	UR018	11:30	crete ou	3'	na	ght mus	None	Clear	None	279	2 9	ND	~0.1	ND	ND	ND	0.	ND	ND	22	ND (2 0	11	ND (0.)	~2.5	20	ND (0.)	ND (0	6	6.1	ND	ND	0.09	ND	ND	0.1	5.8	2.30	2.695971	-71.1 55601	duplicate of SLE3		na	na	na	Lawrence	0 01	0.01	Dry
9 22/09	Lawrence	SPR05	12:30	concrete	18	10	ght mus	None	Clear	Yes, pape	29870	19863	~0.05	0.25	0.05	7.02	>2	>3	2.26	6	21	~310	6900	~1.6	~5600	5500	6.3	ND (0	28000	2.	ND	ND	0.0	ND	0.22	0.32	28	3 .90	2.70991636	-71.15129912	v deo taken of what l	pipe off Lawrence Ho	0.	19.1	888	Lawrence	0 01	0.01	Dry
9 22/09	Lowell	RMB1	13:20	open stream		na	None	light tea	Clear	None	16 2	199	ND	~0.1	0.031	0.138	ND	0.6	ND	~0.10	28	ND (2.1	10	ND (0.)	~10	5	~0 28	ND (2	280	3.	ND	ND	0.06	ND	ND	0.1	8.5	0.80	2.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0 01	0.01	Dry
9 29/09	Milton	CunPk02	8:30	concrete	18	2	mild se	None	M ld	Leave, bu	195	6131	0.06	0.18	0.0 1	0.291	ND	0.2	ND	~0.1	8	ND (1 0	3.8	ND (0.2)	2.	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.0	ND	ND	0.18	6.9	~7.5	2.251003	-71.051930	sample collected wh	about 1yard from out	0.	1 9	712	Boston-Log	0 51	0.57	Wet
9 29/09	Milton	CunPk03	9:30	open stream		na	None	None	Clear	Foam	116	2098	0.06	~0.1	0.038	0.206	ND	~0.1	ND	~0.30	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND	0.21	8.9	~10.5	2.2 781922	-71.055 6 05	co lected close to outfall in pool		0.5	15.	933	Boston-Log	0 51	0.57	Wet
9 29/09	Norwood	PB02A	10: 5		18	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1	ND	~0.1	ND	ND	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	0.1	2.8	~0.85	2.20 81659	-71.19661788	sampled r ght culvert		0.6	16 7	11 6	Norwood	0 5	0.63	Wet
9 29/09	Norwood	PB02B	11:00	open stream		na	None	light brow	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139	ND	ND	ND	ND	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND	0.16	3.3	~1.6	2.205098 1	-71.96 8 1	sample collected before two s eams mix		0.2	15 5	515	Norwood	0 5	0.63	Wet
9 29/09	Norwood	PB02	12:00		18	3	Septic	C oudy	very turb	None	68670	6131	0.07	0.25	0.05	0.695	ND	1	0.15	0.50	109	~27	500	~0.95	80	710	6.	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND	0.07	3.8	ND	2.20 59	-71.19851	sample collected near culvert		0.3	17.	712	Norwood	0 5	0.63	Wet
9 29/09	Norwood	UR019	12:00		18	3	Septic	C oudy	very turb	None	88 0	5 75	0.09	0.25	0.061	0.556	ND	1.6	0.17	0.70	103	~30	550	~0.92	560	770	6.	100	~9 00	ND (0.2)	ND	ND	0.05	ND	ND	0.08	3.8	~1.7	2.20 59	-71.19851	duplicate of PB02		0.3	17.	712	Norwood	0 5	0.63	Wet

E. coli - co or key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml

Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Ye low ≥ 61 col 100ml, B ack < 61 col/100ml

NH3 - color key: Red ≥ 6 mg L, Orange ≥ 3 mg/L, Ye low ≥ 0.5 mg/L, Black < 0.5 mg/L

Surfactants - co or key: Red ≥ 1.0 mg/L, Orange ≥ 0 5 mg/L, Yellow ≥ 0 25 mg/L, Black < 0.25 mg/L *** may give false posi ive at sa in ty grea er than 1 ppt

C 2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0 02 mg/L, Black < 0.02 mg/L

Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Ye low ≥ 0.5 mg/L, Black < 0.5 mg/L

Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPOR ING LIMI S

E. coli = MPN 100mL	To al Phosphorus = 5 ug/L
Enterococcus = 10 MPN/100mL	CL2 (Total Residual) = 0.02 mg/L
Surfactants Alpha = 0 05 mg/L (Except where otherwise n	CL2 (Residual Free) = 0.05 mg/L
Surfactants Field = 0.1 mg/L	CL2 Field = 0.02 mg/L
Surfactant DR-850 = 0.02 mg/L	CL2 Test Strip =
Ammonia (Alpha) = 0.075 mg/L	Flouride Alpha= 0.20 mg/L
Ammonia Fie d = 0.1 mg/L	Flouride DR-850 = 0.05 mg/L (Except where otherwise no ed)
Ammonia Nessler = 0.2 mg/L	Potassium = 2.5 mg/L
Ammonia DR-850 = 0.08 mg/L	Potassium Fie d = 0.2 mg/L
Ammonia Test Strip = 0.1 mg/L	Nitrogen, Nitrate/Nitr te = 0.10 mg/l

ND – not detected above the associated detection l mit

NA – not applicable (analyte not tested for at that site at this time)

( ) data reported as estimate

Urban Rivers Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection					Sampling										Coordinates				YSI Meter			Weather			
														Field Kits					Test Strips												
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow gpm	Odor	Color	Turbidity	Floatables	Sampler	E.coli (cfu / 100ml)	Entero (cfu / 100ml)	Lab PPCP	Surfact. mg/L	NH3 mg/L	Cl2 mg/L	K mg/L	NH3 mg/L	Cl2 mg/L	GPS North(+)	GPS West (-)	Comments	ditional Location Informa	Salinity	Temp	Condu	Rain G	24hrs	48hrs	et/Dry
																								ppt	C	uS	Locatio	inches	inches	
6/10/09	Lawrence	Shaw1	12:30	pen strea	na		musty	tea	yes	None	TB	353	NA	NA	0.05	.5 ness	NA	1.65	ND	ND	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks off Sutto	0.3	16.6	700	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE1	12:58	pen strea	na		None	light tea	Clear	None	LB	251	NA	NA	0.10	.4 ness	NA	0.35	ND	ND	42.696201	-71.1459901	Combined sample from SLE2 and	Behind S. Lawrence elementa	0.3	16.7	577	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE2	13:02	pen strea	na		None	light tea	Clear	None	LB	328	NA	NA	0.05	.5 ness	NA	2.35	ND	ND	42.696209	-71.1457001	Shawsheen River	main stream sample before co	0.3	16.7	679	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE3	13:11	CM	36	strong musty		None	Clear	None	TB	616	NA		0.10	.6 ness	NA	5.05	ND	ND	42.695971	-71.1455601	strong flow, lots and lots of gray s	Concrete outfall metal grate co	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
8/19/09	Lawrence	SPR01	7:55	open stream			None	None	Clear	None	LB	96	NA	NA	ND	ND	NA	NA	ND	ND	42.70688	-71.1476552	downstream of waterfall and Spik	confluence of canal & Spikett	0.1	26.5	188	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR02	8:00	open stream			musty	None	Clear	None	LB	96	NA	NA	0.10	ND	NA	NA	0.10	ND	42.7070375	-71.1481583	some algae on streambed, water	just down stream of canal wat	0.1	25.6	192.9	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR03	8:10	pen stream			None	None	Clear	ome suds	TB	319	NA	NA	0.10	ND	NA	NA	ND	ND	42.7074775	-71.1484665	shallow 1' aglae on rocks, some s	Upstream (~50') of Spickett R	0.2	23.2	480	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR04	8:15	m concrete pipe			None	None	Clear	None	LB	ND	NA	NA	ND	NA	NA	NA	ND	ND	42.7072588	-71.1480978	on Merrimack river side	leaky pipe under Spickett Rive	0.1	22.6	230	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	ght sewa	None	Clear	None	LB	1741	NA	NA	0.25	0.6	na	NA	4.00	ND	42.7099164	-71.1512991	tace hemoglobin off urine test stri	pipe off Lawrence Hospital	1.2	22.6	2291	Lawrence	0	0	Dry
8/19/09	Lawrence	Shaw01	9:40	cement	) 15' x 15'		None	med tea	cloudy	suds and	LB	157	NA	NA	0.10	NA	NA	NA	0.10	ND	42.7051688	-71.1400548	waded in, about 400' long channe	mouth of Shawsheen river, sa	0.3	24.6	633	Lawrence	0	0	Dry
8/19/09	Lawrence	UR012	9:40	cement	) 15' x 15'		None	med tea	cloudy	suds and	LB	174	NA	NA	NA	NA	NA	NA	NA	NA	42.7051688	-71.1400548	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
8/19/09	Lawrence	SLE3	10:20	ment ou	3'	trong, musty sew		None	Clear	None	TB	34	NA	NA	0.20	NA	NA	NA	ND	ND	42.695971	-71.1455601	took additional photos	South Lawrence Elementary, l	0.5	15.5	1072	Lawrence	0	0	Dry

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH_3 - color key: Red ≥ 10 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

Surfactant reading given as estimates (actual steps 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3)
Ammonia test strip reading given as estimates (actual steps 0, 0.25, 0.5, 1, 3, 6)

REPORTING LIMITS
E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Field = 0.05 mg/L
Ammonia Field = 0.05 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia Test Strip = 0.1 mg/L
CL2 Test Strip =
Potassium Field = 0.2 mg/L

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Urban Rivers Stormwater Outfall Inspection & Sampling Summary

Location				Sampling										Coordinates		
Date	Town	Site Name	Time	E.coli (cfu / 100ml)	Coliform (cfu / 100ml)	NH3 mg/L Alpha	NH3 mg/L Hach	Surfact. mg/L	OB	TSS	BOD	Cl2 mg/L	TP mg/L	GPS North(+)	GPS West (-)	Comments
7/21/08	Chelsea	IsEnd01	11:20	2595	NA	ND	NA	0.08	87.5	NA	NA	NA	NA	42.394445	71.049817	End of beachum and
7/21/08	Chelsea	IsEnd02	11:25	3080	NA	ND	NA	0.19	213	NA	NA	NA	NA	42.394436	71.049780	End of beachum and
7/21/08	Chelsea	IsEnd04	11:30	>241960	NA	13.0	NA	0.14	20.0	NA	NA	NA	NA	42.394405	71.049676	End of beachum and
8/21/08	Chelsea	IsEnd04	10:35	2595	NA	2.68	NA	ND	178	NA	NA	NA	NA	42.394405	71.049676	End of beachum and
7/21/08	Chelsea	IsEnd04d	11:30	>241960	NA	13.5	NA	0.15	20.0	NA	NA	NA	NA	42.394405	71.049676	Duplicate
9/4/08	Chelsea	Mill	11:00	7945	NA	ND	NA	0.08	61.1	NA	NA	NA	NA	42.403301	71.017871	Mill Creek sample mid
7/21/08	Chelsea	Mill1	9:35	9330	NA	ND	NA	0.18	246	NA	NA	NA	NA	42.403156	71.018129	Broadway at New Cro
9/4/08	Chelsea	Mill1A	10:52	406	NA	0.78	NA	0.13	342	NA	NA	NA	NA	42.40334224	71.017761	Culvert across stream
7/21/08	Chelsea	Mill2	9:55	9678	NA	1.33	NA	0.18	308	NA	NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be
9/4/08	Chelsea	Mill2	11:20	38	NA	4.12	NA	0.24	324	NA	NA	ND	NA	42.403340	71.020587	(Gillooly) Cabot St be
9/4/08	Chelsea	Mill2d	11:20	54	NA	4.01	NA	0.22	309.0	NA	NA	ND	NA	42.403340	71.020587	Duplicate
7/21/08	Chelsea	Mill3	10:10	15530	NA	ND	NA	0.09	170	NA	NA	NA	NA	42.407977	71.027112	Downstream of Rev06
8/21/08	Chelsea	Mill3	9:55	1844	NA	0.27	NA	0.07	66.6	NA	NA	NA	NA	42.407977	71.027112	Downstream of Rev06
8/21/08	Chelsea	Mill3A	10:04	271	NA	ND	NA	0.06	29.2	NA	NA	NA	NA	42.407993	71.027011	Small culvert opening
7/21/08	Chelsea	Mill4	10:35	3266	NA	ND	NA	0.11	266	NA	NA	NA	NA	42.410125	71.028722	Head of Millcreek
7/21/08	Chelsea	Rev06	10:30	7945	NA	ND	NA	0.08	185	NA	NA	NA	NA	42.409914	71.028297	Downstream of Mill04
7/21/08	Boston	Bos014	8:10	3266	NA	ND	NA	0.08	103	NA	NA	NA	NA	42.382423	71.027076	Upstream of Condor U
7/21/08	Boston	Con	7:55	54750	NA	ND	NA	0.09	101	NA	NA	NA	NA	42.383054	71.030131	Condor Urban Wild, o
8/21/08	Everett	AF1	11:56	138	NA	0.41	NA	0.14	213	NA	NA	NA	NA	42.407709	71.069853	Down Air force road b
8/21/08	Everett	Floyd	11:15	48	NA	0.11	NA	0.05	35.7	NA	NA	NA	NA	42.412663	71.069288	Culvert near Madeline
8/21/08	Everett	IsEnd03A	10:45	11870	NA	0.82	NA	0.11	138	NA	NA	NA	NA	42.399997	71.053984	Where stream exits ur
9/4/08	Everett	IsEnd03A	9:57	86640	NA	1.03	NA	0.11	88.4	NA	NA	NA	NA	42.399997	71.053984	Where stream exits ur
9/22/08	Everett	IsEnd03A	11:40	6932	NA	0.542	1.70	0.14	96.6	NA	NA	0.06	NA	42.399997	71.053984	Where stream exits ur
8/21/08	Everett	IsEnd03B	10:50	3266	NA	1.17	NA	0.08	NA	NA	NA	0.10	NA	42.400115	71.050172	small pipe near IsEnd
9/4/08	Everett	IsEnd03B	9:58	9678	NA	0.56	NA	0.09	63.4	NA	NA	NA	NA	42.400115	71.050172	small pipe near IsEnd
9/22/08	Everett	IsEnd03B	11:42	1164	NA	0.48	NA	0.11	55.8	NA	NA	NA	NA	42.400115	71.050172	small pipe near IsEnd
8/4/08	Lawrence	SP01	7:16	458	NA	ND	NA	0.08	165	NA	NA	NA	NA	42 42'31.12"	71 9'1.07"	Channel
8/4/08	Lawrence	SP02	7:40	445	NA	ND	NA	0.08	165	NA	NA	NA	NA	42.711980	71.152671	Fulton Street
8/4/08	Lawrence	SP03	8:00	395	NA	ND	NA	0.07	161	NA	NA	NA	NA	42.714655	71.156191	Brook Street
8/4/08	Lawrence	SP04	8:23	12	NA	ND	NA	0.24	233	NA	NA	ND	NA	42 42'49.21"	71 10'21.11"	Exchange Street outfa
8/4/08	Lawrence	SP05	8:35	363	NA	ND	NA	0.07	160	NA	NA	NA	NA	42 42'49.31"	71 10'20.89"	Exchange Street
8/21/08	Malden	TLB2	8:47	312	NA	1.44	NA	0.10	154	NA	NA	NA	NA	42.424881	71.041827	Town Line Brook whe
9/4/08	Medford	Kohl01	8:40	68	NA	0.50	NA	0.09	382	NA	NA	NA	NA	42.40717819	71.090874	broken down culvert o
7/21/08	Medford	Mhb	12:30	7945	NA	ND	NA	0.06	98.2	NA	NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (M
7/21/08	Medford	Mhb2	12:40	9678	NA	NA	NA	NA	203	NA	NA	NA	NA	42.419214	71.117619	Culvert off Meeting He
9/4/08	Medford	Ship01	7:42	4	NA	0.49	NA	ND	11.1	NA	NA	0.63	NA	42.41539348	71.103014	Small pipe next to cul
8/21/08	Medford	Tufts	12:09	91	NA	0.19	NA	0.06	79.1	NA	NA	NA	NA	42.413180	71.076268	Little Creek near Tufts
9/4/08	Medford	WB01	7:08	6212	NA	0.40	NA	0.07	79.7	NA	NA	NA	NA	42 25'07.64	71 87'40.33	Whittmore Brook off A
8/25/08	Melrose	Ell1	11:15	1741	NA	ND	NA	0.53	63	NA	NA	NA	NA	42.461136	71.069376	Across from 50 Tremo
8/25/08	Melrose	Ell1d	11:15	1462	NA	ND	NA	0.21	62.5	NA	NA	NA	NA	42.461136	71.069376	Duplicate
8/25/08	Melrose	Ell2	11:20	716	NA	ND	NA	0.20	68.4	NA	NA	NA	NA	42.461136	71.069370	Across from 50 tremo
8/25/08	Melrose	Ell3	11:35	23820	NA	0.09	NA	0.07	162	NA	NA	NA	NA	42.461429	71.068840	culvert across from D
8/25/08	Melrose	Mal1	7:53	774	NA	0.12	NA	0.06	103	NA	NA	NA	NA	42.440652	71.070136	Malden River across f
8/25/08	Melrose	Mal2	9:08	749	NA	0.10	NA	0.06	97.5	NA	NA	NA	NA	42.444227	71.069626	Just downstream of N
8/25/08	Melrose	Mal3	10:15	1462	NA	0.11	NA	0.06	83.2	NA	NA	NA	NA	42.449076	71.069831	Outlet of Malden Rive
8/25/08	Melrose	OM1	8:20	80	NA	0.14	NA	0.13	76.2	NA	NA	NA	NA	42.441688	71.071068	Old Mill at head of str
8/25/08	Melrose	OM2	8:15	25	NA	1.18	NA	0.16	162	NA	NA	NA	NA	42.441720	71.070899	Old Mill Sample small
8/25/08	Melrose	OM3	8:25	12	NA	ND	NA	ND	54.8	NA	NA	ND	NA	42.441687	71.071070	12inch clay pipe next
6/23/08	Melrose	Otis	8:50	3266	NA	0.77	NA	0.09	95.2	NA	NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch
8/25/08	Melrose	Otis	11:52	96	NA	ND	NA	0.33	29.1	NA	NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch
8/25/08	Melrose	Roo1	12:12	9678	NA	0.13	NA	0.08	153	NA	NA	NA	NA	42.464603	71.070066	Roosevelt School off E
8/25/08	Melrose	SP1	10:45	186	NA	0.15	NA	ND	33.5	NA	NA	NA	NA	42.455333	71.080747	Corner of Philips Rd &
6/30/08	Methuen	Mer1	8:43	1162	1495	ND	NA	0.05	224	NA	NA	NA	NA	42.743207	71.208453	walked in from small r
8/4/08	Methuen	Mer1	10:45	293	NA	ND	NA	0.07	137	NA	NA	NA	NA	42.743250	71.208438	walked in from small r
8/13/08	Methuen	MSPCA1	9:00	80	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.729569	71.195557	mid-channel sample ju
8/13/08	Methuen	MSPCA3	9:30	81	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.731521	71.200097	downstream side of 1s
8/13/08	Methuen	MSPCA4	9:40	54	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734448	71.199880	Just upstream of 2nd 1
8/13/08	Methuen	MSPCA5	9:55	136	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734293	71.199230	pond Northwest of MS
8/13/08	Methuen	MSPCA6	10:30	58	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734889	71.200300	~ 50m upsreatm of MS
8/13/08	Methuen	MSPCA7	10:40	20	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.736056	71.201397	~100m upsreatm of MS
8/4/08	Methuen	SP06	9:05	342	NA	ND	NA	0.08	153	NA	NA	NA	NA	42.724919	71.183033	RT 28 castle park
8/4/08	Methuen	SP07	9:55	12	NA	ND	NA	0.05	49.2	NA	NA	~0.02	NA	42.727453	71.188366	Outfall downstream el
7/21/08	Revere	Hadd	9:00	612	NA	ND	NA	0.15	257	NA	NA	NA	NA	42.402480	71.010704	Revere Beach Parkwa
8/21/08	Revere	LinB	7:55	2190	NA	0.27	NA	0.07	79	NA	NA	NA	NA	42.434553	71.020547	Linden Brook as it day
8/21/08	Revere	Rt1trib	8:10	351	NA	0.14	NA	0.07	83.7	NA	NA	NA	NA	42.434497	71.020322	Tributary to Linden Br
8/21/08	Revere	TLB1	8:25	3266	NA	0.30	NA	0.08	153	NA	NA	NA	NA	42.433793	71.021460	Town Line Brook at ho
8/21/08	Revere	trifone	9:20	14010	NA	0.11	NA	0.06	96.8	NA	NA	NA	NA	42.425568	71.026803	Stream at the of Amel
6/30/08	Salem, NH	Mer2	9:06	288	694	ND	NA	0.05	195	NA	NA	NA	NA	42.755268	71.207933	Walked in behind auto
8/4/08	Salem, NH	Mer2	12:02	302	NA	ND	NA	0.07	127	NA	NA	NA	NA	42.755035	71.208086	Walked in behind auto
6/30/08	Salem, NH	Mer3	9:35	590	590	ND	NA	0.07	303	NA	NA	NA	NA	42.762503	71.222746	Parked at Lancelot Co
6/30/08	Salem, NH	Mer4	10:00	580	590	ND	NA	0.06	298	NA	NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's
6/30/08	Salem, NH	Mer4d	10:00	631	811	ND	NA	0.07	306	NA	NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's
6/30/08	Salem, NH	Mer5	10:27	883	739	ND	NA	0.06	340	NA	NA	NA	NA	42.767438	71.223016	Parked behind Kohl's
6/30/08	Salem, NH	Mer6	11:05	775	955	ND	NA	0.07	355	ND	NA	NA	NA	42.774065	71.224326	Parked at Salem Mar
6/30/08	Salem, NH	Mer6A	10:55	802	847	ND	NA	0.07	385	ND	NA	NA	NA	42.774045	71.224331	Parked at Salem Mar

6/30/08	Salem, NH	Mer7	11:30	775	955	ND	NA	0.05	267	ND	NA	NA	NA	42.778121	71.227147	Parked across from nc
6/30/08	Salem, NH	Mer8	11:51	568	649	ND	NA	0.05	257	ND	NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh
8/4/08	Salem, NH	SP08	11:43	464	NA	0.108	NA	0.07	127	NA	NA	NA	NA	42.751038	71.212086	Spencer Street
8/4/08	Salem, NH	SP08d	11:43	847	NA	ND	NA	0.07	128	NA	NA	NA	NA	42.751038	71.212086	duplicate
6/23/08	Stoneham	100A	11:00	14400	NA	ND	NA	0.19	246	NA	NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook wes
9/15/08	Stoneham	100A	9:42	1642	NA	ND	NA	0.07	135	NA	NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook wes
6/23/08	Stoneham	1Linden	11:16	6932	NA	ND	NA	0.20	243	NA	NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @
9/15/08	Stoneham	1Linden	9:54	1549	NA	ND	NA	0.06	122	NA	NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @
9/15/08	Stoneham	1Lindend	9:54	1844	NA	ND	NA	0.05	122	NA	NA	NA	NA	42.4824877	71.1060371	Duplicate
6/23/08	Stoneham	1West	11:42	14100	NA	0.410	NA	0.29	305	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
7/15/08	Stoneham	1West	7:57	3266	NA	ND	0.00	0.05	36.2	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
8/12/08	Stoneham	1West	7:29	4813	NA	0.18	NA	NA	147	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
9/22/08	Stoneham	1West	10:45	54750	NA	ND	0.30	0.05	24	NA	NA	0.09	NA	42.4826072	71.1046187	Unnamed tributary to
6/23/08	Stoneham	2dLinden	12:02	13700	NA	ND	NA	0.30	336	NA	NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @
9/22/08	Stoneham	2dLinden	9:56	3266	NA	0.098	0.40	0.06	56.7	NA	NA	0.10	NA	42.483930	71.1039388	Duplicate
7/15/08	Stoneham	2Lincul	8:20	430	NA	ND	NA	0.06	40.7	NA	NA	NA	NA	42.484141	71.103935	Inside culvert upstrea
9/22/08	Stoneham	2Lincul	10:10	9678	NA	0.078	0.55	0.06	23.4	NA	NA	0.03	NA	42.484141	71.103935	Inside culvert upstrea
6/23/08	Stoneham	2Linden	12:02	9600	NA	ND	NA	0.32	361	NA	NA	ND	NA	42.483930	71.1039388	Sweetwater Brook @
7/15/08	Stoneham	2Linden	8:15	689	NA	ND	0.00	0.05	83.5	NA	NA	ND	NA	42.483930	71.1039388	Sweetwater Brook @
8/12/08	Stoneham	2Linden	7:18	8800	NA	0.37	NA	0.14	108	NA	NA	ND	132	42.484033	71.103950	Sweetwater Brook @
9/22/08	Stoneham	2Linden	9:56	2747	NA	0.217	0.40	0.07	55.4	NA	NA	0.10	NA	42.483930	71.1039388	Sweetwater Brook @
9/11/08	Waltham	1st	13:28	455	NA	ND	NA	0.14	130	NA	NA	NA	NA	42.397176	-71.265148	across street from 55
9/11/08	Waltham	BB1	12:05	2595	NA	ND	NA	0.12	354	NA	NA	NA	NA	42.381368	-71.213770	Beaver Brook just ups
9/11/08	Waltham	CB1	12:59	310	NA	ND	NA	0.09	274	NA	NA	0.03	NA	42.381687	-71.233383	DPW outfall flowing in
9/11/08	Waltham	CB1d	12:59	319	NA	ND	NA	0.11	278	NA	NA	0.03	NA	42.381687	-71.233383	Duplicate
9/11/08	Waltham	Pars	12:01	714	NA	ND	NA	0.07	36.9	NA	NA	NA	NA	42.381394	-71.213800	Edwin Rd and Parson
9/11/08	Waltham	Wal23	11:10	4185	NA	ND	NA	0.09	71.8	NA	NA	ND	NA	42.367267	-71.218116	Intersection of Pleasa
9/11/08	Watertown	LB1	9:41	2190	NA	ND	NA	0.05	211	NA	NA	0.10	NA	42.364733	-71.189067	Laundry Brook just off
9/11/08	Watertown	Saw1	8:08	395	NA	ND	NA	0.09	162	NA	NA	NA	NA	42.361991	-71.147963	Corner of Greenough
9/11/08	Watertown	Saw2	9:04	416	NA	ND	NA	0.09	111	NA	NA	NA	NA	42.363675	-71.155668	Outfall - So. Sawins B
9/11/08	Watertown	Wat5	10:25	222	NA	ND	NA	0.08	212	NA	NA	NA	NA	42.367449	-71.198957	Culvert on right, 290 F
9/11/08	Watertown	Wat6	10:27	260	NA	ND	NA	0.12	225	NA	NA	NA	NA	42.367489	-71.198853	Culvert on left, 290 Pl
6/23/08	Winchester	62Sun	9:30	533	NA	ND	NA	ND	179	NA	NA	NA	NA	42.4733306	71.1187503	unnamed stream in W
7/28/08	Winchester	M01	7:35	2452	NA	ND	NA	0.09	124	NA	NA	NA	NA	42.441521	71.149149	Sandy Beach Location
7/28/08	Winchester	M02	7:58	4813	NA	ND	NA	0.09	133	NA	NA	NA	NA	42.442878	71.142845	Mystic River pkwy, un
7/28/08	Winchester	M03	8:14	3683	NA	ND	NA	0.09	132	NA	NA	NA	NA	42.444363	71.138845	commuter rail station
7/28/08	Winchester	M04	8:31	156	NA	ND	NA	0.07	84.6	NA	NA	NA	NA	42.455647	71.137980	Main street bridge bet
7/28/08	Winchester	M05	8:42	126	NA	ND	NA	0.06	88.6	NA	NA	NA	NA	42.456789	71.138966	bridge across from W
7/28/08	Winchester	M06	9:10	44	NA	ND	NA	0.06	82.6	NA	NA	NA	NA	42.464865	71.151279	Horn Pond outlet, lake
7/28/08	Winchester	M07	9:26	4813	NA	ND	NA	0.08	155	NA	NA	NA	NA	42.456149	71.136269	ambient stream samp
8/25/08	Winchester	M07	12:55	806	NA	0.24	NA	0.07	122	NA	NA	NA	NA	42.456149	71.136269	ambient stream samp
7/28/08	Winchester	M08	9:40	64	NA	3.11	NA	0.07	145	NA	NA	ND	NA	42.456399	71.136447	small pipe exiting ball
9/4/08	Winchester	M08A	12:15	408	NA	0.994	NA	0.25	99.3	NA	NA	NA	NA	42.456365	71.136337	flow from directly und
7/28/08	Winchester	M09	9:55	6212	NA	ND	NA	0.07	157	NA	NA	NA	NA	42.460935	71.137149	down street from Abe
7/28/08	Winchester	M10	10:16	5654	NA	ND	NA	0.06	157	NA	NA	NA	NA	42.464339	71.132424	Tufts school behind st
7/28/08	Winchester	M10a	10:30	162	NA	ND	NA	0.07	81.4	NA	NA	NA	NA	42.464200	71.131111	Tufts school stream ne
7/28/08	Winchester	M11	10:48	241	NA	ND	NA	0.07	122	NA	NA	NA	NA	42.468186	71.130921	park near Forest rd, o
7/28/08	Winchester	M11d	10:48	248	NA	ND	NA	0.09	120	NA	NA	NA	NA	42.468186	71.130921	Duplicate
7/28/08	Winchester	M12	11:35	6932	NA	ND	NA	0.05	165	NA	NA	NA	NA	42.469507	71.125285	behind hospital, MyRV
9/15/08	Winchester	M12	8:25	7945	NA	0.63	NA	0.09	268	NA	NA	NA	NA	42.469507	71.125285	behind hospital, MyRV
7/28/08	Winchester	M13	12:31	248	NA	NA	NA	NA	56.8	NA	NA	NA	NA	42.467019	71.120658	outlet to resevoir
9/15/08	Winchester	MO5	8:00	373	NA	ND	NA	0.07	148	NA	NA	NA	NA	42.456789	71.138966	bridge across from W
9/15/08	Winchester	MO8	7:35	7945	NA	0.615	NA	0.08	250	NA	NA	NA	NA	42.456399	71.136447	small pipe exiting ball
9/15/08	Winchester	MO8main	7:40	5654	NA	0.876	NA	0.08	259	NA	NA	NA	NA	42.456425	71.136466	Main stream next to M
6/23/08	Woburn	1Kraft	10:17	5654	NA	ND	NA	0.27	346	NA	NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus
9/15/08	Woburn	1Kraft	8:50	767	NA	ND	NA	0.09	131	NA	NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus
6/23/08	Woburn	1Merrell	10:00	2069	NA	0.76	NA	0.10	244	NA	NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in
9/15/08	Woburn	1Merrell	8:40	6212	NA	0.776	NA	0.08	274	NA	NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in
6/23/08	Woburn	2Merrell	10:23	2190	NA	0.41	NA	0.08	236	NA	NA	NA	NA	42.477141	71.1176671	Aberjona upstream o
7/15/08	Woburn	Aber	9:20	408	NA	ND	NA	0.06	194.3	NA	NA	NA	NA	42.493138	71.124117	Washington street corr
7/15/08	Woburn	Burb	9:08	599	NA	ND	0.00	0.06	197.0	NA	NA	NA	NA	42.491300	71.127027	Operator of AMR gran
7/15/08	Woburn	Fit	10:55	152	NA	3.91	>3	0.09	226.0	NA	NA	NA	NA	42.501121	71.134909	near 60 Olympia Ave
7/15/08	Woburn	Fitd	10:55	152	NA	3.94	>3	0.08	228.7	NA	NA	NA	NA	42.501121	71.134909	Duplicate
9/15/08	Woburn	McDO1	9:20	5654	NA	1.02	NA	0.09	278	NA	NA	NA	NA	42.478598	71.118001	
8/12/08	Woburn	Mys 9	9:15	445	NA	NA	NA	NA	89.3	NA	NA	NA	59	42.520981	71.147709	Upstream of Mys 8 wi
7/10/08	Woburn	Mys1	8:15	7945	NA	2.37	NA	0.09	334	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
7/15/08	Woburn	Mys1	11:15	164	NA	3.46	>3	0.08	237.0	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
8/12/08	Woburn	Mys1	8:35	3922	NA	NA	NA	NA	185	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
7/10/08	Woburn	Mys10	11:13	2452	NA	1.25	NA	0.06	339	ND	2.50	NA	NA	42.517881	71.150535	Just upstream from M
8/12/08	Woburn	Mys10	10:00	4480	NA	NA	NA	NA	175	NA	NA	NA	18	42.517881	71.150535	Upstream of Mys 7 an
7/10/08	Woburn	Mys2	8:45	1230	NA	3.70	NA	0.08	116	NA	NA	NA	NA	42.513504	71.138870	74 Commerce Way (M
7/10/08	Woburn	Mys3	9:11	6932	NA	ND	NA	0.08	307	NA	NA	NA	NA	42.515744	71.136289	Marshall's shipping lot
7/10/08	Woburn	Mys4	9:20	5199	NA	0.50	NA	0.10	289	NA	NA	NA	NA	42.516016	71.136885	Across Street from las
7/10/08	Woburn	Mys5	9:38	239	NA	ND	NA	ND	175	NA	NA	NA	NA	42.517193	71.141968	Turn on Atlantic Ave p
7/10/08	Woburn	Mys6	9:56	2452	NA	0.73	NA	0.08	296	NA	NA	NA	NA	42.513758	71.144110	where hulls brook cros
7/10/08	Woburn	Mys7	10:18	27230	NA	4.29	NA	0.07	396	ND	6.30	NA	NA	42.518563	71.146526	New Boston St where
8/12/08	Woburn	Mys7	8:46	111990	NA	NA	NA	NA	236	NA	NA	NA	181	42.518563	71.146526	New Boston St where
9/22/08	Woburn	Mys7	8:09	3080	NA	6.22	>3	0.06	121	NA	NA	ND	NA	42.518563	71.146526	New Boston St where
8/12/08	Woburn	Mys71	9:50	57940	NA	106.00	NA	0.16	329	NA	NA	NA	196	42.518477	71.148139	Stream entering upstr
9/22/08	Woburn	Mys71	9:00	3466	NA	124	NA	0.18	582	NA	NA	NA	NA	42.518477	71.148139	Stream entering upstr
8/12/08	Woburn	Mys72	9:45	32550	NA	3.30	NA	0.08	176	NA	NA	NA	27	42.518433	71.148226	upstream from 7 and

9/22/08	Woburn	Mys72	8:51	395	NA	4.45	NA	0.07	112	NA	NA	NA	NA	42.518433	71.148226	upstream from 7 and 7
7/10/08	Woburn	Mys8	10:30	41060	NA	4.57	NA	0.06	192	10.0	4.90	NA	NA	42.518739	71.146411	Opposite stream from
8/12/08	Woburn	Mys8	8:47	1954	NA	16.40	NA	0.06	92.5	NA	NA	NA	34	42.518739	71.146411	Opposite stream from
8/12/08	Woburn	Mys81	9:10	992	NA	15.10	NA	0.06	88.7	NA	NA	NA	41	42.519578	71.146937	Just upstream from M
7/10/08	Woburn	Mys8d	10:30	41060	NA	4.52	NA	0.06	178	12.0	3.20	NA	NA	42.518739	71.146411	Duplicate
8/12/08	Woburn	Mys8d	8:47	1954	NA	16.90	NA	0.05	88.5	NA	NA	NA	35	42.518739	71.146411	Duplicate
7/10/08	Woburn	Mys9	10:45	1549	NA	4.93	NA	0.06	190	ND	ND	NA	NA	42.520981	71.147709	Just upstream from M
7/15/08	Woburn	Olym	10:35	606	NA	ND	0.50	0.09	123.9	NA	NA	NA	NA	42.500145	71.141333	Olympia Ave
8/12/08	Woburn	Olym1	10:45	3922	NA	0.26	NA	0.12	188	NA	NA	NA	51	42.498925	71.137440	Olympia Ave, just dov
9/15/08	Woburn	Olym1	11:31	258	NA	ND	NA	0.08	272	NA	NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov
9/15/08	Woburn	Olym2	11:20	568	NA	ND	NA	0.08	266	NA	NA	NA	NA	42.497445	71.134658	Off Olym Ave back o
9/22/08	Woburn	Olym2	7:46	1549	NA	0.196	NA	0.09	104	NA	NA	NA	NA	42.497445	71.134658	Off Olym Ave back o
7/15/08	Woburn	Sal	9:40	430	NA	1.84	NA	0.09	231.5	NA	NA	NA	NA	42.491580	71.128834	1921yr culvert
7/15/08	Woburn	US1	9:55	125	NA	ND	0.30	0.07	108.3	NA	NA	NA	NA	42.495445	71.134031	behind United Station
7/15/08	Woburn	US2	10:05	740	NA	ND	0.60	1.60	117.8	NA	NA	NA	NA	42.495411	71.133994	closer to culvert than
8/12/08	Woburn	US3	7:53	>241960	NA	0.14	NA	0.18	120	NA	NA	NA	NA	42.495550	71.133700	Blue culvert across R
9/15/08	Woburn	US3	10:38	7945	NA	ND	NA	0.08	128	NA	NA	NA	NA	42.495550	71.133700	Blue culvert across R
9/22/08	Woburn	US3	7:14	1140	NA	0.132	0.45	0.07	55.7	NA	NA	0.05	NA	42.495550	71.133700	Blue culvert across R
8/12/08	Woburn	US4	8:03	198630	NA	0.12	NA	0.17	117	NA	NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south
9/15/08	Woburn	US4	10:41	1164	NA	ND	NA	0.09	162	NA	NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south
9/15/08	Woburn	US5	10:47	2595	NA	ND	NA	0.07	129	NA	NA	NA	NA	42.495412	71.134111	Upstream of US3, san
9/22/08	Woburn	US5	7:24	1102	NA	0.109	NA	0.08	55.4	NA	NA	NA	NA	42.495412	71.134111	Upstream of US3, san
7/15/08	Woburn	WashC	8:55	316	NA	1.32	2.20	0.07	220.5	NA	NA	NA	NA	42.485896	71.120882	Wash Cir, just off Wa

Additional Location Information	Weather			
	Rain Gauge	24hrs	48hrs	/et/Dry?
	Location	inches	inches	
(closest to road) stron	Boston-Logan	1.28	1.28	Wet
(midpoint from road) s	Boston-Logan	1.28	1.28	Wet
(farthest from road) s	Boston-Logan	1.28	1.28	Wet
not quite as black as l	Boston-Logan	0	0	Dry
Duplicate	Boston-Logan	1.28	1.28	Wet
Clear flow, low flow ro	Boston-Logan	0	0	Dry
Outfall on opposite st	Boston-Logan	1.28	1.28	Wet
Lots of orange flock a	Boston-Logan	0	0	Dry
Sewage odor (Gillool	Boston-Logan	1.28	1.28	Wet
water looks clear. Flo	Boston-Logan	0	0	Dry
	Boston-Logan	0	0	Dry
Plaque covering outfa	Boston-Logan	1.28	1.28	Wet
Very little flow, greeni	Boston-Logan	0	0	Dry
water clea,r gray bact	Boston-Logan	0	0	Dry
	Boston-Logan	1.28	1.28	Wet
- walked culvert	Boston-Logan	1.28	1.28	Wet
White plaque coverin	Boston-Logan	1.28	1.28	Wet
Sewage odor, plaque	Boston-Logan	1.28	1.28	Wet
Scum on top, some pe	Boston-Logan	0	0	Dry
1/4" growth/deposit of	Boston-Logan	0	0	Dry
orange all over the ro	Boston-Logan	0	0	Dry
very silty, bacteria and	Boston-Logan	0	0	Dry
plaque accumulation,	Boston-Logan	0.31	0.31	Wet
very orange, very turb	Boston-Logan	0	0	Dry
orange, slimy, and ve	Boston-Logan	0	0	Dry
orange, slimy, and ve	Boston-Logan	0.31	0.31	Wet
No GPS taken at site, no satellites avail		0.12		Wet
No noticable odor to stream.		0.12		Wet
No noticable odor to stream.		0.12		Wet
No odor, a little foam though		0.12		Wet
No noticable odor to stream.		0.12		Wet
Orange floc, oil slick,	Boston-Logan	0	0	Dry
culvert has collapsed	Boston-Logan	0	0	Dry
Pretty clear	Boston-Logan	1.28	1.28	Wet
Strong sewage odor c	Boston-Logan	1.28	1.28	Wet
Very fresh smelling	Boston-Logan	0	0	Dry
slight film on top of wa	Boston-Logan	0	0	Dry
Some plaque on rocks	Boston-Logan	0	0	Dry
slight flow, clear	Bedford	0.01	0.02	Dry
	Bedford	0.01	0.02	Dry
flow appeared to chan	Bedford	0.01	0.02	Dry
flow clear, some algae	Bedford	0.01	0.02	Dry
6-8" in depth, slight tu	Bedford	0.01	0.02	Dry
sampled western char	Bedford	0.01	0.02	Dry
Highly turbid - orange	Bedford	0.01	0.02	Dry
flow 3x-4x in matter o	Bedford	0.01	0.02	Dry
~2 gal/min. entering c	Bedford	0.01	0.02	Dry
2 or 3gal/min, clear flo	Bedford	0.01	0.02	Dry
4 gal/min flow est, Mu	Boston-Logan	0	0	Dry
Had to move manhole	Bedford	0.01	0.02	Dry
Trash gate clogged ~S	Bedford	0.01	0.02	Dry
downstream of spot p	Bedford	0.01	0.02	Dry
Dry weather during sampling		0.43		Wet
Right on MA/NH border		0.12		Wet
ıst past RR bridge		0.48	0.38	Wet
ːt 113 bridge		0.48	0.38	Wet
l13 bridge		0.48	0.38	Wet
Pond entirely covered in duck weed		0.48	0.38	Wet
SPCA		0.48	0.38	Wet
SPCA		0.48	0.38	Wet
No noticable odor to stream.		0.12		Wet
Possible stream culvert, lots of algae th		0.12		wet
White PVC beside br	Boston-Logan	1.28	1.28	Wet
Heavy silt deposits on	Boston-Logan	0	0	Dry
Good flow, high sedim	Boston-Logan	0	0	Dry
Very silty	Boston-Logan	0	0	Dry
Deer prints, low flow,	Boston-Logan	0	0	Dry
parts/glass stor on right after bridge beh		0.43		Wet
No noticable odor to stream.		0.12		Wet
urt apartments behind 1st bu8ilding on le		0.43		Wet
storage on left off So. Policy. Sampled		0.43		Wet
storage on left off So. Policy. Sampled		0.43		Wet
		0.43		Wet
No noticable odor to stream. Dark to m		0.43		Wet
No noticable odor to stream. Very dark		0.43		Wet

No noticable odor to stream. Low turbid		0.43		Wet
No noticable odor to stream. Low turbid		0.43		Wet
Took GPS from street, no satellites at s		0.12		Wet
		0.12		Wet
Slight musty odor	Boston-Logan	0.38	0.38	Wet
Clear flow, no obvious	Bedford	0.33	0.33	Wet
No odor	Boston-Logan	0.38	0.38	Wet
downstream	Bedford	0.33	0.33	Wet
Duplicate	Bedford	0.33	0.33	Wet
Medium sewage odor	Boston-Logan	0.38	0.38	Wet
Musty odor	Boston-Logan	0.07	0.07	Dry
Unnamed tributary to	Bedford	0.24	0.51	Wet
No distinct odor	Boston-Logan	0.31	0.31	Wet
Duplicate	Boston-Logan	0.38	0.38	Wet
Duplicate	Boston-Logan	0.31	0.31	Wet
sampled largest pipe -	Boston-Logan	0.07	0.07	Dry
flow about 2-3 gal/min	Boston-Logan	0.31	0.31	Wet
Slight odor coming fro	Boston-Logan	0.38	0.38	Wet
No odor	Boston-Logan	0.07	0.07	Dry
(0.1" 48hrs prior to sa	Bedford	0.24	0.51	Wet
Slightly musty odor	Boston-Logan	0.31	0.31	Wet
sampled pond as it flowed out into culve		0	0.35	Wet
water tannish tea color pretty clear, high		0	0.35	Wet
water fairly clear no odor		0	0.35	wet
		0	0.35	Wet
Walked in along stream, water was poss		0	0.35	Wet
Water flowing approx. 5 gal/min. Looks		0	0.35	Wet
Fairly clear, no odor waded to just outsid		0	0.35	wet
Green algae covering rocks, grayish tint		0	0.35	Wet
Good flow strong rushing water sound h		0	0.35	Wet
light tannish tint to water, medium suspe		0	0.35	Wet
very large snapping turtle half inside/ha		0	0.35	Wet
No odor	Boston-Logan	0	0	Dry
	Bedford	0.31	0.64	Wet
Downstream	Bedford	0.31	0.64	Wet
bacon street bridge M	Bedford	0.31	0.64	Wet
between car lot and g	Bedford	0.31	0.64	Wet
Wedge Pond inlet	Bedford	0.31	0.64	Wet
lake ave, near water	Bedford	0.31	0.64	Wet
Near Super Stop & S	Bedford	0.31	0.64	Wet
Murky, some foam on	Bedford	0.01	0.02	Dry
small pipe	Bedford	0.31	0.64	Wet
site has deep deposits	Boston-Logan	0	0	Dry
2 pipes on bridge bot	Bedford	0.31	0.64	Wet
Next to Amtrack rail	Bedford	0.31	0.64	Wet
ear bus circle	Bedford	0.31	0.64	Wet
on cross culvert unde	Bedford	0.31	0.64	Wet
Duplicate	Bedford	0.31	0.64	Wet
MyRWA baseline site	Bedford	0.31	0.64	Wet
High flow no distinct o	Bedford	0.33	0.33	Wet
Across from Highland	Bedford	0.31	0.64	Wet
High flow pretty clear	Bedford	0.33	0.33	Wet
Occasional discharge	Bedford	0.33	0.33	Wet
Lots of leaf litter, mar	Bedford	0.33	0.33	Wet
strong strawberry jello	Bedford	0.18	0.18	Wet
very little odor, may b	Bedford	0.33	0.33	Wet
No odor	Bedford	0.18	0.18	Wet
Low TSS, tannish sta	Bedford	0.33	0.33	Wet
strong strawberry jello	Bedford	0.18	0.18	Wet
ner of Salem St	Bedford	0.01	0.01	Dry
Lots of seeds in the w	Bedford	0.01	0.01	Dry
Pretty clear water	Bedford	0.01	0.01	Dry
Duplicate	Bedford	0.01	0.01	Dry
Manhole nearby with	Bedford	0.33	0.33	Wet
Low flow, light brown	Bedford	0.24	0.51	Wet
culvert to right not flow	Bedford	0.89	0.89	Wet
Sampled main stream	Bedford	0.01	0.01	Dry
Waded 3 ft upstream	Bedford	0.24	0.51	Wet
walked in about 1-2 m	Bedford	0.89	0.89	Wet
Good flow	Bedford	0.24	0.51	Wet
No odor	Bedford	0.89	0.89	Wet
Marshalls shipping lo	Bedford	0.89	0.89	Wet
some geese swimmin	Bedford	0.89	0.89	Wet
No odor	Bedford	0.89	0.89	Wet
ses under New Boston	Bedford	0.89	0.89	Wet
water very turbid sligh	Bedford	0.89	0.89	Wet
Film on water, low flo	Bedford	0.24	0.51	Wet
Water grayish/green	Bedford	0.15	0.15	wet
Thick sediment, oily, t	Bedford	0.24	0.51	Wet
most likiliy from lands	Bedford	0.15	0.15	Wet
Thick layer of duck w	Bedford	0.24	0.51	Wet

'1, downstream of Mys	Bedford	0.15	0.15	Wet
Very turbid, foul odor	Bedford	0.89	0.89	Wet
Suspended solids	Bedford	0.24	0.51	Wet
were driveway enters	Bedford	0.24	0.51	Wet
Duplicate	Bedford	0.89	0.89	Wet
Duplicate	Bedford	0.24	0.51	Wet
were stream exits outf	Bedford	0.89	0.89	Wet
On N. side grass clipp	Bedford	0.01	0.01	Dry
Sandy bottom, beave	Bedford	0.24	0.51	Wet
Sandy bottom, med f	Bedford	0.33	0.33	Wet
Lots of duck weed. Li	Bedford	0.33	0.33	Wet
Clear, low flow (less t	Bedford	0.15	0.15	Wet
Downstream side	Bedford	0.01	0.01	Dry
Lots of trash in the ar	Bedford	0.01	0.01	Dry
Very turbid water, bro	Bedford	0.01	0.01	Dry
Grey, turbid water	Bedford	0.24	0.51	Wet
Med flow tannish colo	Bedford	0.33	0.33	Wet
Clear, good flow, no o	Bedford	0.15	0.15	Wet
Lots of green duck we	Bedford	0.24	0.51	Wet
Very little flow, believ	Bedford	0.33	0.33	Wet
Clear flow	Bedford	0.33	0.33	Wet
Clear flow	Bedford	0.15	0.15	Wet
downstream side	Bedford	0.01	0.01	Dry

RARE 2009						RARE 2010					Urban Rivers (2009)			
Town	Sites	Events	Lab	Field	YSI	Sites	Events	Lab	Field	YSI	**Sites	Events	Lab	Field
Andover	4	4	39	27	4	2	3	27	12	2	4	5	5	15
Arlington	2	2	24	10	0	26	32	363	142	32	0	0	0	0
Belmont	1	2	23	12	0	1	2	15	10	2	0	0	0	0
Beverly	0	0	0	0	0	4	4	28	20	4	0	0	0	0
Boston	8	9	115	71	5	12	19	290	80	19	6	9	10	30
Brookline	0	0	0	0	0	1	1	12	4	1	0	0	0	0
Chelsea	6	8	95	68	5	2	3	25	13	3	0	2	2	8
Concord, MA	0	0	0	0	0	1	1	11	5	1	0	0	0	0
Concord, NH	0	0	0	0	0	4	6	72	24	6	0	0	0	0
Danvers	2	2	26	12	3	0	0	0	0	0	0	0	0	0
Dorchester	2	3	39	14	2	0	0	0	0	0	0	2	1	5
Everett	0	0	0	0	0	0	0	0	0	0	1	1	1	4
Falmouth	0	0	0	0	0	8	9	99	45	8	0	0	0	0
Groveland	0	0	0	0	0	0	0	0	0	0	2	2	2	8
Haverhill	0	0	0	0	0	0	0	0	0	0	5	6	7	23
Laconia, NH	0	0	0	0	0	6	9	69	35	9	0	0	0	0
Lawrence	2	3	39	24	2	6	11	116	48	10	8	12	13	45
Lexington	2	2	26	13	2	4	4	47	20	4	0	0	0	0
Lowell	8	10	91	79	9	0	0	0	0	0	0	0	0	0
Lynn	1	2	23	12	1	1	1	12	4	1	1	1	1	3
Malden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manchester, NH	0	0	0	0	0	4	4	48	16	4	0	0	0	0
Marblehead	2	2	26	12	2	12	15	161	60	15	3	3	4	12
Medford	2	2	23	12	2	0	0	0	0	0	1	2	2	4
Melrose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Methuen	0	0	0	0	0	0	0	0	0	0	4	4	4	18
Milton	4	4	49	30	4	0	0	0	0	0	7	9	10	30
Newton	3	4	52	31	3	0	0	0	0	0	0	0	0	0
Norwood	3	4	50	32	4	0	0	0	0	0	11	13	15	39
Peabody	0	0	0	0	0	0	0	0	0	0	5	5	5	15
Plymouth	5	6	71	41	5	0	0	0	0	0	0	0	0	0
Quincy	8	13	159	78	10	14	19	208	72	19	8	18	20	66
Reading	1	1	13	8	1	0	0	0	0	0	7	10	10	31
Revere	0	0	0	0	0	5	7	71	32	7	8	9	9	32
Salem	0	0	0	0	0	1	1	12	4	1	2	2	4	6
Salem, NH	0	0	0	0	0	0	0	0	0	0	8	9	9	38
Somerville	1	2	20	14	2	0	0	0	0	0	2	3	3	9
Stoneham	5	8	86	51	5	8	9	102	44	11	1	5	5	13
Swampscott	0	0	0	0	0	1	1	12	4	1	1	2	2	3
Waltham	1	1	13	7	1	0	0	0	0	0	0	0	0	0
Warwick, RI	0	0	0	0	0	12	13	106	52	12	0	0	0	0
Watertown	2	2	15	14	2	11	12	96	36	12	0	0	0	0
Winchester	1	2	25	16	1	11	12	109	45	12	7	8	9	26
Woburn	11	16	184	115	10	19	23	214	94	20	15	24	30	104
Total	**87**	**114**	**1326**	**803**	**85**	**176**	**221**	**2325**	**921**	**216**	**117**	**166**	**183**	**587**
TOTAL RARE	**263**	**335**	**3651**	**1724**	**301**									
TOTAL (All)	**511**	**680**	**4335**	**2525**	**417**									

Upper Mystic														
Melrose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reading	1	1	13	8	1	0	0	0	0	0	7	10	10	31
Stoneham	5	8	86	51	5	8	9	102	44	11	1	5	5	13
Winchester	1	2	25	16	1	11	12	109	45	12	7	8	9	26
Woburn	11	16	184	115	10	19	23	214	94	20	15	24	30	104
Total	**18**	**27**	**308**	**190**	**17**	**38**	**44**	**425**	**183**	**43**	**30**	**47**	**54**	**174**
TOTAL	**154**	**221**	**1057**	**679**	**78**									

Lower Mystic														
Arlington	2	2	24	10	0	26	32	363	142	32	0	0	0	0
Belmont	1	2	23	12	0	1	2	15	10	2	0	0	0	0
Chelsea	6	8	95	68	5	2	3	25	13	3	0	2	2	8
Everett	0	0	0	0	0	0	0	0	0	0	1	1	1	4
Lexington	2	2	26	13	2	4	4	47	20	4	0	0	0	0
Malden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medford	2	2	23	12	2	0	0	0	0	0	1	2	2	4
Somerville	1	2	20	14	2	0	0	0	0	0	2	3	3	9
Total	**14**	**18**	**211**	**129**	**11**	**33**	**41**	**450**	**185**	**41**	**4**	**8**	**8**	**25**
TOTAL	**73**	**98**	**764**	**376**	**55**									

South Shore														
Dorchester	2	3	39	14	2	0	0	0	0	0	0	2	1	5
Milton	4	4	49	30	4	0	0	0	0	0	7	9	10	30
Quincy	8	13	159	78	10	14	19	208	72	19	8	18	20	66
Total	**14**	**20**	**247**	**122**	**16**	**14**	**19**	**208**	**72**	**19**	**15**	**29**	**31**	**101**
TOTAL	**43**	**68**	**486**	**295**	**60**									

North Shore														
Beverly	0	0	0	0	0	4	4	28	20	4	0	0	0	0
Danvers	2	2	26	12	3	0	0	0	0	0	0	0	0	0
Lynn	1	2	23	12	1	1	1	12	4	1	1	1	1	3
Marblehead	2	2	26	12	2	12	15	161	60	15	3	3	4	12
Peabody	0	0	0	0	0	0	0	0	0	0	5	5	5	15
Revere	0	0	0	0	0	5	7	71	32	7	8	9	9	32
Salem	0	0	0	0	0	1	1	12	4	1	2	2	4	6
Swampscott	0	0	0	0	0	1	1	12	4	1	1	2	2	3
Total	**5**	**6**	**75**	**36**	**6**	**24**	**29**	**296**	**124**	**29**	**20**	**22**	**25**	**71**
TOTAL	**54**	**62**	**411**	**236**	**55**									

Merrimack														
Andover	4	4	39	27	4	2	3	27	12	2	4	5	5	15
Concord, NH	0	0	0	0	0	4	6	72	24	6	0	0	0	0
Groveland	0	0	0	0	0	0	0	0	0	0	2	2	2	8
Haverhill	0	0	0	0	0	0	0	0	0	0	5	6	7	23
Laconia, NH	0	0	0	0	0	6	9	69	35	9	0	0	0	0
Lawrence	2	3	39	24	2	6	11	116	48	10	8	12	13	45
Lowell	8	10	91	79	9	0	0	0	0	0	0	0	0	0
Machester, NH	0	0	0	0	0	4	4	48	16	4	0	0	0	0
Methuen	0	0	0	0	0	0	0	0	0	0	4	4	4	18
Salem, NH	0	0	0	0	0	0	0	0	0	0	8	9	9	38
Total	**14**	**17**	**169**	**130**	**15**	**22**	**33**	**332**	**135**	**31**	**31**	**38**	**40**	**147**
TOTAL	**90**	**115**	**629**	**435**	**77**									

Plymouth														
Plymouth	5	6	71	41	5	0	0	0	0	0	0	0	0	0
Total	**5**	**6**	**71**	**41**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**5**	**6**	**71**	**41**	**5**									

Norwood														
Norwood	3	4	50	32	4	0	0	0	0	0	11	13	15	39
Total	**3**	**4**	**50**	**32**	**4**	**0**	**0**	**0**	**0**	**0**	**11**	**13**	**15**	**39**
TOTAL	**25**	**30**	**80**	**110**	**26**									

Charles														
Boston	8	9	115	71	5	12	19	290	80	19	6	9	10	30
Brookline	0	0	0	0	0	1	1	12	4	1	0	0	0	0
Newton	3	4	52	31	3	0	0	0	0	0	0	0	0	0

Waltham	1	1	13	7	1	0	0	0	0	0	0	0	0	0	
Watertown	2	2	15	14	2	11	12	96	36	12	0	0	0	0	
Total	**14**	**16**	**195**	**123**	**11**	**24**	**32**	**398**	**120**	**32**	**6**	**9**	**10**	**30**	
TOTAL	**51**	**64**	**624**	**281**	**51**										
Concord, MA															
Concord, MA	0	0	0	0	0	1	1	11	5	1	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**11**	**5**	**1**	**0**	**0**	**0**	**0**	
TOTAL	**1**	**1**	**11**	**5**	**1**										
Falmouth, MA															
Falmouth, MA	0	0	0	0	0	8	9	99	45	8	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**8**	**9**	**99**	**45**	**8**	**0**	**0**	**0**	**0**	
TOTAL	**8**	**9**	**99**	**45**	**8**										
Warwick, RI															
Warwick, RI	0	0	0	0	0	12	13	106	52	12	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**12**	**13**	**106**	**52**	**12**	**0**	**0**	**0**	**0**	
TOTAL	**12**	**13**	**106**	**52**	**12**										

Urban Rivers (2008)						Incomplete Sample Sets	
YSI	**Sites	Events	Lab	Field	YSI	Lab	Field
5	0	0	0	0	0		
0	0	0	0	0	0	3	15
0	0	0	0	0	0		
0	0	0	0	0	0		
8	2	2	6	2	0		
0	0	0	0	0	0		
2	11	16	48	18	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
1	4	8	24	10	0		8
0	0	0	0	0	0		
2	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
11	5	5	15	6	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
0	1	1	6	2	0		
0	0	0	0	0	0		
3	0	0	0	0	0		
0	6	6	17	7	0		
0	12	14	42	15	0		
2	9	10	24	5	0		
8	0	0	0	0	0		
0	0	0	0	0	0		
11	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
16	0	0	0	0	0		
3	0	0	0	0	0		
8	5	5	15	5	0		
2	0	0	0	0	0		
6	9	12	49	12	0		10
0	0	0	0	0	0		
0	5	17	52	33	0		15
1	0	0	0	0	0		
0	6	6	12	9	0		
0	0	0	0	0	0		
0	5	5	15	6	0		
6	20	22	65	23	0		1
9	31	50	111	61	0		
116	**131**	**179**	**501**	**214**	**0**	**3**	**49**

0	12	14	42	15	0		
3	0	0	0	0	0		
0	5	17	52	33	0		15
6	20	22	65	23	0		1
9	31	50	111	61	0		
18	**68**	**103**	**270**	**132**	**0**		**16**

0	0	0	0	0	0	3	15
0	0	0	0	0	0		
2	11	16	48	18	0		
1	4	8	24	10	0		8
0	0	0	0	0	0		
0	1	1	6	2	0		
0	6	6	17	7	0		
0	0	0	0	0	0		
3	**22**	**31**	**95**	**37**	**0**	**3**	**23**

1	0	0	0	0	0		
8	0	0	0	0	0		
16	0	0	0	0	0		
25	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
3	0	0	0	0	0		
5	0	0	0	0	0		
8	5	5	15	5	0		
2	0	0	0	0	0		
1	0	0	0	0	0		
20	**5**	**5**	**15**	**5**	**0**	**0**	**0**

5	0	0	0	0	0		
0	0	0	0	0	0		
2	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
11	5	5	15	6	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
2	9	10	24	5	0		
6	9	12	49	12	0		10
31	**23**	**27**	**88**	**23**	**0**	**0**	**10**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

11	11	13	15	39	11		
11	**11**	**13**	**15**	**39**	**11**		**0**

8	2	2	6	2	0		
0	0	0	0	0	0		
0	0	0	0	0	0		

0	0	0	0	0	0		
0	5	5	15	6	0		
8	**7**	**7**	**21**	**8**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
4/21/10	Arlington	30Park	12:25	open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
5/5/10	Arlington	30Park	10:10	open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	ArlRes	11:05	concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/26/10	Arlington	ArlRes	11:30	concrete	3'	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/5/10	Arlington	Brattle	9:10	open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	Drake01	10:55	open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/26/10	Arlington	Drake01	11:25	open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
4/21/10	Arlington	GroveS	9:45	concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
5/5/10	Arlington	GroveS	8:10	concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
4/21/10	Arlington	RyderE	11:20	concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
5/5/10	Arlington	RyderE	9:32	concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
4/21/10	Arlington	RyMill	11:05	concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
5/5/10	Arlington	RyMill	9:25	concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Lexington	Vine01	11:55	open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
6/2/10	Boston	29J212	10:22	concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
7/14/10	Boston	29J212	7:17	concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/28/10	Boston	29J212	7:15	concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
6/2/10	Boston	Bos017	10:20	concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
7/14/10	Boston	Bos017	7:17	concrete	72"	na	musty	none	lightly cloud	some	129970	2489	NA	2.5	NA	NA
7/28/10	Boston	Bos017	7:16	concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/14/10	Boston	UR029	7:17	concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/21/08	Chelsea	IsEnd02	11:25	CM, semi-round	7'						3080	NA	0.19	NA	NA	ND
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'		strong petroleum		tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/21/08	Chelsea	IsEnd04	11:30									>241960	NA	0.14	NA	NA	13.0
8/21/08	Chelsea	IsEnd04	10:35									2595	NA	ND	NA	NA	2.68
7/21/08	Chelsea	IsEnd04d	11:30									>241960	NA	0.15	NA	NA	13.5
7/21/08	Chelsea	Mill2	9:55	concrete	~30 inches							9678	NA	0.18	NA	NA	1.33
9/4/08	Chelsea	Mill2	11:20	concrete	~30 inches							38	NA	0.24	NA	NA	4.12
5/26/09	Chelsea	Mill2	10:06	concrete	~30 inches	5-10gal/min	strong odor	clear	none	some suds		44	20	0.19	1.5	NA	4.31
7/28/09	Chelsea	Mill2	8:05	concrete	~30 inches	15	sharp sewa	clear	none	None		310	12	0.23	0.8	0.126	3.84
7/29/09	Chelsea	Mill2	8:30	concrete	~30 inches	10	strong odor	clear	none	none		NA	52	NA	0.70	NA	NA
9/1/10	Chelsea	Mill2	8:55	concrete	~30 inches	15	sharp sewa	clear	none	None		282	41	NA	0.5	NA	NA
5/26/09	Chelsea	Mill2A	11:10	CM	~24 inches	1 gal/min	none	clear	none	None		~4	ND	0.39	1	NA	7.02
7/29/09	Chelsea	Mill2A	8:40			3	dor - chemi	None	none	None		NA	10	NA	0.75	NA	NA
6/2/10	Chelsea	Mill2A	11:20	concrete	24	<5	usty/chemic	none	clear	trash		58	175	NA	0.8	NA	NA
9/1/10	Chelsea	Mill2A	8:30	concrete	24	<5	usty/chemic	none	clear	trash		8	ND	NA	0.6	NA	NA
9/4/08	Chelsea	Mill2d	11:20									54	NA	0.22	NA	NA	4.01
7/21/08	Chelsea	Mill3	10:10									15530	NA	0.09	NA	NA	ND
8/21/08	Chelsea	Mill3	9:55									1844	NA	0.07	NA	NA	0.27
7/7/10	Concord, NH	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri		218	399	NA	1	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	e suds & de		38730	51720	NA	0.25	NA	NA
7/7/10	Concord, NH	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri		263	448	NA	1	NA	NA
8/21/08	Everett	IsEnd03A	10:45									11870	NA	0.11	NA	NA	0.82
9/4/08	Everett	IsEnd03A	9:57									86640	NA	0.11	NA	NA	1.03
9/22/08	Everett	IsEnd03A	11:40									6932	NA	0.14	NA	NA	0.542
7/28/09	Everett	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None		9678	388	0.1	0.8	0.054	0.831
8/21/08	Everett	IsEnd03B	10:50									3266	NA	0.08	NA	NA	1.17
9/4/08	Everett	IsEnd03B	9:58									9678	NA	0.09	NA	NA	0.56
9/22/08	Everett	IsEnd03B	11:42									1164	NA	0.11	NA	NA	0.48
7/29/09	Everett	IsEnd03B	12:40	NS	NS	20	slight musty	orange	very cloudy	None		NA	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	996-F	8:50	concrete	16	~10	none	none	clear	none		353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	996-F	11:11	concrete	16	~20	none	none	clear	some suds		6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none		21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none		16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	UR035	11:11	concrete	16	~20	none	none	clear	some suds		6978	17329	NA	0.2	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le		157	NA	NA	0.10	NA	NA
8/4/10	Lawrence	Shaw01	9:50	open stream	na	stream	none	oil sheen, slight tea		leaves		208	86	NA	~0.1	NA	NA
6/10/09	Lawrence	Shaw1	12:30	open stream	na	stream	musty	tea	yes	None		353	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE3	13:11	concrete	3'		strong musty o	None	Clear	None		616	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'		strong, musty sewa	None	Clear	None		34	NA	NA	0.20	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete	3'	na	slight musty	None	Clear	None		205	445	ND	~0.1	ND	ND
6/10/10	Lawrence	SLE3	7:25	concrete	3'	NA	strong must	white/tan/gra	ightly cloud	ilamentous		1954	2359	NA	1	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete	3'	NA	strong must	none	ightly cloud	ilamentous		899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete	3'	NA	strong must	none	ightly cloud	ilamentous		806	2014	NA	0.5	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact		1230	275	NA	~0.1	NA	NA
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None		29090	2752	0.08	NA	0.19	1.12
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None		44	40	~0.05	ND	0.03	0.266
6/17/09	Lynn	StaceyS	12:11	CM	4'x8'		NS	None	Clear	None		NA	14136	NA	0.70	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra		38730	68670	NA	0.2	NA	NA
7/21/08	Medford	Mhb	12:30									7945	NA	0.06	NA	NA	ND
5/13/09	Medford	MHB	8:07	CM			None	None	Clear	None		455	NA	NA	0.10	NA	NA
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None		534	78	ND	~0.1	ND	0.2
7/21/08	Medford	Mhb2	12:40									9678	NA	NA	NA	NA	NA
5/13/09	Medford	MHB2	8:07	CM	24	5-10	None	Yellowish	Light	None		117	NA	NA	ND	NA	NA
6/30/08	Methuen	Mer1	8:43									1162	1495 Fecal	0.05	NA	NA	ND
8/4/08	Methuen	Mer1	10:45									293	NA	0.07	NA	NA	ND
6/3/09	Methuen	Mer1	8:57	open stream	na	stream	None	tea	very	None		58	NA	NA	0.10	NA	NA

8/4/08	Methuen	SP06	9:05								342	NA	0.08	NA	NA	ND
6/3/09	Methuen	SP06	7:38	open stream	na	stream	None	None	Clear	None	124	NA	NA	0.10	NA	NA
8/4/08	Methuen	SP07	9:55								12	NA	0.05	NA	NA	ND
6/3/09	Methuen	SP07	8:10	open stream	na	stream	None	None	Clear	None	86	NA	NA	ND	NA	NA
8/12/09	Milton	CunPk02	8:12	cement	2, 2'	30	None	None	Clear	None	3466	NA	NA	0.30	NA	NA
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	d sewage sr	None	Mild	Leave, bubt	1954	6131	0.06	0.18	0.041	0.291
8/5/09	Norwood	PB02	11:24		2-3ft	20	y and natur	None	Clear	None	4185	NA	NA	0.15	NA	NA
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
8/12/09	Quincy	FBP02	8:40	open stream	na	stream	None	None	Clear	None	4813	NA	NA	0.20	NA	NA
5/19/10	Quincy	FBP02	8:15	open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
8/12/09	Quincy	FBP03	9:10	cement	2, 3'		None	None	Clear	None	2069	NA	NA	0.10	NA	NA
5/19/10	Quincy	FBP03	8:55	open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/27/09	Quincy	SAG1	9:15	cement	10x10box		None	tea	cloudy	Yes	~6212	NA	NA	1.00	NA	NA
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/12/09	Quincy	SAG1	10:20	cement	10x10box		petroleum od	very brown	y turbid; clo	some suds	NA	2359	NA	2.00	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	stream	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA
8/12/09	Quincy	SAG2	10:22	seep	na	3 gal/min	strong sulfu	None	Clear	None	NA	ND	NA	0.60	NA	NA
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/12/09	Quincy	UR010	11:30	cement	6' x 8' box		None	None	Clear	None	4185	NA	NA	0.10	NA	NA
5/19/10	Quincy	UR024	8:15	open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA
5/27/09	Quincy	WollB1	7:58	CM	4x4 box	50-100	sewage odo	None	Clear	Some suds	NA	~12997	NA	1.00	NA	NA
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/12/09	Quincy	WollB1	11:00	CM	4x4 box		sulfur	None	Clear	None	NA	1720	NA	0.75	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
8/11/09	Quincy	WollB1A	9:45	CM	3'x3' box	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/12/09	Quincy	WollB1A	10:50	CM	3'x3' box		musty/sulfur	gray	cloudy	None	NA	2755	NA	2.00	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
7/29/09	Revere	Green01	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	0.70	NA	NA
6/2/10	Revere	Green01	8:40	open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
9/1/10	Revere	Green01	8:10	open stream	na	stream	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
7/29/09	Revere	WashN01	10:10	concrete	24		none	NS	NS	None	NA	2282	NA	0.75	NA	NA
6/2/10	Revere	WashN01	8:01	concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/30/08	Salem, NH	Mer2	9:06	open stream	na	stream					288	694 Fecal	0.05	NA	NA	ND
8/4/08	Salem, NH	Mer2	12:02	open stream	na	stream					302	NA	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer2	9:22	open stream	na	stream	None	reddish	med	None	48	NA	NA	0.10	NA	NA
6/30/08	Salem, NH	Mer3	9:35	open stream	na	stream					590	590 Fecal	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer3	9:46	open stream	na	stream	None	tea	Clear	None	75	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer5	10:45	open stream	na	stream	None	tea	Clear	None	465	NA	NA	0.15	NA	NA
6/30/08	Salem, NH	Mer5	10:27	open stream	na	stream					883	739 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer6A	10:55								802	847 Fecal	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer6a	11:13				None	tea	Clear	None	293	NA	NA	0.20	NA	NA
6/30/08	Salem, NH	Mer7	11:30	CM	3-4 ft						775	955 Fecal	0.05	NA	NA	ND
6/3/09	Salem, NH	Mer7	11:46	CM	3-4 ft		None	light tea	Clear	None	166	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer7d	11:46	CM	3-4ft		None	light tea	Clear	None	114	NA	NA	NA	NA	NA
6/30/08	Salem, NH	Mer8	11:51	open stream	na	stream					568	649 Fecal	0.05	NA	NA	ND
6/3/09	Salem, NH	Mer8	12:07	open stream	na	low flow	None	None	Clear	None	126	NA	NA	ND	NA	NA
5/13/09	Somerville	MWRA205	10:07	CM	4x4 box	me in, some	None	Murky	Light	None	NA	10462	NA	1.80	NA	NA
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box		slight sewage o	gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
6/23/08	Stoneham	100A	11:00	open stream	na	stream					14400	NA	0.19	NA	NA	ND
9/15/08	Stoneham	100A	9:42	open stream	na	stream					1642	NA	0.07	NA	NA	ND
8/11/10	Stoneham	100A	7:42	open stream	na	stream	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
6/23/08	Stoneham	1West	11:42	stone	2x3						14100	NA	0.29	NA	NA	0.410
7/15/08	Stoneham	1West	7:57	stone	2x3						3266	NA	0.05	NA	NA	ND
8/12/08	Stoneham	1West	7:29	stone	2x3						4813	NA	NA	NA	NA	0.18
9/22/08	Stoneham	1West	10:45	stone	2x3						54750	NA	0.05	NA	NA	ND
5/13/09	Stoneham	1West	11:45	stone	2x3		None	None	Clear	None	913	NA	NA	0.10	NA	NA
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
6/23/08	Stoneham	2dLinden	12:02	open stream	na	stream					13700	NA	0.30	NA	NA	ND
9/22/08	Stoneham	2dLinden	9:56	open stream	na	stream					3266	NA	0.06	NA	NA	0.098
7/15/08	Stoneham	2Lincul	8:20	clay	8"						430	NA	0.06	NA	NA	ND
9/22/08	Stoneham	2Lincul	10:10	clay	8"						9678	NA	0.06	NA	NA	0.078
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
6/23/08	Stoneham	2Linden	12:02	open stream	na	stream					9600	NA	0.32	NA	NA	ND
7/15/08	Stoneham	2Linden	8:15	open stream	na	stream					689	NA	0.05	NA	NA	ND
8/12/08	Stoneham	2Linden	7:18	open stream	na	stream					8800	NA	0.14	NA	NA	0.37
9/22/08	Stoneham	2Linden	9:56	open stream	na	stream					2747	NA	0.07	NA	NA	0.217
5/13/09	Stoneham	2Linden	12:05	open stream	na	stream	None	None	Clear	None	2190	NA	NA	0.20	NA	NA
7/21/09	Stoneham	2Linden	9:35	open stream	na	stream	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
8/11/10	Stoneham	2Linden	8:25	open stream	na	stream	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
5/13/09	Stoneham	Toms	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	242	NA	NA	0.10	NA	NA
7/21/09	Stoneham	Toms	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	Toms	11:30	tal w/asphalt bot	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
8/11/10	Stoneham	Toms	9:50	tal w/asphalt bot	3'	~5 -7	bhault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA

5/13/09	Stoneham	Tomsd	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	186	NA	NA	NA	NA	NA
7/21/09	Stoneham	UR003	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
8/11/10	Stoneham	URO33	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
6/17/09	Swampscot	StaceyN	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	0.50	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
6/17/09	Swampscot	StaceyND	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	NA	NA	NA
9/8/09	Watertown	SawB01	8:45	open stream	na	50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
10/5/10	Watertown	SawB01	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage d	None	clear	None	~4	ND	NA	0.25	NA	NA
10/5/10	Watertown	UR037	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
7/28/08	Winchester	M07	9:26								4813	NA	0.08	NA	NA	ND
8/25/08	Winchester	M07	12:55								806	NA	0.07	NA	NA	0.24
7/22/09	Winchester	Russ1	7:55	Stone (instream)	4'X4'		slightly must	None	Clear	some suds*	1954	NA	NA	0.10	NA	NA
8/4/09	Winchester	Russ1	8:00	Stone (instream)	4'X4'	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
5/13/09	Winchester	Swan1	11:11	metal	12	50	None	None	Clear	None	98	NA	NA	0.08	NA	NA
4/28/10	Winchester	Swan1	10:45	open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
6/23/08	Woburn	1Merrell	10:00	open stream	na	stream					2069	NA	0.10	NA	NA	0.76
9/15/08	Woburn	1Merrell	8:40	open stream	na	stream					6212	NA	0.08	NA	NA	0.776
7/15/09	Woburn	1Merrell	8:55	open stream	na	stream	none	light tea	lightly turbi	None	~494	NA	NA	0.10	NA	NA
7/10/08	Woburn	Mys01	8:15	open stream	na	stream					7945	NA	0.09	NA	NA	2.37
7/15/08	Woburn	Mys01	11:15	open stream	na	stream					164	NA	0.08	NA	NA	3.46
8/12/08	Woburn	Mys01	8:35	open stream	na	stream					3922	NA	NA	NA	NA	NA
5/20/09	Woburn	Mys01	7:36	open stream	na	low flow	None	None	Clear	None	~250	NA	NA	0.10	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	stream	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/10/08	Woburn	Mys07	10:18	open stream	na	stream					27230	NA	0.07	NA	NA	4.29
8/12/08	Woburn	Mys07	8:46	open stream	na	stream					111990	NA	NA	NA	NA	NA
9/22/08	Woburn	Mys07	8:09	open stream	na	stream					3080	NA	0.06	NA	NA	6.22
5/19/09	Woburn	Mys07	10:01	open stream	na	stream	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/12/10	Woburn	Mys07	9:05	open stream	na	stream	hulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
7/10/08	Woburn	Mys08	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.57
8/12/08	Woburn	Mys08	8:47	open stream	na	stream					1954	NA	0.06	NA	NA	16.40
5/19/09	Woburn	Mys08	10:20	open stream	na	stream	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
9/1/09	Woburn	Mys08	9:30	open stream	na	stream	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3
5/12/10	Woburn	Mys08	9:10	open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/19/09	Woburn	Mys08d	10:20	open stream	na	stream	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
7/10/08	Woburn	Mys09	10:45	open stream	na	stream					1549	NA	0.06	NA	NA	4.93
9/1/09	Woburn	Mys09	10:45	open stream	na	stream	None	None	clear	None	205	82	ND	~0.1	ND	16
8/12/08	Woburn	Olym1	10:45	open stream	na	stream					3922	NA	0.12	NA	NA	0.26
9/15/08	Woburn	Olym1	11:31	open stream	na	stream					258	NA	0.08	NA	NA	ND
8/4/09	Woburn	Olym1	9:55	open stream	na	stream	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
9/1/09	Woburn	UR015	9:30	open stream	na	stream	None	light brown	clear	None	422	148	ND	NA	0.021	14
8/12/08	Woburn	US3	7:53	stone	~16inches	na					>241960	NA	0.18	NA	NA	0.14
9/15/08	Woburn	US3	10:38	stone	~16inches	na					7945	NA	0.08	NA	NA	ND
9/22/08	Woburn	US3	7:14	stone	~16inches	na					1140	NA	0.07	NA	NA	0.132
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/12/08	Woburn	US4	8:03	CM	~24 inches	na					198630	NA	0.17	NA	NA	0.12
9/15/08	Woburn	US4	10:41	CM	~24 inches	na					1164	NA	0.09	NA	NA	ND
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
9/15/08	Woburn	US5	10:47	open stream	na	stream					2595	NA	0.07	NA	NA	ND
9/22/08	Woburn	US5	7:24	open stream	na	stream					1102	NA	0.08	NA	NA	0.109
8/4/09	Woburn	US5	9:05	open stream	na	stream	none	light tea	clear	None	542	184	ND	ND	0.032	0.133

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0)	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
1.1	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
~1.1	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	NA	NA
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
~0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.00	NA	NA										NA	NA	NA	ND	NA
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
0.35*	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA
NA	NA	NA	5.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
ND	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
~0	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	132	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA

NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0)	ND (4.0)	NA	NA	ND	ND	NA
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	NA	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.10	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
NA	NA	NA	NA	NA	51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	10.1	1450	Bedford	0	0	Dry
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82mS	Boston-Logan	0	0	Dry
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.394436	71.049780	End of beachum and	(midpoint from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	End of beachum and	(farthest from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	End of beachum and	not quite as black as l	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	Duplicate	Duplicate	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	Sewage odor (Gillool	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	water looks clear. Flo	na	na	na	Boston-Logan	0	0	Dry
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
NA	NA	NA	42.40333987	71.020587	gray plaque on bottom	and below outfall	0.5	15.8	291-246	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	NA	NA	42.40376623	-71.02130017	significant gray bacterial	plaque; some suds;	1.1/0.1	17.5/17.5	517/142	Boston-Logan	0	0	Dry
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	Duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Plaque covering outfa	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Very little flow, greeni	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	orange all over the roc	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	very silty, bacteria and	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	plaque accumulation,	na	na	na	Boston-Logan	0.31	0.31	Wet
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston M	6.5	20.34	11.36	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	very orange, very turb	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4001152	-71.050172	Very cloudy, significa	Upstream of Island En	1	19.5	2014	Boston-Logan	0	0	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen	river sample	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks	0.3	16.6	700	Lawrence	0.1	0.1	Wet
NA	NA	5.05	42.695971	-71.1455601	strong flow, lots and lo	Concrete outfall meta	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the S	0.5	14.2	1780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (W	Pretty clear	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.41921413	-71.11761932	Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	550/180	Boston-Logan	0	0.03	Dry
NA	NA	NA	42.419214	71.117619	Culvert off Meeting H	Strong sewage odor c	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.41921413	-71.11761932	Pipe off Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.743207	71.208453	walked in from small	Dry weather during sa	na	na	na		0.43		Wet
NA	NA	NA	42.743250	71.208438	walked in from small	Right on MA/NH borde	na	na	na		0.12		Wet
NA	NA	2.10	42.74320743	-71.20845291	needed reach	Hampshire Rd on boa	0.2	16.9	365.2	Lawrence	0	0	Dry

NA	NA	NA	42.724919	71.183033	RT 28 castle park	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	0.30	42.72491896	-71.18303334	sample collected just	RT 28 castle park	0.2	16.7	384.6	Lawrence	0	0	Dry
NA	NA	NA	42.727453	71.188366	Outfall downstream e	Possible stream culve	na	na	na		0.12		wet
NA	NA	NA	42.72745251	-71.18836554	hydroelectric stream,	Osgood Street	na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.25100306	-71.0519303	Stream 2ft deep. thick	corner of Fullers Roac	0.3	18.1	635	Boston-Logan	0.05	0.06	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
NA	NA	NA	42.20459437	-71.19851397	Plantingfield Brook, a	corner of Ash Rd and	0.3	16.9	663	Norwood	0	0	Dry
0.07	3.8	ND	42.204594	-71.198514	sample collected near culvert		0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	NA	42.25774194	-71.00886049	6 feet across	sampled just upstrean	0.3	18	709	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before bridge		0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.25623392	-71.02049266	2 cement culverts san	off Furnace Brook Par	0.4	17.1	790	Boston-Logan	0.05	0.06	Dry
NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	>50	42.27616359	-71.03722522	oil sheen, jelly fish co	Office park off Heritag	8.1	13.4	na	Boston-Logan	0	0	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3m	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27616359	-71.03722522	sampled on incoming	Office park off Heritag	23.7	20	**37.4	Boston-Logan	0.05	0.06	Dry
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27616359	-71.03722522	groundwater seep, thi	just downstream of SA	2.3	16.4	3645	Boston-Logan	0.05	0.06	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.25069222	-70.99779295	duplicate of Canal1		na	na	na	Boston-Logan	0.05	0.06	Dry
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet
NA	NA	>50	42.27867229	-71.01285912	covered w/metal grate	Between yacht clubs	15	12	na	Boston-Logan	0	0	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6m	Boston-Logan	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55m	Milton-Blue Hi	0	0	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27867229	-71.01285912	sampled inside of out	Wollaston Beach outf	3.2	18	*5.81m	Boston-Logan	0.05	0.06	Dry
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12mS	Milton-Blue Hi	0	0	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27716403	-71.00777498	sampled after tide hac	Wollaston Beach outf	29	19.4	44.56m	Boston-Logan	0.05	0.06	Dry
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled over pedestr	1.7	18.1	3271	Boston-Logan	0	0	Dry
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.399852	-70.99260269	sample taken from ab	NE back corner of Sh	4.3	20.4	7.6	Boston-Logan	0	0	Dry
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.755268	71.207933	Walked in behind autoparts/glass stor on righ		na	na	na		0.43		Wet
NA	NA	NA	42.755035	71.208086	Walked in behind auto	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	1.80	42.75526814	-71.20793271	red rusty color, some	By auto glass place of	0.2	313.5	17.2	Lawrence	0	0	Dry
NA	NA	NA	42.762503	71.222746	Parked at Lancelot Court apartments behind		na	na	na		0.43		Wet
NA	NA	2.15	42.76250258	-71.22274645	slightly more cloudy th	downstream of road, s	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.76743837	-71.22301615	low flow	behind Kohl's parked	0.4	16.2	757	Lawrence	0	0	Dry
NA	NA	NA	42.767438	71.223016	Parked behind Kohl's		na	na	na		0.43		Wet
NA	NA	NA	42.774045	71.224331	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	0.50	42.77404525	-71.22433096	thick algae growth, ve	flow from east under R	0.3	19.6	638	Lawrence	0	0	Dry
NA	NA	NA	42.778121	71.227147	Parked across from n	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	1.80	42.77812136	-71.22714727	flow from under Rockingham park		0.3	15.8	650	Lawrence	0	0	Dry
NA	NA	NA	42.77812136	-71.22714727	duplicate		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	0.20	42.77659345	-71.23104502	sample taken approx	main stream sample	0.3	18.6	665	Lawrence	0	0	Dry
NA	NA	49.30	42.39401523	-71.07608867	Sample taken out out flow		na	na	na	Boston-Logan	0	0	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
0.81	130	46.10	42.41380356	-71.13242519	can hear running water in pipe; YSI measurm		9.1	17.7	15.1	Boston-Logan	0	0	Dry
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Slight musty odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Clear flow, no obvious	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Medium sewage odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Musty odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Unnamed tributary to	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	No distinct odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4826072	-71.1046187	Unnamed tributary to	Sweetwater Brook opp	na	na	na	Boston-Logan	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Duplicate	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Duplicate	Duplicate	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	sampled largest pipe	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	flow about 2-3 gal/min	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slight odor coming fro	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484033	71.103950	Sweetwater Brook @	(0.1" 48hrs prior to sa	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slightly musty odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	2.65	42.48393	-71.1039388	Sweetwater Brook @	Lindenwood (upstream	na	na	na	Boston-Logan	0	0	Dry
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	0.40	42.490277	-71.101799	much less than 2linde	Off Toms Way in Stor	na	na	na	Boston-Logan	0	0	Dry
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.	0.1/0.2	Wet
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.9	18.1	1701	Boston-Logan	0	0.7	Dry

NA	NA	NA	42.490277	-71.101799	duplicate		na	na	na	Boston-Logan	0	0	Dry
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the N	1.1	14.8	1784	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	duplicate		na	na	na	Beverly	0	0	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~10(	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrean	0.3	15.3	806	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Near Super Stop & S	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Murky, some foam on	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.46345477	-71.14925777	very light rain, small w	at end of Sylvester St	0.4	17.4	775	Boston-Logan	0	0.47	Wet
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	NA	NA	42.46084009	-71.13716417	90 degree angle on pipe	downward, very stro	na	na	na	Boston-Logan	0	0	Dry
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	No odor	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	Low TSS, tannish sta	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	0.80	42.4764251	-71.1182001	name on data sheet is	Aberjona mainstem in	0.5	17	935	Bedford	0	0	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	culvert to right not flo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Sampled main stream	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Waded 3 ft upstream	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	12.00	42.50317874	-71.13529801	warmer than yesterda	99 restaurant, Aberjor	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.518563	71.146526	New Boston St where	water very turbid slight	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Film on water, low flo	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Water grayish/green	na	na	na	Bedford	0.15	0.15	wet
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	NA	42.518739	71.146411	Opposite stream from	Very turbid, foul odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Suspended solids	na	na	na	Bedford	0.24	0.51	Wet
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	NA	NA	42.520981	71.147709	Just upstream from M	were stream exits outf	na	na	na	Bedford	0.89	0.89	Wet
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov	Sandy bottom, beave	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov	Sandy bottom, med f	na	na	na	Bedford	0.33	0.33	Wet
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Grey, turbid water	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Med flow tannish colo	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Clear, good flow, no c	na	na	na	Bedford	0.15	0.15	Wet
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Lots of green duck we	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Very little flow, believ	na	na	na	Bedford	0.33	0.33	Wet
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
NA	NA	NA	42.495412	71.134111	Upstream of US3, sam	Clear flow	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, sam	Clear flow	na	na	na	Bedford	0.15	0.15	Wet
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry

	Location				Outfall		Inspection					13
	Date		Site	Time								E.coli
		Sampler			Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	(MPN/100 ml)
1	10/23/07	MassDEP	ShaR02t					very			sewage	1,904
2	11/29/07	MassDEP	ShaR02t					very			sewage	52
3	5/8/08	MassDEP	ShaR02t					strong	gray, with			2,909
4	7/11/08	NEET	ShaR02t									7,400
5	7/17/08	MassDEP	ShaR02t									19,863
6	7/30/08	MassDEP	ShaR02t									7,270
7	8/28/08	NEET	ShaR02t									130
8	6/10/09	OES	SLE3	13:11	CM	36	strong musty o		None	Clear	None	616
9	9/22/09	OES	SLE3	11:30	oncrete outf	3'	na	slight musty	None	Clear	None	205
10	3/23/10	OES	SLE3	14:30			10 to 12 inches deep i		gray	cloudy	/ gease / paper	
11	3/24/10	OEME ECA	SHAW01	9:50								307,600
12	3/26/10	Citizen					Gray water.					
13	5/12/10	AECOM	East Schoo	9:00				sewage	green/grey	cloudy	trees, floating matter (n	
14	5/19/10	AECOM	OSGOOD STREET				very strong sew		gray	cloudy	garbage	1,200
15	5/24/10	AECOM	Outfall (dry)				very slight od		clear	clear	None	40
16	6/4/10	AECOM	SLE	10:55			4000	none	clear	clear	branches	
17	6/10/10	OES	SLE3	7:25	oncrete outf	3'	NA	trong must	hite/tan/gra	lightly cloud	lamentous	1,954
18	6/10/10	OES	SLE3	8:25	oncrete outf	3'	NA	trong must	none	lightly cloud	lamentous	899
19	6/10/10	OES	SLE3	9:00	oncrete outf	3'	NA	trong must	none	lightly cloud	lamentous	806
20	6/11/10	AECOM	SLE	11:42			4000	none		clear	none	
21	6/16/10	AECOM	OUTFALL	13:00			rotten egg odor, very slig		clear	clear	none	39,000
22	6/18/10	AECOM	SLE				4000	none	none	none	none	
23	6/25/10	AECOM	SLE				4000	none	none	none	none	
24	7/22/10	City						sewage	gray	suspended solids		
25	7/23/10	AECOM	OUTFALL	15:00			faint musty/sewag		gray	cloudy	lids and ha	20,000
26	7/28/10	City						none	none	clear	surfaces of rocks and c	
27	8/4/10	OES	SLE3	9:30	concrete	3'	sharp punge		none	clear	nks of bact	1,230
28	8/5/10	City					none in stream, slight musty		none	clear	/grayish growth present	
29	8/12/10	City						none	none	clear	the stream bed at the	
30	8/12/10	AECOM	OUTFALL	12:15								3,800
31	8/18/10	City						none	none	clear	uth of the outfall, which	
32	8/23/10	AECOM	OUTFALL	14:30								2,400
33	8/25/10	AECOM	OUTFALL	15:00			slight sulpher odor			clear		4,500
34	9/1/10	City						none	none	clear	terial, which later disap	
35	9/9/10	City					sewage-like		none	clear	aptured on bar grate.	
36	9/10/10	City							white material returns following a dump of ba			

37	9/15/10	City						slight musty o	none	clear	none	
38	9/23/10	City						none	none	clear	none	
39	9/29/10	City						none	none	clear	none	
40	10/6/10	City						none	none	clear	none	
41	10/14/10	City						none	none	clear	none	
42	10/20/10	City						none	none	clear	none	
43	10/27/10	City						none	dark	cloudy	none	
44	10/29/10	City						none	none	clear	none	
45	11/3/10	City						none		clear	none	
46	11/5/10	AECOM	OUTFALL	14:15								1,600
47	11/10/10	City						none	slightly dark	ightly cloud	none	
48	11/19/10	City						none	none; slight sheen, possibly due to leaf c			
49	11/22/10	AECOM	OUTFALL	13:55				none		clear	none	280
50	12/1/10	City						none		none, no debris or growth		
51	12/8/10	City						none		none, no debris or growth		
52	12/16/10	City						none		clear		
53	12/23/10	City						none		clear		
54	1/6/11	City						cottony, doughy substance observed on the bottom c				
55	1/25/11	City						sewage	suspended solids, cottony material on outfal			
56	2/9/11	City						none		cloudy		
57	2/16/11	City						none		cloudy		
58	2/23/11	City						sewage		cloudy	trash	
59	3/4/11	City						none	gray	cloudy		
60	3/9/11	City						none	gray	cloudy	n/surface coating	
61	3/16/11	City						none	gray	cloudy		
62	3/23/11	City						sewage	gray	cloudy		
63	3/28/11	City						sour milk	gray	cloudy		
64	4/6/11	City						none	gray			
65	4/13/11	City						mild sour mi	clear			
66	4/19/11	City							green/gray			
67	4/21/11	City							green/gray			
68	4/28/11	City						none	gray	cloudy		
69	5/2/11	City						sour milk	gray	cloudy		
70	5/11/11	City						sour milk	gray	cloudy		
71	5/18/12	City						sour milk	gray	cloudy		
72	5/26/11	City						none	clear			

73	5/31/11	City						none	clear			
74	6/8/11	City						none	clear			
75	6/9/11	City						none	clear	t from morning rain		
76	6/14/11	City						none	clear			
77	6/22/11	City						none	clear			
78	6/30/11	City						none	clear			
79	7/6/11	City						none	clear			
80	7/15/11	City						none	clear			
81	7/19/11	MassDEP	ShaR02t									517
82	7/21/11	City						none	clear			
83	7/22/11	AECOM	Shawshee	9:15								17,000
84	7/27/11	City						none	clear			
85	8/4/11	City						none	clear			
86	8/10/11	City						none	clear			
87	8/17/11	City						none	clear			
88	8/22/11	City						none	clear			
89	8/29/11	City						none	clear			
90	9/7/11	City						musty odor	clear			
91	9/14/11	City						none	clear			
92	9/19/11	City						none	clear			
93	9/26/11	City						none	clear			
94	10/11/11	City						none	clear			
95	10/17/11	City						none	clear			
96	11/1/11	City						none	clear			
97	11/9/11	City						none	clear			
98	11/14/11	City						none	clear			
99	11/21/11	City						none	clear			
100	11/28/11	City						none	clear			
101	12/6/11	City						none	clear			
102	12/12/11	City						none	clear			
103	12/20/11	City						none	clear			
104	12/26/11	City						none	clear			
105	1/3/12	City						none	clear			
106	1/10/12	City						none	clear			
107	1/17/12	City						none	clear			
108	1/24/12	City						none	clear			

109	1/30/12	City						none	clear			
110	2/7/12	City						none	clear			
111	2/15/12	City						none	clear			
112	2/22/12	City						none	clear			
113	2/27/12	City						none	clear			
114	3/6/12	ity / AECO	OUTFALL	11:35			sewage odor			cloudy		1,000,000
115	3/12/12	City						cloudy flow has subsided				
116	3/19/12	City					sewage odor			cloudy		
117	3/21/12	AECOM	OUTFALL	15:00								210,000
118	3/26/12	City					sewage odo		gray	cloudy		
119	3/30/12	City						none	clear			
120	4/2/12	City						none	clear			
121	4/10/12	City					slight, intermittent sewage odor			clear		
122	4/16/12	City						none		clear		
123	4/24/12	OES	LAW02	8:10			No odor observed; discharge appeared to be clear. Mod					857
124	4/25/12	AECOM	OF	14:20				none	clear	clear		520
125	4/30/12	City						none	clear			
126	5/7/12	City						none	clear			
127	5/14/12	City						none	clear			
128	5/15/12	OEME	OUTFALL	12:24								186
129	5/21/12	City						mild odor	gray	cloudy	toilet paper residue	
130	5/24/12	City						none	clear			
131	5/29/12	City						none	clear			
132	6/8/12	City						none	clear			
133	6/18/12	City						none	clear			
134	6/25/12	City						none	clear			
135	6/27/12	OES	LAW02	10:15			Strong sewage odor observed. Discharge appeared to b					1,986,280
136	6/28/12	City						none		clear		
137	6/29/2012	City								cloudy		
138	7/2/2012	City						none			sediment deposition	
139	7/9/2012	City						none		clear		
140	7/17/2012	City						none		clear		
141	7/24/2012	City						none		clear		
142	7/31/2012	City						none		clear		
143	8/6/2012	City						none		clear		
144	8/13/2012	City						none		clear		
145	8/20/2012	City						none		clear		
146	8/27/2012	City						none		clear		
147	9/4/2012	City						none		clear		

148	9/11/2012	City						none		clear		
149	9/17/2012	City						none		clear		
150	9/25/2012	City						none		clear		
151	10/4/2012	City						none		clear		
152	10/11/2012	City						none		clear		
153	10/15/2012	City						none		clear		
154	10/24/2012	AECOM	E SCHOO	13:10								310
155	10/30/2012	City						none		clear		
156	11/13/2012	City						odor of ashes and burnt material				
157	11/14/2012	City						none		clear		
158	11/14/2012	JM, NH, E	SHAW03	8:30	concrete outfall		20	Slight musty odor, clear, some green growth c				1,164
159	11/19/2012	City						none		clear		
160	11/27/2012	City						none		clear		
161	12/3/2012	City						none		clear		
	12/11/2012	City						none		clear		
	12/19/2012	City						none		clear		
	12/26/2012	City						none		clear		
	1/2/2013	City						none		clear		
	1/9/2013	City						none		clear		
	1/14/2013	City						none		clear		
	1/24/2013	City						none		clear		
	1/30/2013	City						none		clear		
	2/4/2013	City						none		clear		
	2/13/2013	City						none		clear		
	2/19/2013	City						none		clear		
	2/26/2013	City						none		clear		
	3/4/2013	City						none		clear		
	3/13/2013	City						none		clear		
	3/22/2013	City						none		clear		
	3/25/2013	City						none		clear		
	4/1/2013	City						none		clear		
	4/9/2013	City						none		clear		
	4/17/2013	City						none		clear		
	4/22/2013	City						none		clear		
	4/29/2013	City						none		clear		
	5/6/2013	City						none		clear	aquatic plants or algea	
	5/13/2013	City						none		clear		
	5/20/2013	City						none		clear		
	5/28/2013	City						none		clear		
	6/3/2013	City						none		clear		

6/10/2013	City		none		clear	
6/17/2013	City		none		clear	
6/25/2013	City		none		clear	
7/1/2013	City		none		clear	
7/9/2013	City		none		clear	
7/15/2013	City		none		clear	
7/24/2013	City		none		clear	
7/31/2013	City		none		clear	
8/5/2013	City		none		clear	
8/12/2013	City		none		clear	
8/19/2013	City		none		clear	
8/26/2013	City		none		clear	
9/3/2013	City		none		clear	
9/9/2013	City		none		clear	
9/16/2013	City		none		clear	
9/23/2013	City		none		clear	
9/30/2013	City		none		clear	
10/9/2013	City		none		clear	
10/15/2013	City		none		clear	
10/22/2013	City		none		clear	
10/28/2013	City		none		clear	
11/4/2013	City		none		clear	
11/12/2013	City		none		clear	
11/18/2013	City		none		clear	
11/26/2013	City		none		clear	
12/2/2013	City		none		clear	
12/10/2013	City		none		clear	
1/7/2014	City		none		clear	
1/14/2014	City		none		clear	
1/21/2014	City		none		clear	
1/27/2014	City		none		clear	
2/3/2014	City		none		clear	
2/11/2014	City		none		frozen dirt/debris	
2/20/2014	City		none	brown	silty	
2/24/2014	City		none		clear	
3/5/2014	City		none		clear	
3/10/2014	City		none		clear	brown silty deposits fro
3/17/2014	City		none		clear	brown silty deposits fro
3/24/2014	City		none		clear	
4/1/2014	City		Shawsheen flooding			

4/7/2014	City			none	clear		
4/17/2014	EPA	Law 02	7:50				7,945
4/17/2014	City		11:15	none	clear		
4/17/2014	EPA	Law 02	12:35				4,185
4/22/2014	City			none	clear		
4/29/2014	City			none	clear		
5/7/2014	City			none	hazy	macro algae	
5/12/2014	City			none	clear	macro algae	
5/19/2014	City			none	clear		
5/27/2014	City			none	clear		
6/2/2014	City			none	clear		
6/11/2014	City			none	clear		
6/17/2014	City			none	clear		
6/23/2014	City			none	clear		
6/30/2014	City			none	clear		
7/7/2014	City			none	clear		
7/14/2014	City			none	clear		
7/21/2014	City			none	clear		
7/28/2014	City			none	clear		
8/4/2014	City			none	clear		
8/12/2014	City			none	clear		
8/18/2014	City			none	clear		
8/26/2014	City			none	clear		

14	15	16	17	18	19	20	21	22	23	24	25	26
Entero (MPN/100 ml)	Surfact. (mg/l)				NH3 (mg/l)						P	
	Any	Alpha	Field	DR-850	Any	Alpha	Field	Nessler	DR-850	Test St.	EPA (µg/L)	Atenolol
	ND (0.10)		ND (0.10)		0.31	0.31						
	0.10		0.10		0.6			0.6				
445	0.10		0.1		0.4			0.4			9	ND (2.1)
					3		3					
17,329												
ot sewage)												
	0.12	0.12			0.095	0.095						
	ND (0.05)	ND (0.05)			ND (0.075)	ND (0.075)						
2,359	1		1									ND (4.0)
4,884	0.2		0.2									ND (4.0)
2,014	0.5		0.5									ND (5.0)
	ND (0.05)	ND (0.05)			0.084	0.084						
	3	3			5.17	5.17						
oncrete in flow path												
275	0.1		0.1							ND	52	5.8
t												
mouth of the outfall												
	ND (0.05)	ND (0.05)			0.085	0.085						
transitions to a yellow color further downstream												
	0.06	0.06			0.105		0.105					
	ND (0.05)	ND (0.05)			0.096		0.096					
peared												
agel water												

	0.08	0.08			0.1	0.1						
decay												
	ND (0.05)	ND (0.05)			0.116	0.116						
of the outfall apron												
l surfaces												

	0.25		0.25		ND (0.10)		ND (0.10)					
	0.05	0.05			0.465	0.465						

	0.48	0.48			1.72	1.72						
	0.49	0.49			1.26	1.26						
30	0.2		0.2		ND (0.10)		ND (0.10)					8.8
	ND (0.05)	ND (0.05)			0.146	0.146						
488,400	2.5		2.5		6		6					820

	ND (0.05)	ND (0.05)			0.176	0.176						
120		NA				NA						1.7

›m catch basins and some green growth
›m catch basins

313
231

4.3
8.7

27	28	29	30	31	32	33	34	35	36			
PPCP ng/L									Chlorine			
Acetaminophen	Cotinine	1,7-Dimethyl	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Metoprolol	Any	Alpha Total	Field	Test St.
									ND (0.02)		ND (0.02)	
11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3		0.11		0.11	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3					
28	78	24	400	ND (0.8)	ND (8.0)	130	3.5		0.04		0.04	
24	49	18	310	ND (1.0)	ND (10.0)	130	3		0.04		0.04	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6		0.05		0.05	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		

								ND (0.02)	ND (0.02)		
								ND (0.02)	ND (0.02)		

									ND (0.02)	ND (0.02)		

									ND (0.02)	ND (0.02)		
27	2.2	5	59				3		0.3		0.3	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
15000	260	5300	25000				ND (4.0)	380	ND (0.02)		ND (0.02)	

									ND (0.02)	ND (0.02)		
17	64	20	290		71		2.9	3.5				

200	3.6	26	190				2.1	5.2
95	ND (0.4)	14	150				2.3	2.5

				Coordinates			
Flouride		Potassium (mg/L)					
Alpha	DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information
				42.69553	-71.14606		Conduit at upper end of
			5.05	42.69597	-71.14556	strong flow, lots and lots of gray stringy bacterial gro	Concrete outfall metal grate
	0.14	5.5	2.35	42.69597	-71.14556	stream scoured, lots of bacteria growth washed awa	South Lawrence Elementar
						Todd visit following several days of heavy rain.	South Lawrence Elementary
						White growth on all surfaces in flow path	
			3	42.70688	-71.14766	SLE3a' significant white/tan/gray bacteria growth, al	South Lawrence Elementar
			1.25	42.70688	-71.14766	SLE3b' Nitrate: 2. Nitrite: 0.3. Phos Strip: 4	South Lawrence Elementar
			1.65	42.70688	-71.14766	SLEc' Lawrence DPW stopped (didn't get out of truc	South Lawrence Elementar
						white/orange growth below water surface covers most rock/concrete surfaces. E	
				42.70688	-71.14766	significant white/tan/gray bacteria growth, almost m	South Lawrence Elementar

						SSO due to blocked sewer	0.47" precip 3 days prior
						SSO due to blocked sewer	
				42.69553	-71.14615	Outfall located on East Boxford Street, north of Law	had rained previous mornin
				42.69553	-71.14615	Outfall located on East Boxford Street, north of Lawrence High School.	
						SSO due to sewer collapse	

NA						42.69552111	-71.14611578

Shawsheen flooding

Shawsheen flooding

YSI Meter			Weather		
Salinity	Temp	Conducti	24hrs	48hrs	Wet/Dry?
ppt	C	uS	inches	inches	
			0.09	0.09	dry
			0.1	0.1	wet
			0	0.01	dry
					dry
					dry
					dry
0.5	14.1	1078	0.1	0.1	Wet
0.6	15.1	1158	0.01	0.01	Dry
/, behind the school			1.26	1.29	wet
					dry
			0.03	0.52	wet
			0	0	dry
			0	0.02	dry
0.5	14.6	1045/835	0.04	0.04	Dry
0.5	14.83	984/790	0.04	0.04	Dry
0.5	14.7	957/747	0.04	0.04	Dry
			0.13		wet
Bare patches of rock and soil now			0	0	dry
0.6	15.6	1120	0	0	Dry
		0.09" - 0.47"			wet
			~2"		wet

					wet
					wet

					WET

			0	0	dry
			0	0	dry
			0	0	dry
0.3	13.5	614	Trace	1.67	wet
			0	trace	dry
			0	0.06	dry
0.5	15.8	935	Trace	Trace	dry

			0	0	dry
South		0.5	14.5	950	0.26

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 23 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Wednesday, 10 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at multiple locations between East Boxford Street and Merrimack Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Christina Murphy.

At approximately 12:30 pm EPA collected a sample from the center of the Shawsheen River just prior to entering a culvert beneath Merrimack Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 700 uS/16.6 °C/0.3 ppt, respectively at the "Shaw1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as "Shaw1". EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges.

EPA observed the outfall just east of the intersection of East Boxford Street and Crawford Street at approximately 1235 hours. The EPA Inspector observed a large culvert emerging from beneath East Boxford Street with a moderate flow of surface water coming from the outfall. A strong smell of sewage was noted all along the approximate 200 yard length of the unnamed tributary channel before it empties into the Shawsheen River. EPA personnel noted some of the most significant filamentous bacterial growth they had ever observed in the field throughout the unnamed stream channel (see photos). The thickness and variety of the bacterial growth, and the fact that the growth extended throughout the approximate 200-yard length of the stream channel, was quite unusual.

EPA collected sample "SLE1" at 12:58 in the Shawsheen river approximately 10 yards downstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 577 uS/16.7 °C/0.3 ppt, respectively at the "SLE1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel

processed a surface water sample collected at the location. Field kits indicated low levels of

ammonia (0.4 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE1”.

EPA collected sample “SLE2” at 13:02 in the Shawsheen river approximately 30 yards upstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 679 uS/16.7 °C/0.3 ppt, respectively at the “SLE2” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as “SLE2”.

EPA collected sample “SLE3” at 13:05 in the unnamed tributary approximately 6 feet downstream of outfall from beneath East Boxford Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 1078 uS/14.1 °C/0.5 ppt, respectively at the “SLE3” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.6 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE3”. As stated above, there was a significant sewage smell throughout this location and the bacterial growth along the stream bed was quite significant.

EPA notified MassDEP (Kevin Brander and Jenny Birnbaum) of their observations and referred the situation for potential enforcement, as MassDEP has an existing enforcement relationship with the City.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during wet weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was 0.1 inches on 9 June 2009 (Lawrence Municipal Airport gauge).

Inspection ended at 1315.

Photographs Attached.

Photo 1: 6/10/09 12:30 PM View facing west – Shawsheen River, flowing left to right, prior to entering culvert beneath Merrimack Street.

Photo 2: 6/10/09 View of confluence of unnamed stream and Shawsheen River. Shawsheen flow is right to left. Unnamed stream enters fro lower left. Note bacterial growth along unnamed stream bottom.

Photo 3: 6/10/09 View of sample location “SLE3” just downstream from culvert opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/09. Sample location “SLE3” and close up of bacterial growth. Entire stream bed is covered in thick white/gray bacterial growth.

Photo 5: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout stream.

Photo 6: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout streambed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 5 April 2010

Subj: NPDES Compliance Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Tuesday, 23 March 2010, EPA inspector Todd Borci conducted an unannounced inspection of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at East Boxford Street in Lawrence, MA.

At approximately 2:30 pm EPA observed an unnamed outfall at the eastern terminus of East Boxford Street in Lawrence, MA. EPA had visited the location multiple times during the 2009 calendar year, and had sampled the outfall during several of those visits. During previous observations, the outfall often has a strong odor, the stream bed is stained gray, and the streambed is covered in gray filamentous bacteria, all indicators of an illicit discharge. After several days of heavy rain, EPA was inspecting the condition of the discharge.

EPA observed the Shawsheen River to be flooded, and the entire streambed from the unnamed outfall to the Shawsheen River was under water. The water level was approximately 10 to 12 inches in the pipe, and a distinct gray plume was visible for approximately 50 feet within the outfall opening. Upon closer inspection, gray, turbid water with a grease or oil sheen and a significant amount of small pieces of shredded paper were visible discharging from the outfall.

EPA collected a sample of the discharge for field screening for ammonia using Hach brand test strips. The field screening indicated an ammonia level of approximately 3 mg/l.

EPA notified the City of Lawrence of the apparent Sanitary Sewer Overflow (SSO) at approximately 3 pm. After speaking with a secretary at the City Public Works Department, EPA was instructed to leave a message for Matt Howland (978-382-2453).

The EPA inspector contacted Tim Bridges at EPA's Regional Laboratory in Chelmsford, MA to arrange for the outfall to be sampled. Due to the time of day, EPA scheduled the outfall for sampling the next morning.

Photo 1: 3/23/10 2:30 PM Unnamed outfall at eastern terminus of East Boxford Street. Water level is level of Shawsheen River. Distinct gray discharge with oil/grease/small pieces of paper coming from the outfall.

Photo 2: 3/23/10 Close up view of small pieces of paper being discharged from the unnamed outfall at the eastern terminus of East Boxford Street in Lawrence, MA.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/04/24	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
7:45AM 4/24/2012	August 2003
Exit Time/Date	**Permit Expiration Date**
12:00PM 4/24/2012	August 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data

Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.

John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Todd Borci	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/06/27	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
In-stream sample collected from the canal located upstream of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
Control sample collected from Merrimack River upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
8:25AM 6/27/2012	
Exit Time/Date	**Permit Expiration Date**
12:00PM 6/27/2012	

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data
Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.
John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	7/13/2012
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	7/13/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 15 June 2010

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Thursday, 15 June 2010, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at an outfall located to the east of East Boxford Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Leanna Conway.

At approximately 0700 EPA personnel arrived on site. EPA initiated the inspection based on predicted rainfall of 0.5 inches overnight; however, no heavy precipitation had materialized overnight. Conditions upon arrival were a light drizzle and the ground and all surfaces were wet.

Upon initial examination, a strong sewage odor was noted within 20 to 30 feet of the outfall, and significant white/gray/tan bacterial and/or fungal growth was visible at the mouth of the outfall and along the stream bottom (Photograph Nos. 1 and 2). The unnamed stream travels for a total distance of approximately 500 feet to the northeast and then curving to the west before joining the Shawsheen River, and the entire stream bed over this distance was observed to be covered in the same bacterial/fungal growth observed at the outfall (see photos). The same strong odor was observed along the stream channel as well. Based on previous EPA visits to this outfall, the only real difference from prior events was that it appeared trash had been cleaned from the metal grate at the outfall opening.

At 0735, EPA collected the first set of samples. EPA collected a total of three sample sets at 0735, 0825, and 0900 hours. Each sample set consisted of a bacterial sample, a pharmaceutical sample, and a sample for field kit analyses. Water temperature, conductivity, and salinity were recorded during the collection of each sample set. A duplicate bacterial sample was collected during the 0735 sample set. All field results were recorded in the sample note book. Final data will be attached to this report once it has received quality assurance approval.

The City is required to investigate this outfall under a recent EPA Information Request. EPA will pass along analytical results to the City once received.

EPA departed the site at 1000 hours.

Photo 1: 6/10/10 0735 hrs. View facing Northeast – Flow from culvert toward Shawsheen River. Note thick gray bacterial growth throughout entire stream bed.

Photo 2: 6/10/10 0735 hrs. View of outfall opening. Note thick gray bacterial growth on stream

bed.

Photo 3: 6/10/10 0834 hrs. View of outfall opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/10. 9:03 hrs. Close-up photo of thick bacterial growth coating stream bed. Photo taken just downstream of outfall opening.

Photo 5: 9:10 hrs. Photo taken looking into culvert through metal grate. Note significant bacterial growth along culvert bottom.

Photo 6: 9:11 hrs. Photo taken facing northeast from outfall opening toward Shawsheen River. Note significant bacterial growth throughout streambed.

Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

July 02, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: Enterococcus in Water
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 06/27/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Enterococcus by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

Enterococcus in Water

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100mL	RL MPN/100mL	Qualifier
LAW 01	AB30854	06/27/12 9:40 am	06/27/12 1:39 pm	Enterococcus in Water	**63**	10	
LAW 02	AB30855	06/27/12 10:15 am	06/27/12 1:39 pm	Enterococcus in Water	**488,400**	1000	
LAW 03	AB30851	06/27/12 8:25 am	06/27/12 1:39 pm	Enterococcus in Water	**20**	10	
LAW 03 UP	AB30853	06/27/12 8:50 am	06/27/12 1:39 pm	Enterococcus in Water	ND	10	
LAW 04	AB30852	06/27/12 8:30 am	06/27/12 1:39 pm	Enterococcus in Water	**10**	10	
LAW 05	AB30857	06/27/12 11:55 am	06/27/12 1:39 pm	Enterococcus in Water	**41**	10	
LAW 07	AB30856	06/27/12 11:10 am	06/27/12 1:39 pm	Enterococcus in Water	ND	10	

Number of Samples: 7

Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

July 02, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: E. Coli Defined Substrate
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 06/27/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Total Coliform/E. coli by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
LAW 01	AB30854	06/27/12 9:40 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**91**	4	
LAW 02	AB30855	06/27/12 10:15 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**1,986,280**	1000	
LAW 03	AB30851	06/27/12 8:25 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**115**	4	
LAW 03 UP	AB30853	06/27/12 8:50 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**98**	4	
LAW 04	AB30852	06/27/12 8:30 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**96**	4	
LAW 05	AB30857	06/27/12 11:55 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**86,640**	100	
LAW 07	AB30856	06/27/12 11:10 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**252**	4	

Number of Samples: 7

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
12060044	Lawrence MS4

SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	E. Coli	Enterococcus					REMARKS
Law03	6/27/12	0825		X		1	X	X					
Law04		0830		X		1	X	X					
Law3up		0850		X		1	X	X					
Law01		0940		X		1	X	X					
Law02		1015		X		1	X	X					
~~Law06~~ @07		11:10		X	Law07	1	X	X					
Law05		11:55		X		1	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	6/27/12 13:34				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Brittany [signature]	6/27/12 13:34	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

1- 18981

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: July 13, 2012

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Wednesday, June 27, 2012, 8:25 AM

B. Weather Conditions: Overcast, scattered rain, approximately 65 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: Various locations within the City of Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Samples were collected from seven (7) stormwater outfalls/culverts in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
- Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W).
- Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
- In-stream sample collected from the canal located upstream (to the south) of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
- Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
- Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
- Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

IV. Inspection Observations and Findings

On Wednesday, June 27, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at seven locations which discharge into the Merrimack and Shawsheen Rivers.

The inspection started in Lawrence at approximately 8:25 AM. At the time of the inspection, the weather was overcast with scattered rain and approximately 65 degrees Fahrenheit. A rain event of approximately 1 inch occurred within 48 hours of the inspection. At the time of the inspection, water level of the Merrimack River was artificially lowered downstream of the Great Stone Dam by Enel Green Power to a depth of approximately 9 feet.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory analytical results are anticipated to be available July 2012.

Attachments → Photogrpahs

End of Report

Summary of Lawrence, MA MS4 Inspection, June 27, 2012

Sample ID	LAW01	LAW02	LAW03	LAW03up	LAW04	LAW05	LAW07
Time	09:40	10:15	08:25	08:50	08:30	11:55	11:10
Latitude/Longitude	42.70861770 N/ 71.13402411 W	42.69552796 N/ 71.14615106 W	42.70352069 N/ 71.15579820 W	42.70243609 N/ 71.13576928 W	42.70349669 N/ 71.15589465 W	42.69218977 N/ 71.17582728 W	42.69453064 N/ 71.17665595 W
Description of Location	Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.	Outfall located on East Boxford Street, north of Lawrence High School.	Outfall located along south side of Merrimack River, north of New Balance factory.	In-stream sample collected from the canal located upstream (to the south) of LAW03.	Approximately 10 feet upstream of LAW03.	Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.	Outfall located along north side of Merrimack River, off of Water Street.
Physical Observations	Musty odor observed. Flow approximately 100-200 GPM.	Strong sewage odor observed. Discharge appeared to be cloudy. Grey bacterial growth observed on concrete outfall and spillway. Approximate flow 60-80 GPM.	Outfall submerged, sample collected on left side of concrete structure approximately one foot below water surface where upwelling in river was observed.	Musty odor observed. Flow greater than 100 GPM.	Control sample collected from river to compare results with LAW 03.	Outfall partially submerged. Moderate sewage odor. Debris/scum present above flow from outfall.	No odor observed. Flow from outfall did not appear mix with river until approximately 20 feet from point of sample collection.
Temperature, ºC	20.5	15.8	23.4	23.5	23.6	14.8	20.7
Specific Conductivity, µS	320	935	162	134	164.4	729	521
Salinity, ppt	0.2	0.5	0.1	0.1	0.1	0.4	0.3
Ammonia, mg/l	0.25	>6	0	0	NA	0	0.5
Total Chlorine, mg/l	0	0	0	0.48	NA	0	0.03
Detergent, mg/l	0.1	2.5	0.1	0.05	NA	0.2	0.2

NA: Not analyzed

LAW01: Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School.

LAW02: Grey bacterial growth on concrete spillway at LAW02.

LAW03: Outfall located along south side of Merrimack River, north of New Balance factory.

LAW03up: Canal located upstream (to the south) of LAW03.

LAW04: Control sample collected upstream of sample identified as LAW03 to compare results.

LAW05: Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.

LAW07: Outfall located along north side of Merrimack River, off of Water Street.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: April 24, 2012

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

I. Background Information

A. Date, Time of inspection: Tuesday, April 24, 2012, 7:00 AM

B. Weather Conditions: Mostly sunny, approximately 55 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: Various locations within the City of Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Samples were collected from seven (7) stormwater outfalls/culverts in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
- Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W).
- Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
- Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
- Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
- Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
- Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

IV. Inspection Observations and Findings

On Tuesday, April 24, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at seven locations which discharge into the Merrimack and Shawsheen Rivers.

The inspection started in Lawrence at approximately 7:00 AM. At the time of the inspection, the weather was mostly sunny and approximately 55 degrees Fahrenheit. A rain event of approximately 2.5 inches occurred within 48 hours of the inspection. Low to moderate flows were generally observed. Based on USGS Hydrologic Unit 01100000, located in the City of Lowell, and USGS Hydrologic Unit 01100693, located in the Town of Haverhill, the Merrimack River had an increased gauge depth of approximately 3.5 feet between April 22, 2012 and the time of the inspection.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory analytical results are anticipated to be available May 2012.

Summary of Lawrence, MA MS4 Inspection, April 24, 2012

Sample ID	LAW01	LAW02	LAW03	LAW04	LAW05	LAW06	LAW07
Time	7:45	8:10	8:54	9:00	9:40	10:30	11:08
Latitude/Longitude	42.70861770 N/ 71.13402411 W	42.69552796 N/ 71.14615106 W	42.70352069 N/ 71.15579820 W	42.70349669 N/ 71.15589465 W	42.69218977 N/ 71.17582728 W	42.68850280 N/ 71.17926558 W[1]	42.69453064 N/ 71.17665595 W
Description of Location	Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.	Outfall located on East Boxford Street, north of Lawrence High School.	Outfall located along south side of Merrimack River, north of New Balance factory.	Approximately 10 feet upstream of LAW03.	Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.	Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park.	Outfall located along north side of Merrimack River, off of Water Street.
Physical Observations	Slight sewage odor, possibly treated discharge. Some suds present.	No odor observed; discharge appeared to be clear. Moderate flow.	Outfall submerged, sample collected where upwelling in river was observed.	Control sample collected from river to compare results with LAW 03.	Outfall partially submerged. Moderate sewage odor. Debris/scum present above flow from outfall.	No odor observed; discharge appeared to be clear. Flow approximately 50-100 GPM.	Slight musty odor. Flow appeared to be flowing in then out of outfall. Debris present above sampling location.
Temperature, ºC	12.6	13.5	14.8	14.5	11	11.3	12.9
Specific Conductivity, µS	286	614	185	182	506	390.7	532.2
Salinity, ppt	0.14	0.3	0.09	0.09	0.24	0.19	0.26
Ammonia, mg/l	0.25	0	NA	NA	0	0	0.25
Total Chlorine, mg/l	0.43	0.3	NA	NA	0.17	0.04	0.11
Detergent, mg/l	<0.25	0.2	NA	NA	<0.25	<0.25	0.50

1. GPS coordinates were taken from Shepard Street due to limited satellite coverage.

NA: Not analyzed

LAW01: Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School.

LAW03: Outfall located along south side of Merrimack River, north of New Balance factory.

LAW04: Control sample collected upstream of sample identified as LAW03 to compare results.

LAW05: Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.

LAW06: Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park.

LAW07: Outfall located along north side of Merrimack River, off of Water Street.

End of Report.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: May 27, 2014

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REVIEWED BY: Todd Borci, May 20, 2014

I. Background Information

A. Date, Time of inspection: Tuesday, April 17, 2014, 7:45 AM

B. Weather Conditions: Mostly sunny and cool, approximately 40 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: East Boxford Street, Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Two samples were collected from the stormwater outfall located at the end of East Boxford Street in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Inspection Observations and Findings

On Tuesday, April 17, 2014, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at the outfall located on East Boxford Street, north of Lawrence High School (42.69552796 N, 71.14615106 W).

The inspection started in Lawrence at approximately 7:45 AM. At the time of the inspection, the weather was mostly sunny and cool, approximately 40 degrees Fahrenheit. A rain event of approximately 3/4 inches occurred within 48 hours of the inspection. High flows in the receiving water were observed.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

Two samples, spaced approximately 5 hours apart, were collected from the stormwater outfall located at the end of East Boxford Street. The samples were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included.

Summary of Lawrence, MA MS4 Inspection, April 17, 2014

Sample ID	LAW02	LAW02
Time	7:50	12:35
Physical Observations	High level in Shawsheen River. Low flow from outfall confirmed. Sample collected straight down from concrete headwall. Slight sheen in water surface.	Shawsheen River appears to have risen since AM sample. Sample collected up by grates.
Temperature, ºC	12.2	12.0
Specific Conductivity, µS	980	1109
Salinity, ppt	0.5	0.6
Ammonia, mg/l	0.25	0
Total Chlorine, mg/l	0	0.0
Detergent, mg/l	0.25	0.25
Atenolol, ng/l	4.3	8.7
Acetaminophen, ng/l	200	95
Cotinine, ng/l	3.6	ND
1,7-Dimethylxanthine, ng/l	26	14
Caffeine, ng/l	190	150
Carbamazepine, ng/l	2.1	2.3
Metoprolol, ng/l	5.2	2.5
E.Coli, MPN/100ml	7,945	4,185
Enterococcus, MPN/100ml	313	231

ND: Not detected above laboratory reporting limit.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School, 0750.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School, 1235.

End of Report.

EPA
Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

July 12, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: HPLC/MS/MS Source Tracking Analysis
Analyst: Peter Philbrook Peter Philbrook 12-JULY-2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIA-LCMS_STA.0.

The SOP is based on an EPA Regional Analytical Method developed at the EPA New England Laboratory.

Date Samples Received by the Laboratory: 06/27/2012

Data were reviewed in accordance with the internal verification procedures described in the EPA New England OEME Chemistry QA Plan.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Report may contain multiple sections and each section will be numbered independently.

If you have any questions please call me at 617-918-8340

Sincerely,

Daniel N Boudreau 7/16/12
Daniel N Boudreau
Chemistry Team Leader

DATA QUALIFIERS

RL	Reporting limit
J	Estimated value
E	Estimated value exceeds the calibration range
L	Estimated value is below the calibration range
B	Analyte is associated with the lab blank or trip blank contamination.
R	No recovery was calculated since the analyte concentration is greater than four times the spike level.
ND	Not Detected above Reporting limit
NA	Not Applicable due to high sample dilutions or sample interferences
ME	Matrix Effect - Sample matrix was responsible for either enhanced or suppressed ionization within the electrospray ionization probe

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NARRATIVE

Aqueous samples (500mL) were extracted using a solid phase extraction (SPE) technique, following EPA Method 1694, in which samples were passed through a cartridge containing a solid sorbent material which pre-concentrates the target compounds onto the sorbent. The target compounds (TCs) were then eluted off the sorbent material using methanol. The resulting eluant is concentrated to dryness and re-constituted to a final volume of 1 mL with 20/80 Methanol/Water.

A 5uL aliquot of the sample extract was injected into a Ultra High Performance Liquid Chromatograph (UPLC), and the TCs were separated chromatographically using a C18 UPLC column running a buffered water/methanol gradient. The ionization mode used was electrospray with the polarity operating in the positive mode. The TCs were detected using a Waters Acquity TQD Tandem Quadrupole Mass Spectrometer. The tandem quadrupole is used to perform multiple reaction monitoring (MRM) where the precursor ion of interest is fragmented to product ion(s).

Quantitation was performed by the internal standard calibration method using isotopically labeled analogues. Sulfamethazine *13*C6 and Primidone d5 were used as a surrogate compounds to monitor extraction efficiency.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 03	Lab Sample ID:	AB30851
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.47

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	30	2.00	
103-90-2	Acetaminophen	4.4	2.00	
486-56-6	Cotinine	3.4	0.40	
611-59-6	1,7-Dimethylxanthine	12	4.00	
58-08-2	Caffeine	27	8.00	
298-46-4	Carbamazepine	9.4	0.40	
56392-17-7	Metoprolol	22	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	68	23 - 181
Sulfamethazine 13C6	97	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 04	Lab Sample ID:	AB30852
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.22

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**35**	2.00	
103-90-2	Acetaminophen	**3.7**	2.00	
486-56-6	Cotinine	**3.7**	0.40	
611-59-6	1,7-Dimethylxanthine	**12**	4.00	
58-08-2	Caffeine	**24**	8.00	
298-46-4	Carbamazepine	**4.9**	0.80	
56392-17-7	Metoprolol	**21**	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	66	23 - 181
Sulfamethazine 13C6	99	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 03 UP	Lab Sample ID:	AB30853
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.16

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**30**	2.00	
103-90-2	Acetaminophen	**4.8**	2.00	
486-56-6	Cotinine	**3.5**	0.40	
611-59-6	1,7-Dimethylxanthine	**13**	4.00	
58-08-2	Caffeine	**28**	8.00	
298-46-4	Carbamazepine	**11**	0.80	
56392-17-7	Metoprolol	**24**	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	67	23 - 181
Sulfamethazine 13C6	102	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 01	Lab Sample ID:	AB30854
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.33

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	**6.0**	4.00	
486-56-6	Cotinine	**13**	0.40	
611-59-6	1,7-Dimethylxanthine	**27**	4.00	
58-08-2	Caffeine	**94**	8.00	
298-46-4	Carbamazepine	**0.49**	0.80	L
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	57	23 - 181
Sulfamethazine 13C6	109	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 02	Lab Sample ID:	AB30855
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	100
Volume Extracted:	500 mL	pH:	6.92

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**820**	20.00	
103-90-2	Acetaminophen	**15000**	200.00	
486-56-6	Cotinine	**260**	4.00	
611-59-6	1,7-Dimethylxanthine	**5300**	200.00	
58-08-2	Caffeine	**25000**	400.00	
298-46-4	Carbamazepine	ND	4.00	
56392-17-7	Metoprolol	**380**	20.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	78	23 - 181
Sulfamethazine 13C6	132	15 - 132

Comments: Sample required multiple dilutions to quantitate target compounds. The extract was run at both a 10X and 100X dilution.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 07	Lab Sample ID:	AB30856
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1,2,20
Volume Extracted:	500 mL	pH:	7.49

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**31**	2.00	
103-90-2	Acetaminophen	**2500**	40.00	
486-56-6	Cotinine	**3.3**	0.40	
611-59-6	1,7-Dimethylxanthine	**190**	4.00	
58-08-2	Caffeine	**74**	8.00	
298-46-4	Carbamazepine	**1.8**	0.80	
56392-17-7	Metoprolol	**2.8**	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	58	23 - 181
Sulfamethazine 13C6	73	15 - 132

Comments: Sample was run at 1X, 2X , and 20X dilutions to quantitate target compounds.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 05	Lab Sample ID:	AB30857
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	7.38

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**3.8**	2.00	
103-90-2	Acetaminophen	**40**	2.00	
486-56-6	Cotinine	**1.2**	0.40	
611-59-6	1,7-Dimethylxanthine	**9.5**	2.00	
58-08-2	Caffeine	**23**	4.00	
298-46-4	Carbamazepine	**3.7**	0.40	
56392-17-7	Metoprolol	**2.2**	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	58	23 - 181
Sulfamethazine 13C6	90	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	FIELD BLANK 01	Lab Sample ID:	AB30858
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	6.39

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	ND	2.00	
486-56-6	Cotinine	ND	0.40	
611-59-6	1,7-Dimethylxanthine	ND	2.00	
58-08-2	Caffeine	ND	4.00	
298-46-4	Carbamazepine	ND	0.40	
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	91	23 - 181
Sulfamethazine 13C6	81	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	6.39

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	ND	2.00	
486-56-6	Cotinine	ND	0.40	
611-59-6	1,7-Dimethylxanthine	ND	2.00	
58-08-2	Caffeine	ND	4.00	
298-46-4	Carbamazepine	ND	0.40	
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Sulfamethazine 13C6	65	
Primidone d5	81	

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

LABORATORY FORTIFIED BLANK (LFB) RECOVERY

MS4 Outfalls - Lawrence, MA

COMPOUND	SPIKE ADDED ng/L	LFB CONCENTRATION ng/L	LFB RECOVERY %	QC LIMITS (% REC)
1,7-Dimethylxanthine	120	114	95.0	64 - 135
Acetaminophen	120	98.0	81.7	48 - 122
Atenolol	120	97.5	81.2	52 - 128
Caffeine	240	212	88.3	68 - 126
Carbamazepine	24	20.1	83.8	65 - 121
Cotinine	24	20.4	85.0	60 - 120
Metoprolol	120	102	85.0	60 - 140

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MATRIX SPIKE RECOVERY

Sample ID: AB30850

PARAMETER	SPIKE ADDED ng/L	SAMPLE CONCENTRATION ng/L	MS CONCENTRATION ng/L	MS % REC	QC LIMITS (% REC)
1,7-Dimethylxanthine	120	16	129	94.2	13 - 174
Acetaminophen	120	12	106	78.3	23 - 138
Atenolol	120	ND	102	85.0	49 - 137
Caffeine	240	126	229	42.9	31 - 156
Carbamazepine	24	2.2	22	82.5	47 - 143
Cotinine	24	11	24	54.2	46 - 121
Metoprolol	120	4.4	140	113	60 - 140

LABORATORY DUPLICATE RESULTS

Sample ID: AB30849

PARAMETER	SAMPLE RESULT ng/L	SAMPLE DUPLICATE RESULT ng/L	PRECISION RPD %	QC LIMITS
1,7-Dimethylxanthine	5.7	5.3	7.27	50
Acetaminophen	2.8	2.4	15.4	50
Atenolol	ND	ND	ND	50
Caffeine	16	17	6.06	50
Carbamazepine	2.0	1.9	5.13	50
Cotinine	3.3	3.4	2.98	50
Metoprolol	4.2	2.9	36.6	50

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
120600 44	Lawrence MS4

SAMPLERS: *(Signature)*

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	STA	REMARKS
Law 03	6/27/12	0825		X		1	X	
Law 04	6/27/12	0830		X		1	X	
Law 3up	6/27/12	0850		X		1	X	
Law 01	6/27/12	0940		X		1	X	
Law 02	6/27/12	1015		X		1	X	
Law 06	6/27/12	11:10		X		1	X	
Law 05	6/27/12	11:55		X		1	X	
Field Blank 01	6/27/12	07:00		X		1	X	

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
	6/27/12 12:46				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)* ESAT	Date / Time	Remarks	
			6/27/12 12:46		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

20°C -

1- 18986

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

DRAFT REPORT

May 21, 2012

Tim Bridges - ECA / OEME
US EPA New England Regional Laboratory
11 Technology Dr.
North Chelmsford, MA 01863 - 2431

Project Number: 12050022
Project: Lawrence High School - Lawrence, MA
Analysis: E. Coli Defined Substrate
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 05/15/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Total Coliform/E. coli by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

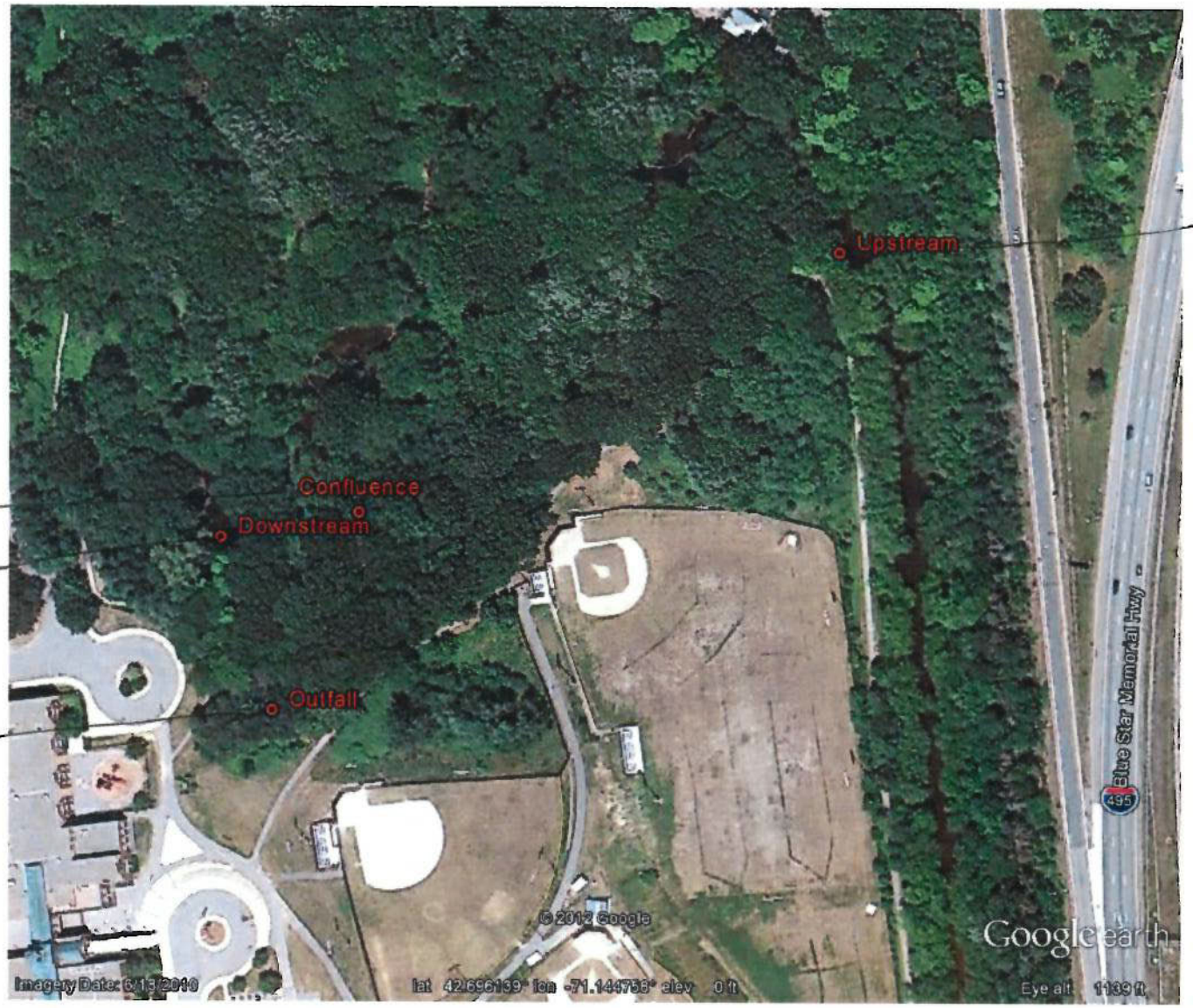
Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

Lawrence High School Sampling Locations May 15, 2012



2190

1844

1642

186

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

Lawrence High School - Lawrence, MA

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
CONFLUENCE	AB29959	05/15/12 12:33 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**1844**	4	
DOWNSTREAM	AB29956	05/15/12 12:27 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**1642**	4	
OUTFALL	AB29957	05/15/12 12:24 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**186**	4	
UPSTREAM	AB29958	05/15/12 12:48 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**2190**	4	

Number of Samples: 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: January 2, 2012

SUBJ: MS4 Compliance Sampling Inspections
Municipalities of Lawrence, North Andover, and Methuen, Massachusetts

FROM: Jack Melcher, Inspector

THRU: Neil Handler, Senior Enforcement Coordinator

TO: File

I. Background Information

A. Date, Time of inspection: Wednesday, November 14, 8:00 AM

B. Weather Conditions: Sunny, approximately 50 degrees F

C. USEPA Representatives: Jack Melcher
Erin Trainor
Neil Handler

D. Site Representative(s): John Isensee
City of Lawrence
Acting Director of Public Works
200 Common Street, Lawrence, MA 01840

Eugene Willis
Town of North Andover
Town Engineer
384 Osgood St, North Andover, MA 01845

Frank Russo
City of Methuen
Chief Engineer
41 Pleasant St, Methuen, MA 01844

Note: Site Representatives were not contacted and were not present during the inspection.

E. Address: Various locations within the municipalities of Lawrence, North Andover, and Methuen (refer to Section III).

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the municipalities of Lawrence, North Andover, and Methuen municipal separate stormwater sewer systems (MS4s) that may adversely impact the water quality. Samples were collected from eight (8) stormwater outfalls/culverts and/or directly from the stream, in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

Refer to attachments for a map of sampling locations.

Lawrence

- Outfall behind the South Lawrence East Elementary School, identified as SHAW03 (42.69552111, -71.14611578).
- Culverted Bloody Brook outfall to the Spickett River, identified as SPI07 (42.71510088, -71.15405144).
- Outfall to the Merrimack River near Doyle Street, identified as MERR08 (42.69445544, -71.17662812).
- Outfall to the Merrimack River near Fordham Road, identified as MERR09 (42.69590063, -71.18520015).
- Outfall to an unnamed tributary of the Merrimack River near the Abe Bashara community boathouse, identified as MERR04 (42.69220019, -71.17585447).

North Andover

- Chochechiwick River near Sutton Street, upstream of the sewer force main, identified as CHOC01 (42.70726365, -71.13327503).
- Chochechiwick River near the Greater Lawrence Sanitary District Riverside Pump Station, downstream of the sewer force main, identified as CHOC02 (42.70829022, -71.13395397).

Methuen

- Bloody Brook entering storm drain behind CVS off of Swan Street (Rte 110) in Methuen, identified as BLOO05 (42.72349286, -71.15844595).

IV. Inspection Observations and Findings

On Wednesday, November 14, 2012, EPA inspectors John Melcher, Neil Handler, and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) within the municipalities of Lawrence, North Andover, and Methuen at eight locations along the Shawsheen River, Chochechiwick River, Bloody Brook, Spickett River, and the Merrimack River.

The inspection started in Lawrence at approximately 8:00 AM. At the time of the inspection, the weather was sunny and approximately 50 degrees Fahrenheit. A rain event occurred in the sampling area on the previous day (November 13, 2012), with approximately 0.26 inches of rainfall[1].

The municipalities of Lawrence, North Andover, and Methuen are covered under the 2003 EPA NPDES General Permit for Storm Water Discharges from Small MS4s ("Permit"). The Permit, Notices of Intent (NOIs), and other information for these municipalities are available on the Permit website at http://www.epa.gov/region1/npdes/stormwater/2003-permit-archives.html. Permit numbers and NOI effective dates for these municipalities are summarized in the following table:

Municipality	**Permit Number**	**NOI Date Effective**
Lawrence	MAR041201	March 7, 2003
Methuen	MAR041210	July 25, 2003
North Andover	MAR041214	July 22, 2003

At all of the locations described in Section III, samples were analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol, Primidone, and Sulfamethazine. In-situ measurements for conductivity, salinity, and temperature were also recorded at the time of sampling. At some of the sampling locations described in Section III, samples field screened using test kits for ammonia, chlorine, and surfactants. Field test kits were not conducted on samples SHAW03, MERR08, MERR09, and MERR04 because of constraints on the holding time of the bacteria samples. Table 1 summarizes the field data and Table 2 summarizes the laboratory data.

End of Report

Attachments:
Map: Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012
Table 1: Summary of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012
Photos

[1] Based on observations at Lawrence Municipal Airport, provided by NCDC.

Map: Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

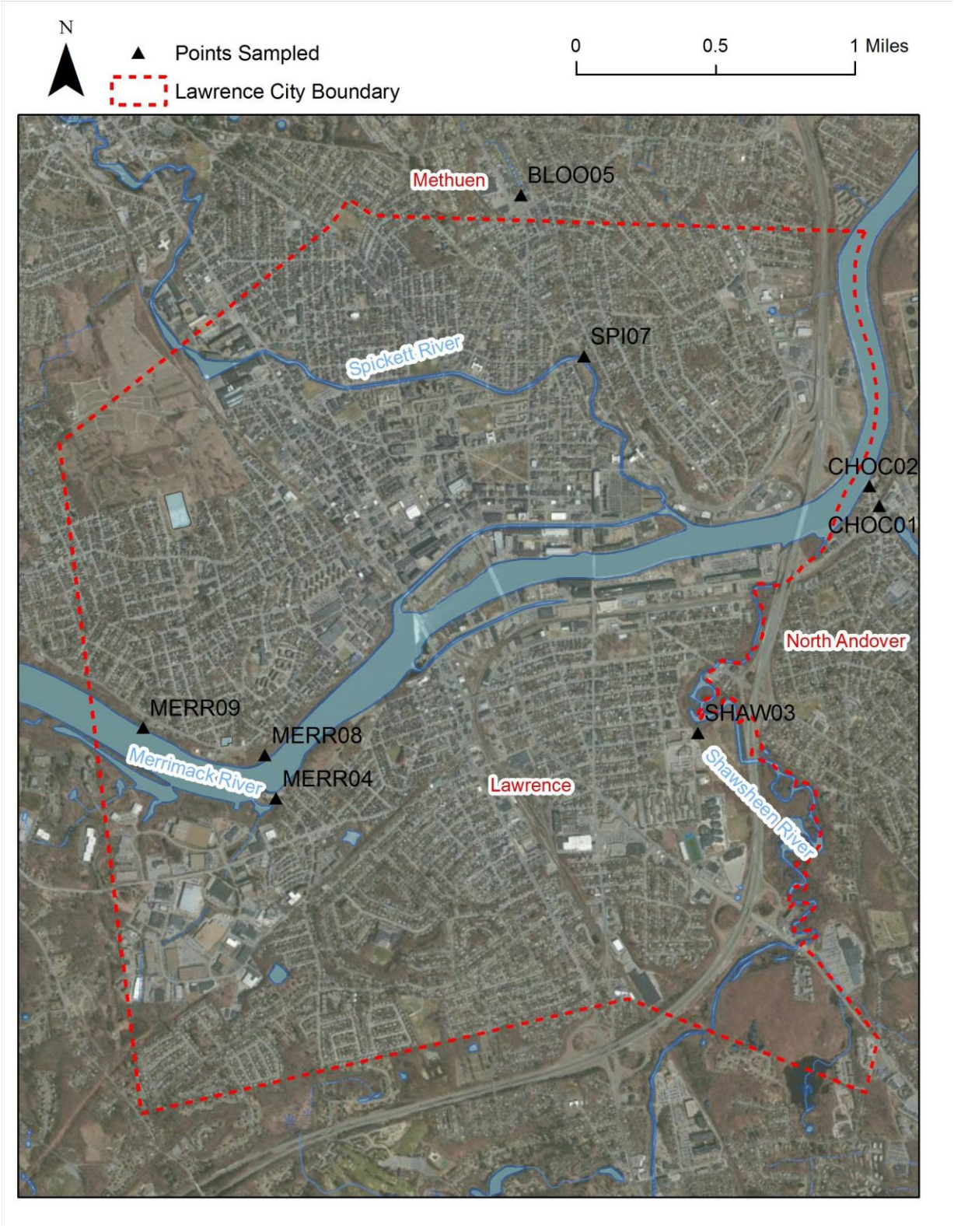


Table 1: Field Data of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

Sample ID	SHAW03	CHOC01	CHOC02	BLOO05	SPI07	MERR08	MERR09	MERR04
Time	8:30	9:10	9:45	10:25	11:00	12:40	13:10	13:40
Description of Location	South Lawrence East Elementary School	Chochechiwick River upstream of sewer main	Chochechiwick River downstream of sewer main	Bloody Brook entering storm drain behind CVS in Methuen	Culverted Bloody Brook outfall to Spickett River	Outfall to Merrimack River near Doyle Street	Outfall to Merrimack River near Fordham St	Outfall to the Merrimack River near boathouse
Coordinates of Location (decimal degrees)	42.69552111, -71.14611578	42.70726365, -71.13327503	42.70829022, -71.13395397	42.72349286, -71.15844595	42.71510088, -71.15405144	42.69445544, -71.17662812	42.69590063, -71.18520015	42.69220019, -71.17585447
Photos	3447	3448	3449	3450	3451, 3452, 3453	3454	3455, 3456	3458
Physical Observations	Slight musty odor, clear, some green growth on rocks	Slight sewer odor, cloudy	Slight odor	Slight odor, cloudy	Black film on rocks in channel	No odor, clear	Very little flow	Partially submerged
Estimated Flow, gpm	20	NA	50	NA	100	5-10	<1	NA
Temperature, ˚C	14.5	7.3	7.3	8.0	9.4	10.5	11.5	14.4
Specific Conductivity, µS/cm	950	535	475	1,050	1,032	288	1,410	690
Salinity, ppt	0.5	0.3	0.2	0.5	0.5	0.1	0.7	0.3
Ammonia, mg/L	NA	ND (0.1)	0.25	ND (0.1)	0.25	NA	NA	NA
Total Chlorine, mg/L	NA	0.03	0.02	0.04	0.03	NA	NA	NA
Surfactants, mg/L	NA	<0.25 (0.2)	<0.25 (0.1)	<0.25 (0.2)	0.25	NA	NA	NA

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute (X.X): estimated value

Table 2: Laboratory Data of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

Sample ID	SHAW03	CHOC01	CHOC02	BLOO05	SPI07	MERR08	MERR09	MERR04
Time	8:30	9:10	9:45	10:25	11:00	12:40	13:10	13:40
Description of Location	South Lawrence East Elementary School	Chochechiwick River upstream of sewer main	Chochechiwick River downstream of sewer main	Bloody Brook entering storm drain behind CVS in Methuen	Culverted Bloody Brook outfall to Spickett River	Outfall to Merrimack River near Doyle Street	Outfall to Merrimack River near Fordham St	Outfall to the Merrimack River near boathouse
Atenolol, ng/l	1.7	ND (4.00)	ND (4.00)	ND (4.0)	11	14	ND (2.0)	140
Acetaminophen, ng/l	17	10	11	4.1	130	690	ND (2.0)	330
Cotinine, ng/l	64	9.4	9.4	8.4	9.8	4.5	0.81	17
1,7-Dimethylxanthine, ng/l	20	6.6	5.2	6.7	35	63	2.2	140
Caffeine, ng/l	290	94	94	57	220	250	6.9	290
Carbamazepine, ng/l	2.9	ND (0.80)	ND (0.80)	ND (0.80)	ND (0.8)	2.6	2.1	14
Metoprolol, ng/l	3.5	ND (4.00)	ND (4.00)	ND (4.00)	1.9	7.1	ND (2.0)	88
Primidone, ng/l	71	66	61	64	63	60	75	68
Sulfamethazine, ng/l	114	82	96	75	87	75	126	106
E.Coli, MPN/100ml	1,164	39	34	2,595	9,678	16	53	92,080
Enterococcus, MPN/100ml	120	31	41	909	583	ND (10)	ND (10)	11,199

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute

Photo Log:

Photo 3447. SHAW04. 11/14/12. Photo by Jack Melcher.
Outfall behind the South Lawrence East Elementary School.

Photo 3448. CHOC01. 11/14/12. Photo by Jack Melcher.
Chochechiwick River upstream of the sewer force main.

Photo 3449. CHOC02. 11/14/12. Photo by Jack Melcher.
Chochechiwick River downstream of the sewer force main.

Photo 3450. BLOO05. 11/14/12. Photo by Jack Melcher.
Bloody Brook entering storm drain behind CVS in Methuen.

Photo 3451. SPI07. 11/14/12. Photo by Jack Melcher.
Culverted Bloody Brook outfall to the Spickett River.

Photo 3452. SPI07. 11/14/12. Photo by Jack Melcher.
Channel to the Spickett River.

Photo 3453. SPI07. 11/14/12. Photo by Jack Melcher.
Black growth on rocks in channel to Spickett River.

Photo 3454. MERR08. 11/14/12. Photo by Jack Melcher.
Outfall to the Merrimack River near Doyle Street.

Photo 3455. MERR09. 11/14/12. Photo by Jack Melcher.
Outfall to the Merrimack River near Fordham Road.

Photo 3456. MERR09. 11/14/12. Photo by Jack Melcher.
Concrete channel to Merrimack River from outfall.

Photo 3458. MERR04. 11/14/12. Photo by Jack Melcher.
Outfall to an unnamed tributary of the Merrimack River near the community boathouse.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 23 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Wednesday, 10 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at multiple locations between East Boxford Street and Merrimack Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Christina Murphy.

At approximately 12:30 pm EPA collected a sample from the center of the Shawsheen River just prior to entering a culvert beneath Merrimack Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 700 uS/16.6 °C/0.3 ppt, respectively at the "Shaw1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as "Shaw1". EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges.

EPA observed the outfall just east of the intersection of East Boxford Street and Crawford Street at approximately 1235 hours. The EPA Inspector observed a large culvert emerging from beneath East Boxford Street with a moderate flow of surface water coming from the outfall. A strong smell of sewage was noted all along the approximate 200 yard length of the unnamed tributary channel before it empties into the Shawsheen River. EPA personnel noted some of the most significant filamentous bacterial growth they had ever observed in the field throughout the unnamed stream channel (see photos). The thickness and variety of the bacterial growth, and the fact that the growth extended throughout the approximate 200-yard length of the stream channel, was quite unusual.

EPA collected sample "SLE1" at 12:58 in the Shawsheen river approximately 10 yards downstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 577 uS/16.7 °C/0.3 ppt, respectively at the "SLE1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel

processed a surface water sample collected at the location. Field kits indicated low levels of

ammonia (0.4 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE1”.

EPA collected sample “SLE2” at 13:02 in the Shawsheen river approximately 30 yards upstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 679 uS/16.7 °C/0.3 ppt, respectively at the “SLE2” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as “SLE2”.

EPA collected sample “SLE3” at 13:05 in the unnamed tributary approximately 6 feet downstream of outfall from beneath East Boxford Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 1078 uS/14.1 °C/0.5 ppt, respectively at the “SLE3” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.6 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE3”. As stated above, there was a significant sewage smell throughout this location and the bacterial growth along the stream bed was quite significant.

EPA notified MassDEP (Kevin Brander and Jenny Birnbaum) of their observations and referred the situation for potential enforcement, as MassDEP has an existing enforcement relationship with the City.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during wet weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was 0.1 inches on 9 June 2009 (Lawrence Municipal Airport gauge).

Inspection ended at 1315.

Photographs Attached.

Photo 1: 6/10/09 12:30 PM View facing west – Shawsheen River, flowing left to right, prior to entering culvert beneath Merrimack Street.

Photo 2: 6/10/09 View of confluence of unnamed stream and Shawsheen River. Shawsheen flow is right to left. Unnamed stream enters fro lower left. Note bacterial growth along unnamed stream bottom.

Photo 3: 6/10/09 View of sample location “SLE3” just downstream from culvert opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/09. Sample location “SLE3” and close up of bacterial growth. Entire stream bed is covered in thick white/gray bacterial growth.

Photo 5: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout stream.

Photo 6: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout streambed.

Inspection Conclusion Data Sheet (ICDS)

FY2010

Inspector: Ted Lavery, Erin Trainor_____

Inspection Date: _October 5, 2011_____

Facility Name/Address: _Town of North Andover, Massachusetts MS4 – Various Locations____

Facility Manager/Title and Address (if different from facility address): _Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845_____

Facility Contact/Title and Address (if different from facility address): _Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845_____

1. Media Type: (Check one)

□ CAA-Stationary	□ CAA-Mobile Source	□ CAA-112r	
□ CAA-NESHAP			
□ CWA-NPDES	□ CWA-Pretreatment POTW	□ CWA-Pretreatment IU	
□ CWA 311	□ CWA 404	Ξ CWA-Stormwater	
□ EPCRA 313	□ EPCRA N313		
□ RCRA-C	□ RCRA-I		
□ SDWA-UIC	□ SDWA-PWSS		
□ TSCA-Lead Paint	□ TSCA-PCBs	□ TSCA-Core	□ TSCA-AHERA

2. Did you observe deficiencies (potential violations) during the inspection?

□ Yes Ξ No

3. If you observed deficiencies, did you communicate them to the facility during the inspection?

□ Yes Ξ No

4. Deficiencies observed?

_____ Potential violation of a compliance schedule in an enforceable order.

_____ Potential failure to maintain a record or failure to disclose a document.

_____ Potential failure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.

_____ Potential failure to complete or submit a notification, report, certification, or manifest.

_____ Potential failure to obtain a permit, product approval, or certification.

_____ Potential failure to follow a required sampling or monitoring procedure or laboratory procedure.

_____ Potential failure to follow or develop a required management practice or procedure.

_____ Potential failure to identify and manage a regulated waste or pollutant in any media.

_____ Potential failure to report regulated events such as spills, accidents, etc.

_____ Potential incorrect use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.

_____ Potential failure to follow a permit condition(s).

5 Did you observe or see the facility take any actions during the inspection to address the deficiencies communicated to the facility?

□ Yes □ No Ξ N/A only if #3 was NO.

If YES, check only the action(s) actually observed/seen or write in a short description of the action in the "optional" section. (Check all that apply)

Action(s) taken

_____ Complete(d) a Notification or Report

_____ Correct(ed) Monitoring Deficiencies

_____ Correct(ed) Record Keeping Deficiencies

_____ Implemented New or Improved Management Practices or Procedures

_____ Improved Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)

_____ Reduced Pollution (e.g., Use Reduction, Industrial Process Change, Emissions or Discharge Change, etc.)

_____ Request(ed) a Permit Application or Applied for a Permit

_____ Verified Compliance with Previously Issued Enforcement Action - Part or All Conditions

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water: □ Ammonia □ BOD □COD □TSS □O/G □Total Coliform □D.O.
□ Metals □Cyanide □ Other_____

Air: □ NOx □ SO2 □ PM □ VOC □ Metals □ HAPs □ CO
□ Other_____

6. Did you provide general compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

7. Did you provide site-specific compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

Optional Additional Information: EPA inspectors may wish to provide a narrative description of actions taken by the facility or assistance to help the facility come into compliance. (Narratives may be used in national or regional reports to provide examples of EPA inspection outcomes).

The water quality standard for E.Coli (235 MPN/100mL) was exceeded at the Rte. 114 North Andover sampling location with a result of 1,379 MPN/100mL. The water quality standard for Enterococcus (61 MPN/100mL) was exceeded at the same sampling location (Rte. 114 North Andover) with a result of 794 MPN/100mL.

Inspection Conclusion Data Sheet (ICDS)

FY2010

Inspector: Ted Lavery, Erin Trainor

Inspection Date: October 12, 2011

Facility Name/Address: Town of North Andover, Massachusetts MS4 – Various Locations

Facility Manager/Title and Address (if different from facility address): Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845

Facility Contact/Title and Address (if different from facility address): Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845

1. Media Type: (Check one)

□ CAA-Stationary	□ CAA-Mobile Source	□ CAA-112r	
□ CAA-NESHAP			
□ CWA-NPDES	□ CWA-Pretreatment POTW	□ CWA-Pretreatment IU	
□ CWA 311	□ CWA 404	Ξ CWA-Stormwater	
□ EPCRA 313	□ EPCRA N313		
□ RCRA-C	□ RCRA-I		
□ SDWA-UIC	□ SDWA-PWSS		
□ TSCA-Lead Paint	□ TSCA-PCBs	□ TSCA-Core	□ TSCA-AHERA

2. Did you observe deficiencies (potential violations) during the inspection?

□ Yes Ξ No

3. If you observed deficiencies, did you communicate them to the facility during the inspection?

□ Yes Ξ No

4. Deficiencies observed?

_____ Potential violation of a compliance schedule in an enforceable order.

_____ Potential failure to maintain a record or failure to disclose a document.

_____ Potential failure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.

_____ Potential failure to complete or submit a notification, report, certification, or manifest.

_____ Potential failure to obtain a permit, product approval, or certification.

_____ Potential failure to follow a required sampling or monitoring procedure or laboratory procedure.

_____ Potential failure to follow or develop a required management practice or procedure.

_____ Potential failure to identify and manage a regulated waste or pollutant in any media.

_____ Potential failure to report regulated events such as spills, accidents, etc.

_____ Potential incorrect use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.

_____ Potential failure to follow a permit condition(s).

5 Did you observe or see the facility take any actions during the inspection to address the deficiencies communicated to the facility?

□ Yes □ No Ξ N/A only if #3 was NO.

If YES, check only the action(s) actually observed/seen or write in a short description of the action in the "optional" section. (Check all that apply)

Action(s) taken

_____ Complete(d) a Notification or Report

_____ Correct(ed) Monitoring Deficiencies

_____ Correct(ed) Record Keeping Deficiencies

_____ Implemented New or Improved Management Practices or Procedures

_____ Improved Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)

_____ Reduced Pollution (e.g., Use Reduction, Industrial Process Change, Emissions or Discharge Change, etc.)

_____ Request(ed) a Permit Application or Applied for a Permit

_____ Verified Compliance with Previously Issued Enforcement Action - Part or All Conditions

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water: □ Ammonia □ BOD □COD □TSS □O/G □Total Coliform □D.O.
□ Metals □Cyanide □ Other_____

Air: □ NOx □ SO2 □ PM □ VOC □ Metals □ HAPs □ CO
□ Other_____

6. Did you provide general compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

7. Did you provide site-specific compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

Optional Additional Information: EPA inspectors may wish to provide a narrative description of actions taken by the facility or assistance to help the facility come into compliance. (Narratives may be used in national or regional reports to provide examples of EPA inspection outcomes).

_____

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U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Data Version: VER2

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)
HOURLY PRECIPITATION TABLE
LAWRENCE MUNICIPAL AIRPORT (94723)
LAWRENCE, MA
(04/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

	A.M. HOUR(L.S.T) ENDING AT													P.M. HOUR(L.S.T) ENDING AT												
DT	--1--	--2--	--3--	--4--	--5--	--6--	--7--	--8--	--9--	--10--	--11--	--12--	--DT--	--1--	--2--	--3--	--4--	--5--	--6--	--7--	--8--	--9--	--10--	--11--	--12--	--DT--
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Start of Sample Activities

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Lawrence, MA / MS4 North Andover, MA

E. Coli Defined Substrate

Matrix: Water

Draft Results

Sample Number	Lab ID	Date of Collection	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
DMH 1013	AB47613	04/17/14 9:45 am	04/17/14 1:45 pm	E. Coli Defined Substrate	215	4	
DMH 1013	AB47614	04/17/14 9:50 am	04/17/14 1:45 pm	E. Coli Defined Substrate	212	4	
DMH 1014	AB47619	04/17/14 11:45 am	04/17/14 1:45 pm	E. Coli Defined Substrate	198	4	
DMH 1016	AB47620	04/17/14 12:05 pm	04/17/14 1:45 pm	E. Coli Defined Substrate	25	4	
DMH 1018	AB47618	04/17/14 11:25 am	04/17/14 1:45 pm	E. Coli Defined Substrate	44	4	
DMH 1025	AB47617	04/17/14 10:55 am	04/17/14 1:45 pm	E. Coli Defined Substrate	142	4	
DMH 1026	AB47616	04/17/14 10:30 am	04/17/14 1:45 pm	E. Coli Defined Substrate	166	4	
DMH 1027	AB47615	04/17/14 10:20 am	04/17/14 1:45 pm	E. Coli Defined Substrate	230	4	
Law 02-07:	AB47609	04/17/14 7:50 am	04/17/14 1:45 pm	E. Coli Defined Substrate	7,945	4	
Law 02-12:	AB47621	04/17/14 12:35 pm	04/17/14 1:45 pm	E. Coli Defined Substrate	4,185	4	
Sutton 01	AB47610	04/17/14 8:25 am	04/17/14 1:45 pm	E. Coli Defined Substrate	63	4	
Sutton 02	AB47611	04/17/14 8:55 am	04/17/14 1:45 pm	E. Coli Defined Substrate	54	4	
Sutton 06	AB47612	04/17/14 9:20 am	04/17/14 1:45 pm	E. Coli Defined Substrate	430	4	
Sutton 06 D	AB47622	04/17/14 9:20 am	04/17/14 1:45 pm	E. Coli Defined Substrate	186	4	

Number of Samples: 14

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Lawrence, MA / MS4 North Andover, MA

Enterococcus in Water

Matrix: Water

Draft Results

Sample Number	Lab ID	Date of Collection	Date of Analysis	Compound	Concentration MPN/100mL	RL MPN/100mL	Qualifier
DMH 1013	AB47613	04/17/14 9:45 am	04/17/14 1:45 pm	Enterococcus in Water	**20**	10	
DMH 1013	AB47614	04/17/14 9:50 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
DMH 1014	AB47619	04/17/14 11:45 am	04/17/14 1:45 pm	Enterococcus in Water	**10**	10	
DMH 1016	AB47620	04/17/14 12:05 pm	04/17/14 1:45 pm	Enterococcus in Water	**20**	10	
DMH 1018	AB47618	04/17/14 11:25 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
DMH 1025	AB47617	04/17/14 10:55 am	04/17/14 1:45 pm	Enterococcus in Water	ND	10	
DMH 1026	AB47616	04/17/14 10:30 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
DMH 1027	AB47615	04/17/14 10:20 am	04/17/14 1:45 pm	Enterococcus in Water	**10**	10	
Law 02-07:	AB47609	04/17/14 7:50 am	04/17/14 1:45 pm	Enterococcus in Water	**313**	10	
Law 02-12:	AB47621	04/17/14 12:35 pm	04/17/14 1:45 pm	Enterococcus in Water	**231**	10	
Sutton 01	AB47610	04/17/14 8:25 am	04/17/14 1:45 pm	Enterococcus in Water	**10**	10	
Sutton 02	AB47611	04/17/14 8:55 am	04/17/14 1:45 pm	Enterococcus in Water	**20**	10	
Sutton 06	AB47612	04/17/14 9:20 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
Sutton 06 D	AB47622	04/17/14 9:20 am	04/17/14 1:45 pm	Enterococcus in Water	**41**	10	

Number of Samples: 14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: April 23, 2014

SUBJ: City of North Andover, MA MS4 Inspection
North Andover, Massachusetts

FROM: Todd Borci, Enforcement Officer

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Thursday, April 17, 2014, 0830 Hrs

B. Weather Conditions: Sunny, approximately 45 degrees F

C. USEPA Representatives: Todd Borci
Erin Trainor

D. Site Representative: Eugene Willis, Town Engineer
Town of North Andover
Engineering Department
384 N. Osgood St., North Andover, MA 01845
Phone: (978) 685-0950

E. Address: Various locations within the Town of North Andover, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Town of North Andover (the "Town") Municipal Separate Stormwater Sewer System ("MS4") that may adversely impact the water quality in the Merrimack River or its tributaries, including the Cochichewick River. This inspection is a follow up of a May 2013 inspection by EPA that identified a North Andover outfall (identified as "Sutton 06") discharging stormwater mixed with non-stormwater, as evidenced by the presence of ammonia and selected pharmaceutical compounds. The presence of ammonia and the specific selected pharmaceutical compounds indicated the presence of sanitary sewage in the discharge.

For this Compliance Sampling Inspection ("CSI"), arrangements were made with the Town of North Andover to open storm drainage manhole ("DMH") access points and to provide EPA access for the purpose of collecting stormwater samples. The samples were analyzed in the field

for ammonia, total chlorine, and surfactants, and were analyzed via field meter for temperature, specific conductivity, and salinity. Samples were taken to the EPA New England regional laboratory in Chelmsford, MA to be analyzed for e. coli and enterococci bacteria, as well as selected pharmaceutical compounds. During this CSI eleven samples were collected from two (2) stormwater outfalls, one (1) stream segment of the Cochichewick River, and seven (7) DMH access points (two water sources were sampled from within a single DMH) in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- **Sutton01 -** Stormwater outfall located immediately west of the Greater Lawrence Sanitary District ("GLSD") Riverview Pump Station – this is the outlet of the Cochichewick River to the Merrimack River.
- **Sutton02 -** Cochichewick River sample collected approximately 20 feet upstream of railroad crossing identified as location.
- **Sutton06 -** Approximately 24" stormwater outfall discharging into Sutton Pond located behind 12-14 Main Street, North Andover.
- **DMH1013A** – Inside the first DMH upstream of the Sutton06 outfall, this is the first of two samples collected – this sample location was a large pipe discharging from the southwest inside DMH1013 – this was the higher of the two discharges within the DMH.
- **DMH1013B** – Inside the first DMH upstream of the Sutton06 outfall, this is the second of two samples collected – this sample location was a large pipe discharging from the southeast inside DMH1013 – this was the lower of the two discharges within the DMH.
- **DMH1027** – first upstream DMH from discharge identified as DMH1013A – only one discharge into DMH from southeast.
- **DMH1026** – first upstream DMH from discharge identified as DMH1027 – only one discharge into DMH from southeast
- **DMH1025** – first upstream DMH from discharge identified as DMH1013B – only one discharge into DMH from southeast
- **DMH1018** – DMH approximately 400 feet upstream of DMH 1026, located on northern sidewalk along Waverly Road.
- **DMH1014** – DMH approximately 450 feet upstream of DMH1025, located on Main Street.
- **DMH1016** – DMH approximately 50 feet upstream of DMH1018, located along northerly sidewalk along Waverly Road.

IV. Inspection Observations and Findings

On Thursday, April 17, 2014, EPA inspectors Todd Borci and Erin Trainor conducted an announced Compliance Sampling Inspection (CSI) of the Town of North Andover MS4. EPA was met on site by Town Engineer Gene Willis and Town Public Works Department employees Lou Salamone and Mike Dunn. Eleven sets of water quality samples were collected at two (2) stormwater outfalls, one (1) location along the Cochichewick River, and seven (7) DMH access points (two sample sets were collected from separate water sources within DMH 1013). EPA was following up on previous sampling that indicated low levels of compounds associated with sanitary sewage discharging from outfall location Sutton06.

The inspection started in at the outfall of the Cochichewick River into the Merrimack River at approximately 0830 hrs. At the time of the inspection, the weather was sunny and approximately 45 degrees Fahrenheit. According to precipitation records for Lawrence Airport, approximately 0.0 inches of precipitation had occurred in the 24-hour period prior to the start of the inspection, and 0.76 inches of precipitation had fallen in the 48-hour period prior to the inspection.

The Town of North Andover is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the Town of North Andover Notice of Intent (NOI) has been posted online, and is dated July 22, 2003. The Town of North Andover EPA NPDES permit number is MAR041214.

All sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory results are anticipated to be available by the end of May 2014.

EPA noted relatively strong flow (approximately 5 to 10 gallons per minute) throughout both branches of the drain system. System infrastructure seemed to consist of a mixture of concrete and corrugated metal piping.

One note with respect to the field screening data, EPA was informed that Town roadways were treated with a sand and salt mixture the previous morning due to a light snowfall that occurred in the early morning hours of April 16th, 2014. This is noteworthy as higher salinity levels can cause false positives in the surfactant field kit.

Attachments: Photographs

Rainfall data

Town of North Andover MS4 Map excerpt

End of Report

Summary of North Andover, MA MS4 Inspection, April 17, 2014

Sample ID	Sutton01	Sutton02	Sutton06	DMH1013A	DMH1013B	DMH1027
Time	0826	0855	0920	0945	0950	1020
Description of Location	Outfall grab sample west of Riverview Pump Station	Cochichewick River sample upstream of railroad (RR) bridge	24" outfall located behind 12-14 Main St	DMH 30 feet south of 12-14 Main Street - inlet from west/DMH1027	DMH 30 feet south of 12-14 Main Street – inlet from south/DMH1025	DMH approx 15 west and upstream of DMH1013A
Physical Observations	Strong clear flow, some small suds from outfall.	Clear flow	Clear flow; approx. 10 GPM	Clear flow; approx 10 GPM	Clear flow; 5GPM	Clear flow
Temperature, ºC	9.4	9.3	5.0	8.2	6.6	8.2
Specific Conductivity, uS	445.8	440.5	150.1	234	116	1120
Salinity, ppt	0.2	0.2	0.8	0.1	0.1	0.6
Ammonia, mg/l	0.0	0.0	0.1	0.2	0.1	0.0
Total Chlorine, mg/l	0.00	0.03	0.06	0.0	0.01	0.02
Detergent, mg/l	0.2	0.1	0.25	0.5	0.25	0.25

Sample ID	DMH1026	DMH1025	DMH1018	DMH1014	DMH1016	
Time	1030	1055	1125	1145	1205	
Description of Location	DMH approx 30 feet upstream of DMH1027	DMH upstream of location DMH1013B	DMH approx 400 feet upstream of DMH1026	DMH approx 450 feet upstream of DMH1025	DMH approx 50 feet upstream of DMH1018	
Physical Observations	Clear flow	Clear flow	Clear flow, slight musty odor	Clear flow	Clear flow, slight musty odor	
Temperature, ºC	8.3	8.7	8.3	8.8	8.2	
Specific Conductivity, uS	1075	1219	1129	1821	1121	
Salinity, ppt	0.5	0.6	0.6	0.9	0.6	
Ammonia, mg/l	0.0	0.1	0	0.0	0.0	
Total Chlorine, mg/l	0.0	0.06	0.22	0.02	0.0	
Detergent, mg/l	0.25	0.25	0.25	0.25	0.25	

GPM: Gallon per minute

Photo 1: Cochichewick passes through Riverview pump station and discharges into Merrimack River (immediately behind photographer) via this outfall – "Sutton01" sample collected here.

Photo 2: Facing west, location Sutton02 north of railroad tracks.

Photo 3: Location “Sutto06” outfall to Sutton Pond.

Photo 4: DMH 1013 to the southwest of 12-14 Main Street. Sample location 1013A at higher elevation as seen in top right of photo; sample location 1013B at lower elevation in top left of photo.

Photo 5: Second photo of sample locations DMH1013A (top right) and DMH1013B (top left).

Photo 6: Sample location DMH1027 approximately 15 feet upstream of DMH1013A – flow is from top right to center left.

Photo 7: Sample location DMH1026 – first DMH upstream of DMH1027.

Photo 8: Sample location DMH1025 – first DMH upstream of DMH1013B.

Photo 9: Sample location DMH1018 – DMH approximately 400 feet upstream of DMH1026 – slight musty odor noted – and elevated level of chlorine (0.22 mg/L) detected.

Photo 10: Sample location DMH1014 – DMH approximately 450 feet upstream of DMH1025.

Photo 11: Sample location DMH1016 – approximately 50 feet upstream of DMH1018, located in northern sidewalk of Waverly Road near intersection with Main Street – slight musty odor noted here.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: May 30, 2013

SUBJ: City of North Andover, MA MS4 Inspection
North Andover, Massachusetts

FROM: Todd Borci, Enforcement Officer

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Tuesday, May 7, 2013, 1100 Hrs

B. Weather Conditions: Sunny, approximately 60 degrees F

C. USEPA Representatives: Todd Borci
Jerry Keefe

D. Site Representative: Eugene Willis, Town Engineer
Town of North Andover
Engineering Department
384 N. Osgood St., North Andover, MA 01845
Phone: (978) 685-0950

E. Address: Various locations within the Town of North Andover, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Town of North Andover Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River or its tributaries, including the Cochichewick River. Samples were collected from two (2) stormwater outfalls, and five (5) stream segments of the Cochichewick River in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Stormwater outfall identified as location **Sutton01** located immediately west of the Greater Lawrence Sanitary District ("GLSD") Riverview Pump Station – this is the outlet of the Cochichewick River to the Merrimack River.
- Cochichewick River sample collected approximately 20 feet upstream of railroad crossing identified as location **Sutton02**.
- Cochichewick River sample collected approximately 70 feet upstream of railroad crossing identified as location **Sutton03.**
- Cochichewick River sample collected immediately downstream of Sutton Street identified as location **Sutton04.**
- Cochichewick River sample collected approximately 20 feet upstream of Sutton Street identified as location **Sutton05.**
- Approximately 24" stormwater outfall discharging into Sutton Pond located behind 12-14 Main Street, North Andover identified as location **Sutton06**.
- Sample from Sutton Pond located approximately 30 feet upstream of Sutton06 outfall identified as **Sutton07**.

IV. Inspection Observations and Findings

On Tuesday, May 7, 2013, EPA inspectors Todd Borci and Jerry Keefe conducted an unannounced Compliance Sampling Inspection (CSI) of the Town of North Andover MS4 at two (2) outfalls and five locations along the Cochichewick River. EPA was following up on previous sampling that indicated low levels of compounds associated with sanitary sewage.

The inspection started in at the outfall of the Cochichewick River into the Merrimack River at approximately 1100 hrs. At the time of the inspection, the weather was sunny and approximately 60 degrees Fahrenheit. According to precipitation records for Lawrence Airport, no precipitation had occurred for over 10 days antecedent to the day of the inspection.

The Town of North Andover is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the Town of North Andover Notice of Intent (NOI) has been posted online, and is dated July 22, 2003. The Town of North Andover EPA NPDES permit number is MAR041214.

Several sampling locations described in Section III were field screened using test kits for ammonia, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory results are anticipated to be available by the end of May 2013.

Attachments → Photographs

End of Report

Summary of North Andover, MA MS4 Inspection, May 7, 2013

Sample ID	Sutton01	Sutton02	Sutton03	Sutton04	Sutton05	Sutton06	Sutton07
Time	1105	1135	1145	1155	1205	1240	1245
Description of Location	Outfall grab sample west of Riverview Pump Station	Cochichewick River sample upstream of railroad (RR) bridge	Cochichewick River sample approx 70' upstream of RR bridge	Cochichewick River sample just downstream of Sutton St.	Cochichewick River sample just upstream of Sutton St.	24" outfall located behind 12-14 Main St	Sutton Pond sample collected 30' upstream of where Sutton06 discharges
Physical Observations	Strong clear flow, slight chemical odor from outfall.	Clear flow	Clear flow, some algae on rocky stream bottom	Clear flow	Clear flow, some algae on rocky stream bottom	<1GPM flow - slimy algae growth	Clear, still pond, small fish
Temperature, ºC	17.2	18.3	18.6	18.9	19.5	14.2	20.4
Specific Conductivity, uS	624	664	681	695	693	868	704
Salinity, ppt	0.3	0.3	0.3	0.3	0.3	0.4	0.3
Ammonia, mg/l	0	NA	NA	NA	NA	0.0	NA
Total Chlorine, mg/l	NA	NA	NA	NA	NA	NA	NA
Detergent, mg/l	0.25	NA	NA	NA	NA	0.2	NA

NA: Not analyzed
GPM: Gallon per minute

Sample ID	0Pipe
Time	1140
Description of Location	4" iron pipe on east bank of stream. Only NH3 sample collected
Physical Observations	Dripping, significant orange staining in and around pipe.
Temperature, ºC	NA
Specific Conductivity, uS	NA
Salinity, ppt	NA
Ammonia, mg/l	3.0
Total Chlorine, mg/l	NA
Detergent, mg/l	NA

Photo 1: Cochichewick passes through Riverview pump station and discharges into Merrimack River (immediately behind photographer) via this outfall – "Sutton01" sample collected here.

Photo 2: Location Sutton02 north of railroad tracks.

Photo 3: View downstream beneath railroad tracks – stream enters culvert through pump station at center.

Photo 4: Location “0pipe” just east of Sutton02 location – note orange staining.

Photo 5: Location Sutton03-approximately half way between railroad and Sutton Street.

Photo 6: Location Sutton04-immediately downstream of Sutton Street.

Photo 7: Location Sutton05 – approximately 20 feet upstream of Sutton Street.

Photo 8: Location Sutton07-Sutton Pond behind 12-14 Main Street.

Photo 9: Location Sutton06-discharge into Sutton Pond behind 12-14 Main Street.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: May 30, 2013

SUBJ: City of North Andover, MA MS4 Inspection
North Andover, Massachusetts

FROM: Todd Borci, Enforcement Officer

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Monday, May 13, 2013, 1100 Hrs

B. Weather Conditions: Sunny, approximately 60 degrees F

C. USEPA Representatives: Todd Borci
Erin Trainor

D. Site Representative: Eugene Willis, Town Engineer
Town of North Andover
Engineering Department
384 N. Osgood St., North Andover, MA 01845
Phone: (978) 685-0950

E. Address: Various locations within the Town of North Andover, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Town of North Andover Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River or its tributaries, including the Cochichewick River. Samples were collected from two (3) stormwater outfalls, and five (2) stream segments of the Cochichewick River in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Stormwater outfall identified as location **Sutton01** located immediately west of the Greater Lawrence Sanitary District ("GLSD") Riverview Pump Station – this is the outlet of the Cochichewick River to the Merrimack River.
- Cochichewick River sample collected approximately 20 feet upstream of railroad crossing identified as location **Sutton02**.
- Outfall sample from 4" iron pipe discharging into Cochichewick River from the east bank just downstream of Sutton02, identified as **Sutton08**.
- Cochichewick River sample collected immediately downstream of Sutton Street identified as location **Sutton04.**
- Approximately 24" stormwater outfall discharging into Sutton Pond located behind 12-14 Main Street, North Andover identified as location **Sutton06**.

IV. Inspection Observations and Findings

On Monday, May 7, 2013, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the Town of North Andover MS4 at three (3) outfalls and two (2) locations along the Cochichewick River. EPA was following up on previous sampling that indicated low levels of compounds associated with sanitary sewage.

The inspection started in at the outfall of the Cochichewick River into the Merrimack River at approximately 1100 hrs. At the time of the inspection, the weather was sunny and approximately 60 degrees Fahrenheit. According to precipitation records for Lawrence Airport, approximately 0.7 inches of precipitation had occurred in the 24-hour period prior to the start of the inspection and 0.18 inches of precipitation had fallen in the 48-hour period prior to the inspection.

The Town of North Andover is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the Town of North Andover Notice of Intent (NOI) has been posted online, and is dated July 22, 2003. The Town of North Andover EPA NPDES permit number is MAR041214.

Several sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory results are anticipated to be available by the end of May 2013.

Attachments → Photographs

End of Report

Summary of North Andover, MA MS4 Inspection, May 7, 2013

Sample ID	Sutton01	Sutton02	Sutton08	Sutton04	Sutton06
Time	1100	1120	1130	1150	1220
Description of Location	Outfall grab sample west of Riverview Pump Station	Cochichewick River sample upstream of railroad (RR) bridge	4” iron pipe on east bank downstream/east of Sutton02	Cochichewick River sample just downstream of Sutton St.	24” outfall located behind 12-14 Main St
Physical Observations	Strong clear flow, some small suds from outfall.	Clear flow	Cloudy with orange precipitate	Clear flow	<5GPM flow - slimy algae growth
Temperature, ºC	16.4	16.8	NA	17.5	14.4
Specific Conductivity, uS	674	664	NA	657	945
Salinity, ppt	0.3	0.3	NA	0.3	0.5
Ammonia, mg/l	0.1	0.2	4.0	0.0	0.2
Total Chlorine, mg/l	0.03	NA	0.32	NA	0.01
Detergent, mg/l	0.2	NA	0.25	NA	0.2

NA: Not analyzed
GPM: Gallon per minute

Photo 1: Cochichewick passes through Riverview pump station and discharges into Merrimack River (immediately behind photographer) via this outfall – "Sutton01" sample collected here.

Photo 2: Location Sutton02 north of railroad tracks.

Photo 3: Location “Sutto08” just east of Sutton02 location – note orange staining.

Photo 4: Location Sutton06-discharge into Sutton Pond behind 12-14 Main Street.

EPA Region 1
Clean Water Act
Inspection Data Entry Form: 3560EZ

Version 1.02

Inspector:	Todd Borci	Date form completed:	6/19/2015

Section A: Facility Information						
Inspection start date:	4/17/2013	Inspection start time:	0830			
Inspection end date (if more than one day):	Choose date	Inspection finish time:	1230			
NPDES ID:	MAR041214	Federal facility?	No			
Name and Location of Facility Inspected:						
Name:	Town of North Andover, MA					
Address:	384 Osgood Street					
City:	North Andover	State:	MA	ZIP:	01845	
Facility Representative #1:						
Name:	Gene Willis	Title:	Town Engineer			
Address (if off-site):	Enter text					
City:	Enter text	State:	Enter text	ZIP:	Enter text	
Phone #:	978-685-0950	Email:	gwillis@townofnorthandover.com			
Facility Representative #2 (if necessary):						
Name:	Enter text	Title:	Enter text			
Address (if off-site):	Enter text					
City:	Enter text	State:	Enter text	ZIP:	Enter text	
Phone #:	Enter text	Email:	Enter text			

Section B: Compliance Monitoring Information		
Clean Water Act Section (choose from only one of the following):		
	CWA §308[A][B]: NPDES	Stormwater - MS4
	CWA §311: Oil and Hazardous Substances	Choose an item
	CWA §404: Permits for Dredge and Fill Material	Choose an item
Compliance Monitoring Type:		Inspection w/ Sampling
Compliance Monitoring Reason:		Agency Priority
	If Agency Priority, then specify priority(s):	

OECA - CAFO	☐
OECA - CAFO Region Initiative Areas	☐
OECA - CSOs w/ < 50,000 service population	☐
OECA - CSOs w/ >= 50,000 service population	☐
OECA - MS4s Phase I	☐
OECA - MS4s Phase II	☒

OECA - SSOs ≥ 10 MGD and < 100 MGD	☐
Region 1 - Environmental Justice	☐
Region 1 - Green Economy / Green Infrastructure	☐
Region 1 - Industrial Laundries	☐
Region 1 - Lead Poisoning	☐
Region 1 - Municipal Infrastructure	☐
Region 1 - Pollution Prevention & Resource Conservation	☐
Region 1 - Ship / Boat Yards	☐
Region 1 - Wet Weather	☐

Compliance Monitoring Agency Type:	EPA
Was this a Joint Compliance Monitoring Activity?	No
If Joint, which party had the lead?	Choose an item or leave blank if N/A
If State lead, what was the purpose of EPA participation?	Choose an item or leave blank if N/A

Section C: ICDS Information	
Did you observe deficiencies (potential violations) during the inspection?	No
Potential excess emission in violation of regulations:	☐
Potential failure to… … complete or submit a notification, report, certification, or manifest:	☐
… follow a permit condition(s):	☐
… follow a required sample monitoring procedure or laboratory procedure:	☐
… follow or develop a required management practice or procedure:	☐
… identify and manage a regulated waste or pollutant in any media:	☐
… maintain a record or failure to disclose a document:	☐
… maintain/inspect/repair meters, sensors, and recording equipment:	☐
… obtain a permit, product approval, or certification:	☐
… report regulated events such as spills, accidents, etc.:	☐
Potential incorrect use of a material (pesticide, waste, product) or use of an unapproved material:	☐
Potential violation of a compliance schedule in an enforceable order:	☐
If you observed deficiencies, did you communicate the deficiencies to the Facility during the inspection?	Choose an item
If yes, did you observe the Facility take any actions during the inspection to address the deficiencies noted?	Choose an item
If yes, what actions were taken?	Choose an item
If the Facility reduced pollution, what pollutant was reduced?	Enter text
Did you provide *general compliance assistance* in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	Yes
Did you provide *site-specific compliance assistance* in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	Yes

Comments: Announced MS4 compliance sampling inspection of Town of North Andover MS4 – eleven sets of water quality samples collected –report and data on file

Inspection Conclusion Data Sheet (ICDS)

FY2012

Inspector:__John Melcher, Erin Trainor, Neil Handler_____

Inspection Date: __11/14/2012_____

Facility Name/Address: __Town of North Andover (various locations)_____

Facility Manager/Title and Address (if different from above): ___
Eugene Willis
Town of North Andover
Town Engineer
384 Osgood St, North Andover, MA

Facility Contact/Title and Address (if different from above): _____
_____

1. Media Type: (Check one)

☐ CAA-Stationary	☐ CAA-Mobile Source	☐ CAA-112r
☐ CAA-NESHAP		
☐ CWA-NPDES	☐ CWA-Pretreatment POTW	☐ CWA-Pretreatment IU
☐ CWA 311	☐ CWA 404	x CWA-Stormwater
☐ EPCRA 313	☐ EPCRA N313	
☐ RCRA-C	☐ RCRA-UST	
☐ SDWA-UIC	☐ SDWA-PWSS	
☐ TSCA-Lead Paint	☐ TSCA-PCBs	
☐ TSCA-Core	☐ TSCA-AHERA	

2. Did you observe deficiencies (potential violations) during the inspection?

❒ Yes X No

3. If you observed deficiencies, did you communicate them to the facility during the inspection?

❒ Yes ❒ No

4. Deficiencies observed?

_____ Potential violation of a compliance schedule in an enforceable order.

_____ Potential failure to maintain a record or failure to disclose a document.

_____ Potential failure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.

_____ Potential failure to complete or submit a notification, report, certification, or manifest.

_____ Potential failure to obtain a permit, product approval, or certification.

_____ Potential failure to follow a required sampling or monitoring procedure or laboratory procedure.

_____ Potential failure to follow or develop a required management practice or procedure.

_____ Potential failure to identify and manage a regulated waste or pollutant in any media.

_____ Potential failure to report regulated events such as spills, accidents, etc.

_____ Potential incorrect use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.

_____ Potential failure to follow a permit condition(s).

5 Did you observe or see the facility take any actions during the inspection to address the deficiencies communicated to the facility?

❒ Yes ❒ No x N/A only if #3 was NO.

If YES, check only the action(s) actually observed/seen or write in a short description of the action in the "optional" section. (Check all that apply)

Action(s) taken

_____ Complete(d) a Notification or Report

_____ Correct(ed) Monitoring Deficiencies

_____ Correct(ed) Record Keeping Deficiencies

_____ Implemented New or Improved Management Practices or Procedures

_____ Improved Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)

_____ Reduced Pollution (e.g., Use Reduction, Industrial Process Change, Emissions or Discharge Change, etc.)

_____ Request(ed) a Permit Application or Applied for a Permit

_____ Verified Compliance with Previously Issued Enforcement Action - Part or All Conditions

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water: ☐ Ammonia ☐BOD ☐COD ☐TSS ☐O/G ☐Total Coliform ☐D.O. ☐ Metals ☐Cyanide ☐ Other_____

Air: ☐NOx ☐SO2 ☐PM ☐VOC ☐Metals ☐HAPs ☐CO

☐ Other_____

6. Did you provide general compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

❒ Yes x No

7. Did you provide site-specific compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

❒ Yes x No

Optional Additional Information: EPA inspectors may wish to provide a narrative description of actions taken by the facility or assistance to help the facility come into compliance. (Narratives may be used in national or regional reports to provide examples of EPA inspection outcomes).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE – SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

Certified Mail – Return Receipt Requested

AUG - 7 2013

Mr. Andrew Maylor, Town Administrator
120 Main Street
North Andover, MA 01845

Re: **Notice of Violation No. 2013–NOV-04**

The purpose of this Notice of Violation ("NOV") is to inform you that personnel of the United States Environmental Protection Agency ("EPA") have identified violations of the Clean Water Act ("CWA") within the Town of North Andover, Massachusetts (the "Town").

The Town is subject to the Small Municipal Separate Storm Sewer System ("MS4") General Permit Number MAR041214 ("MS4 Permit"). Part I.B.2.(a) and (j) of the MS4 Permit prohibits the discharge of stormwater mixed with non-stormwater and discharges that would cause or contribute to the instream exceedence of water quality standards. Part II.B.3 of the MS4 Permit requires the permittee to develop and implement a plan to detect and eliminate illicit discharges into the storm sewer system. An illicit discharge is any discharge to a MS4 that is not composed entirely of stormwater and is not listed as an allowable non-stormwater discharge.

On May 13, 2013, EPA personnel collected surface water quality samples, in accordance with an EPA-approved Quality Assurance Project Plan, from the Cochichewick River downstream of Sutton Pond, and from an outfall discharging to Sutton Pond located behind 12-14 Main Street, North Andover, Massachusetts. These samples were analyzed and the resulting data (see Attachment 1), demonstrate that the Town is discharging stormwater mixed with non-stormwater containing sanitary sewage through its MS4 into Sutton Pond and the Cochichewick River, and in turn into the Merrimack River. The outfall discharge (identified as "Sutton 06" in Attachment 1) was analyzed for, and found to contain, selected pharmaceutical compounds. The presence of the specific pharmaceutical compounds in these samples provides evidence that the discharge contains sanitary sewage of human origin. The discharges on May 13, 2013 violate the prohibitions on discharging stormwater mixed with non-stormwater. A photograph of the outfall behind 12-14 Main Street taken on May 13, 2013 can be found in Attachment 2, photo 1.

On June 26, 2013, an EPA inspector observed the outfall to be discharging a large volume of highly turbid runoff with a sewage odor (Attachment 2, photo 2). The weather station at Lawrence municipal airport recorded 0.66 inches of rain on June 24, 0.43 inches of rain on June 25, and 0.61 inches of rain on June 26.[1] Based on the rainfall data

[1] National Oceanic and Atmospheric Administration, National Climatic Data Center. Available at: http://cdo.ncdc.noaa.gov/qclcd/QCLCD

and observations made at the outfall, it appears there may be a connection or blockage in the sanitary collection system causing a Sanitary Sewage Overflow ("SSO") in wet weather.

The Town's discharges violate Section 301 of the CWA, 33 U.S.C. § 1311. It is the responsibility of the Town to maintain compliance with its MS4 Permit and the CWA. **Within thirty (30) days of the date of receipt of this NOV**, pursuant to Section 308 of the CWA, 33 U.S.C § 1318, please submit to the contact person listed below a Statement describing the following: (1) the suspected source(s) of the human sanitary sewage at the location listed above; (2) any corrective actions that have been implemented, and, for all violations not yet corrected; (3) a description of the actions that will be taken to correct the violation(s) and a schedule for their implementation.

This NOV may not specify all violations of the CWA or violations of other environmental requirements that may exist in the Town. This NOV does not preclude the EPA or any other agency from commencing any enforcement action regarding any such violations. It is your responsibility to comply with all legal requirements, whether or not the EPA notifies you of any violations or takes enforcement action against you. Nothing in this NOV relieves you of other obligations under applicable federal, state, and local law. Failure to comply with the CWA may result in your liability for administrative, civil, or criminal penalties under Section 309(c), (d), or (g) of the CWA, 33 U.S.C. § 1319(c), (d), or (g), as modified by 40 C.F.R. Part 19. No provision of this NOV and no action or inaction by EPA shall be construed to constitute an assurance by the EPA that actions you take to address the violation(s) specified herein will result in compliance.

Please submit all information and refer any questions regarding this NOV to:

U.S. Environmental Protection Agency, Region 1
5 Post Office Square – Suite 100
Water Technical Unit
Mail Code OES04-4
Boston, MA 02109-3912
Attn: Todd Borci
617-918- 1358

Sincerely,

Sam Silverman, acting for

Susan Studlien, Director
Office of Environmental Stewardship
Environmental Protection Agency, Region 1

cc: Kevin Brander, MassDEP (electronic mail only)
Gene Willis, North Andover Town Engineer
Susan Sawyer, Director, North Andover Health Dept.

Attachment 1 - EPA New England Stormwater Outfall Inspection & Sampling Summary - North Andover, MA 5/13/13

Location						PPCP ng/L							Surfactants	Chlorine	NH3 (mg/l)	Coordinates		YSI Meter		
Date	Town	Site Name	Time	E.coli (MPN/100ml)	Entero (MPN/100ml)	Atenolol	Acetaminophen	Cotinine	1,7-Dimethylxanthine	Caffeine	Metoprolol	Carbamazepine			Test St.	GPS North(+)	GPS West (-)	Salinity ppt	Temp C	Conductivity uS
5/13/13	N Andover, MA	Sutton 01	1100	12	10	2.6	16	20	20	240	1.3	0.97	0.2	0.03	0.1	42.708637 N	71.133988 W	0.3	16.4	674
5/13/13	N Andover, MA	Sutton 02	1120	39	10	1.5	16	18	19	260	1.6	0.88	NA	NA	0.2	42.707267 N	71.133278 W	0.3	16.8	664
5/13/13	N Andover, MA	Sutton 04	1150	25	10	3.2	23	19	20	270	0.85	0.75	NA	NA	0	42.706816 N	71.132794 W	0.3	17.5	657
5/13/13	N Andover, MA	Sutton 06	1220	30	10	120	1400	58	150	1400	62	31	0.2	0.01	0.2	42.706051 N	71.132195 W	0.5	14.4	945

* precipitation was 0.0 inches in 24 hours prior to sampling and 0.18 inches in 48 hours prior to sampling

E. coli - color key: Red *≥10,000 col/100ml, Orange ≥1260 col/100ml, Yellow ≥235 col/100ml, Black < 235 col/100ml*
Note 1: MA Water Quality Standard single sample maximum for E. coli in Class B waters is 235 cfu/100ml
Entero - color key: Red *≥1000 col/100ml, Orange ≥350 Yellow ≥61 col/100ml, Black < 61 col/100ml*
Note 2: MA Water Quality Standard single sample maximum for enterococcus in inland Class B waters is 61 cfu/100 ml
NH3 - color key: Red *≥6 mg/L, Orange ≥0.5 mg/L, Yellow ≥0.0 mg/L*
Surfactants - color key: Red *≥1.0 mg/L, Orange ≥0.5 mg/L, Yellow ≥0.25 mg/L, Black < 0.25 mg/L* *** *may give false positive at salinity greater than 1 ppt*
PPCP color key: Pink = Concentrations greater than background
Cl2 - color key: Red *≥1.0 mg/L, Orange ≥0.3 mg/L, Yellow ≥0.02 mg/L, Black < 0.02 mg/L*

REPORTING LIMITS
E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Field = 0.1 mg/L
Ammonia Field = 0.1 mg/L
Chlorine Field = 0.02 mg/L

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

Attachment 2

EPA Notice of Violation 2013–NOV-04

Photo 1: Outfall behind 12-14 Main Street, North Andover, MA on 5/13/13, identified as Sample Location "Sutton06".

Photo 2: Outfall behind 12-14 Main Street, North Andover, MA discharging turbid water on 6/26/13.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspection Type	Inspector	Fac Type
N	MAR041214	11/10/05	<	R	

Inspection Type Description: Stormwater-MS4-sampling

Remarks:

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)
In-stream sample located on downstream side of Rte 114 - Shawsheen River (42.68443000 N, 71.13913246 W)

Entry Time/Date	Permit Effective Date
11:20AM 10/5/2011	July 2003
Exit Time/Date	**Permit Expiration Date**
12:00AM 10/5/2011	July 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the Town of North Andover was made during this sampling inspection.

Other Facility Data
Receiving Water: Merrimack River

Name, Address of responsible Official/Title/Phone and Fax Number.
Eugene P. Willis
Town Engineer
Phone: (978) 685-0950

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Preven ion	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / (617) 918-8382 / (617) 918-8282	11/22/2011
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspection Type	Inspector	Fac Type
1 N	2	3 MAR041214	11 12 11/10/12	17 18 <	19 R	20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)	Entry Time/Date	Permit Effective Date
In-stream sample located on downstream side of Rte 114 - Shawsheen River (42.68443000 N, 71.13913246 W)	11:45AM 10/12/2011	July 2003
	Exit Time/Date 12:30AM 10/12/2011	Permit Expiration Date July 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Other Facility Data
No contact with the Town of North Andover was made during this sampling inspecti	Receiving Water: Merrimack River

Name, Address of responsible Official/Title/Phone and Fax Number.
Eugene P. Willis
Town Engineer
Phone: (978) 685-0950

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Preven ion	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / (617) 918-8382 / (617) 918-8282	11/22/2011
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/04/24	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
7:45AM 4/24/2012	August 2003
Exit Time/Date	**Permit Expiration Date**
12:00PM 4/24/2012	August 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data

Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.

John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Todd Borci	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/06/27	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
In-stream sample collected from the canal located upstream of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
Control sample collected from Merrimack River upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
8:25AM 6/27/2012	
Exit Time/Date	**Permit Expiration Date**
12:00PM 6/27/2012	

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data
Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.
John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	7/13/2012
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	7/13/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
8/19/09	Lawrence	SPR01	7:55	open stream	na	stream	None	None	Clear	None	96	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR02	8:00	open stream	na	stream	musty	None	Clear	None	96	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR03	8:10	open stream	na	stream	None	None	Clear	some suds*	319	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR04	8:15	x from concrete pipe			None	None	Clear	None	ND	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	light sewag	None	Clear	None	1741	NA	NA	0.25	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	157	NA	NA	0.10	NA	NA
8/19/09	Lawrence	UR012	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	174	NA	NA	NA	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'	strong, musty sewa		None	Clear	None	34	NA	NA	0.20	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.70688	-71.1476552	downstream of waterf	confluence of canal &	0.1	26.5	188	Lawrence	0	0	Dry
NA	NA	NA	42.70703754	-71.14815826	some algae on stream	just down stream of ca	0.1	25.6	192.9	Lawrence	0	0	Dry
NA	NA	NA	42.70747755	-71.14846649	shallow 1' aglae on ro	Upstream (~50') of Sp	0.2	23.2	480	Lawrence	0	0	Dry
NA	NA	NA	42.70725878	-71.14809783	on Merrimack river sid	leaky pipe under Spic	0.1	22.6	230	Lawrence	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	tace hemoglobin off u	pipe off Lawrence Hos	1.2	22.6	2291	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection															
													Surfact. (mg/l)			NH3 (mg/l)				
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha	Field	Nessler	DR-850	Test St.
9/22/09	Lawrence	SLE3	11:30	ncrete out	3'	na	light must	None	Clear	None	205	445	ND	~0.1	ND	ND	ND	0.4	ND	ND
9/22/09	Lawrence	UR018	11:30	ncrete out	3'	na	light must	None	Clear	None	279	249	ND	~0.1	ND	ND	ND	0.4	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	light must	None	Clear	Yes, pape	29870	19863	~0.05	0.25	0.05	7.02	>2	>3	2.26	6
3/24/10		Shaw01																		
6/10/10	Lawrence	SLE3	7:25	ncrete out	3'	NA	rong mus	hite/tan/gr	ghtly clou	amentous	1954	2359	NA	1	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	UR027	7:25	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	1741	1314	NA	0.2	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SLE3	8:25	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	899	4884	NA	0.2	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SLE3	9:00	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	806	2014	NA	0.5	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clea	none	NA	NA	NA	0.5	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	lean sme	none	none	none	30	10	NA	0.2	NA	NA	NA	NA	NA	0.2
8/4/10	Lawrence	SPRLGH	7:40	Open stre	NA	NA	none	none	clear	none	1164	1529	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Jackson	8:25	Open stre	NA	NA	none	light tea	some	sh and deb	606	512	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Willow	9:00	Open stre	NA	NA	none	med tea	none	sh and deb	325	158	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bac	1230	275	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Shaw01	9:50	Open stre	NA	NA	none	l sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA	NA	NA	NA	ND

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH3 - color key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L *** may give false positive at salinity greater than 1 ppt
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPORTING LIMITS

E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Alpha = 0.05 mg/L (Except where otherwise noted)
Surfactants Field = 0.1 mg/L
Surfactant DR-850 = 0.02 mg/L
Ammonia (Alpha) = 0.075 mg/L
Ammonia Field = 0.1 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia DR-850 = 0.08 mg/L
Ammonia Test Strip = 0.1 mg/L
Total Phosphorus = 5 ug/L
CL2 (Total Residual) = 0.02 mg/L
CL2 (Residual Free) = 0.05 mg/L
CL2 Field = 0.02 mg/L
CL2 Test Strip =
Flouride Alpha= 0.20 mg/L
Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Potassium = 2.5 mg/L
Potassium Field = 0.2 mg/L
Nitrogen, Nitrate/Nitrite = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

																			Coordi
P	PPCP ng/L									Cl2 (mg/l)				Flouride		Potassium (mg/L)		
EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha	DR-850	Alpha	Field	GPS North(+)
9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND	0.14	5.5	2.35	42.695971
22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND	0.1	5.8	2.30	42.695971
421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22	0.32	28	34.90	42.70991636
	920	8800	86	1800	12000	34	nd	79000	ND (0.5)									
NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA	NA	NA	3	42.70688
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2.35	42.70688
NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA	NA	NA	1.25	42.70688
NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA	NA	NA	1.65	42.70688
NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA	NA	NA	NA	42.70991636
12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA	NA	NA	NA	42.70991636
21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA	NA	NA	NA	42.70995636
6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA	NA	NA	NA	42.713273
24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA	NA	NA	NA	42.713893
52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA	NA	NA	NA	42.70688
23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA	NA	NA	NA	42.696984

nates			YSI Meter				Weather		
			Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inche	inches	
-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
-71.1476552	SLE3a' significant whi	South Lawrence Elem	0.5	14.6	045/83	Lawrence	0.04	0.04	Dry
-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/1	Lawrence	0.04	0.04	Dry
-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
-71.158219	upstream of Jackson	heavy sedimentation o	0.3	23.1	530	Lawrence	0	0	Dry
-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
-71.143777	Mainstem Shawsheen river sample		na	na	na	Lawrence	0	0	Dry

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
6/23/08	Melrose	Otis	8:50								3266	NA	0.09	NA	NA	0.77
6/23/08	Winchester	62Sun	9:30								533	NA	ND	NA	NA	ND
6/23/08	Woburn	1Merrell	10:00	open stream	na	stream					2069	NA	0.10	NA	NA	0.76
6/23/08	Woburn	1Kraft	10:17								5654	NA	0.27	NA	NA	ND
6/23/08	Woburn	2Merrell	10:23								2190	NA	0.08	NA	NA	0.41
6/23/08	Stoneham	100A	11:00	open stream	na	stream					14400	NA	0.19	NA	NA	ND
6/23/08	Stoneham	1Linden	11:16								6932	NA	0.20	NA	NA	ND
6/23/08	Stoneham	1West	11:42	stone	2x3						14100	NA	0.29	NA	NA	0.410
6/23/08	Stoneham	2dLinden	12:02	open stream	na	stream					13700	NA	0.30	NA	NA	ND
6/23/08	Stoneham	2Linden	12:02	open stream	na	stream					9600	NA	0.32	NA	NA	ND
6/30/08	Methuen	Mer1	8:43								1162	1495 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer2	9:06	open stream	na	stream					288	694 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer3	9:35	open stream	na	stream					590	590 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer4	10:00								580	590 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer4d	10:00								631	811 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer5	10:27	open stream	na	stream					883	739 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer6A	10:55								802	847 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer6	11:05								775	955 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer7	11:30	CM	3-4 ft						775	955 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer8	11:51	open stream	na	stream					568	649 Fecal	0.05	NA	NA	ND
7/10/08	Woburn	Mys01	8:15	open stream	na	stream					7945	NA	0.09	NA	NA	2.37
7/10/08	Woburn	Mys02	8:45								1230	NA	0.08	NA	NA	3.70
7/10/08	Woburn	Mys03	9:11								6932	NA	0.08	NA	NA	ND
7/10/08	Woburn	Mys04	9:20								5199	NA	0.10	NA	NA	0.50
7/10/08	Woburn	Mys05	9:38								239	NA	ND	NA	NA	ND
7/10/08	Woburn	Mys06	9:56								2452	NA	0.08	NA	NA	0.73
7/10/08	Woburn	Mys07	10:18	open stream	na	stream					27230	NA	0.07	NA	NA	4.29
7/10/08	Woburn	Mys08	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.57
7/10/08	Woburn	Mys8d	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.52
7/10/08	Woburn	Mys09	10:45	open stream	na	stream					1549	NA	0.06	NA	NA	4.93
7/10/08	Woburn	Mys10	11:13								2452	NA	0.06	NA	NA	1.25
7/15/08	Stoneham	1West	7:57	stone	2x3						3266	NA	0.05	NA	NA	ND
7/15/08	Stoneham	2Linden	8:15	open stream	na	stream					689	NA	0.05	NA	NA	ND
7/15/08	Stoneham	2Lincul	8:20	clay	8"						430	NA	0.06	NA	NA	ND
7/15/08	Woburn	WashC	8:55								316	NA	0.07	NA	NA	1.32
7/15/08	Woburn	Burb	9:08								599	NA	0.06	NA	NA	ND
7/15/08	Woburn	Aber	9:20								408	NA	0.06	NA	NA	ND
7/15/08	Woburn	Sal	9:40								430	NA	0.09	NA	NA	1.84
7/15/08	Woburn	US1	9:55								125	NA	0.07	NA	NA	ND
7/15/08	Woburn	US2	10:05								740	NA	1.60	NA	NA	ND
7/15/08	Woburn	Olym	10:35								606	NA	0.09	NA	NA	ND
7/15/08	Woburn	Fit	10:55								152	NA	0.09	NA	NA	3.91
7/15/08	Woburn	Fitd	10:55								152	NA	0.08	NA	NA	3.94
7/15/08	Woburn	Mys01	11:15	open stream	na	stream					164	NA	0.08	NA	NA	3.46
7/21/08	Boston	Con	7:55								54750	NA	0.09	NA	NA	ND
7/21/08	Boston	Bos014	8:10								3266	NA	0.08	NA	NA	ND
7/21/08	Revere	Hadd	9:00								612	NA	0.15	NA	NA	ND
7/21/08	Chelsea	Mill1	9:35								9330	NA	0.18	NA	NA	ND
7/21/08	Chelsea	Mill2	9:55	concrete	~30 inches						9678	NA	0.18	NA	NA	1.33
7/21/08	Chelsea	Mill3	10:10								15530	NA	0.09	NA	NA	ND
7/21/08	Chelsea	Rev06	10:30								7945	NA	0.08	NA	NA	ND
7/21/08	Chelsea	Mill4	10:35								3266	NA	0.11	NA	NA	ND
7/21/08	Chelsea	IsEnd01	11:20								2595	NA	0.08	NA	NA	ND
7/21/08	Chelsea	IsEnd02	11:25	CM, semi-round	7'						3080	NA	0.19	NA	NA	ND
7/21/08	Chelsea	IsEnd04	11:30								>241960	NA	0.14	NA	NA	13.0
7/21/08	Chelsea	IsEnd04d	11:30								>241960	NA	0.15	NA	NA	13.5
7/21/08	Medford	Mhb	12:30								7945	NA	0.06	NA	NA	ND
7/21/08	Medford	Mhb2	12:40								9678	NA	NA	NA	NA	NA
7/28/08	Winchester	M01	7:35								2452	NA	0.09	NA	NA	ND
7/28/08	Winchester	M02	7:58								4813	NA	0.09	NA	NA	ND
7/28/08	Winchester	M03	8:14								3683	NA	0.09	NA	NA	ND
7/28/08	Winchester	M04	8:31								156	NA	0.07	NA	NA	ND
7/28/08	Winchester	M05	8:42								126	NA	0.06	NA	NA	ND
7/28/08	Winchester	M06	9:10								44	NA	0.06	NA	NA	ND
7/28/08	Winchester	M07	9:26								4813	NA	0.08	NA	NA	ND
7/28/08	Winchester	M08	9:40								64	NA	0.07	NA	NA	3.11
7/28/08	Winchester	M09	9:55								6212	NA	0.07	NA	NA	ND
7/28/08	Winchester	M10	10:16								5654	NA	0.06	NA	NA	ND
7/28/08	Winchester	M10a	10:30								162	NA	0.07	NA	NA	ND
7/28/08	Winchester	M11	10:48								241	NA	0.07	NA	NA	ND
7/28/08	Winchester	M11d	10:48								248	NA	0.09	NA	NA	ND
7/28/08	Winchester	M12	11:35								6932	NA	0.05	NA	NA	ND
7/28/08	Winchester	M13	12:31								248	NA	NA	NA	NA	NA
8/4/08	Lawrence	SP01	7:16								458	NA	0.08	NA	NA	ND
8/4/08	Lawrence	SP02	7:40								445	NA	0.08	NA	NA	ND
8/4/08	Lawrence	SP03	8:00								395	NA	0.07	NA	NA	ND
8/4/08	Lawrence	SP04	8:23								12	NA	0.24	NA	NA	ND
8/4/08	Lawrence	SP05	8:35								363	NA	0.07	NA	NA	ND
8/4/08	Methuen	SP06	9:05								342	NA	0.08	NA	NA	ND

8/4/08	Methuen	SP07	9:55								12	NA	0.05	NA	NA	ND
8/4/08	Methuen	Mer1	10:45								293	NA	0.07	NA	NA	ND
8/4/08	Salem, NH	SP08	11:43								464	NA	0.07	NA	NA	0.108
8/4/08	Salem, NH	SP08d	11:43								847	NA	0.07	NA	NA	ND
8/4/08	Salem, NH	Mer2	12:02	open stream	na	stream					302	NA	0.07	NA	NA	ND
8/12/08	Stoneham	2Linden	7:18	open stream	na	stream					8800	NA	0.14	NA	NA	0.37
8/12/08	Stoneham	1West	7:29	stone	2x3						4813	NA	NA	NA	NA	0.18
8/12/08	Woburn	US3	7:53	stone	~16inches	na					>241960	NA	0.18	NA	NA	0.14
8/12/08	Woburn	US4	8:03	CM	~24 inches	na					198630	NA	0.17	NA	NA	0.12
8/12/08	Woburn	Mys01	8:35	open stream	na	stream					3922	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys07	8:46	open stream	na	stream					111990	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys08	8:47	open stream	na	stream					1954	NA	0.06	NA	NA	16.40
8/12/08	Woburn	Mys8d	8:47	open stream	na	stream					1954	NA	0.05	NA	NA	16.90
8/12/08	Woburn	Mys81	9:10	open stream	na	stream					992	NA	0.06	NA	NA	15.10
8/12/08	Woburn	Mys 9	9:15								445	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys72	9:45	open stream	na	stream					32550	NA	0.08	NA	NA	3.30
8/12/08	Woburn	Mys71	9:50	open stream	na	stream					57940	NA	0.16	NA	NA	106.00
8/12/08	Woburn	Mys10	10:00								4480	NA	NA	NA	NA	NA
8/12/08	Woburn	Olym1	10:45	open stream	na	stream					3922	NA	0.12	NA	NA	0.26
8/13/08	Methuen	MSPCA1	9:00								80	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA3	9:30								81	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA4	9:40								54	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA5	9:55								136	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA6	10:30								58	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA7	10:40								20	NA	NA	NA	NA	ND
8/21/08	Revere	LinB	7:55								2190	NA	0.07	NA	NA	0.27
8/21/08	Revere	Rt1trib	8:10								351	NA	0.07	NA	NA	0.14
8/21/08	Revere	TLB1	8:25								3266	NA	0.08	NA	NA	0.30
8/21/08	Malden	TLB2	8:47								312	NA	0.10	NA	NA	1.44
8/21/08	Revere	trifone	9:20								14010	NA	0.06	NA	NA	0.11
8/21/08	Chelsea	Mill3	9:55								1844	NA	0.07	NA	NA	0.27
8/21/08	Chelsea	Mill3A	10:04								271	NA	0.06	NA	NA	ND
8/21/08	Chelsea	IsEnd04	10:35								2595	NA	ND	NA	NA	2.68
8/21/08	Everett	IsEnd03A	10:45								11870	NA	0.11	NA	NA	0.82
8/21/08	Everett	IsEnd03B	10:50								3266	NA	0.08	NA	NA	1.17
8/21/08	Everett	Floyd	11:15								48	NA	0.05	NA	NA	0.11
8/21/08	Everett	AF1	11:56								138	NA	0.14	NA	NA	0.41
8/21/08	Medford	Tufts	12:09								91	NA	0.06	NA	NA	0.19
8/25/08	Melrose	Mal1	7:53								774	NA	0.06	NA	NA	0.12
8/25/08	Melrose	OM2	8:15								25	NA	0.16	NA	NA	1.18
8/25/08	Melrose	OM1	8:20								80	NA	0.13	NA	NA	0.14
8/25/08	Melrose	OM3	8:25								12	NA	ND	NA	NA	ND
8/25/08	Melrose	Mal2	9:08								749	NA	0.06	NA	NA	0.10
8/25/08	Melrose	Mal3	10:15								1462	NA	0.06	NA	NA	0.11
8/25/08	Melrose	SP1	10:45								186	NA	ND	NA	NA	0.15
8/25/08	Melrose	Ell1	11:15								1741	NA	0.53	NA	NA	ND
8/25/08	Melrose	Ell1d	11:15								1462	NA	0.21	NA	NA	ND
8/25/08	Melrose	Ell2	11:20								716	NA	0.20	NA	NA	ND
8/25/08	Melrose	Ell3	11:35								23820	NA	0.07	NA	NA	0.09
8/25/08	Melrose	Otis	11:52								96	NA	0.33	NA	NA	ND
8/25/08	Melrose	Roo1	12:12								9678	NA	0.08	NA	NA	0.13
8/25/08	Winchester	M07	12:55								806	NA	0.07	NA	NA	0.24
9/4/08	Medford	WB01	7:08								6212	NA	0.07	NA	NA	0.40
9/4/08	Medford	Ship01	7:42								4	NA	ND	NA	NA	0.49
9/4/08	Medford	Kohl01	8:40								68	NA	0.09	NA	NA	0.50
9/4/08	Everett	IsEnd03A	9:57								86640	NA	0.11	NA	NA	1.03
9/4/08	Everett	IsEnd03B	9:58								9678	NA	0.09	NA	NA	0.56
9/4/08	Chelsea	Mill1A	10:52								406	NA	0.13	NA	NA	0.78
9/4/08	Chelsea	Mill	11:00								7945	NA	0.08	NA	NA	ND
9/4/08	Chelsea	Mill2	11:20	concrete	~30 inches						38	NA	0.24	NA	NA	4.12
9/4/08	Chelsea	Mill2d	11:20								54	NA	0.22	NA	NA	4.01
9/4/08	Winchester	M08A	12:15								408	NA	0.25	NA	NA	0.994
9/11/08	Watertown	Saw1	8:08								395	NA	0.09	NA	NA	ND
9/11/08	Watertown	Saw2	9:04								416	NA	0.09	NA	NA	ND
9/11/08	Watertown	LB1	9:41								2190	NA	0.05	NA	NA	ND
9/11/08	Watertown	Wat5	10:25	concrete	4'						222	NA	0.08	NA	NA	ND
9/11/08	Watertown	Wat6	10:27	concrete	5'						260	NA	0.12	NA	NA	ND
9/11/08	Waltham	Wal23	11:10								4185	NA	0.09	NA	NA	ND
9/11/08	Waltham	Pars	12:01								714	NA	0.07	NA	NA	ND
9/11/08	Waltham	BB1	12:05								2595	NA	0.12	NA	NA	ND
9/11/08	Waltham	CB1	12:59								310	NA	0.09	NA	NA	ND
9/11/08	Waltham	CB1d	12:59								319	NA	0.11	NA	NA	ND
9/11/08	Waltham	1st	13:28								455	NA	0.14	NA	NA	ND
9/15/08	Winchester	MO8	7:35								7945	NA	0.08	NA	NA	0.615
9/15/08	Winchester	MO8main	7:40								5654	NA	0.08	NA	NA	0.876
9/15/08	Winchester	MO5	8:00								373	NA	0.07	NA	NA	ND
9/15/08	Winchester	M12	8:25								7945	NA	0.09	NA	NA	0.63
9/15/08	Woburn	1Merrell	8:40	open stream	na	stream					6212	NA	0.08	NA	NA	0.776
9/15/08	Woburn	1Kraft	8:50								767	NA	0.09	NA	NA	ND
9/15/08	Woburn	McDO1	9:20								5654	NA	0.09	NA	NA	1.02
9/15/08	Stoneham	100A	9:42	open stream	na	stream					1642	NA	0.07	NA	NA	ND
9/15/08	Stoneham	1Linden	9:54								1549	NA	0.06	NA	NA	ND
9/15/08	Stoneham	1Lindend	9:54								1844	NA	0.05	NA	NA	ND
9/15/08	Woburn	US3	10:38	stone	~16inches	na					7945	NA	0.08	NA	NA	ND
9/15/08	Woburn	US4	10:41	CM	~24 inches	na					1164	NA	0.09	NA	NA	ND
9/15/08	Woburn	US5	10:47	open stream	na	stream					2595	NA	0.07	NA	NA	ND

9/15/08	Woburn	Olym2	11:20								568	NA	0.08	NA	NA	ND
9/15/08	Woburn	Olym1	11:31	open stream	na	stream					258	NA	0.08	NA	NA	ND
9/22/08	Woburn	US3	7:14	stone	~16inches	na					1140	NA	0.07	NA	NA	0.132
9/22/08	Woburn	US5	7:24	open stream	na	stream					1102	NA	0.08	NA	NA	0.109
9/22/08	Woburn	Olym2	7:46								1549	NA	0.09	NA	NA	0.196
9/22/08	Woburn	Mys07	8:09	open stream	na	stream					3080	NA	0.06	NA	NA	6.22
9/22/08	Woburn	Mys72	8:51	open stream	na	stream					395	NA	0.07	NA	NA	4.45
9/22/08	Woburn	Mys71	9:00	open stream	na	stream					3466	NA	0.18	NA	NA	124
9/22/08	Stoneham	2dLinden	9:56	open stream	na	stream					3266	NA	0.06	NA	NA	0.098
9/22/08	Stoneham	2Linden	9:56	open stream	na	stream					2747	NA	0.07	NA	NA	0.217
9/22/08	Stoneham	2Lincul	10:10	clay	8"						9678	NA	0.06	NA	NA	0.078
9/22/08	Stoneham	1West	10:45	stone	2x3						54750	NA	0.05	NA	NA	ND
9/22/08	Everett	IsEnd03A	11:40								6932	NA	0.14	NA	NA	0.542
9/22/08	Everett	IsEnd03B	11:42								1164	NA	0.11	NA	NA	0.48
5/13/09	Medford	MHB	8:07	CM			None	None	Clear	None	455	NA	NA	0.10	NA	NA
5/13/09	Medford	MHB2	8:07	CM	24	5-10	None	Yellowish	Light	None	117	NA	NA	ND	NA	NA
5/13/09	Somerville	MysRR	8:39				None	None	Clear	None	39	NA	NA	0.10	NA	NA
5/13/09	Somerville	SOM004	9:29	clay	12	trickle	None	None	Clear	None	39	NA	NA	0.10	NA	NA
5/13/09	Somerville	MWRA205	10:07	CM	4x4 box	me in, some	None	Murky	Light	None	NA	10462	NA	1.80	NA	NA
5/13/09	Winchester	Swan1	11:11	metal	12	50	None	None	Clear	None	98	NA	NA	0.08	NA	NA
5/13/09	Winchester	Swan03	11:19	metal	12		None	None	Clear	None	ND	NA	NA	ND	NA	NA
5/13/09	Stoneham	1West	11:45	stone	2x3		None	None	Clear	None	913	NA	NA	0.10	NA	NA
5/13/09	Stoneham	2Linden	12:05	open stream	na	stream	None	None	Clear	None	2190	NA	NA	0.20	NA	NA
5/13/09	Stoneham	Toms	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	242	NA	NA	0.10	NA	NA
5/13/09	Stoneham	Tomsd	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	186	NA	NA	NA	NA	NA
5/13/09	Stoneham	BearH	12:45	?	6	10-15	None	None	Clear	None	21	NA	NA	0.05	NA	NA
5/19/09	Woburn	Comm1	7:57	open stream	na	stream	none	tea	none	few	82	~20	0.07	0.2	NA	0.174
5/19/09	Woburn	Halls2	8:51	open stream	na	stream	none	light tea	none	None	606	~146	0.06	~0.1	NA	0.161
5/19/09	Woburn	DRR1	9:33	open stream	na	/2 that of halls	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50
5/19/09	Woburn	Mys07	10:01	open stream	na	stream	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/19/09	Woburn	Mys08	10:20	open stream	na	stream	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
5/19/09	Woburn	Mys08d	10:20	open stream	na	stream	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
5/20/09	Woburn	Mys01	7:36	open stream	na	low flow	None	None	Clear	None	~250	NA	NA	0.10	NA	NA
5/20/09	Woburn	Mys01a	8:05	CM	18-24	15-20	None	None	Clear	None	458	NA	NA	0.25	NA	NA
5/20/09	Woburn	DRR1	8:35	open stream	na	stream	None	lightly cloud	Clear	None	126	NA	NA	0.10	NA	NA
5/20/09	Woburn	Halls2	8:35	open stream	na	stream	None	None	Clear	None	406	NA	NA	0.10	NA	NA
5/20/09	Woburn	Mys78	9:06	open stream	na	stream	None	None	Clear	None	160	NA	NA	0.10	NA	NA
5/20/09	Woburn	Comm1	9:30	open stream	na	stream	None	None	Clear	None	68	NA	NA	0.05	NA	NA
5/20/09	Woburn	Comm2	9:30	CM	3x6 box	50-100	ong petrole	None	Clear	None	442	NA	NA	0.10	NA	NA
5/20/09	Reading	WestS	10:15	CM	30	10-15	None	tea	Clear	None	8	NA	NA	NA	NA	NA
5/20/09	Reading	WestW	10:15	CM	5 foot		slight musty	tea	Clear	some suds	52	NA	NA	NA	NA	NA
5/20/09	Reading	Ivale	10:37	open stream	na	stream	None	None	Clear	Some	155	NA	NA	0.15	NA	NA
5/20/09	Reading	Birch	11:06	stone	5x3 ft		None	light tea	Clear	None	1379	NA	NA	0.05	NA	NA
5/20/09	Reading	BirchD	11:06	stone	5x3 ft		None	light tea	Clear	None	1642	NA	NA	0.05	NA	NA
5/20/09	Reading	RHSN	11:32	CM	24		None	None	Clear	None	52	NA	NA	0.20	NA	NA
5/20/09	Reading	RRR1	12:03	CM	4x4 box		None	None	Clear	None	621	NA	NA	NA	NA	NA
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
5/26/09	Chelsea	Mill2	10:06	concrete	~30 inches	5-10gal/min	strong odor	clear	none	some suds	44	20	0.19	1.5	NA	4.31
5/26/09	Chelsea	Mill2B	10:45	CM	~24 inches	1-2gal/min	strong odor	ay/black clou	med	None	100	ND	0.21	1	NA	4.92
5/26/09	Chelsea	Mill2A	11:10	CM	~24 inches	1 gal/min	none	clear	none	None	~4	ND	0.39	1	NA	7.02
5/26/09	Stoneham	SPB0	12:50	open stream	na	stream	none	clear	none	None	21	31	ND	ND	NA	ND
5/26/09	Stoneham	SPB0d	12:50	open stream	na	stream	none	clear	none	None	16	~10	~0.05	ND	NA	ND
5/27/09	Quincy	WollB1	7:58	CM	4x4 box	50-100	sewage odo	None	Clear	Some suds	NA	~12997	NA	1.00	NA	NA
5/27/09	Quincy	WollB2	8:20		18 feet		None	None	Clear	None	NA	~19863	NA	3.00	NA	NA
5/27/09	Quincy	WollB3	8:40	open stream	na	stream	None	None	Clear	None	~2190	NA	NA	0.25	NA	NA
5/27/09	Quincy	WollB4	8:52	open stream	na	stream	None	None	Clear	None	~1045	NA	NA	0.20	NA	NA
5/27/09	Quincy	SAG1	9:15	cement	10x10box		None	tea	cloudy	Yes	~6212	NA	NA	1.00	NA	NA
5/27/09	Boston	Bos090	9:42	CM	10x10box		strong petrole	light tea	very cloudy	None	NA	~1725	NA	1.80	NA	NA
5/27/09	Boston	Bos090d	9:42	CM	10x10box		strong petrole	light tea	very cloudy	None	NA	~10462	NA	NA	NA	NA
5/27/09	Dorcester	Ten1	10:10	Pipe Mat.	24-30		slight petroleu	tan	very muddy	None	NA	~41	NA	1.20	NA	NA
5/27/09	Quincy	Holbel	11:14	CM	30		None	tea	Clear	None	~1741	NA	NA	0.25	NA	NA
5/27/09	Milton	CunPk	11:40	open stream	na	stream	None	light tea	Clear	None	~2908	NA	NA	0.10	NA	NA
5/27/09	Milton	Pine1	12:11	open stream	na	stream	None	tea	Clear	None	~308	NA	NA	0.05	NA	NA
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None	534	78	ND	~0.1	ND	0.2
6/2/09	Medford	MHBup	8:07	open stream	na	stream	none	clear	none	None	48	142	ND	ND	NA	0.086
6/2/09	Belmont	WinB	9:10	open stream	na	stream	none	clear	none	None	6212	2908	ND	0.2	NA	0.21
6/2/09	Belmont	WinBd	9:10	open stream	na	stream	none	clear	none	None	6212	2452	ND	0.2	0.024	0.172
6/2/09	Arlington	91Mys	10:20	open stream	na	stream	musty	cloudy	none	None	>241960	13734	1.3	1.25	0.665	1.53
6/2/09	Arlington	MillB	10:50	CM	10x15ft	na	musty	very cloudy	none	None	550	445	0.06	0.2	0.031	0.206
6/3/09	Methuen	SP06	7:38	open stream	na	stream	None	None	Clear	None	124	NA	NA	0.10	NA	NA
6/3/09	Methuen	SP07	8:10	open stream	na	stream	None	None	Clear	None	86	NA	NA	ND	NA	NA
6/3/09	Methuen	SP071	8:12	Pipe Mat.	12	30	None	None	Clear	None	ND	NA	NA	ND	NA	NA
6/3/09	Methuen	Mer1	8:57	open stream	na	stream	None	tea	very	None	58	NA	NA	0.10	NA	NA
6/3/09	Salem, NH	Mer2	9:22	open stream	na	stream	None	reddish	med	None	48	NA	NA	0.10	NA	NA
6/3/09	Salem, NH	Mer3	9:46	open stream	na	stream	None	tea	Clear	None	75	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer5	10:45	open stream	na	stream	None	tea	Clear	None	465	NA	NA	0.15	NA	NA
6/3/09	Salem, NH	Mer6a	11:13				None	tea	Clear	None	293	NA	NA	0.20	NA	NA
6/3/09	Salem, NH	Mer6b	11:20				None	light tea	Clear	None	142	NA	NA	0.25	NA	NA
6/3/09	Salem, NH	Mer7	11:46	CM	3-4 ft		None	light tea	Clear	None	166	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer7d	11:46	CM	3-4ft		None	light tea	Clear	None	114	NA	NA	NA	NA	NA
6/3/09	Salem, NH	Mer8	12:07	open stream	na	low flow	None	None	Clear	None	126	NA	NA	ND	NA	NA
6/3/09	Salem, NH	Mer8a	12:08	Pipe Mat.	12	5	strong	orange-ish	Clear	None	4	NA	NA	0.05	NA	NA
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
6/9/09	Quincy	WollB5	8:25	CM	16	10-15gal/min	none	clear	none	None	ND	ND	ND	0.2	0.046	0.624
6/9/09	Dorchester	Ten1	9:35	Pipe Mat.	24-30	na	none	tan	very, very	None	96	21	0.08	2	0.048	1.28
6/9/09	Boston	Bos090	9:57	CM	10x10 box	na	musty	tea/tan	some	None	54750	149	0.14	2	0.091	0.823

6/9/09	Dorchester	CantB	11:35	open stream	na	stream	husty/sewag	blue/grayish	some	None	198630	34658	1.6	1.5	1.03	4.66
6/9/09	Dorchester	CantBD	11:35	open stream	na	stream	husty/sewag	blue/grayish	some	None	173290	48392	1.5	1.5	1.05	4.75
6/10/09	Haverhill	Broad	8:30	open stream	na	stream	None	None	Clear	None	250	NA	NA	ND	NA	NA
6/10/09	Haverhill	Coffin	8:48	metal	24	60	None	None	Clear	None	30	NA	NA	ND	NA	NA
6/10/09	Groveland	Main1	9:17	open stream	na	stream	None	tea	Clear	None	112	NA	NA	0.15	NA	NA
6/10/09	Groveland	Main2	9:26	open stream	na	stream	None	None	Clear	None	84	NA	NA	ND	NA	NA
6/10/09	Haverhill	Wash1	10:30	metal	12	5-10gal/min	None	None	some suds	None	154	NA	NA	0.75	NA	NA
6/10/09	Haverhill	LR1	10:48	CM	15ft 1/2 circle		musty	tea/tan	light	None	953	NA	NA	0.20	NA	NA
6/10/09	Haverhill	LR2	11:30	open stream	na	stream	None	None	cloudy	None	318	NA	NA	ND	NA	NA
6/10/09	Haverhill	LR2D	11:30	open stream	na	stream	None	None	Clear	None	445	NA	NA	NA	NA	NA
6/10/09	Lawrence	Shaw1	12:30	open stream	na	stream	musty	tea	yes	None	353	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE1	12:58	open stream	na	stream	None	light tea	Clear	None	251	NA	NA	0.10	NA	NA
6/10/09	Lawrence	SLE2	13:02	open stream	na	stream	None	light tea	Clear	None	328	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE3	13:11	concrete	3'		strong musty o	None	Clear	None	616	NA	NA	0.10	NA	NA
6/16/09	Danvers	Fish004	7:55	open stream	na	stream	none	light tan	none	None	250	468	~0.05	0.2	0.028	ND
6/16/09	Danvers	Fish005	8:35	open stream	na	stream	none	clear	none	None	333	714	ND	~0.1	0.022	ND
6/16/09	Marblehead	Stram01	10:05	open stream	na	stream	none	very light tea	none	None	489	434	~0.05	ND	0.029	0.37
6/16/09	Marblehead	Stram02	10:40	open stream	na	stream	none	very light tea	none	None	494	452	~0.05	ND	0.04	0.193
6/16/09	Lynn	Stacey	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	22398	0.31	0.4	0.216	1.04
6/16/09	Lynn	StaceyD	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	24066	0.29	0.4	0.208	0.949
6/17/09	Peabody	Pro01	8:00	nnelized stream	15-20ft		none	None	Clear	None	80	NA	NA	ND	NA	NA
6/17/09	Peabody	Strong01	8:02	nnelized stream	3-4ft		None	None	Clear	None	242	NA	NA	ND	NA	NA
6/17/09	Peabody	Pro02A	8:20	open stream	na	stream	None	tea	Clear	None	142	NA	NA	0.10	NA	NA
6/17/09	Peabody	Pro02	8:30	nnelized stream	na		none	tea	some suds	None	30	NA	NA	0.10	NA	NA
6/17/09	Peabody	Strong02	8:55	culverted stream	na		NS	light tannin	NS	NS	568	NA	NA	ND	NA	NA
6/17/09	Salem	Der01P	9:35	Pipe	2-2.5ft	5-10	sewage odo	None	Clear	NS	NA	223	NA	1.50	NA	NA
6/17/09	Salem	NorR01P	10:05	Concrete pipe	2-3ft	5-10	ht, musty od	NS	low	NS	NA	4106	NA	1.80	NA	NA
6/17/09	Marblehead	GO01	10:56	cement	36in	50	None	None	Clear	None	471	NA	NA	0.10	NA	NA
6/17/09	Marblehead	GO02	11:03	open stream	na	stream	ht, musty od	None	Clear	None	542	NA	NA	0.20	NA	NA
6/17/09	Marblehead	GO03	11:15	open stream	na	stream	None	ght tea/orang	some suds	None	933	NA	NA	0.20	NA	NA
6/17/09	Lynn	StaceyS	12:11	CM	4'x8'		NS	None	Clear	None	NA	14136	NA	0.70	NA	NA
6/17/09	Swampscot	StaceyN	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	0.50	NA	NA
6/17/09	Swampscot	StaceyND	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	NA	NA	NA
7/14/09	Milton	UNB016	8:36	open stream	na	stream	none	clear	none	None	599	109	ND	~0.1	ND	0.304
7/14/09	Milton	UNB002	9:02	CM bridge	3'x6' box	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37
7/14/09	Quincy	WollB2	9:50	open stream	na	ery strong flo	none	tea	yes	None	265	~8	ND	2	0.029	0.094
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
7/15/09	Winchester	UMLake1	7:50	open stream	na	stream	none	light tea	yes	none	~258	NA	NA	0.10	NA	NA
7/15/09	Winchester	Water1	8:02	open stream	na	stream	none	dark tea	cloudy	None	~410	NA	NA	0.13	NA	NA
7/15/09	Winchester	Swan1a	8:17	open stream	na	stream	none	light tea	Clear	None	~510	NA	NA	0.20	NA	NA
7/15/09	Winchester	Witt1	8:33	open stream	na	stream	none	light tea	Clear	None	~34	NA	NA	0.10	NA	NA
7/15/09	Woburn	1Merrell	8:55	open stream	na	stream	none	light tea	lightly turbi	None	~494	NA	NA	0.10	NA	NA
7/15/09	Woburn	Mys01bb	9:25	open stream	na	stream	None	None	Clear	None	~93	NA	NA	0.20	NA	NA
7/15/09	Woburn	Mys01a	9:35	CM	18-24	20-40	None	None	Clear	None	~12	NA	NA	0.40	NA	NA
7/15/09	Woburn	Halls2	9:50	open stream	na	stream	None	light tea	Clear	None	~448	NA	NA	0.10	NA	NA
7/15/09	Woburn	DRR1	9:52	open stream	na	stream	None	light tea	Clear	None	~268	NA	NA	0.10	NA	NA
7/15/09	Woburn	UR002	9:52	open stream	na	stream	None	light tea	Clear	None	NA	NA	NA	0.10	NA	NA
7/15/09	Reading	ArnoldA	11:00	open stream	na	stream	None	light tea	Clear	None	~1164	NA	NA	0.10	NA	NA
7/15/09	Reading	Birch	11:35	stone	5x3 ft		None	light tea	Clear	None	~125	NA	NA	0.20	NA	NA
7/15/09	Reading	RHSN	11:53	CM	24		None	light tea	Clear	ht scum on	~90	NA	NA	0.20	NA	NA
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
7/21/09	Stoneham	2Linden	9:35	open stream	na	stream	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
7/21/09	Stoneham	Elm1	10:10	open stream	na	40-50	lightly must	med tea	none	None	~51720	~5654	~0.12	0.3	0.083	0.578
7/21/09	Stoneham	Toms	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	UR003	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
7/21/09	Stoneham	Toms	11:30	tal w/asphalt bot	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
7/22/09	Winchester	Russ1	7:55	Stone (instream)	4'X4'		slightly must	None	Clear	some suds*	1954	NA	NA	0.10	NA	NA
7/22/09	Winchester	HPB2	8:00	open stream	na	stream	None	light tea	cloudy	None	30	NA	NA	0.05	NA	NA
7/22/09	Woburn	OF119	8:25	rugated black pla	12"	5-6	sewage odo	None	Clear	None	875	NA	NA	0.20	NA	NA
7/22/09	Woburn	OF118	8:30	concrete	30"	30	musty	None	cloudy	some suds	2452	NA	NA	0.24	NA	NA
7/22/09	Woburn	UR004	8:30	large concrete		30	musty	None	cloudy	some suds	3466	NA	NA	NA	NA	NA
7/22/09	Woburn	OF119a	9:05	rugated black pla	12"	10	ht sewage o	None	Clear	None	146	NA	NA	0.15	NA	NA
7/22/09	Woburn	OF118up	9:28	metal	18"-20"	20	None	None	Clear	None	5199	NA	NA	0.30	NA	NA
7/22/09	Woburn	Cumming1	9:55	open stream	na	stream	None	light tea	Clear	e trash and d	650	NA	NA	0.15	NA	NA
7/22/09	Woburn	Cumming2	10:16	open stream	na	stream	None	med tea	Clear	e trash and d	542	NA	NA	0.10	NA	NA
7/22/09	Woburn	LB1	10:17	Concrete pipe	3'	30	None	None	Clear	None	688	NA	NA	0.10	NA	NA
7/22/09	Woburn	LB2	10:35	stone	2'x3'	60-75	None	light tea	Clear	None	396	NA	NA	0.20	NA	NA
7/22/09	Woburn	SGB1	10:50	cement	7'across		None	light tea	lightly turbi	None	566	NA	NA	0.10	NA	NA
7/22/09	Woburn	SGB2	11:10	stone	2'x2'	20-30	None	None	Clear	None	326	NA	NA	0.20	NA	NA
7/28/09	Chelsea	Mill2	8:05	concrete	~30 inches	15	sharp sewa	clear	none	None	310	12	0.23	0.8	0.126	3.84
7/28/09	Everett	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None	9678	388	0.1	0.8	0.054	0.831
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'		strong petroleum	tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/28/09	Chelsea	IsEnd03	9:26	CM, semi-round	12'		strong petroleum	blue/grayish	cloudy	ome soap su	16740	368	0.09	1.5	0.055	1.76
7/28/09	Chelsea	UR005	9:26	CM, semi-round	12'		strong petroleum	blue/grayish	cloudy	ome soap su	15850	435	0.09	1.5	0.05	1.64
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box		slight sewage o	gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
7/29/09	Chelsea	Mill2	8:30	concrete	~30 inches	10	strong odor	clear	none	none	NA	52	NA	0.70	NA	NA
7/29/09	Chelsea	Mill2A	8:40			3	dor - chemi	None	none	None	NA	10	NA	0.75	NA	NA
7/29/09	Revere	SD08A	9:45	NS	NS	15-20	ht sewage o	NS	NS	None	NA	10	NA	0.60	NA	NA
7/29/09	Revere	SD10A	10:00	plastic	12"	3	ht sewage o	NS	NS	gnificant foa	NA	20	NA	0.25	NA	NA
7/29/09	Revere	WashN01	10:10	concrete	24		none	NS	NS	None	NA	2282	NA	0.75	NA	NA
7/29/09	Revere	SalesN	10:15	NS	NS		none	NS	NS	None	NA	295	NA	0.75	NA	NA
7/29/09	Revere	SalesE	10:25	NS	24"+		none	tan	y turbid; clo	None	NA	95	NA	0.70	NA	NA
7/29/09	Revere	Green01	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	0.70	NA	NA
7/29/09	Revere	UR006	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	NA	NA	NA

7/29/09	Revere	Wonder01	11:50	CM	4'		None	None	none	None	NA	185	NA	0.40	NA	NA
7/29/09	Revere	STRACC1	12:05	NS	NS		None	NS	NS	NS	NA	605	NA	0.40	NA	NA
7/29/09	Everett	IsEnd03B	12:40	NS	NS	20	slight musty	orange	very cloudy	None	NA	ND	NA	0.25	NA	NA
8/4/09	Winchester	Russ1	8:00	Stone (instream)	4'X4'	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
8/4/09	Woburn	US5	9:05	open stream	na	stream	none	light tea	clear	None	542	184	ND	ND	0.032	0.133
8/4/09	Woburn	Olym1	9:55	open stream	na	stream	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
8/5/09	Norwood	HABout01	7:38	CM	36in	30-40gal/min	None	light tannin	Clear	None	714	NA	NA	0.05	NA	NA
8/5/09	Norwood	HAB01	7:40	open stream	na	stream	None	None	Clear	None	92	NA	NA	ND	NA	NA
8/5/09	Norwood	HAB02	8:20	open stream	na	stream	None	heavy tea	Clear	some suds	25	NA	NA	0.05	NA	NA
8/5/09	Norwood	Htrib01	8:22	open stream	na	stream	None	light tea	Clear	None	445	NA	NA	0.10	NA	NA
8/5/09	Norwood	Htribout1	8:35	concrete	4'		None	None	ightly cloud	None	225	NA	NA	ND	NA	NA
8/5/09	Norwood	Htrib03	9:01	open stream	na	stream	None	light tea	Clear	None	818	NA	NA	ND	NA	NA
8/5/09	Norwood	Htrib03a	9:04	Concrete pipe	12"		None	None	ightly cloud	None	21	NA	NA	0.20	NA	NA
8/5/09	Norwood	Htrib04	9:14	open stream	na	stream	None	light tannin	Clear	None	714	NA	NA	0.10	NA	NA
8/5/09	Norwood	MB01	9:45	open stream	na	stream	None	None	Clear	some suds	740	NA	NA	0.25	NA	NA
8/5/09	Norwood	MB02	10:10	cement	4'		slight sewage o	None	ightly cloud	None	15760	NA	NA	0.25	NA	NA
8/5/09	Norwood	UR008	10:10	cement	4'		slight sewage o	None	ightly cloud	None	15650	NA	NA	0.25	NA	NA
8/5/09	Norwood	PB01	11:06	open stream	na	stream	None	light tea	Clear	None	953	NA	NA	0.10	NA	NA
8/5/09	Norwood	PB02	11:24		2-3ft	20	y and natur	None	Clear	None	4185	NA	NA	0.15	NA	NA
8/11/09	Quincy	Canal1	7:55	concrete	6'x8' box	na	slight musty	clear	none	None	1844	417	~0.05	0.15	0.038	0.22
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA
8/11/09	Quincy	WollB1B	9:40	concrete	3-4'	15	musty	clear	none	None	133	12	ND	2.2	ND	ND
8/11/09	Quincy	WollB1A	9:45	CM	3'x3' box	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/12/09	Milton	CunPk	8:05	open stream	na	stream	None	None	Clear	None	2069	NA	NA	0.20	NA	NA
8/12/09	Milton	CunPk02	8:12	cement	2, 2'	30	None	None	Clear	None	3466	NA	NA	0.30	NA	NA
8/12/09	Quincy	FBP02A	8:37	seep below pipe		3	None	None	Clear	None	12	NA	NA	0.20	NA	NA
8/12/09	Quincy	FBP02	8:40	open stream	na	stream	None	None	Clear	None	4813	NA	NA	0.20	NA	NA
8/12/09	Quincy	FBP03	9:10	cement	2, 3'		None	None	Clear	None	2069	NA	NA	0.10	NA	NA
8/12/09	Quincy	FBP04	9:20	block w/ granite	5' x 5 box'		None	None	Clear	None	714	NA	NA	0.05	NA	NA
8/12/09	Quincy	Broad1	9:46	cement	3' x 3' box		Odor*	light brown	ightly cloud	some suds	NA	578	NA	1.50	NA	NA
8/12/09	Quincy	SAG1	10:20	cement	10x10box		petroleum od	very brown	y turbid; clo	some suds	NA	2359	NA	2.00	NA	NA
8/12/09	Quincy	SAG2	10:22	seep	na	3 gal/min	strong sulfu	None	Clear	None	NA	ND	NA	0.60	NA	NA
8/12/09	Quincy	WollB1A	10:50	CM	3'x3' box		musty/sulfur	gray	cloudy	None	NA	2755	NA	2.00	NA	NA
8/12/09	Quincy	WolB1B	10:52	cement	3-4 ft		slight musty/su	None	clear	None	NA	262	NA	2.00	NA	NA
8/12/09	Quincy	WollB1	11:00	CM	4x4 box		sulfur	None	Clear	None	NA	1720	NA	0.75	NA	NA
8/12/09	Quincy	Canal1	11:30	cement	6' x 8' box		None	None	Clear	None	2747	NA	NA	0.15	NA	NA
8/12/09	Quincy	UR010	11:30	cement	6' x 8' box		None	None	Clear	None	4185	NA	NA	0.10	NA	NA
8/18/09	Plymouth	Eel1	9:20	open stream	na	stream	none	light tan	clear	None	30	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel2	9:30	open stream	na	stream	none	light tan	clear	None	70	82	ND	ND	ND	ND
8/18/09	Plymouth	UR011	9:30	open stream	na	stream	none	light tan	clear	None	140	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel3	9:40	open stream	na	stream	none	light tan	clear	None	1741	452	ND	ND	ND	0.092
8/18/09	Plymouth	SandRd1	10:00	clay	16	4	none	light tan	clear	None	265	172	ND	~0.1	0.021	ND
8/18/09	Plymouth	SandRd2	11:40	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088
8/19/09	Lawrence	SPR01	7:55	open stream	na	stream	None	None	Clear	None	96	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR02	8:00	open stream	na	stream	musty	None	Clear	None	96	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR03	8:10	open stream	na	stream	None	None	Clear	some suds*	319	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR04	8:15	k from concrete pipe			None	None	Clear	None	ND	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	light sewag	None	Clear	None	1741	NA	NA	0.25	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	157	NA	NA	0.10	NA	NA
8/19/09	Lawrence	UR012	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	174	NA	NA	NA	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'		strong, musty sewa	None	Clear	None	34	NA	NA	0.20	NA	NA
8/19/09	Andover	Huss01	10:50	stone box	10' x 5'	na	None	light tea	Clear	None	2595	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal01	11:11	concrete	12"		None	orange	Clear	None	ND	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal02	11:15	concrete	12"		None	None	Clear	None	ND	NA	NA	0.20	NA	NA
8/19/09	Andover	York1	11:45	cement	3' x 3' box		None	None	Clear	None	16	NA	NA	ND	NA	NA
8/19/09	Andover	Plaza	12:15	cement	2.5'		None	None	Clear	None	8	NA	NA	0.10	NA	NA
8/25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	husty/sewag	None	ightly cloud	None	33000	3683	0.22	0.4	0.133	0.4
8/25/09	Boston	Blueup	8:00	open stream	na	stream	none	tan	clear	None	226	64	~0.05	~0.1	0.028	ND
8/25/09	Boston	Mother	9:05	open stream	na	stream	none	light tea	clear	None	129	56	0.06	ND	0.046	ND
8/25/09	Boston	NR204	10:00	concrete	3 feet	15	g sewage/la	None	ightly cloud	hite/gray pa	>241960	>48392	8.7	>3	0.975	20.1
8/25/09	Boston	NR162	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	198630	5226	0.89	3	0.6	13.2
8/25/09	Boston	UR013	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	241960	5510	0.92	2.75	0.635	12.4
8/25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	1741	149	~0.05	0.25	0.023	0.598
8/25/09	Boston	Esp01	12:02	open stream	na	stream	none	tea	clear	None	241	58	0.07	~0.1	0.03	0.1
8/26/09	Milton	Milt01	8:10	open stream	na	stream	None	None	Clear	None	689	NA	NA	ND	NA	NA
8/26/09	Milton	Milt02	8:35	open stream	na	stream	None	None	Clear	None	407	NA	NA	ND	NA	NA
8/26/09	Boston	Milt03	8:36	concrete	18"	0.5	lightly must	None	Clear	None	32550	NA	NA	0.50	NA	NA
8/26/09	Boston	UR014	8:36	concrete	18"		slightly must	None	Clear	None	46110	NA	NA	0.50	NA	NA
8/26/09	Milton	Milt04	8:50	open stream	na	stream	None	light tea	Clear	some suds	302	NA	NA	0.05	NA	NA
8/26/09	Milton	Milt05A	9:15	clay tile	12"	5	None	None	Clear	None	132	NA	NA	ND	NA	NA
8/26/09	Milton	Milt05	9:20	open stream	na	stream	None	light tea	Clear	None	232	NA	NA	0.10	NA	NA
8/26/09	Boston	Bos5049	9:50	cement	24"	12	slight Cl2	None	Clear	None	ND	NA	NA	ND	NA	NA
8/26/09	Boston	NR285	10:40	cement	6'x4' semi-circle	30	g sewage/la	None	ightly cloud	Suds	9678	NA	NA	>3	NA	NA
8/26/09	Boston	MB03	12:00	open stream	na	stream	None	red/orange	cloudy	im on surfac	345	NA	NA	1.25	NA	NA
8/26/09	Boston	Mother01	12:05	open stream	na	stream	None	light tannin	Clear	None	80	NA	NA	ND	NA	NA
8/26/09	Boston	NR160	12:35	cement	2'	3	sewage odo	None	Clear	None	518	NA	NA	0.10	NA	NA
8/26/09	Boston	NR160A	12:40	cement	2'	5	None	None	Clear	some suds	113	NA	NA	ND	NA	NA
9/1/09	Woburn	Halls2	7:35	open stream	na	stream	None	light brown	clear	None	2595	602	ND	~0.1	0.029	0.218
9/1/09	Woburn	DRR1	7:45	open stream	na	stream	None	light brown	clear	None	4185	12976	ND	0.25	0.035	8.99
9/1/09	Woburn	Mys08	9:30	open stream	na	stream	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3

9/1/09	Woburn	UR015	9:30	open stream	na	stream	None	light brown	clear	None	422	148	ND	NA	0.021	14
9/1/09	Woburn	Mys78	10:15	open stream	na	stream	light oil sme	None	clear	None	5199	10344	ND	0.25	0.031	10.1
9/1/09	Woburn	Mys09	10:45	open stream	na	stream	None	None	clear	None	205	82	ND	~0.1	ND	16
9/8/09	Watertown	SawB01	8:45	open stream	na	50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage o	None	clear	None	~4	ND	NA	0.25	NA	NA
9/8/09	Newton	Hyde01	9:45	concrete	4x8 box	100	None	None	clear	None	5654	1424	ND	0.2	ND	ND
9/8/09	Newton	Laund01	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1462	492	ND	~0.1	ND	ND
9/8/09	Newton	UR016	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1954	544	~0.05	~0.1	ND	ND
9/8/09	Newton	Chee01	11:11	open stream	na	50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND
9/8/09	Waltham	Beav01	11:35	concrete	3x10 box	na	None	None	ightly cloud	some suds	713	292	~0.05	0.2	0.023	0.162
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None	44	40	~0.05	ND	0.03	0.266
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None	29090	2752	0.08	NA	0.19	1.12
9/15/09	Lowell	Beaver1a	7:37	concrete	4'	15	None	None	clear	None	8	75	ND	0.25	ND	ND
9/15/09	Lowell	Beaver1	7:40	open stream	na	stream	None	light tea	clear	None	117	63	NA	~0.1	NA	NA
9/15/09	Lowell	Suffolk1	8:40	open stream	na	stream	None	light tea	clear	None	208	41	ND	ND	0.024	ND
9/15/09	Lowell	Central1	9:15	open stream	na	stream	None	None	clear	some suds	58	~10	ND	~0.1	0.024	0.088
9/15/09	Lowell	RMB1	10:10	open stream	na	stream	None	light tea	clear	some suds	1844	281	~0.05	0.25	0.022	ND
9/15/09	Lowell	UR017	10:10	open stream	na	stream	None	light tea	clear	some suds	2069	465	~0.05	0.25	0.046	ND
9/15/09	Lowell	NewH1	10:50	open stream	na	stream	None	light tea	clear	some suds	164	275	NA	0.2	NA	NA
9/15/09	Lowell	BlackB1	11:25	open stream	na	stream	None	None	murky	None	154	798	0.07	0.25	0.028	0.443
9/15/09	Lowell	BlackB2	12:00	open stream	na	stream	None	None	clear	None	182	97	NA	0.2	NA	NA
9/22/09	Reading	RRR1	8:10	CM	4x4 box	na	None	None	clear	None	21	20	ND	0.25	0.022	ND
9/22/09	Andover	RogerD	9:00	concrete	5'	na	musty odor	rk tea staini	clear	some suds	442	657	~0.05	~0.1	0.67	0.098
9/22/09	Andover	Rogerup	9:32	open stream	na	stream	no odor	med tea	clear	some suds	44	6488	~0.05	0.2	1.31	ND
9/22/09	Andover	Huss01	10:20	stone box	10' x 5'	na	None	light tea	clear	some suds	2319	987	ND	0.2	0.036	0.079
9/22/09	Andover	Huss02	10:50	open stream	na	stream	None	light tea	clear	None	39	ND	NA	ND	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete	3'	na	slight musty	None	Clear	None	205	445	ND	~0.1	ND	ND
9/22/09	Lawrence	UR018	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	279	249	ND	~0.1	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	slight musty	None	Clear	Yes, paper	29870	19863	~0.05	0.25	0.05	7.02
9/22/09	Lowell	RMB1	13:20	open stream	na	stream	None	light tea	Clear	None	1642	199	ND	~0.1	0.031	0.138
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	d sewage sr	None	Mild	Leave, bubb	1954	6131	0.06	0.18	0.041	0.291
9/29/09	Milton	CunPk03	9:30	open stream	na	stream	None	None	Clear	Foam	1164	2098	0.06	~0.1	0.038	0.206
9/29/09	Norwood	PB02A	10:45		18"	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1
9/29/09	Norwood	PB02B	11:00	open stream	na	stream	None	light brown	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
4/21/10	Arlington	91Mys	8:00	open stream	na	stream	none	heavy tea	cloudy	some suds	152	41	NA	~0.1	NA	NA
4/21/10	Arlington	MillB	8:10	CM	10x15ft	na	strong must	heavy tea	fairly clear	suds	395	52	0.06	~0.1	NA	0.124
4/21/10	Arlington	MBike	8:50	Stone (instream)	10'X8'	stream	moderate	med tea	clear	none	268	233	NA	~0.1	NA	NA
4/21/10	Arlington	AHS	9:05	open stream	na	stream	none	light tea	clear	some	666	213	0.06	ND	NA	ND
4/21/10	Arlington	UR020	9:05	open stream	na	stream	none	light tea	clear	some	1549	173	0.06	ND	NA	ND
4/21/10	Arlington	Grove01	9:40	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	4480	529	0.06	~0.1	NA	0.079
4/21/10	Arlington	GroveS	9:45	concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
4/21/10	Arlington	Quinn2	10:30	concrete	12"	19.0040741	fresh	none	clear	none	ND	ND	0.05	0.3	NA	ND
4/21/10	Arlington	RyMill	11:05	concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
4/21/10	Arlington	RyMill2	11:10	hole in wall	na	2.00407407	none	none	clear	none	ND	ND	NA	0.2	NA	NA
4/21/10	Arlington	RyderE	11:20	concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
4/21/10	Arlington	RyderW	11:30	concrete	36"	20-30	none	none	clear	none	30	20	ND	ND	NA	ND
4/21/10	Arlington	30Park	12:25	open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
4/28/10	Winchester	ABR006	8:30	open stream	na	stream	none	none	fairly clear	leaves/bran	899	199	0.09	0.2	NA	0.528
4/28/10	Winchester	Wfield	8:50	open stream	na	stream	none	none	lightly turbi	some	839	317	NA	0.22	NA	NA
4/28/10	Winchester	Vern01	9:15	open stream	na	stream	none	none	lightly turbi	leaves/bran	643	108	NA	0.22	NA	NA
4/28/10	Winchester	Wedge01	9:32	open stream	na	stream	none	none	lightly turbi	some	58	10	NA	~0.1	NA	NA
4/28/10	Winchester	Skill01	9:50	oncrete (instrean	3'	stream	none	blueish/gray	turbid	some	913	148	0.1	0.25	NA	0.844
4/28/10	Winchester	UR021	9:50	oncrete (instrean	3'	stream	none	blueish/gray	turbid	some	1642	132	0.1	0.25	NA	0.837
4/28/10	Winchester	Skill02	9:55	concrete	12"	5-10	none	none	fairly clear	none	75	30	NA	~0.1	NA	NA
4/28/10	Winchester	Swan1	10:45	open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
4/28/10	Woburn	OF118	11:35	concrete	30"	50	none	none	clear	some suds	154	52	0.07	0.3	NA	0.381
4/28/10	Woburn	OF159A	12:04	Cor.Metal	18"	5-10	none	none	clear	none	268	156	NA	0.3	NA	NA
4/28/10	Woburn	OF159	12:05	Cor.Metal	24-30"	20-30	light sewag	none	clear	none	318	109	0.1	0.25	NA	1.38
4/28/10	Woburn	OF161	12:15	Cor. Metal	5'	stream	slight musty	none	lightly turbi	some	1642	148	ND	0.3	NA	0.153
5/5/10	Arlington	Grove01a	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2747	520	0.07	~0.1	NA	0.101
5/5/10	Arlington	GroveS	8:10	concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Arlington	Robin	8:45	bose joint grey til	24"	10-15	ght natural g	none	clear	none	9678	295	NA	0.4	NA	NA
5/5/10	Arlington	Brattle	9:10	open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	RyMill	9:25	concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	RyderE	9:32	concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
5/5/10	Arlington	Ryder01	9:35	Stone (instream)	6'	stream	none	light tea	fairly clear	some suds	1954	350	0.07	~0.1	NA	0.135
5/5/10	Arlington	30Park	10:10	open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	1395MA	10:30	open stream	na	stream	none	light tea	lightly turbi	none	689	323	0.06	ND	NA	0.133
5/5/10	Arlington	Drake01	10:55	open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/5/10	Arlington	ArlRes	11:05	concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
5/5/10	Lexington	Vine01	11:55	open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/12/10	Woburn	Halls2	8:00	open stream	na	stream	none	light brown	na	none	212	109	NA	~0.1	NA	NA
5/12/10	Woburn	DRR1	8:15	open stream	na	stream	none	light brown	clear	none	182	448	NA	~0.1	NA	NA
5/12/10	Woburn	Mys07	9:05	open stream	na	stream	hulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
5/12/10	Woburn	Mys08	9:10	open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/12/10	Woburn	Torr01	10:00	open stream	na	stream	none	light brown	clear	none	223	120	NA	0.25	NA	NA
5/12/10	Woburn	UR023	10:00	open stream	na	stream	none	light brown	clear	none	182	52	NA	0.25	NA	NA
5/12/10	Woburn	Dart1	10:30	open stream	na	stream	none	dark brown	clear	some suds	64	31	NA	0.2	NA	NA
5/12/10	Woburn	School01	11:05	open stream	na	stream	none	dark brown	clear	none	109	20	NA	0.25	NA	NA
5/19/10	Quincy	FBP02	8:15	open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
5/19/10	Quincy	UR024	8:15	open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA

5/19/10	Quincy	FBP03	8:55	open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/19/10	Quincy	Broad1	9:25	open stream	na	stream	none	none	clear	none	3466	2755	NA	2	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
5/26/10	Belmont	UR025	9:10	open stream	na	stream	g musty/se	med tea	lightly turbi	none	29090	7701	NA	0.2	NA	NA
5/26/10	Belmont	WEB013	9:10	open stream	na	stream	g musty/se	med tea	lightly turbi	none	11620	6488	NA	0.2	NA	NA
5/26/10	Arlington	ARL043	9:58	concrete	18-24	5	none	none	clear	none	79	109	NA	~0.1	NA	NA
5/26/10	Arlington	ARL137	10:25	clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	NA
5/26/10	Arlington	ARL207	11:07	seep	na	1-2	brassica	na	na	na	25	20	NA	~0.1	NA	NA
5/26/10	Arlington	Drake01	11:25	open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
5/26/10	Arlington	ArlRes	11:30	concrete	3'	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/26/10	Lexington	Bow01A	12:00	concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	NA
5/26/10	Lexington	Bow01	12:05	open stream	na	stream	none	med tea	lightly turbi	none	643	809	NA	~0.1	NA	NA
5/26/10	Lexington	Fott01	12:35	open stream	na	stream	none	med tea	lightly turbi	none	124	199	NA	ND	NA	NA
5/26/10	Lexington	GMS01	12:55	open stream	na	stream	none	heavy tea	very murky	thick film	72	52	NA	0.2	NA	NA
6/2/10	Revere	UR026	8:01	concrete	24	NA	none	brown	turbid	none	20640	9606	NA	0.4	NA	NA
6/2/10	Revere	WashN01	8:01	concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/2/10	Revere	Sales01	8:10	open stream	na	stream	none	light brown	fairly clear	trash	4813	2359	NA	0.4	NA	NA
6/2/10	Revere	Green01	8:40	open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
6/2/10	Boston	29M049	9:10	concrete	3ft	30-40	none	none	lightly turbi	none	714	3873	NA	3	NA	NA
6/2/10	Boston	25L058	9:50	concrete	6x6ft box	na	musty	grey	turbid	trash	2069	3448	NA	2	NA	NA
6/2/10	Boston	Bos017	10:20	concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
6/2/10	Boston	29J212	10:22	concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
6/2/10	Chelsea	Mill2A	11:20	concrete	24	<5	usty/chemic	none	clear	trash	58	175	NA	0.8	NA	NA
6/10/10	Lawrence	SLE3	7:25	concrete	3'	NA	strong must	vhite/tan/gra	ightly cloud	ilamentous	1954	2359	NA	1	NA	NA
6/10/10	Lawrence	UR027	7:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	1741	1314	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete	3'	NA	strong must	none	ightly cloud	ilamentous	899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete	3'	NA	strong must	none	ightly cloud	ilamentous	806	2014	NA	0.5	NA	NA
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clear	none	NA	NA	NA	0.5	NA	NA
6/16/10	Concord, M	PRIS01	11:00	concrete	2ft	2	sewage	none	clear	none	16160	10462	NA	0.8	NA	NA
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	NA
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	NA
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	NA
6/30/10	Falmouth	24IN01	9:30								25	ND	NA	0.25	NA	NA
6/30/10	Falmouth	INF01	9:30								461100	290900	NA	1	NA	NA
6/30/10	Falmouth	12INWA	9:40								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	STE01	9:45								547500	186000	NA	0.75	NA	NA
6/30/10	Falmouth	UR099	9:45								686700	119800	NA	0.75	NA	NA
7/7/10	Manchester	Dunbar	8:20	Stone culvert	3x4	150	ng petroleu	oil sheen	turbid	rash & debri	1089	422	NA	ND	NA	NA
7/7/10	Manchester	Granite	9:00	concrete	4ft	35	rong sewag	none	clear	none	125	110	NA	0.5	NA	NA
7/7/10	Manchester	047N	9:40	concrete	4ft	15-20	rong sewag	none	ightly cloud	none	4	ND	NA	0.25	NA	NA
7/7/10	Manchester	047	10:00	concrete	4ft	NA	e, musty (s	med tea	cloudy	some	64	52	NA	~0.1	NA	NA
7/7/10	Concord, NI	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	218	399	NA	1	NA	NA
7/7/10	Concord, NI	Mer4120a	10:45	concrete	36"	10	ilightly mus	none	ightly cloud	e leaves & d	25	ND	NA	0.5	NA	NA
7/7/10	Concord, NI	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	263	448	NA	1	NA	NA
7/7/10	Concord, NI	Clinton	11:55	open stream	na	low	none	none	clear	none	806	341	NA	0.75	NA	NA
7/7/10	Concord, NI	Pleasant	12:15	open stream	na	low	none	none	clear	none	1089	1722	NA	0.25	NA	NA
7/14/10	Boston	29J212	7:17	concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/14/10	Boston	Bos017	7:17	concrete	72"	na	musty	none	ightly cloud	some	129970	2489	NA	2.5	NA	NA
7/14/10	Boston	UR029	7:17	concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra	38730	68670	NA	0.2	NA	NA
7/14/10	Salem	Palmer1	9:05	clay	18-24	15-20	slight musty	none	clear	none	13540	17329	NA	3	NA	NA
7/14/10	Beverly	Lynch1	9:35	concrete	12"	25	none	none	clear	none	689	1178	NA	0.2	NA	NA
7/14/10	Beverly	Brac01	10:04	concrete/stone	4'box	na	Sulfur	none	clear	some suds	2452	1725	NA	2	NA	NA
7/14/10	Beverly	Brac02	10:31	open stream	na	stream	none	med tea	turbid	some	2595	3130	NA	ND	NA	NA
7/14/10	Beverly	Lynch02	10:50	plastic	8"	~4	none	none	clear	none	2069	4352	NA	2	NA	NA
7/21/10	Winchester	Swan01	7:25	open stream	na	stream	None	grey	very cloudy	some suds	452	305	NA	~0.1	NA	NA
7/21/10	Winchester	Wash01	7:50	open stream	na	stream	None	grey	very cloudy	some suds	484	512	NA	~0.1	NA	NA
7/21/10	Winchester	Wash02	7:55	concrete	24"	na	None	grey	very cloudy	some suds	857	318	NA	0.2	NA	NA
7/21/10	Woburn	Mer01up	8:30	open stream	na	stream	None	greyish	very cloudy	none	448	199	NA	0.2	NA	NA
7/21/10	Woburn	Sweet	8:35	open stream	na	stream	none	none	clear	some suds	518	148	NA	0.22	NA	NA
7/21/10	Woburn	Salem	9:25	open stream	na	stream	none	greyish	very cloudy	some	996	301	NA	0.15	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	stream	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/21/10	Woburn	Mys01b	10:00	concrete	16-18"	10-15	none	none	clear	none	4	20	NA	0.3	NA	NA
7/21/10	Woburn	Mys01c	10:10	plastic	4"	1/2	none	none	cloudy	none	ND (4)	ND (10)	NA	ND	NA	NA
7/21/10	Woburn	Halls2	10:55	open stream	na	stream	none	none	clear	none	2190	816	NA	ND	NA	NA
7/21/10	Woburn	DRR1	11:00	open stream	na	stream	none	grey	cloudy	none	1549	288	NA	~0.1	NA	NA
7/21/10	Woburn	UR030	11:00	open stream	na	stream	none	grey	cloudy	none	744	253	NA	~0.1	NA	NA
7/28/10	Boston	29J212	7:15	concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
7/28/10	Boston	Bos017	7:16	concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/28/10	Dorchester	CantB	8:28	open stream	na	stream	na	grey./green	lightly coud	rash & debri	169	86	NA	0.3	NA	NA
7/28/10	Dorchester	UR031	8:28	open stream	na	stream	na	grey./green	lightly coud	rash & debri	146	51	NA	0.3	NA	NA
7/28/10	Boston	15F288	9:02	Brick	5'	~10	sharp musty	none	clear	none	205	109	NA	0.2	NA	NA
7/28/10	Boston	Mudd1	9:55	stone	bridge	NA	none	na	cloudy	none	2318	703	NA	0.15	NA	NA
7/28/10	Brookline	VillB	10:40	stone	5'	NA	musty	green	cloudy	ves &sedim	258	52	NA	~0.1	NA	NA
7/28/10	Boston	OF233	11:00	concrete	20-30"		slightly must	ght oil shee	clear	e trash & de	198630	24196	NA	ND	NA	NA
7/28/10	Boston	Jpond	11:25	ubbling up from ground			none	none	none	none	43	ND	NA	ND	NA	NA
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	clean smell	none	none	none	30	10	NA	0.2	NA	NA
8/4/10	Lawrence	SPRLGH	7:40	open stream	na	stream	none	none	clear	none	1164	1529	NA	~0.1	NA	NA
8/4/10	Lawrence	Jackson	8:25	open stream	na	stream	none	light tea	some	ash and deb	606	512	NA	~0.1	NA	NA
8/4/10	Lawrence	Willow	9:00	open stream	na	stream	none	med tea	none	ash and deb	325	158	NA	~0.1	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact	1230	275	NA	~0.1	NA	NA

8/4/10	Lawrence	Shaw01	9:50	open stream	na	stream	none	il sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA
8/4/10	Andover	Huss01	10:35	stone box	10' x 5'	na	none	none	clear	surface suds	7945	109	NA	ND	NA	NA
8/4/10	Andover	Huss02	11:00	open stream	na	stream	cloudy	ight oil shee	ightly cloud	scum	34	ND (10)	NA	~0.1	NA	NA
8/4/10	Andover	URO32	11:00	open stream	na	stream	cloudy	ight oil shee	ightly cloud	scum	8	20	NA	~0.1	NA	NA
8/11/10	Stoneham	100A	7:42	open stream	na	stream	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
8/11/10	Stoneham	2Linden	8:25	open stream	na	stream	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
8/11/10	Stoneham	Elm2	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	6867	NA	0.2	NA	NA
8/11/10	Stoneham	URO33	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
8/11/10	Stoneham	Toms	9:50	tal w/asphalt bot	3'	~5 -7	hault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA
8/11/10	Woburn	Halls2	10:35	open stream	na	low	none	light tea	nsome trash and		1379	717	NA	~0.1	NA	NA
8/11/10	Woburn	Halls3	10:50	concrete	~12	< 1	or a few mir	none	clear	suds	4	ND (10)	NA	0.6	NA	NA
8/11/10	Stoneham	31Sixth	11:21	concrete	18"		none	none	clear	light film or	183	86	NA	0.3	NA	NA
8/11/10	Stoneham	2ndRd	11:50	open stream	na	stream	none	med tea	clear	none	430	226	NA	~0.1	NA	NA
8/18/10	Warwick, RI	CBW	8:10	Beach	NA	outgoing tide	none	none	clear	none	28 fecal	ND	NA	3	NA	NA
8/18/10	Warwick, RI	UNKBK	8:22	open stream	na	~ 0.3cfs	none	none	ightly cloud	none	504 fecal	4352	NA	2	NA	NA
8/18/10	Warwick, RI	MC01	8:25	open stream	na	stream	none	none	can't see bo	none	484 fecal	311	NA	2	NA	NA
8/18/10	Warwick, RI	BB08	8:50	open stream	na	stream	none	none	cloudy	none	1340 fecal	1014	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB08P	8:57	concrete	~16	~ 1	none	none	clear	none	1610 fecal	135	NA	1	NA	NA
8/18/10	Warwick, RI	LK04	9:20	open stream	na	stream	none	none	clear	and some o	1710 fecal	906	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB07	9:30	open stream	na	stream	none	none	clear	none	2870 fecal	1046	NA	0.2	NA	NA
8/18/10	Warwick, RI	WR02	9:45	double culvert			none	none	clear	he oil on sur	300 fecal	148	NA	0.15	NA	NA
8/18/10	Warwick, RI	LK02	10:55	open stream	na	stream	none	none	clear	some trash	7100 fecal	1374	NA	0.25	NA	NA
8/18/10	Warwick, RI	Emerson	11:11	erforated aluminu	2'	~1 -2	none	none	clear	none	580 fecal	31	NA	ND	NA	NA
8/18/10	Warwick, RI	MB01	11:30	stone	2'x2'box	~50	none	none	clear	none	484 fecal	161	NA	ND	NA	NA
8/18/10	Warwick, RI	SweetF	11:45	concrete	~16	~15 - 20	ong musty o	grey	cloudy	d grayish gro	ND fecal	ND	NA	0.2	NA	NA
8/18/10	Warwick, RI	URO34	11:45	concrete	~16	~15 - 21	ong musty o	grey	cloudy	d grayish gro	ND fecal	62	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none	21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	996-F	8:50	concrete	16	~10	none	none	clear	none	353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none	16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	GovB	10:40	Swale	NA	stagnant	none	light orange	ightly cloud	some scum	192	98	NA	0.2	NA	NA
8/25/10	Laconia, NH	GovB01	11:00	tone w/metal lining		~30	none	none	clear	none	857	1223	NA	0.22	NA	NA
8/25/10	Laconia, NH	996-F	11:11	concrete	16	~20	none	none	clear	some suds	6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	UR035	11:11	concrete	16	~20	none	none	clear	some suds	6978	17329	NA	0.2	NA	NA
8/25/10	Laconia, NH	Swale	11:40	concrete	16-18	~10	none	none	clear	none	17200	26030	NA	0.2	NA	NA
8/25/10	Laconia, NH	CBAdmin	11:50	concrete	18	~50	ght musty o	none	clear	none	621	1553	NA	0.2	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	he suds & de	38730	51720	NA	0.25	NA	NA
9/1/10	Revere	Green01	8:10	open stream	na	stream	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
9/1/10	Chelsea	Mill2A	8:30	concrete	24	<5	usty/chemic	none	clear	trash	8	ND	NA	0.6	NA	NA
9/1/10	Chelsea	Mill2	8:55	concrete	~30 inches	15	sharp sewa	clear	none	None	282	41	NA	0.5	NA	NA
9/1/10	Revere	Amelia	9:30	open stream	na	stream	none	light tea	suspended	some suds	3466	1430	NA	0.6	NA	NA
9/1/10	Revere	Sargent	9:55	concrete	36	NA	slight musty	none	clear	none	875	201	NA	0.2	NA	NA
9/1/10	Marblehead	DLaunch	11:10	concrete	4ft	40	none	none	clear	none	31300	2481	NA	0.75	NA	NA
9/1/10	Marblehead	UR036	11:10	concrete	4ft	40	none	none	clear	none	30760	3076	NA	0.75	NA	NA
9/1/10	Marblehead	Mneck02	11:35	concrete	24	5	none	nt green/yel	clear	ome fine suc	81640	120330	NA	0.2	NA	NA
9/1/10	Marblehead	GO01	12:00	concrete	36in	50	None	None	Clear	None	310	145	NA	0.2	NA	NA
9/1/10	Marblehead	StramB	12:30	Beach	NA	NA	none	none	clear	None	211	ND	NA	2	NA	NA
10/5/10	Watertown	SawB01	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
10/5/10	Watertown	UR037	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
10/5/10	Watertown	ARLEast	8:35	open stream	na	stream	none	none	clear	none	7946	823	NA	0.25	NA	NA
10/5/10	Watertown	ARL01	8:40	concrete	4'x4' box	na	none	none	clear	none	9678	1014	NA	NA	NA	NA
10/5/10	Watertown	ARL02	8:42	concrete	4'x4' box	na	none	none	clear	none	9678	738	NA	NA	NA	NA
10/5/10	Watertown	ARL03	8:45	concrete	5'x4' box	na	none	none	clear	none	3080	173	NA	NA	NA	NA
10/5/10	Watertown	Wat13	9:20	concrete	16"	1	none	none	clear	none	92080	2142	NA	0.25	NA	NA
10/5/10	Watertown	Wat12	9:30	concrete	36"	na	none	none	clear	none	111990	14136	NA	0.6	NA	NA
10/5/10	Watertown	Wat11	9:40	concrete	4'x3' box	na	none	med tea	turbid	none	19350	1723	NA	0.3	NA	NA
10/5/10	Watertown	LB01	10:35	concrete	10'x7'box	100	none	none	clear	none	6212	583	NA	0.2	NA	NA
10/5/10	Watertown	Wat5	11:07	concrete	4'	1	none	none	clear	none	64	20	NA	0.25	NA	NA
10/5/10	Watertown	Wat6	11:11	concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	NA
10/13/10	Marblehead	DLaunch	8:15	concrete	4ft	40	none	none	clear	none	1376	860	NA	2	NA	NA
10/13/10	Marblehead	UR038	8:15	concrete	4ft	40	none	none	clear	none	871	723	NA	2	NA	NA
10/13/10	Marblehead	MH19	8:38	stormdrain	na	~20	ong musty o	none	clear	none	TNTC	24196	NA	0.5	NA	NA
10/13/10	Marblehead	MH32	9:10	stormdrain	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	NA
10/13/10	Marblehead	MH48	9:30	stormdrain	na	~15	lightly must	none	clear	none	8	ND	NA	~0.1	NA	NA
10/13/10	Marblehead	MH29A	9:55	plastic stormdrain	18-24	~10	none	none	clear	none	689	41	NA	~0.1	NA	NA
10/13/10	Marblehead	MH2336	10:30	stormdrain	na	na	none	none	clear	small white	5654	2489	NA	0.25	NA	NA
10/13/10	Marblehead	MH2203	10:55	stormdrain	na	~15	musty	none	clear	none	5654	5475	NA	0.3	NA	NA
10/13/10	Marblehead	MHWinslow	11:11	stormdrain	na	na	musty	lightly yellov	clear	none	2452	118	NA	0.4	NA	NA
10/13/10	Marblehead	MHWinslowA	11:28	stormdrain	18"	~5-10	resh smellin	none	clear	none	43	98	NA	0.2	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
10/27/10	Quincy	WollB1B	8:18	concrete	3-4'	30-40	musty/sulfu	none	ightly cloud	some suds	58	20	NA	2.5	NA	NA
10/27/10	Dorchester	Ten1	8:55	Pipe Mat.	24-30	na	none	Tan/brown	very turbid	none	132	20	NA	1.5	NA	NA
10/27/10	Boston	10L094	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	4813	14136	NA	0.6	NA	NA
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	41060	9208	NA	0.8	NA	NA
10/27/10	Boston	10L094A	9:25	metal	24"	5	musty	grey	cloudy	none	34480	14136	NA	1.5	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	stream	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
10/27/10	Quincy	Sag1C	10:58	metal	30"	na	natural gas	light brown	clear	none	2452	2723	NA	0.6	NA	NA
10/27/10	Quincy	Bay1	11:40	Seep/pool	NA	NA	sewage	rk brown/gr	cloudy	none	173290	365400	NA	NA	NA	NA
10/27/10	Quincy	BayBch	11:45	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	NA
10/27/10	Quincy	WollBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	NA
10/27/10	Quincy	WollBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
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NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
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0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	NA	NA
1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	~0	NA	NA	ND (1.0)	11	ND (0.2)	9.1	56	ND (0.2)	ND (2.0)	31	~0.76	ND	ND	0.08	ND	ND
ND	NA	NA	ND	NA	NA	ND (1.0)	34	ND (0.2)	38	2600	ND (0.2)	ND (2.0)	96	2.2	ND	ND	0.05	ND	ND
1.5	NA	NA	1	NA	NA	ND (1.0)	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.14	ND	0.53
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
1.10	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2.00	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
>2.0	NA	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
>2.0	NA	NA	>6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	na	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	NA	NA	3	NA	~135	ND (2.0)	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
ND	NA	NA	ND	NA	11	ND (2.0)	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.23
ND	NA	NA	ND	NA	12	ND (2.0)	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.28
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.35*	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.60	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.60	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
~0.1	NA	NA	~0.10	NA	21	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	15	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	ND	ND	ND
ND	NA	NA	ND	NA	78	~4.2	1700	ND (0.4)	120	200	~1.0	ND (4.0)	2500	12	ND	ND	~0.01	ND	ND
~0.1	NA	0.14	0.25	NA	84	~4.9	1600	~0.34	130	240	~1.6	ND (4.0)	3300	7.5	ND	ND	ND	ND	ND
~0.75	NA	NA	3	NA	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0)	55000	200	ND	ND	NA	ND	ND
ND	NA	0.23	ND	NA	35	~5.9	73	~0.74	87	360	~1.1	ND (4.0)	320	10	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.71	0.50	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
NA	NA	0.15	0.6	NA	34	ND (1.0)	5.8	~0.29	12	34	ND (0.2)	ND (2.0)	2.5	1.5	ND	ND	0.07	ND	ND
NA	NA	0.41	3	NA	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2.0)	11	1.5	ND	ND	0.04	ND	0.54
NA	NA	0.19	~0.10	NA	174	~27	2600	~2.3	530	1100	8.7	ND (2.0)	600	3.2	NA	NA	ND	ND	0.81

>2	NA	1.08	5.5	NA	586	~150	27000	~13	3500	5000	61	ND (2.0)	17000	5.1	ND	ND	0.04	ND	0.37
NA	NA	1.1	6	NA	491	~140	24000	~12	3300	4500	48	ND(2.0)	14000	4.9	ND	ND	0.07	ND	0.36
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
1.7 nessle	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.4 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
ND	NA	ND	ND	NA	33	ND (1.0)	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2.0)	2	ND (0.2)	ND	ND	~0.02	ND	ND
ND	NA	ND	ND	NA	29	ND (1.0)	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2.0)	ND (2.0)	1.5	ND	ND	ND	ND	ND
~0	NA	ND	~0.10	NA	46	ND (1.0)	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	~0.01	ND	ND
ND	NA	ND	~0.10	NA	43	ND (1.0)	57	ND (0.2)	17	30	ND (0.2)	ND (2.0)	12	ND (0.2)	ND	ND	ND	ND	ND
~1.0	NA	0.24	3	NA	1080	ND (100.0)	6200	ND (20.0)	1600	4300	ND (20.0)	ND (200.0	7710	ND (20.0)	ND	ND	0.04	ND	0.3
~1.0	NA	0.31	2	NA	380	ND (100.0)	5500	ND (20.0)	1400	4200	ND (20.0)	ND (200.0	7200	ND (20.0)	ND	ND	ND	ND	0.29
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	5.00	NA	NA	ND (5.0)	3200	~29	1600	4800	ND (1.0)	ND (10.0)	1600	ND (1.0)	NA	NA	NA	ND	NA
NA	NA	NA	6.00	NA	NA	ND (5.0)	12000	~8.7	1800	890	ND (1.0)	ND (10.0)	5500	ND (1.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.25	NA	NA	0.75	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	~0.08	ND	NA	26	ND (1.0)	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2.0)	250	0.52	ND	ND	0.06	ND	ND
ND	NA	0.22	ND	NA	83	ND (1.0)	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2.0)	270	2.6	ND	ND	0.09	ND	ND
ND	NA	ND	ND	NA	72	ND (1.0)	2.9	ND (0.2)	~4.9	~11	ND (0.2)	ND (2.0)	9.2	0.56	ND	ND	ND	ND	0.75
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
0.5	1	0.24	1.5	NA	84	~62	1100	~3.7	500	980	39	5	2800	7.4	na	na	~0.0	ND	ND
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	ND	ND	NA
0.4	NA	NA	0.20	NA	NA										NA	NA	0.13	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.1	NA	NA	ND	NA	NA										NA	NA	0.08	ND	NA
0.5	NA	NA	2.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	~0.02	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	0.03	ND	NA
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
0.5	2	0.51	1	NA	72	~20	280	~1.6	120	360	2.4	ND (4.0)	680	2.9	ND	ND	ND	ND	0.62
0.5	2.5	0.49	0.3	NA	73	~24	310	~2.0	120	320	2.3	ND (4.0)	670	2.6	ND	ND	0.05	ND	0.66
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
1.1	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~1.1	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	ND (2.0)	ND (2.0)	ND (0.4)	6.4	9.7	ND (0.4)	ND (4.0)	28	3.9	NA	NA	NA	ND	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	4.00	NA	NA	~80	1400	~4.8	280	960	40	24	6500	28	NA	NA	NA	ND	NA
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	17	ND (2.0)	15	~0.46	7.1	56	ND (0.4)	ND (4.0)	100	4.7	ND	ND	0.14	ND	ND
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA
clear	1.35	ND	ND	NA	98	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	7	0.56	ND	ND	0.38	ND	0.75
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.60	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	5.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	0.5	0.09	0.2	NA	110	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	13	1.6	ND	ND	0.19	ND	ND
ND	0.4	ND	ND	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~0.88	ND (4.0)	14	1.4	ND	ND	0.18	ND	ND
ND	0.5	ND	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	15	1.5	ND	ND	NA	ND	ND
ND	0.8	~0.08	0.25	NA	77	ND (2.0)	ND (2.0)	ND (0.4)	4.4	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	1.2	ND	ND	0.11	ND	ND
~0.1	0.6	0.1	0.4	NA	101	ND (2.0)	ND (2.0)	ND (0.4)	53	5200	~0.52	ND (4.0)	ND (4.0)	17	ND	ND	0.10	ND	ND
ND	0.8	ND	0.5	NA	89	ND (2.0)	ND (2.0)	ND (0.4)	6.5	260	ND (0.4)	ND (4.0)	ND (4.0)	19	NA	NA	0.13	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	1.1	0.13	0.75	NA	148	~49	280	~4.7	100	230	7.7	ND (8.0)	3800	5.7	ND	ND	0.05	ND	ND
ND	0.3	ND	ND	NA	42	ND (4.0)	10	ND (0.8)	10	96	ND (0.8)	ND (8.0)	39	4.1	ND	ND	0.07	ND	ND
ND	0.4	ND	ND	NA	46	ND (4.0)	ND (4.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8.0)	12	14	ND	ND	0.03	ND	ND
>2	>3	23.1	>6	NA	4420	~1800	65000	~51	11000	66000	280	ND (440.0	340000	140	ND	ND	ND	ND	0.56
>2	>3	15	>6	NA	3630	ND (200.0)	590000	ND (40.0)	7300	4400	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.55
>2	>3	14.7	>6	NA	3390	ND (200.0)	600000	ND (40.0)	7500	4700	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.62
0.25	1.4	0.18	2	NA	201	ND (20.0)	69	~4.0	280	180	ND (4.0)	ND (40.0)	5900	ND (4.0)	ND	ND	0.04	ND	ND
ND	0.3	ND	ND	NA	46	ND (3.8)	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7.7)	12	4.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31	ND	NA
NA	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.8	ND	ND	NA	45	ND (2.0)	820	4	23	1400	ND (0.4)	ND (4.0)	180	~2.2	ND	ND	ND	ND	ND
>2	>3	9.3	6	NA	31	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	24	~1.2	ND	ND	0.08	ND	0.62
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2

NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
2	>3	9.8	>3	NA	45	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	14	~1.3	ND	ND	~0.0	ND	0.64
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
~0.1	0.4	0.31	ND	NA	27	ND (2.0)	38	ND (0.4)	4.4	16	ND (0.4)	ND (4.0)	440	6	ND	ND	~0.02	ND	ND
ND	0.4	ND	ND	NA	49	ND (2.0)	69	ND (0.4)	26	850	2.7	ND (4.0)	240	3.5	ND	ND	0.10	ND	ND
ND	0.4	ND	ND	NA	47	ND (2.0)	57	ND (0.4)	24	820	2.2	ND (4.0)	270	3.8	ND	ND	0.10	ND	ND
ND	0.4	0.1	ND	NA	20	ND (2.0)	3.1	ND (0.4)	7	30	ND (0.4)	ND (4.0)	61	5	ND	ND	0.06	ND	ND
ND	0.4	ND	ND	NA	39	ND (2.0)	93	ND (0.4)	14	17	ND (0.4)	ND (4.0)	66	2.5	ND	ND	0.07	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
ND	0.2	ND	ND	NA	~243	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.32
ND	0.4	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
ND	0.8	ND	~0.10	NA	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.9	ND	0.50	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.10	ND	ND
ND	0.8	ND	ND	NA	38	na	na	na	na	na	na	na	na	na	ND	ND	~0.02	ND	ND
ND	0.8	ND	ND	NA	36	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA
ND	1.6	0.22	2.00	NA	35	na	na	na	na	na	na	na	na	na	ND	ND	0.03	ND	ND
0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA
ND	0.3	ND	ND	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.7	ND	ND	NA	78	ND (2.0)	19	ND (0.4)	~8	25	ND (0.4)	ND (4.0)	42	1.1	ND	ND	0.03	ND	ND
~0.1	0.6	ND	ND	NA	65	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.4	ND	ND	NA	20	ND (2.0)	240	ND (0.4)	~20	40	ND (0.4)	ND (4.0)	16000	4.9	ND	ND	0.09	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
ND	0.4	ND	ND	NA	22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND
>2	>3	2.26	6	NA	421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22
ND	0.6	ND	~0.10	NA	28	ND (2.1)	10	ND (0.4)	~10	45	~0.28	ND (4.2)	280	3.4	ND	ND	0.06	ND	ND
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
ND	~0.1	ND	~0.30	NA	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND
ND	~0.1	ND	ND	NA	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
ND	ND	ND	ND	NA	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.1	28	4.1	~20	3.1	6	34	0.7	ND (4.0)	490	1.4	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.95	37	4.8	190	4.6	12	70	1.2	ND (4.0)	1400	0.93	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.78	47	12	280	4.7	30	170	2.9	ND (4.0)	2700	ND (0.4)	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	3	9.1	ND (2.0)	ND (2.0)	0.86	ND (2.0)	5.4	ND (0.4)	ND (4.0)	15	1.2	ND	ND	NA	ND	ND
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	ND	1.1	52	ND (2.5)	ND (2.5)	1	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	14	ND (0.5)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	2	1.2	28	2.3	21	21	7.9	170	ND (0.4)	ND (4.0)	360	0.85	ND	ND	0.06	ND	ND
NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	25	ND (2.0)	27	23	6.4	220	1.4	ND (4.0)	370	0.61	ND	ND	ND	ND	ND
NA	NA	NA	3	1.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.5	2	23	ND (2.0)	5.8	6.7	ND (2.0)	37	ND (0.4)	6.5	1300	4.8	ND	ND	0.04	ND	ND
NA	NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1	0.59	36	ND (2.0)	7.9	10	ND (2.0)	35	ND (0.4)	16	1000	1.2	ND	ND	ND	ND	ND
NA	NA	NA	ND	2.7	28	3.2	120	8.1	19	85	ND (0.5)	7.2	1500	8.6	ND	ND	0.06	ND	ND
NA	NA	NA	ND	0.59	58	8.5	53	10	12	130	ND (0.4)	ND (4.0)	750	0.42	ND	ND	0.09	ND	ND
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	0.37	54	9.1	100	7.7	13	73	0.65	ND (4.0)	1200	0.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	0.31	55	8	5.4	5.7	7.3	35	ND (0.4)	ND (4.0)	590	ND (0.4)	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	9.3	8.3	300	ND (0.5)	ND (5.0)	160	1.4	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	29	ND (2.0)	2.3	1.5	ND (2.0)	6.7	ND (0.4)	ND (4.0)	96	0.72	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	38	ND (2.0)	ND (2.0)	7.5	5.9	140	ND (0.4)	ND (4.0)	80	1.4	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	73	ND (2.0)	2.5	17	6.4	61	ND (0.4)	ND (4.0)	230	1.2	NA	NA	0.11	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA

NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	69	ND (2.0)	53	17	7.5	180	ND (0.4)	ND (4.0)	1300	0.84	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	79	45	1200	11	300	1100	4.8	ND (5.0)	12000	4.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	NA	23	ND (2.0)	ND (2.0)	4.3	4.2	39	ND (0.4)	ND (4.0)	37	ND (0.4)	NA	NA	0.71	1/0.3	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	0.25	NA	NA	ND (2.5)	ND (2.5)	2.4	ND (2.5)	11	ND (0.5)	7.4	30	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	84	3.1	19	2.8	5.1	22	0.63	ND (4.0)	440	ND (0.4)	NA	NA	0.08	ND	NA
NA	NA	NA	1	NA	93	ND (2.0)	ND (2.0)	2.2	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	36	ND (2.0)	ND (2.0)	0.45	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	0.7	NA	NA	4.7	210	53	26	180	0.56	ND (4.0)	1200	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	8	6.6	5.9	54	ND (0.4)	ND (4.0)	78	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	3.4	50	63	26	510	1.3	ND (4.0)	90	1.4	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA
NA	NA	NA	0.75	NA	NA	41	81	62	280	940	ND (0.5)	ND (5.0)	1800	5	NA	NA	0.6	ND	NA
NA	NA	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0)	17000	240	NA	NA	0.13	ND	NA
NA	NA	NA	0.75	NA	NA	450	14	19	31	170	1.3	ND (4.0)	870	170	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	NA	850	99	ND (0.5)	6.1	20	1.3	ND (5.0)	17	170	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.4)	ND (4.0)	ND (4.0)	87	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	NA	670	140	ND (0.4)	2.1	5.8	0.89	ND (4.0)	31	240	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	1800	41000	1300	7300	33000	510	ND (20.0)	550000	280	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	410	ND (2.0)	3.7	6.9	24	0.64	ND (4.0)	14	180	NA	NA	0.18	ND	NA
NA	NA	NA	6+	NA	NA	1400	44000	1900	6300	51000	760	ND (20.0)	580000	300	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	36	ND (2.0)	6.1	6.7	ND (2.0)	5.9	ND (0.4)	ND (4.0)	73	ND (0.4)	NA	NA	0.17	ND	NA
NA	NA	NA	0.25	NA	30	ND (2.5)	9.1	47	3.8	150	2.1	ND (5.0)	10	4.5	NA	NA	0.1	ND	NA
NA	NA	NA	ND	NA	34	ND (2.0)	ND (2.0)	0.99	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	28	18	ND (2.0)	1.8	2.8	6.3	2.1	ND (4.0)	49	3.9	NA	NA	0.22	ND	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	152	ND (2.0)	ND (2.0)	2.8	ND (2.0)	7.3	0.43	ND (4.0)	17	ND (0.4)	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	30	ND (2.0)	ND (2.0)	2.4	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	80	ND (0.4)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	ND (2.5)	ND (2.5)	1.4	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	170	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	112	23	87	12	18	200	4.6	ND (4.0)	790	1.3	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	32	ND (2.0)	ND (2.0)	3.3	ND (2.0)	110	ND (0.4)	ND (4.0)	22	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	45	ND (2.5)	ND (2.5)	1.8	ND (2.5)	6.3	ND (0.5)	ND (5.0)	60	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	59	ND (2.0)	ND (2.0)	1.3	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	92	ND (0.4)	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	46	ND (2.0)	ND (2.0)	8.9	ND (2.0)	5.6	ND (0.4)	ND (4.0)	210	1.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	32	ND (2.0)	ND (2.0)	9.9	ND (2.0)	8.6	ND (0.4)	ND (4.0)	35	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	ND	NA
NA	NA	NA	0.4	NA	27	ND (2.0)	ND (2.0)	8.7	ND (2.0)	7.3	ND (0.4)	ND (4.0)	27	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	53	30	5.3	31	18	82	3.9	4.6	270	10	NA	NA	0.15	ND	NA
NA	NA	NA	4	NA	27	ND (2.0)	ND (2.0)	11	ND (2.0)	55	ND (0.4)	ND (4.0)	45	0.42	NA	NA	0.08	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	26	ND (2.5)	11	8.6	13	470	ND (0.5)	ND (5.0)	35	1.2	NA	NA	0.08	ND	NA
NA	NA	NA	5	NA	35	ND (2.5)	ND (2.5)	2.7	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	470	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	5	NA	151	76	1700	71	270	1200	ND (0.4)	ND (4.0)	3800	ND (0.4)	NA	NA	0.37	ND	NA
NA	NA	NA	5	NA	147	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.37	ND	NA
NA	NA	NA	0.75	NA	74	29	11	3.9	53	40	ND (0.4)	ND (4.0)	750	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	5	NA	166	8.7	63	23	41	160	ND (0.4)	ND (4.0)	790	4.5	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	141	4.7	59	17	28	130	ND (0.4)	ND (4.0)	24	3.5	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	234	230	3900	35	430	3400	11	ND (4.0)	38000	15	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	16	ND (2.5)	17	ND (0.5)	ND (5.0)	20	ND (0.5)	NA	NA	0.06	ND	NA
NA	NA	NA	0.2	NA	12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA

NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	51	11	12	7.9	110	410	ND (0.4)	ND (4.0)	11000	0.55	NA	NA	0.2	ND	NA
NA	NA	NA	0.1	NA	40	ND (2.5)	ND (2.5)	3.3	4.7	36	ND (0.5)	ND (5.0)	44	1.8	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	93	320	240	77	700	1300	13	5.9	1100	5.7	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA
NA	NA	NA	ND	NA	33	ND (2.0)	ND (2.0)	3.6	18	470	ND (0.4)	ND (4.0)	ND (4.0)	0.4	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (4.0)	17	35	41	210	ND (0.8)	ND (8.0)	ND (8.0)	ND (0.8)	NA	NA	0.07	ND	NA
NA	NA	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	47	ND (2.5)	ND (2.5)	3.4	ND (2.5)	8.1	ND (0.5)	ND (5.0)	ND (5.0)	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	ND (2.0)	3.8	5.2	18	3.6	ND (4.0)	11	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	7.1	15	73	1.9	ND (4.0)	ND (4.0)	4.3	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	72	ND (2.0)	ND (2.0)	7.8	15	110	ND (0.4)	6	ND (4.0)	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	16	14	10	44	ND (0.4)	6.5	12	18	NA	NA	0.06	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	33	ND (2.5)	ND (2.5)	11	17	100	ND (0.5)	5.4	ND (5.0)	4.8	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	2.3	5.6	24	ND (0.5)	17	ND (5.0)	7.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	21	2.1	29	41	85	240	1.9	ND (4.0)	42	4.9	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	1	NA	40	19	ND (2.0)	1.3	4.8	11	ND (0.4)	130	ND (4.0)	3.7	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.0)	ND (2.0)	ND (0.4)	2.7	ND (4.0)	ND (2.0)	ND (4.0)	ND (4.0)	0.74	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	58	ND (2.0)	ND (2.0)	ND (0.4)	12	12	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.5)	ND (2.5)	ND (0.5)	11	4.5	ND (2.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	66	ND (2.0)	7	4.5	11	33	ND (0.4)	ND (4.0)	4.6	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	65	ND (2.5)	ND (2.5)	0.65	5.2	ND (5.0)	ND (0.5)	ND (5.0)	ND (5.0)	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	90	14	340	8.4	220	3000	ND (0.4)	ND (4.0)	980	6.5	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.75	NA	57	ND (2.0)	ND (2.0)	0.75	4.4	5.6	ND (0.4)	ND (4.0)	7.1	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	89	ND (2.0)	ND (2.0)	3.8	11	46	ND (0.4)	ND (4.0)	ND (4.0)	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	69	ND (2.5)	ND (2.5)	1.9	39	48	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	19	190	13	260	730	ND (0.8)	ND (8.0)	ND (8.0)	6.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	5	NA	NA	150	610	150	1400	940	ND (0.4)	ND (4.0)	120	11	NA	NA	0.08	ND	NA
NA	NA	NA	4	NA	NA	190	1100	43	980	12000	ND (4.0)	ND (40.0)	1200	200	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	NA	ND (10.0)	490	16	160	270	ND (2.0)	ND (20.0)	54	18	NA	NA	0.14	ND	NA
NA	NA	NA	ND	NA	NA	6.3	46	14	42	510	ND (0.5)	ND (4.7)	92	3.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.52	4.8	23	ND (0.4)	ND (4.0)	ND (4.0)	6.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	5.4	37	3.7	19	82	ND (0.4)	ND (4.2)	36	3.2	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	14	1.8	12	44	ND (0.4)	ND (4.0)	8.5	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	120	4500	37	2100	4300	ND (4.0)	ND (40.0)	~1500	82	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.4	8.4	6.6	210	120	ND (0.5)	ND (4.8)	~97	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.84	2.8	ND (4.0)	ND (0.4)	ND (4.0)	~4.3	0.52	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.2	21	1	9.4	50	ND (0.5)	ND (4.8)	~15	0.66	NA	NA	0.03	ND	NA
NA	NA	NA	0.75	NA	NA	13	310	19	1100	~48000	ND (0.4)	ND (4.0)	~29	68	NA	NA	0.03	ND	NA
NA	NA	NA	0.4	NA	NA	46	630	13	470	790	ND (0.8)	ND (8.0)	~81	ND (0.8)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	ND (2.0)	110	16	90	130	ND (0.4)	ND (4.0)	ND (4.0)	1.7	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	ND (10.0)	ND (10.0	2.6	10	ND (20.0)	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	47	16	13	~130	14	ND (20.0)	20	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	1800	190	400	~2700	4.3	ND (20.0)	180	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	270	970	170	~4100	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	NA	ND (10.0)	81	280	100	~3200	38	ND (20.0)	64	ND (2.0)	NA	NA	0.06	ND	NA
NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	ND (1000.0	20000	ND (100.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	1.9	~1.6	~16	ND (0.4)	ND (4.0)	~2.9	0.5	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	2.2	4.7	~11	ND (0.4)	ND (4.0)	4.4	0.46	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	2.2	2.4	7.5	~52	ND (0.4)	16	ND (4.0)	ND (0.4)	NA	NA	0.04	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivity	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch	4 gal/min flow est, Mu	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4733306	71.1187503	unnamed stream in W	No odor	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	No odor	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus	strong strawberry jello	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.477141	71.1176671	Aberjona upstream o	strong strawberry jello	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Slight musty odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Medium sewage odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Duplicate	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slight odor coming fro	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.743207	71.208453	walked in from small	Dry weather during sa	na	na	na		0.43		Wet
NA	NA	NA	42.755268	71.207933	Walked in behind autoparts/glass stor on righ		na	na	na		0.43		Wet
NA	NA	NA	42.762503	71.222746	Parked at Lancelot Court apartments behind		na	na	na		0.43		Wet
NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's storage on left off So.		na	na	na		0.43		Wet
NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's storage on left off So.		na	na	na		0.43		Wet
NA	NA	NA	42.767438	71.223016	Parked behind Kohl's		na	na	na		0.43		Wet
NA	NA	NA	42.774045	71.224331	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.774065	71.224326	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.778121	71.227147	Parked across from n	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	culvert to right not flo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.513504	71.138870	74 Commerce Way (M	No odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.515744	71.136289	Marshall's shipping lo	Marshalls shipping lo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.516016	71.136885	Across Street from las	some geese swimmin	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.517193	71.141968	Turn on Atlantic Ave p	No odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.513758	71.144110	where hulls brook crosses under New Boston		na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	water very turbid sligh	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Very turbid, foul odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Duplicate	Duplicate	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.520981	71.147709	Just upstream from M	were stream exits outf	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.517881	71.150535	Just upstream from M	walked in about 1-2 m	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Musty odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	sampled largest pipe -	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.485896	71.120882	Wash Cir, just off Wa	downstream side	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.491300	71.127027	Operator of AMR gran	Lots of seeds in the w	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.493138	71.124117	Washington street corner of Salem St		na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.491580	71.128834	1921yr culvert	Downstream side	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495445	71.134031	behind United Station	Lots of trash in the ar	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495411	71.133994	closer to culvert than	Very turbid water, bro	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.500145	71.141333	Olympia Ave	On N. side grass clipp	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.501121	71.134909	near 60 Olympia Ave	Pretty clear water	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.501121	71.134909	Duplicate	Duplicate	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Sampled main stream	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.383054	71.030131	Condor Urban Wild, o	Sewage odor, plaque	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.382423	71.027076	Upstream of Condor U	White plaque coverin	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.402480	71.010704	Revere Beach Parkwa	White PVC beside br	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403156	71.018129	Broadway at New Cro	Outfall on opposite st	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	Sewage odor (Gillool	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Plaque covering outfa	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.409914	71.028297	Downstream of Mill04 - walked culvert		na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.410125	71.028722	Head of Millcreek		na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394445	71.049817	End of beachum and	(closest to road) stron	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394436	71.049780	End of beachum and	(midpoint from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	End of beachum and	(farthest from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	Duplicate	Duplicate	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (W	Pretty clear	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.419214	71.117619	Culvert off Meeting H	Strong sewage odor c	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.441521	71.149149	Sandy Beach Location		na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.442878	71.142845	Mystic River pkwy, un	Downstream	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.444363	71.138845	commuter rail station	bacon street bridge M	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.455647	71.137980	Main street bridge bet	between car lot and g	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456789	71.138966	bridge across from W	Wedge Pond inlet	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464865	71.151279	Horn Pond outlet, lake	lake ave, near water	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Near Super Stop & S	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456399	71.136447	small pipe exiting ball	small pipe	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.460935	71.137149	down street from Abe	2 pipes on bridge bot	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464339	71.132424	Tufts school behind s	Next to Amtrack rail	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464200	71.131111	Tufts school stream near bus circle		na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.468186	71.130921	park near Forest rd, o	on cross culvert unde	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.468186	71.130921	Duplicate	Duplicate	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.469507	71.125285	behind hospital, MyRV	MyRWA baseline site	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.467019	71.120658	outlet to resevoir	Across from Highland	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42 42'31.12"	71 9'1.07"	Channel	No GPS taken at site,	na	na	na		0.12		Wet
NA	NA	NA	42.711980	71.152671	Fulton Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.714655	71.156191	Brook Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42 42'49.21"	71 10'21.11"	Exchange Street outfa	No odor, a little foam	na	na	na		0.12		Wet
NA	NA	NA	42 42'49.31"	71 10'20.89"	Exchange Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.724919	71.183033	RT 28 castle park	No noticable odor to s	na	na	na		0.12		Wet

NA	NA	NA	42.727453	71.188366	Outfall downstream e	Possible stream culve	na	na	na		0.12		wet
NA	NA	NA	42.743250	71.208438	walked in from small	Right on MA/NH borde	na	na	na		0.12		Wet
NA	NA	NA	42.751038	71.212086	Spencer Street	Took GPS from street	na	na	na		0.12		Wet
NA	NA	NA	42.751038	71.212086	duplicate		na	na	na		0.12		Wet
NA	NA	NA	42.755035	71.208086	Walked in behind auto	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.484033	71.103950	Sweetwater Brook @	(0.1" 48hrs prior to sa	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Unnamed tributary to	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Grey, turbid water	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Lots of green duck we	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Waded 3 ft upstream	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Film on water, low flo	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Suspended solids	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518739	71.146411	Duplicate	Duplicate	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.519578	71.146937	Just upstream from M	were driveway enters	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.520981	71.147709	Upstream of Mys 8 wh	Low flow, light brown	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518433	71.148226	upstream from 7 and	Thick layer of duck w	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518477	71.148139	Stream entering upstr	Thick sediment, oily, t	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.517881	71.150535	Upstream of Mys 7 an	Good flow	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dow	Sandy bottom, beave	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.729569	71.195557	mid-channel sample just past RR bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.731521	71.200097	downstream side of 1st 113 bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734448	71.199880	Just upstream of 2nd 113 bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734293	71.199230	pond Northwest of MS	Pond entirely covered	na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734889	71.200300	~ 50m upsreatm of MSPCA		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.736056	71.201397	~100m upsreatm of MSPCA		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.434553	71.020547	Linden Brook as it day	Heavy silt deposits on	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.434497	71.020322	Tributary to Linden Br	Good flow, high sedim	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.433793	71.021460	Town Line Brook at h	Very silty	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.424881	71.041827	Town Line Brook whe	Orange floc, oil slick,	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.425568	71.026803	Stream at the of Ame	Deer prints, low flow,	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Very little flow, greeni	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407993	71.027011	Small culvert opening	water clea,r gray bact	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	End of beachum and	not quite as black as l	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	orange all over the roc	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	very orange, very turb	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.412663	71.069288	Culvert near Madeline	1/4" growth/deposit of	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407709	71.069853	Down Air force road b	Scum on top, some pe	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.413180	71.076268	Little Creek near Tufts	slight film on top of wa	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.440652	71.070136	Malden River across f	6-8" in depth, slight tu	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441720	71.070899	Old Mill Sample smal	~2 gal/min. entering c	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441688	71.071068	Old Mill at head of str	flow 3x-4x in matter o	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441687	71.071070	12inch clay pipe next	2 or 3gal/min, clear flo	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.444227	71.069626	Just downstream of N	sampled western char	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.449076	71.069831	Outlet of Malden Rive	Highly turbid - orange	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.455333	71.080747	Corner of Philips Rd &	downstream of spot p	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069376	Across from 50 Tremo	slight flow, clear	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069376	Duplicate		na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069370	Across from 50 tremo	flow appeared to char	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461429	71.068840	culvert across from D	flow clear, some algae	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch	Had to move manhole	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.464603	71.070066	Roosevelt School off	Trash gate clogged –S	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.456149	71.136269	ambient stream samp	Murky, some foam on	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42 25'07.64	71 87'40.33	Whittmore Brook off A	Some plaque on rocks	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41539348	71.103014	Small pipe next to cul	Very fresh smelling	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.40717819	71.090874	broken down culvert o	culvert has collapsed	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	very silty, bacteria and	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.40334224	71.017761	Culvert across stream	Lots of orange flock a	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403301	71.017871	Mill Creek sample mid	Clear flow, low flow ro	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	water looks clear. Flo	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	Duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.456365	71.136337	flow from directly und	site has deep deposits	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.361991	-71.147963	Corner of Greenough	Green algae covering	na	na	na		0	0.35	Wet
NA	NA	NA	42.363675	-71.155668	Outfall - So. Sawins B	Good flow strong rush	na	na	na		0	0.35	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook just of	Fairly clear, no odor w	na	na	na		0	0.35	wet
NA	NA	NA	42.367449	-71.198957	Culvert on right, 290 F	light tannish tint to wa	na	na	na		0	0.35	Wet
NA	NA	NA	42.367489	-71.198853	Culvert on left, 290 P	very large snapping tu	na	na	na		0	0.35	Wet
NA	NA	NA	42.367267	-71.218116	Intersection of Pleasa	Water flowing approx.	na	na	na		0	0.35	Wet
NA	NA	NA	42.381394	-71.213800	Edwin Rd and Parson	Walked in along strea	na	na	na		0	0.35	Wet
NA	NA	NA	42.381368	-71.213770	Beaver Brook just ups	water tannish tea colo	na	na	na		0	0.35	Wet
NA	NA	NA	42.381687	-71.233383	DPW outfall flowing in	water fairly clear no o	na	na	na		0	0.35	wet
NA	NA	NA	42.381687	-71.233383	Duplicate		na	na	na		0	0.35	Wet
NA	NA	NA	42.397176	-71.265148	across street from 55c	sampled pond as it flo	na	na	na		0	0.35	Wet
NA	NA	NA	42.456399	71.136447	small pipe exiting ball	Occasional discharge	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.456425	71.136466	Main stream next to M	Lots of leaf litter, mar	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.456789	71.138966	bridge across from W	High flow pretty clear	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.469507	71.125285	behind hospital, MyRV	High flow no distinct c	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	Low TSS, tannish sta	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus	very little odor, may b	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.478598	71.118001		Manhole nearby with	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Clear flow, no obvious	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @	downstream	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4824877	71.1060371	Duplicate	Duplicate	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Med flow tannish colo	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Very little flow, believ	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, san	Clear flow	na	na	na	Bedford	0.33	0.33	Wet

NA	NA	NA	42.497445	71.134658	Off Olym Ave back o	Lots of duck weed. Li	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dow	Sandy bottom, med f	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Clear, good flow, no	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, san	Clear flow	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.497445	71.134658	Off Olym Ave back o	Clear, low flow (less t	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Water grayish/green	na	na	na	Bedford	0.15	0.15	wet
NA	NA	NA	42.518433	71.148226	upstream from 7 and 7	1, downstream of Mys	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.518477	71.148139	Stream entering upstr	most likiliy from lands	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.483930	71.1039388	Duplicate	Duplicate	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slightly musty odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	flow about 2-3 gal/mir	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	No distinct odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.399997	71.053984	Where stream exits u	plaque accumulation,	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.41921413	-71.11761932	Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41921413	-71.11761932	Pipe off Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41769678	-71.12871923	algae, possibly grey	bacterial growth	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41382298	-71.13243822	orange flocc at bottom	GPS reads SOM1	na	na	na	Boston-Logan	0	0	Dry
NA	NA	49.30	42.39401523	-71.07608867	Sample taken out out	flow	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.46084009	-71.13716417	90 degree angle on pipe	downward, very stro	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.46309465	-71.13622116	look like it drains cent	just upstream of Swar	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4826072	-71.1046187	Unnamed tributary to	Sweetwater Brook opp	na	na	na	Boston-Logan	0	0	Dry
NA	NA	2.65	42.48393	-71.1039388	Sweetwater Brook @	Lindenwood (upstream	na	na	na	Boston-Logan	0	0	Dry
NA	NA	0.40	42.490277	-71.101799	much less than 2linde	Off Toms Way in Stor	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.490277	-71.101799	duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.49784987	-71.09894694	small pipe exiting	Right next to corner o	na	na	na	Boston-Logan	0	0	Dry
NA	4.0	4.30	42.515744	-71.136289	Sample taken shady l	Commerce Way locat	na	na	na	Bedford	0	0.06	Dry
NA	5.4	6.30	42.513171	-71.142649	1 foot deep at samplin	Halls Brook behind 18	na	na	na	Bedford	0	0.06	Dry
NA	6.2	32.10	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broo	na	na	na	Bedford	0	0.06	Dry
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	NA	12.00	42.50317874	-71.13529801	warmer than yesterda	99 restaurant, Aberjor	na	na	na	Bedford	0	0	Dry
NA	NA	8.35	42.5026954	-71.1353458	orange staining at bot	99 restaurant outfall d	na	na	na	Bedford	0	0	Dry
NA	NA	37.40	42.51329075	-71.14253919	sampled near wooden	unnamed stream just	na	na	na	Bedford	0	0	Dry
NA	NA	6.65	42.51317075	-71.14264919	Halls Brook	185 New Boston, (cho	na	na	na	Bedford	0	0	Dry
NA	NA	26.40	42.51858	-71.146281	condition same as 5/1	confluence of Mys7 ar	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.5157443	-71.1362892	Marshall's shipping lo	Same as last years M	na	na	na	Bedford	0	0	Dry
NA	NA	23.30	42.51601573	-71.13688511	Across Street from las	Same as last years m	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.526348	-71.125516	side culvert	West street where sur	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.526348	-71.125516	Main culvert	West street where sur	na	na	na	Bedford	0	0	Dry
NA	NA	4.00	42.53154834	-71.11838639	very, very slow flow w	Near corner of Interva	na	na	na	Bedford	0	0	Dry
NA	NA	4.30	42.53558799	-71.11508232	mowing upsteam; abo	Birchmeadow South o	na	na	na	Bedford	0	0	Dry
NA	NA	2.85	42.53558799	-71.11508232	duplicate		na	na	na	Bedford	0	0	Dry
NA	NA	3.15	42.53679646	-71.10856436	about 12' deep, slight	Reading High School	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.52094043	-71.10497511	about 6 inches deep	shington and High stre	na	na	na	Bedford	0	0	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
NA	160	46.60	42.40397	-71.021087	odor, gray/black cloud	privately owned	na	na	na	Boston-Logan	0	0.42	Wet
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	clean location	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	duplicate	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	NA	>50	42.27867229	-71.01285912	covered w/metal grate	Between yacht clubs	15	12	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.26651286	-70.99713721	3 dam section slight gr	eenish water 6 inch flo	27	14	na	Boston-Logan	0	0	Dry
NA	NA	18.50	42.26101708	-71.00364142		culvert under bridge o	2.3	14	na	Boston-Logan	0	0	Dry
NA	NA	2.20	42.25707901	-71.01144528	sampled mixing zone	corner of Furnace Bro	0.3	12.3	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.27616359	-71.03722522	oil sheen, jelly fish co	Office park off Heritag	8.1	13.4	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.29837295	-71.04637927	NH3 kit clear, very litt	Victory Park off Vistor	20.2	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.29837295	-71.04637927	duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	50.00	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	28.5	14.3	na	Boston-Logan	0	0	Dry
NA	NA	0.55	42.2668462	-71.02928152	needed city to open g	corner of Hobart and E	na	na	na	Boston-Logan	0	0	Dry
NA	NA	6.30	42.25196531	-71.04783967	downstream side of b	running through Cunn	0.3	11.8	na	Boston-Logan	0	0	Dry
NA	NA	1.20	42.25917963	-71.08395335	downstream side of b	MR baseline site?	na	na	na	Boston-Logan	0	0	Dry
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	550/180	Boston-Logan	0	0.03	Dry
NA	ND	1.25	42.425963	-71.114988		Meeting house brook	0.1	14.1	291	Boston-Logan	0	0.03	Dry
NA	4.9	4.75	42.399303	-71.160888	waded in stream to co	Winns Brook of Bright	0.6	14.4	1085	Boston-Logan	0	0.03	Dry
0.14	4.7	5.00	42.399303	-71.160888	duplicate		na	na	na	Boston-Logan	0	0.03	Dry
NA	6.6	4.55	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.8	14.1	1625	Boston-Logan	0	0.03	Dry
0.07	6.1	6.30	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.8	13.7	1623	Boston-Logan	0	0.03	Dry
NA	NA	0.30	42.72491896	-71.18303334	sample collected just	RT 28 castle park	0.2	16.7	384.6	Lawrence	0	0	Dry
NA	NA	NA	42.72745251	-71.18836554	hydroelectric stream,	Osgood Street	na	na	na	Lawrence	0	0	Dry
NA	NA	12.30	42.72745251	-71.18836554	discharge under Osgo	od street bridge, strong	na	na	na	Lawrence	0	0	Dry
NA	NA	2.10	42.74320743	-71.20845291	needed reach	Hampshire Rd on boa	0.2	16.9	365.2	Lawrence	0	0	Dry
NA	NA	1.80	42.75526814	-71.20793271	red rusty color, some	By auto glass place of	0.2	313.5	17.2	Lawrence	0	0	Dry
NA	NA	2.15	42.76250258	-71.22274645	slightly more cloudy th	downstream of road, s	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.76743837	-71.22301615	low flow	behind Kohl's parked	0.4	16.2	757	Lawrence	0	0	Dry
NA	NA	0.50	42.77404525	-71.22433096	thick algae growth, ve	flow from east under F	0.3	19.6	638	Lawrence	0	0	Dry
NA	NA	2.70	42.77406535	-71.22432568	sampled upstream of	confluence with Mer6a	0.3	15.4	684	Lawrence	0	0	Dry
NA	NA	1.80	42.77812136	-71.22714727	flow from under Rockingham park		0.3	15.8	650	Lawrence	0	0	Dry
NA	NA	NA	42.77812136	-71.22714727	duplicate		na	na	na	Lawrence	0	0	Dry
NA	NA	0.20	42.77659345	-71.23104502	sample taken approx	main stream sample	0.3	18.6	665	Lawrence	0	0	Dry
NA	NA	ND	42.77659345	-71.23104502	strong odor, orange s	culvert that conveys b	na	na	na	Lawrence	0	0	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6m	Boston-Logan	0	0	Dry
0.25	12	9.25	42.287572	-71.022259	lots of orange flocc co	across from CVS on C	1	15	1913	Boston-Logan	0	0	Dry
1.34	350	50+	42.289355	-71.041773	Very, very muddy wat	Tenean Beach	24.5	16.3	38.36m	Boston-Logan	0	0	Dry
1.53	330	50+	42.298373	-71.046379	Started sprinkling abo	at dog park off Victory	24.5/24.6	16.3/16.3	.36/38.	Boston-Logan	0	0	Dry

0.31	7.2	3.75	42.288373	-71.092879	bacteria plague cover	Canterbury Brook, Bo	0.6	14.6	1156	Milton-Blue Hi	0.07	0.07	Dry
0.32	7.1	2.30	42.288373	-71.092879	duplicate		na	na	na	Milton-Blue Hi	0.07	0.07	Dry
NA	NA	ND	42.779551	-71.027841	misting, very light rain	sampled downstream	0.2	13.7	331	Lawrence	0.1	0.1	Wet
NA	NA	1.05	42.767101	-71.033431	culverted stream outf	across from 62 coffin	0.2	16.1	263	Lawrence	0.1	0.1	Wet
NA	NA	0.50	42.752001	-71.038431	sampled off bridge w/	off Main Street	0.2	14.1	376.6	Lawrence	0.1	0.1	Wet
NA	NA	1.00	42.74968	-71.041971	2 lamprey's in stream	further south on Main	0.1	14.1	259.4	Lawrence	0.1	0.1	Wet
NA	NA	5.75	42.772341	-71.084161	Coming out of retainir	on right side facing up	0	16.5	92.5	Lawrence	0.1	0.1	Wet
NA	NA	1.80	42.773051	-71.082001	Little River outfall into	Walked downstream a	0.2	17.2	438.2	Lawrence	0.1	0.1	Wet
NA	NA	0.20	42.776051	-71.087001	flow swift, about 1ft de	behind auto parts sup	0.2	17.3	431.7	Lawrence	0.1	0.1	Wet
NA	NA	NA	42.776051	-71.087001	duplicate		na	na	na	Lawrence	0.1	0.1	Wet
NA	NA	1.65	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks	0.3	16.6	700	Lawrence	0.1	0.1	Wet
NA	NA	0.35	42.696201	-71.1459901	Combined sample fro	Behind S. Lawrence e	0.3	16.7	577	Lawrence	0.1	0.1	Wet
NA	NA	2.35	42.696209	-71.1457001	Shawsheen River	main stream sample b	0.3	16.7	679	Lawrence	0.1	0.1	Wet
NA	NA	5.05	42.695971	-71.1455601	strong flow, lots and lo	Concrete outfall meta	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
0.13	2.8	0.30	42.57664155	-70.92825715		Frost Fish Brook, 34 S	0.3	13.3	585	Beverly	0	0.16	Dry
0.1	3	1.85	42.58395698	-70.92904291	Moss growing in pipe	Downstream of bridge	0.2	12.8	375	Beverly	0	0.16	Dry
0.09	3.5	1.00	42.51446323	-70.86578117	Some moss growing o	Sampled where brook	0.2	13.8	329	Beverly	0	0.16	Dry
0.14	4.6	2.70	42.51182185	-70.85955935		Between Rts. 134A ar	0.4	13.1	641	Beverly	0	0.16	Dry
0.34	5.3	1.70	42.466942	-70.92203147	Sample combined fro	Sampled about 15' do	0.5	14.2	826	Beverly	0	0.16	Dry
0.32	5.1	1.40	42.466942	-70.92203147	Ammonia kits - samples	recorded as 1.0 but	na	na	na	Beverly	0	0.16	Dry
NA	NA	NA	42.52474522	-70.92044643	Channelized streamb	Off Howley St, back c	0.5	17.1	930.1	Beverly	0	0	Dry
NA	NA	NA	42.52463018	-70.92029908	Channelized streamb	Strong Brook, off How	0.4	13.6	597	Beverly	0	0	Dry
NA	NA	NA	42.52857218	-70.92980508	Lots of snails and plar	End of Sawyer off RR	0.5	12.2	747	Beverly	0	0	Dry
NA	NA	NA	42.52780518	-70.93030508	Channelized stream b	Off RR Ave near corn	0.6	16.7	1004	Beverly	0	0	Dry
NA	NA	NA	42.52132281	-70.92246961	Culverted stream, mo	Upstream of Pierpont	0.4	13.1	568	Beverly	0	0	Dry
NA	NA	NA	42.52110337	-70.88711899	Duck bill pipe opening	On Derby St off Derby	10.1	16.4	14.41	Beverly	0	0	Dry
NA	NA	NA	42.5245133	-70.90032899	Concrete pipe; bird lif	Commercial St, acros	11	18.2	16.15	Beverly	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Swimming children in	Corner of Crowninshie	0.4	14.5	605	Beverly	0	0	Dry
NA	NA	NA	42.51482047	-70.84827695	Thick orange floc in s	Sampled downstream	0.4	14.2	618	Beverly	0	0	Dry
NA	NA	7.85	42.51312428	-70.8564196	Water irridescent in s	at Marblehead transfe	0.5	13.3	780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the S	0.5	14.2	1780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the N	1.1	14.8	1784	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	duplicate		na	na	na	Beverly	0	0	Dry
0.23	4.3	1.40	42.262068	-71.046682	sampled downstream	Unquity Brook off Chr	0.5	14.5	800	Milton-Blue Hi	0	0	Dry
0.24	4.1	1.85	42.253703	-71.068976	Heard dripping from u	downstream of Rando	0.5	15.4	797	Milton-Blue Hi	0	0	Dry
1.66	660	44.30	42.266485	-70.997104	Flow was very strong	Wollaston Beach upst	28.5	20.5	*40.4m	Milton-Blue Hi	0	0	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12m	Milton-Blue Hi	0	0	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55m	Milton-Blue Hi	0	0	Dry
NA	NA	1.85	42.44287759	71.14284459	used reach, sample c	Upper Mystic Lake sa	0.4	19.2	794	Boston-Logan	0	0	Dry
NA	NA	NA	42.451207	-71.13668	sample collected dow	downstream of downto	0.4	19.5	812	Boston-Logan	0	0	Dry
NA	NA	2.40	42.46084009	-71.13716417	sampled about 50ft up	Off Swanton Street, g	0.5	17.4	888	Boston-Logan	0	0	Dry
NA	NA	NA	42.46084009	-71.13716417	thick algae growth on	Whittmore pond outle	0.4	18.4	745	Boston-Logan	0	0	Dry
NA	NA	0.80	42.4764251	-71.1182001	name on data sheet is	Aberjona mainstem in	0.5	17	935	Bedford	0	0	Dry
NA	NA	6.25	42.5026954	-71.1353458	streambed wide and s	sampled downstream	0.5	17.9	891	Bedford	0	0	Dry
NA	NA	10.10	42.5026954	-71.1353458	orange staining at bot	99 restaurant outfall d	1.9	15.5	2907	Bedford	0	0	Dry
NA	NA	0.40	42.51317075	-71.14264919	sheetrock compound	Halls Brook at 185 Ne	0.5	16.7	813	Bedford	0	0	Dry
NA	NA	27.90	42.51329075	-71.14253919	strip was almost blue	unknown stream near	0.5	15	796	Bedford	0	0	Dry
NA	NA	28.50	42.51317075	-71.14264919	DRR1 duplicate	DRR1 duplicate	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.517998	-71.130612	Sampled just under cu	Walking in off Arnold	0.5	16.1	908	Bedford	0	0	Dry
NA	NA	0.80	42.53558799	-71.11508232	average flow	Birchmeadow South o	0.7	15.1	1195	Bedford	0	0	Dry
NA	NA	0.60	42.53679646	-71.10856436	slight scum on top of	Reading High School	0.8	15.5	1308	Bedford	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
0.12	4.6	1.30	42.48685	-71.0985788	Cl2 exceeded holding	Elm St in Stoneham, t	0.7	15.6	1434	Boston-Logan	0.08/0	0.08/0.	Wet
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.	0.1/0.2	Wet
NA	NA	NA	42.46345477	-71.14925777	very light rain, small w	at end of Sylvester St	0.4	17.4	775	Boston-Logan	0	0.47	Wet
NA	NA	NA	42.46345577	-71.14925707	warm water about 1 a	at end of Sylvester St	0.5	23.4	720	Boston-Logan	0	0.47	Wet
NA	NA	0.55	42.475449	-71.1600123	Jay Corey, city engine	Off Woburn Parkway	0.7	14.1	1353	Bedford	1.39	1.53	Wet
NA	NA	2.30	42.47549599	-71.15991194	rust/orange stain on ro	main stream outfall or	0.6	17.1	1267	Bedford	1.39	1.53	Wet
NA	NA	NA	42.47549599	-71.15991194	duplicate of OF118		na	na	na	Bedford	1.39	1.53	Wet
NA	NA	2.75	42.475349	-71.160112	city engineer requeste	small plastic pipe abo	0.7	13.4	**1.4m	Bedford	1.38	1.53	Wet
NA	NA	NA	42.4809258	-71.15751796	main outfall corrugate	Off Harrison Ave near	0.7	17.6	1445	Bedford	1.38	1.53	Wet
NA	NA	NA	42.47333227	-71.17269149	sampled mid-stream j	downstream of Cumm	0.4	16.7	828	Bedford	1.38	1.53	Wet
NA	NA	NA	42.48054493	-71.17539336	sampled downstream	Midway down So Bed	0.3	16	603	Bedford	1.35	1.53	Wet
NA	NA	NA	42.48093881	-71.17630129	moderate flow, severe	On corner of So. Bedf	0.2	15.3	441	Bedford	1.35	1.53	Wet
NA	NA	NA	42.48008835	-71.18316396	steep sides on bank, r	Near condo complex o	0.1	18	997	Bedford	1.35	1.53	Wet
NA	NA	0.95	42.46880482	-71.17869266	some flow coming ou	Shaker Glen Brook of	0.3	16.5	583	Bedford	1.35	1.53	Wet
NA	NA	2.45	42.46773317	-71.18022662	unknown tributary to S	57 Russel Street	0.4	16.8	988	Bedford	1.34	1.53	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston N	6.5	20.34	11.36	Boston-Logan	0	0	Dry
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
1.17	200	50*	42.394421	-71.049706	Surf., NH3 (EPA) and	other 500mL bottle sar	14.2	21.5	23.49	Boston-Logan	0	0	Dry
1.15	200	50*	42.394421	-71.049706	Duplicate of IsEnd03		na	na	na	Boston-Logan	0	0	Dry
0.81	130	46.10	42.41380356	-71.13242519	can hear running water in pipe; YSI measurm		9.1	17.7	15.1	Boston-Logan	0	0	Dry
NA	NA	NA	42.40333987	71.020587	gray plaque on bottom and below outfall		0.5	15.8	291-246	Boston-Logan	0	0	Dry
NA	NA	NA	42.40376623	-71.02130017	significant gray bacterial plaque; some suds.		1.1/0.1	17.5/17.5	517/142	Boston-Logan	0	0	Dry
NA	NA	NA	42.39960591	-70.99828284	slight gray plaque; lot	downstream - pipe on	1.8	18.1	3447	Boston-Logan	0	0	Dry
NA	NA	NA	42.40075317	-70.99738614	orange floc in pipe an	Site at intersection on	1.1	20.4	1982	Boston-Logan	0	0	Dry
NA	NA	NA	42.399852	-70.99260269	sample taken from ab	NE back corner of Sh	4.3	20.4	7.6	Boston-Logan	0	0	Dry
NA	NA	NA	42.400002	-70.991803	slight flow in channel	Upstream of WashN0	4.5	21.7	8.14	Boston-Logan	0	0	Dry
NA	NA	NA	42.399999	-70.991803	Pipe enters Sales from	East just South of fer	5.4	15.4	9.6	Boston-Logan	0	0	Dry
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled over pedestr	1.7	18.1	3271	Boston-Logan	0	0	Dry
NA	NA	NA	42.40269115	-71.00375656	Duplicate of Green01		na	na	na	Boston-Logan	0	0	Dry

NA	NA	NA	42.41458312	-70.9947105	Lots of film on surface	Very back of corner o	1.1	23	22.38	Boston-Logan	0	0	Dry
NA	NA	NA	42.41699849	-70.99015595	Used reach, lots of fra	End of Agawam St; of	1.4	21.2	2737	Boston-Logan	0	0	Dry
NA	NA	NA	42.4001152	-71.050172	Very cloudy, significa	Upstream of Island En	1	19.5	2014	Boston-Logan	0	0	Dry
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
NA	NA	NA	42.17433828	-71.21340789	2 metal corrugated ou	parked off Washingto	0.3	17.2	414.3	Norwood	0	0	Dry
NA	NA	NA	42.17436284	-71.2133808	mainstream sample fr	parked off Washingto	0.2	23.5	372	Norwood	0	0	Dry
NA	NA	NA	42.17568587	-71.21568311	about 300ft upstream	off Main St, turn into E	0.2	24	347.8	Norwood	0	0	Dry
NA	NA	NA	42.17568487	-71.21569311	tributary to Hawes Bro	Sampled right before	0.3	17.8	685	Norwood	0	0	Dry
NA	NA	NA	42.17460128	-71.21823127	Just upstream of HAB	off Main St, turn into E	0.3	17.8	688	Norwood	0	0	Dry
NA	NA	NA	42.17761815	-71.22424663	entered near no dump	Tributary to Hawes Br	0.4	16.5	713	Norwood	0	0	Dry
NA	NA	NA	42.17761815	-71.22424663	small pipe exiting abo	parked off corner of D	na	na	na	Norwood	0	0	Dry
NA	NA	NA	42.17761779	-71.22765971	2 outfalls @ headwall	parked off corner of D	0.3	15.9	589	Norwood	0	0	Dry
NA	NA	NA	42.17858119	-71.18783858	12' metal corrugated c	260 Dean St parked 2	0.7	19.6	1465	Norwood	0	0	Dry
NA	NA	NA	42.18465657	-71.19415004	some billowy stuff on	On Meadowbrook Rd,	0.8	18.2	1539	Norwood	0	0	Dry
NA	NA	NA	42.18465657	-71.19415004	duplicate of MB02		na	na	na	Norwood	0	0	Dry
NA	NA	NA	42.20501085	-71.18852597	Plantingfield Brook	On Codman Ave acro	0.4	20	766	Norwood	0	0	Dry
NA	NA	NA	42.20459437	-71.19851397	Plantingfield Brook, a	corner of Ash Rd and	0.3	16.9	663	Norwood	0	0	Dry
0.22	5.1	1.50	42.250692	-70.997793	Accessed via parking	Canal opening just off	0.5	19.7	1080	Boston-Logan	0.01	0.01	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3m	Boston-Logan	0.01	0.01	Dry
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry
1.65	530	50*	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	25	18.8	39.10m	Boston-Logan	0.01	0.01	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.25196531	-71.04783967	just upstream of samp	in Cunningham Park d	0.3	18.8	619	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25100306	-71.0519303	Stream 2ft deep. thick	corner of Fullers Roac	0.3	18.1	635	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25774194	-71.00885949	reached up to sample	downstream side of br	0.1	21.5	205	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25774194	-71.00886049	6 feet across	sampled just upstrean	0.3	18	709	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25623392	-71.02049266	2 cement culverts san	off Furnace Brook Par	0.4	17.1	790	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.245665	-71.02734872	Unnamed tributary to	Off Cresent street, wa	0.3	19.8	661	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25581841	-70.99401534	some DPW work migh	End of Broad street of	9.9	19.5	**15.03	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27616359	-71.03722522	sampled on incoming	Office park off Heritag	23.7	20	**37.4	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27616359	-71.03722522	groundwater seep, thi	just downstream of SA	2.3	16.4	3645	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27716403	-71.00777498	sampled after tide had	Wollaston Beach outf	29	19.4	44.56m	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27716413	-71.00777488	sampled inside of out	Wollaston beach outfa	23.3	17.1	**36.79	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27867229	-71.01285912	sampled inside of out	Wollaston Beach outf	3.2	18	*5.81m	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25069222	-70.99779295	Parked via lot at Bagr	Canal opening near E	0.4	21.2	771	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25069222	-70.99779295	duplicate of Canal1		na	na	na	Boston-Logan	0.05	0.06	Dry
0.07	ND	0.15	41.92559804	-70.61841863	lots of eel grass, used	downstream Eel River	0.1	22.8	142.9	Plymouth	0.01	0.01	Dry
ND	ND	0.20	41.92519001	-70.61918863	River: about 1.5' deep	downstream of bridge	0.1	22.6	145.3	Plymouth	0.01	0.01	Dry
~0.05	ND	ND	41.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0.01	0.01	Dry
0.1	ND	0.35	41.92517001	-70.61942993	some grass was gorw	upstream of Sandwich	0.1	21.5	187.7	Plymouth	0.01	0.01	Dry
0.08	4.2	0.60	41.92538204	-70.61810863	dead mouse floating i	directly behind 132 sa	0.2	17.6	326.3	Plymouth	0.01	0.01	Dry
0.15	NA	ND	41.92480601	-70.61774371	very akward sampling	Clean-out pipe, behin	0.2	20.4	315.3	Plymouth	0.01	0.01	Dry
NA	NA	NA	42.70688	-71.1476552	downstream of waterf	confluence of canal &	0.1	26.5	188	Lawrence	0	0	Dry
NA	NA	NA	42.70703754	-71.14815826	some algae on stream	just down stream of ca	0.1	25.6	192.9	Lawrence	0	0	Dry
NA	NA	NA	42.70747755	-71.14846649	shallow 1' aglae on ro	Upstream (~50') of Sp	0.2	23.2	480	Lawrence	0	0	Dry
NA	NA	NA	42.70725878	-71.14809783	on Merrimack river sid	leaky pipe under Spic	0.1	22.6	230	Lawrence	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	tace hemoglobin off u	pipe off Lawrence Hos	1.2	22.6	2291	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	23.8	618	Lawrence	0	0	Dry
NA	NA	NA	42.67231773	-71.14949411	left side, facing downs	front of Balmoral cond	1	20.6	1936	Lawrence	0	0	Dry
NA	NA	NA	42.67225719	-71.1493017	flow dropped to a trick	front of Balmoral cond	1.4	20.7	2780	Lawrence	0	0	Dry
NA	NA	NA	42.66847901	-71.14232625	some algae on rocks	little park of York St b	0.4	18.3	878	Lawrence	0	0	Dry
NA	NA	NA	42.66510433	-71.14546547	waded downstream to	park in Shawsheen pla	0.8	21.7	1600	Lawrence	0	0	Dry
0.12	3.4	1.05	42.266756	-71.094794	green algae and greyi	(actually NR104?) Bel	0.5	18.2	910	Boston-Logan	0.77	0.77	Wet
ND	ND	0.50	42.266710	-71.094816	waded into river for sa	just upstream of Dent	0.2	24.6	427.7	Boston-Logan	0.77	0.77	Wet
ND	3.7	1.65	42.251173	-71.128400	lots of trash in stream	parked off Reservatio	0.3	25.9	625	Boston-Logan	0.77	0.77	Wet
0.05	8.7	21.90	42.247956	-71.125339	difficult access, white	parked off Glenwood,	0.2	20.5	476.6	Boston-Logan	0.77	0.77	Wet
0.66	7.4	14.25	42.244799	-71.126989	green algae in outfall,	behind tennis courts o	0.5	18.4	968	Boston-Logan	0.77	0.77	Wet
0.74	7.2	14.80	42.244799	-71.126989	Duplicate of NR162		na	na	na	Boston-Logan	0.77	0.77	Wet
0.14	4.8	1.15	42.242826	-71.127704	some gray bacteria, g	behind Stop & Shop o	1.2	22.4	24.11	Boston-Logan	0.77	0.77	Wet
0.08	ND	1.00	42.242874	-71.127669	Mainstem Neponset R	behind Stop & Shop o	0.2	25	486	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27144045	-71.06754804	sampled majority of fl	Adams Street before I	0.2	23.6	518	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27041352	-71.07319096	Neponset mainstem,	Under Central Street E	0.2	23.8	580	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27049459	-71.07315433	"Bos103" bacterial pla	Outfall under Central	1.7	21.3	3148	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27049459	-71.07315433	Duplicate of Milt03		na	na	na	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27019179	-71.07283064	Pine Tree Brook	Pedestrian bridge nea	0.3	20.3	520	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.2660057	-71.07350454	disjointed clay tile pip	pipe coming out from	0.1	20.6	310.3	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.26591742	-71.07358271	Pine Tree Brook	sampled under bridge	0.3	20.4	518	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27034626	-71.07934437	Walked in about 50fe	corner of Desmond ar	0.2	19.5	625	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.26714745	-71.0936206	Thick white suds in po	Parked at condo comp	0.7	19.8	1547	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.24761793	-71.13018278	very low flow, lots of d	Upstream of Reservat	17.3	22.7	26.03m	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.250559	-71.129583	Across stream from B	Just downstream of R	0.3	25.9	593	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.24282649	-71.12770352	about 20 ft downstrea	Downstream outfall be	1.2	22.3	2276	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.242715	-71.127903	pool below outfall had	Upstream outfall behir	0.1	27.3	228.5	Boston-Logan	0.77	0.77	Wet
0.12	4.6	2.95	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	14.6	780	Bedford	0.01	0.01	Dry
0.74	7.3	26.60	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broc	0.5	14.4	932	Bedford	0.01	0.01	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry

1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
0.73	7.3	28.80	42.51858	-71.146281	after confluence of La	Just south of Landfill E	0.5	14.2	955	Bedford	0.01	0.01	Dry
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrear	0.3	15.3	806	Boston-Logan	0	0	Dry
0.09	3.1	1.05	42.3599847	-71.1809755	"New81" waded to lef	Outfall to Charles off	0.6	14.6	1308	Boston-Logan	0	0	Dry
0.14	ND	0.75	42.3646351	-71.1892039	Used waders	Laundry Brook off Cal	0.4	18	830	Boston-Logan	0	0	Dry
0.14	ND	na	42.3646351	-71.1892039	Duplicate of Laund01		na	na	na	Boston-Logan	0	0	Dry
0.14	3.6	1.35	42.3600600	-71.2169465	taken 6' downstream	Cheessecake Brook n	0.7	16.7	1378	Boston-Logan	0	0	Dry
0.17	4.4	2.20	42.3730420	-71.2283524	shallow stream, colleo	Beaver Brook near co	0.5	16.7	1035	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.41	7.8	7.80	42.659814	-71.318830	large duckbill coverin	Beaver Brook outfall	0.1	18.2	468.5	Lawrence	0	0	Dry
NA	NA	1.45	42.659837	-71.318833	sample taken just ups	Beaver Brook Mainste	0.2	16.9	358.8	Lawrence	0	0	Dry
0.15	ND	0.60	42.650395	-71.314502	west channel sampled	off Suffolk Street, clim	0.1	19.1	170	Lawrence	0	0	Dry
0.16	ND	0.10	42.643823	-71.307889	sampled open channe	downstream from Cen	0.1	19.2	168.7	Lawrence	0	0	Dry
0.11	4.1	2.25	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17.5	714	Lawrence	0	0	Dry
0.15	4	ND	42.633655	-71.302505	Duplicate of RMB1		na	na	na	Lawrence	0	0	Dry
NA	NA	1.10	42.631057	-71.305968	1ft at deepest, used re	sampled downstream	0.3	17.6	711	Lawrence	0	0	Dry
0.17	7.2	7.15	42.638346	-71.343658	Flow from 2 large me	Black Brook off Middle	0.6	17.8	1145	Lawrence	0	0	Dry
NA	NA	8.20	42.634459	-71.349404	rocks covered w/ alga	Black Brook off Baldw	0.5	19.5	1077	Lawrence	0	0	Dry
0.15	8.1	3.40	42.520940	-71.104975	about 6 inches deep (	corner of Washington	0.9	16.7	1682	Lawrence	0.01	0.01	Dry
0.2	6.9	4.35	42.65447823	-71.14660047	hiked down hill sampl	5 Dundee Park near Y	0.4	15.1	806	Lawrence	0.01	0.01	Dry
0.19	4.5	0.60	42.65573487	-71.13334922	some deeper pools	Off Chestnut Street, n	0.3	15.1	530	Lawrence	0.01	0.01	Dry
0.25	4.8	0.35	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	15.9	537	Lawrence	0.01	0.01	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	15.5	539	Lawrence	0.01	0.01	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
0.1	5.8	2.30	42.695971	-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
0.32	28	34.90	42.70991636	-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
0.14	8.5	0.80	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0.01	0.01	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
0.21	8.9	~10.5	42.24781922	-71.05546405	collected close to outfall	in pool	0.5	15.4	933	Boston-Logan	0.51	0.57	Wet
0.1	2.8	~0.85	42.20481659	-71.19661788	sampled right culvert		0.6	16.7	1146	Norwood	0.54	0.63	Wet
0.16	3.3	~1.6	42.20509841	-71.964841	sample collected before	two steams mix	0.2	15.5	515	Norwood	0.54	0.63	Wet
0.07	3.8	ND	42.204594	-71.198514	sample collected near	culvert	0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	1.8	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.5	11.3	910	Bedford	0	0	Dry
NA	4.2	6.35	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.5	11.7	921	Bedford	0	0	Dry
NA	NA	NA	42.41803618	-71.15649782	Start of culvert under	Mill Brook near bike p	0.4	11.6	884	Bedford	0	0	Dry
NA	3.6	1.05	42.41800384	-71.1599327	two 3 foot culverts an	Near Arlington High S	0.4	11.6	859	Bedford	0	0	Dry
NA	3.6	2.45	42.41800384	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry
NA	3.4	2.05	42.42030025	-71.16460763	6ft stone channel, foo	Mill Brook instream	0.4	12.1	755	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	8.3	6	42.42321769	-71.17286099	lots of green algae ins	ide pipe	1.4	11.4	2700	Bedford	0	0	Dry
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	2.65	42.42388575	-71.17372022	hole in wall/seep	East side of culvert wa	0.5	10.0	1394	Bedford	0	0	Dry
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, E	0.7	10.1	1450	Bedford	0	0	Dry
NA	ND	0.65	42.42443302	-71.17464016	waders, culvert just up	Outfall to Mill Brook, V	0.6	9.8	1280	Bedford	0	0	Dry
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	4.9	2	42.44732536	-71.13860428	near gauging station	Sampled above dam	0.4	10.3	821	Bedford	0	0.02	Dry
NA	NA	NA	42.45109149	-71.13689456	waterfall ~250ft upstre	Waterfield St bridge	0.4	10.2	806	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45284032	-71.13542441	used reach and wade	Mt Vernon St bridge b	0.4	10.2	794	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45571045	-71.13669402	used reach	Behind Stop & Shop	0.3	12.6	561	Bedford	0.16	0.18	Wet
NA	5.2	2.25	42.4564901	-71.13647243	outfall on far left looki	Skillings road from un	0.4	9.1	907	Bedford	0.16	0.18	Wet
NA	5.4	1.75	42.4564901	-71.13647243	duplicate of Skill01		na	na	na	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45646101	-71.13649804	very low flow - if any	small pipe exiting nea	0.4	9.1	908	Bedford	0.16	0.18	Wet
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	11	5.7	42.47549599	-71.15991194	rust/orange stain on ro	main stream outfall on	0.8	19.8	1655	Bedford	0.17	0.19	Wet
NA	NA	NA	42.48090577	-71.15755569	slightly crushed small	Off Harrison Ave near	0.5	12.2	1070	Bedford	0.17	0.19	Wet
NA	15	4.75	42.4809258	-71.15751796	Main outfall	Off Harrison Ave near	1.3	7.9	2495	Bedford	0.17	0.19	Wet
NA	9.7	3.35	42.47993991	-71.15617846	very slow flow	opposite side of ballpa	0.8	12.5	1578	Bedford	0.17	0.19	Wet
NA	4.3	0.9	42.42029396	-71.16475294	Just upstream of Grov	Mill Brook instream	0.4	15.9	850	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.422035	-71.170577	needed ladder/waders	At end of Robin Stree	0.8	12.5	1533	Bedford	0.12	0.12	Wet
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, E	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	3.9	1.35	42.424465	-71.174718	neighbor stopped ove	Just upstream of Ryde	0.4	17	729	Bedford	0.12	0.12	Wet
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	3.7	2	42.425348	-71.186230	PPCP bottle broke, re	behind 1395 Mass Av	0.3	18.2	684	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	NA	0.4	42.513171	-71.142649	machinery stored nea	Halls Brook behind 18	0.4	11.1	875	Bedford	0	0	Dry
NA	NA	11.3	42.513291	-71.142539	sampled before timbe	Unnamed stream just	0.4	10.1	839	Bedford	0	0	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	NA	3.85	42.51422481	-71.14551115	flow on downstream s	sampled from left ope	0.4	11.3	878	Bedford	0	0	Dry
NA	NA	3.55	42.51422481	-71.14551115	duplicate of Torr01		0.4	11.3	878	Bedford	0	0	Dry
NA	NA	2.65	42.51048269	-71.15492526	fair amount of litter	upstream of road cros	0.4	12.1	869	Bedford	0	0	Dry
NA	NA	2.7	42.5086557	-71.1583669	construction on bridge	bottom of stone run of	0.5	12.7	987	Bedford	0	0	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before	bridge	0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet

NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	10.8	42.25620978	-70.99314315			8.1	13.3	14.1	Milton-Blue Hi	1.5	0	Wet
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	2.2	42.39528219	-71.17631914	duplicate of WEB013		na	na	na	Bedford	0	0	Dry
NA	NA	1.1	42.39528219	-71.17631914	lots of suspended sed	Wellington Brook	0.7	12.6	1433	Bedford	0	0	Dry
NA	NA	NA	42.4225696	-71.14928822		Mystic Valley Parkway	0.6	13.8	1269	Bedford	0	0	Dry
NA	NA	0.25	42.41770489	-71.1574838	may be multiple pipe	pipe discharging to Mi	0.1	17.8	237	Bedford	0	0	Dry
NA	NA	NA	42.42471486	-71.17533266	collected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	2.45	42.42645629	-71.19436402		pipe discharging unde	1.3	17.6	2482	Bedford	0	0	Dry
NA	NA	ND	42.42648362	-71.19440958	6ft wide, rocky stream	Bow street, just downs	0.3	18.3	537	Bedford	0	0	Dry
NA	NA	1.45	42.42834205	-71.19676456	36" double culvert col	Just downstream of F	0.2	19.3	513	Bedford	0	0	Dry
NA	NA	0.05	42.42901218	-71.1975303	tributary, thick film co	Walked ~100yards up	0.2	20.9	362.9	Bedford	0	0	Dry
NA	NA	5.95	42.39988394	-70.99242127	duplicate of WashN01		na	na	na	Boston-Logan	0.08	0.43	Wet
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	11	42.39990454	-70.99237953	just upstream of Was	Sales Creek	1.3	18.2	2527	Boston-Logan	0.08	0.43	Wet
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	17.7	42.3830573	-71.03016877	40min before low tide	Condor Street outfall,	23.3	16.1	36.7mS	Boston-Logan	0.08	0.43	Wet
NA	NA	50*	42.36126566	-71.05083507	near Christopher Colu	Climbed down betwee	26.7	16.3	44.67mS	Boston-Logan	0.08	0.43	Wet
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	2.35	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/18	Lawrence	0.04	0.04	Dry
NA	NA	12.4	42.465157	-71.392813	pool at base of culver	<1/2 mile from bridge	0.2	27.6	90.3/37	Bedford	0	0	Dry
NA	NA	ND			Effluent of a membrane bioreactor			24	495.8	Falmouth	0.12	0.21	Wet
NA	NA	25.10			6" below surface, 6"sa	tip pans (24/day - 1galeach) sto		22.9	479	Falmouth	0.12	0.21	Wet
NA	NA	38.70			12" below surface	12"sand		21.1	602	Falmouth	0.12	0.21	Wet
NA	NA	ND						21.6	351	Falmouth	0.12	0.21	Wet
NA	NA	ND			24" below surface			20.1	571	Falmouth	0.12	0.21	Wet
NA	NA	2.5			Influent			19.3	479	Falmouth	0.12	0.21	Wet
NA	NA	36.80			12" with air			20.3	579	Falmouth	0.12	0.21	Wet
NA	NA	11.5								Falmouth	0.12	0.21	Wet
NA	NA	ND						20.3	606	Falmouth	0.12	0.21	Wet
NA	NA	NA	42.968332	-71.472794	Oil sheen across all ro	called EPA incident re	0.3	18.1	29/446.	Manchester	0	0	Dry
NA	NA	NA	42.985780	-71.469196	Strong musty odor, ta	sampled flow out of pi	1	17.6	934/165	Manchester	0	0	Dry
NA	NA	NA	42.998669	-71.468348	next to outfall 047, thi	outfall just north (adja	2.1	15.2	992/321	Manchester	0	0	Dry
NA	NA	NA	42.998660	-71.468348	steam coming out of p	just south of 047N, by	2.5	17.5	4750	Manchester	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.21004	-71.530441	grated outfall, flow is	approx. 10 gal/min poo	0.7	14	1070	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.193970	-71.542492	midstream sample ne	Concord District Cour	0.7	22.9	1458	Concord	0	0	Dry
NA	NA	NA	43.199674	-71.548718	Just upstream of Clin	off Pleasant Street	0.5	23.1	1080	Concord	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.51380064	-70.88804384	Palmer Cover, Salem	White bacterial growth	1.5	21.1	4209	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54714736	-70.86166491	Lynch Park, Beverly M	sampled 2hrs after low	0.7	17.6	1339	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55097916	-70.8503408	Down Brackenbury La	Brackenbury Beach	10	18.6	16.91mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55443402	-70.84983196	sampled under bridge	lots of ducks upstream	0.2	20.5	409.2	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54639263	-70.8616749	Lynch Park, Beverly	Small pipe exiting just	1.8	19.3	7.77mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.46084009	-71.13716417	Downstream of Swan	USGS gauge @ 0.9, d	0.5	20.6	1025	Boston-Logan	0	0	Dry
NA	NA	NA	42.469411	-71.1252171	Downstream of Wash	Water almost opaque	0.5	22	1083	Boston-Logan	0	0	Dry
NA	NA	NA	42.4694521	-71.1249571	Outfall upstream of W	OF more than 1/2 full	0.5	21.4	1004	Boston-Logan	0	0	Dry
NA	NA	NA	42.477141	-71.1176671	(previously '1Merrell')	low/slow flow could no	0.5	21.6	1096	Bedford	0.01	0.13	Dry
NA	NA	NA	42.4770646	-71.1175936	(previously '1Kraft')Sw	2 pipes just upstream	0.7	21.5	1366	Bedford	0.01	0.13	Dry
NA	NA	NA	42.491580	-71.128834	(previously 'Sal')1921	USGS field team mea	0.5	20.9	1086	Bedford	0.01	0.13	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026954	-71.1353458	Outfall downstream o	Raccoon prints in pipe	1.3	19.6	2743	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026965	-71.1351128	Stormdrain cover tipp	gray plaque at bottom	na	na	na	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	19.6	873	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	Unnamed stream just	Very low flow	0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	duplicate of DRR1		0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Canterbury Brook, Bo	fine sediments on bot	0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Duplicate of CantB		0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.308203	-71.12058	Arnold Arboretum off	sides of outfall deterio	0.7	13.6	1304	Boston-Logan	0	0	Dry
NA	NA	NA	42.340354	-71.099856	Muddy River in Back	Sampled just downstr	0.5	20.5	1058	Boston-Logan	0	0	Dry
NA	NA	NA	42.330289	-71.114017	Two stone 5' semi-circ	across from 33 Pondv	0.5	25.4	966	Boston-Logan	0	0	Dry
NA	NA	NA	42.326763	-71.114752	Off Riverdale Pkwy in	downstream of outfall	0.9	15.1	1738	Boston-Logan	0	0	Dry
NA	NA	NA	42.321703	-71.119080	Parked on Chestnut S	just downstream from	0.3	27.1	606	Boston-Logan	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
NA	NA	NA	42.70995636	-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
NA	NA	NA	42.713273	-71.158219	upstream of Jackson	heavy sedimentation o	0.3	23.1	530	Lawrence	0	0	Dry
NA	NA	NA	42.713893	-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry

NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen river sample		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.2	24.3	471.5	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	duplicate of Huss02		0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	Walked upstream fron	Large box culvert cov	0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.9	18.1	1701	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	20.6	848	Bedford	0	0.1	Dry
NA	NA	NA	42.51339681	-71.14295383	outfall about 100ft up	stream from Halls2 loca	0	24.8	50.3	Bedford	0	0.1	Dry
NA	NA	NA	42.51079059	-71.14820571	most of flow coming f	lots of frogs in stream	1	23.5	1960	Bedford	0	0.1	Dry
NA	NA	NA	42.51333787	-71.14802303	upstream of small pec	end of 2nd st, asked #	0.4	22.4	825	Bedford	0	0.1	Dry
NA	NA	NA	41.71543572	-71.36069556	sampled on outgoing	sampled between 2 ro	29.6	24.6	45.72mS	Providence TF	0	0	Dry
NA	NA	NA	41.71380905	-71.36475741		walked up 20 ft from b	20.6	22.4	32.83mS	Providence TF	0	0	Dry
NA	NA	NA	41.7135672	-71.36551541	Mill creek, 0.67 ng/L	Sulfamethoxazole was	20.7	23.5	33.13mS	Providence TF	0	0	Dry
NA	NA	NA	41.71213909	-71.37518941	leaky storm drain pipe	under bridge, layer of	1.3	21.1	2447	Providence TF	0	0	Dry
NA	NA	NA	41.71205509	-71.37524941	bacteria and kits only		na	na	na	Providence TF	0	0	Dry
NA	NA	NA	41.71372754	-71.37889632	downstream from roa	lockwood brook near b	0.2	20.2	314.2	Providence TF	0	0	Dry
NA	NA	NA	41.70908196	-71.38289364	racoon prints on bank	off westshore drive up	0.2	21.6	329	Providence TF	0	0	Dry
NA	NA	NA	41.70708421	-71.38031976	double culvert under t	upstream side of bridg	0.2	16.9	435.9	Providence TF	0	0	Dry
NA	NA	NA	41.71964024	-71.38696064	bacteria and kits only	upstream side of bridg	0.1	20.9	270	Providence TF	0	0	Dry
NA	NA	NA	41.71935982	-71.38618735	epipe designed to tak	at the end of emerson	0.1	20.1	225.8	Providence TF	0	0	Dry
NA	NA	NA	41.71461744	-71.38035705	bact and kits only	Meadowbrook road ou	0.1	22.2	173.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	1-2 in of green algae	end of sweetfern drive	0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	duplicate of SweetF		0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556520	-71.500969	Governor Brook	No distinct flow, light d	0.1	16.3	198.8	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556625	-71.499442	Road crossing upstrea	orange/green growth d	0.2	15.9	341.6	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.559021	-71.494120	sampled facility pipe b	sampled during storm	0	18.5	13.5	Laconia	0.21	0.21	Wet
NA	NA	NA	43.266493	-71.483356			0	15.5	14.5	Laconia	0.44	0.44	Wet
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	NA	NA	42.42547262	-71.02662504	walked upstream from	Sampled about 30ft u	2.4	21.5	4509	Boston-Logan	0	0	Dry
NA	NA	NA	42.42105874	-71.02615376	could see light at othe	Corner of Sargent and	0.3	18.3	687	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	near boat launch, sam	outfall across causewa	3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4891136	-70.84335607	green alge at bottom	Ocean Ave off Marble	0.3	19	680	Boston-Logan	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Grace Oliver Beach S	Corner of Crowninshie	0.2	21	632	Boston-Logan	0	0	Dry
NA	NA	NA	42.51447501	-70.86599014	Stamski Beach	sample 20ft from shor	28.3	23.5	43.87mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~10	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364451	-71.154419	downstream side of A	1 ft deep, started sprir	0.7	15.9	1407	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364313	-71.154481	Arlington St culvert - f	~30ft upstream, 8" pip	0.7	16	1414	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364256	-71.154481	Arlington St culvert - c	no inlet pipes can be s	0.7	15.9	1417	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364351	-71.154519	Arlington St culvert - f	sampled far rt of culve	0.7	15.9	1354	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364037	-71.183908	Watertown outfall #13	weather - still sprinklir	0.1	17.8	260.3	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364489	-71.184223	Watertown outfall #12	some small fish, could	0.5	16.8	1012	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364774	-71.184952	Watertown outfall #11	outfall opening under	0.6	16.2	1168	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook	sampled just inside op	0.3	15.5	565	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.367449	-71.198957	culvert on right, not a	lot of flow	0.7	18.1	1348	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.367489	-71.198853	About 1ft of outfall un	can hear running wate	0.7	17.7	1299	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.4922811	-70.85511019	Sampled left culvert,	more flow than last tir	20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492557	-70.859421	Opened drain manhol	Brick sides w/hard bot	0.7	16.3	1483	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.493467	-70.860430	Opened drain manhol	used reach	0.4	16.3	743	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492693	-70.860829	Opened drain manhol	gas odor	0.2	16	491.7	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.494598	-70.859443	Opened drain manhol	Sampled drain pipe en	0.2	16.9	440	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.496982	-70.856396	Opened drain manhol	double 36" pipes com	0.3	16.9	685	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.502967	-70.856873	Opened drain manhol	brick lined, used reach	0.4	16.4	744	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Opened drain manhol	Sampled main flow, 3	0.4	15.2	809	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Pipe flowing into storm	Started flowing after N	0.3	17.5	541	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	24.4	14.7	38.45mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	16.9	14.1	22.24mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.282780	-71.046962	large tide gate ~2? Ho	sampled center of sou	1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282780	-71.046962	duplicate of 10L094		1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282540	-71.046292	1/2 silted up	sampled about 10 fee	1.3	16.3	2514	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275941	-71.031767	green alge at bottom	former drainline that h	0	13.9	91.6	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273990	-71.030634	very dark sediments	Previously named Sag	1.5	16.9	33.20mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299943	-71.006177	seep from sewage line	to main interceptor or	8.4	17.9	834	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299779	-71.005800	Sample collected at b	waded ~ 6 ft	37.1	13.7	43.74mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.277051	-71.009467	Wollaston Beach Sam	waded ~ 6ft between V	31.3	13.2	41.01mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.278670	-71.013452	Wollaston Beach Sam	waded ~ 6ft near Wol	31.3	13.6	47.97mS	Boston-Logan	0.13	0.14	Wet

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
5/19/09	Woburn	Comm1	7:57	open stream	na	na	none	tea	none	few	82	~20	0.07	0.2	NA	0.174
5/19/09	Woburn	Halls2	8:51	open stream	na	na	none	light tea	none	None	606	~146	0.06	~0.1	NA	0.161
5/19/09	Woburn	DRR1	9:33	open stream	na	/2 that of halls	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50
5/19/09	Woburn	Mys07	10:01	open stream	na	na	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/19/09	Woburn	Mys08	10:20	open stream	na	na	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
5/19/09	Woburn	Mys08d	10:20	open stream	na	na	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
5/26/09	Chelsea	Mill2	10:06	CM	~30 inches	5-10gal/min	strong odor	clear	none	some suds	44	20	0.19	1.5	NA	4.31
5/26/09	Chelsea	Mill2b	10:45	CM	~24 inches	1-2gal/min	strong odor	ay/black clou	med	None	100	ND	0.21	1	NA	4.92
5/26/09	Chelsea	Mill2a	11:10	CM	~24 inches	1 gal/min	none	clear	none	None	~4	ND	0.39	1	NA	7.02
5/26/09	Stoneham	SPB0	12:50	open stream	na	na	none	clear	none	None	21	31	ND	ND	NA	ND
5/26/09	Stoneham	SPB0d	12:50	open stream	na	na	none	clear	none	None	16	~10	~0.05	ND	NA	ND
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None	534	78	ND	~0.1	ND	0.2
6/2/09	Medford	MHBup	8:07	open stream	na	na	none	clear	none	None	48	142	ND	ND	NA	0.086
6/2/09	Belmont	WinB	9:10	open stream	na	na	none	clear	none	None	6212	2908	ND	0.2	NA	0.21
6/2/09	Belmont	WinBd	9:10	open stream	na	na	none	clear	none	None	6212	2452	ND	0.2	0.024	0.172
6/2/09	Arlington	91Mys	10:20	open stream	na	na	musty	cloudy	none	None	>241960	13734	1.3	1.25	0.665	1.53
6/2/09	Arlington	MillB	10:50	CM	10x15ft	na	musty	very cloudy	none	None	550	445	0.06	0.2	0.031	0.206
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
6/9/09	Quincy	WollB5	8:25	CM	16	10-15gal/min	none	clear	none	None	ND	ND	ND	0.2	0.046	0.624
6/9/09	Dorchester	Ten1	9:35	Pipe Mat.	24-30	na	none	tan	very, very	None	96	21	0.08	2	0.048	1.28
6/9/09	Boston	Bos090	9:57	CM	10x10 box	na	musty	tea/tan	some	None	54750	149	0.14	2	0.091	0.823
6/9/09	Dorchester	CantB	11:35	open stream	na	na	husty/sewag	blue/grayish	some	None	198630	34658	1.6	1.5	1.03	4.66
6/9/09	Dorchester	CantBD	11:35	open stream	na	na	husty/sewag	blue/grayish	some	None	173290	48392	1.5	1.5	1.05	4.75
6/16/09	Danvers	Fish004	7:55	open stream	na	na	none	light tan	none	None	250	468	~0.05	0.2	0.028	ND
6/16/09	Danvers	Fish005	8:35	open stream	na	na	none	clear	none	None	333	714	ND	~0.1	0.022	ND
6/16/09	Marblehead	Stram01	10:05	open stream	na	na	none	very light tea	none	None	489	434	~0.05	ND	0.029	0.37
6/16/09	Marblehead	Stram02	10:40	open stream	na	na	none	very light tea	none	None	494	452	~0.05	ND	0.04	0.193
6/16/09	Lynn	Stacey	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	22398	0.31	0.4	0.216	1.04
6/16/09	Lynn	StaceyD	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	24066	0.29	0.4	0.208	0.949
7/14/09	Milton	UNB016	8:36	open stream	na	na	none	clear	none	None	599	109	ND	~0.1	ND	0.304
7/14/09	Milton	UNB002	9:02	CM bridge	3'x6' box	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37
7/14/09	Quincy	WollB2	9:50	open stream	na	ery strong flo	none	tea	yes	None	265	~8	ND	2	0.029	0.094
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
7/21/09	Stoneham	2Linden	9:35	open stream	na	na	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
7/21/09	Stoneham	Elm1	10:10	open stream	na	40-50	lightly must	med tea	none	None	~51720	~5654	~0.12	0.3	0.083	0.578
7/21/09	Stoneham	Toms	10:30	metal w/asphalt	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	UR003	10:30	metal w/asphalt	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
7/21/09	Stoneham	Toms	11:30	metal w/asphalt	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
7/28/09	Chelsea	Mill2	8:05	CM	~30 inches	15	sharp sewa	clear	none	None	310	12	0.23	0.8	0.126	3.84
7/28/09	Chelsea	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None	9678	388	0.1	0.8	0.054	0.831
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'	strong petroleum		tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/28/09	Chelsea	IsEnd03	9:26	CM, semi-round	12'	strong petroleum		blue/grayish	cloudy	ome soap su	16740	368	0.09	1.5	0.055	1.76
7/28/09	Chelsea	UR005	9:26	CM, semi-round	12'	strong petroleum		blue/grayish	cloudy	ome soap su	15850	435	0.09	1.5	0.05	1.64
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box	slight sewage o		gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
8/4/09	Winchester	Russ1	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
8/4/09	Woburn	US5	9:05	open stream		na	none	light tea	clear	None	542	184	ND	ND	0.032	0.133
8/4/09	Woburn	Olym1	9:55	open stream		na	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
8/11/09	Quincy	Canal1	7:55	concrete	6'x8' box	na	slight musty	clear	none	None	1844	417	~0.05	0.15	0.038	0.22
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA

8/11/09	Quincy	WollB1B	9:40	concrete	3-4'	15	musty	clear	none	None	133	12	ND	2.2	ND	ND
8/11/09	Quincy	WollB1A	9:45	concrete	3-4'	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/18/09	Plymouth	Eel1	9:20	open stream		na	none	light tan	clear	None	30	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel2	9:30	open stream		na	none	light tan	clear	None	70	82	ND	ND	ND	ND
8/18/09	Plymouth	UR011	9:30	open stream		na	none	light tan	clear	None	140	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel3	9:40	open stream		na	none	light tan	clear	None	1741	452	ND	ND	ND	0.092
8/18/09	Plymouth	SandRd1	10:00	clay	16	4	none	light tan	clear	None	265	172	ND	~0.1	0.021	ND
8/18/09	Plymouth	SandRd2	11:40	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088
8/25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	husty/sewag	None	ightly cloud	None	33000	3683	0.22	0.4	0.133	0.4
8/25/09	Boston	Blueup	8:00	open stream		na	none	tan	clear	None	226	64	~0.05	~0.1	0.028	ND
8/25/09	Boston	Mother	9:05	open stream		na	none	light tea	clear	None	129	56	0.06	ND	0.046	ND
8/25/09	Boston	NR204	10:00	concrete	3 feet	15	g sewage/la	None	ightly cloud	hite/gray pa	>241960	>48392	8.7	>3	0.975	20.1
8/25/09	Boston	NR162	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	198630	5226	0.89	3	0.6	13.2
8/25/09	Boston	UR013	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	241960	5510	0.92	2.75	0.635	12.4
8/25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	1741	149	~0.05	0.25	0.023	0.598
8/25/09	Boston	Esp01	12:02	open stream		na	none	tea	clear	None	241	58	0.07	~0.1	0.03	0.1
9/1/09	Woburn	Halls2	7:35	open stream		na	None	light brown	clear	None	2595	602	ND	~0.1	0.029	0.218
9/1/09	Woburn	DRR1	7:45	open stream		na	None	light brown	clear	None	4185	12976	ND	0.25	0.035	8.99
9/1/09	Woburn	Mys08	9:30	open stream		na	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3
9/1/09	Woburn	UR015	9:30	open stream		na	None	light brown	clear	None	422	148	ND	NA	0.021	14
9/1/09	Woburn	Mys78	10:15	open stream		na	light oil sme	None	clear	None	5199	10344	ND	0.25	0.031	10.1
9/1/09	Woburn	Mys09	10:45	open stream		na	None	None	clear	None	205	82	ND	~0.1	ND	16
9/8/09	Watertown	SawB01	8:45	open stream		50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage o	None	clear	None	~4	ND	NA	0.25	NA	NA
9/8/09	Newton	Hyde01	9:45	concrete	4x8 box	100	None	None	clear	None	5654	1424	ND	0.2	ND	ND
9/8/09	Newton	Laund01	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1462	492	ND	~0.1	ND	ND
9/8/09	Newton	UR016	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1954	544	~0.05	~0.1	ND	ND
9/8/09	Newton	Chee01	11:11	open stream		50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND
9/8/09	Waltham	Beav01	11:35	concrete	3x10 box	na	None	None	ightly cloud	some suds	713	292	~0.05	0.2	0.023	0.162
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None	44	40	~0.05	ND	0.03	0.266
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None	29090	2752	0.08	NA	0.19	1.12
9/15/09	Lowell	Beaver1a	7:37	concrete	4'	15	None	None	clear	None	8	75	ND	0.25	ND	ND
9/15/09	Lowell	Beaver1	7:40	open stream		na	None	light tea	clear	None	117	63	NA	~0.1	NA	NA
9/15/09	Lowell	Suffolk1	8:40	open stream		na	None	light tea	clear	None	208	41	ND	ND	0.024	ND
9/15/09	Lowell	Central1	9:15	open stream		na	None	None	clear	some suds	58	~10	ND	~0.1	0.024	0.088
9/15/09	Lowell	RMB1	10:10	open stream		na	None	light tea	clear	some suds	1844	281	~0.05	0.25	0.022	ND
9/15/09	Lowell	UR017	10:10	open stream		na	None	light tea	clear	some suds	2069	465	~0.05	0.25	0.046	ND
9/15/09	Lowell	NewH1	10:50	open stream		na	None	light tea	clear	some suds	164	275	NA	0.2	NA	NA
9/15/09	Lowell	BlackB1	11:25	open stream		na	None	None	murky	None	154	798	0.07	0.25	0.028	0.443
9/15/09	Lowell	BlackB2	12:00	open stream		na	None	None	clear	None	182	97	NA	0.2	NA	NA
9/22/09	Reading	RRR1	8:10	CM	4x4 box	na	None	None	clear	None	21	20	ND	0.25	0.022	ND
9/22/09	Andover	RogerD	9:00	concrete	5'	na	musty odor	rk tea staini	clear	some suds	442	657	~0.05	~0.1	0.67	0.098
9/22/09	Andover	Rogerup	9:32	open stream		na	no odor	med tea	clear	some suds	44	6488	~0.05	0.2	1.31	ND
9/22/09	Andover	Huss01	10:20	concrete	10' x 5'	na	None	light tea	clear	some suds	2319	987	ND	0.2	0.036	0.079
9/22/09	Andover	Huss02	10:50	open stream		na	None	light tea	clear	None	39	ND	NA	ND	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	205	445	ND	~0.1	ND	ND
9/22/09	Lawrence	UR018	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	279	249	ND	~0.1	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	slight musty	None	Clear	Yes, paper	29870	19863	~0.05	0.25	0.05	7.02
9/22/09	Lowell	RMB1	13:20	open stream		na	None	light tea	Clear	None	1642	199	ND	~0.1	0.031	0.138
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	mild sewag	None	Mild	Leave, bubb	1954	6131	0.06	0.18	0.041	0.291
9/29/09	Milton	CunPk03	9:30	open stream		na	None	None	Clear	Foam	1164	2098	0.06	~0.1	0.038	0.206
9/29/09	Norwood	PB02A	10:45		18"	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1
9/29/09	Norwood	PB02B	11:00	open stream		na	None	light brown	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
4/21/10	Arlington	91Mys	8:00	Open stream	na	na	none	heavy tea	cloudy	some suds	152	41	NA	~0.1	NA	NA
4/21/10	Arlington	MillB	8:10	Open stream	na	na	strong must	heavy tea	fairly clear	suds	395	52	0.06	~0.1	NA	0.124
4/21/10	Arlington	MBike	8:50	Stone (instream)	10'X8'	stream	moderate	med tea	clear	none	268	233	NA	~0.1	NA	NA
4/21/10	Arlington	AHS	9:05	Open stream	na	stream	none	light tea	clear	some	666	213	0.06	ND	NA	ND

4/21/10	Arlington	UR020	9:05	Open stream	na	stream	none	light tea	clear	some	1549	173	0.06	ND	NA	ND
4/21/10	Arlington	Grove01	9:40	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	4480	529	0.06	~0.1	NA	0.079
4/21/10	Arlington	GroveS	9:45	Concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
4/21/10	Arlington	Quinn2	10:30	Concrete	12"	19.0040741	fresh	none	clear	none	ND	ND	0.05	0.3	NA	ND
4/21/10	Arlington	RyMill	11:05	Concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
4/21/10	Arlington	RyMill2	11:10	hole in wall	na	2.00407407	none	none	clear	none	ND	ND	NA	0.2	NA	NA
4/21/10	Arlington	RyderE	11:20	Concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
4/21/10	Arlington	RyderW	11:30	Concrete	36"	20-30	none	none	clear	none	30	20	ND	ND	NA	ND
4/21/10	Arlington	30Park	12:25	Open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
4/28/10	Winchester	ABR006	8:30	Open stream	na	stream	none	none	fairly clear	leaves/bran	899	199	0.09	0.2	NA	0.528
4/28/10	Winchester	Wfield	8:50	Open stream	na	stream	none	none	lightly turbi	some	839	317	NA	0.22	NA	NA
4/28/10	Winchester	Vern01	9:15	Open stream	na	stream	none	none	lightly turbi	leaves/bran	643	108	NA	0.22	NA	NA
4/28/10	Winchester	Wedge01	9:32	Open stream	na	stream	none	none	lightly turbi	some	58	10	NA	~0.1	NA	NA
4/28/10	Winchester	Skill01	9:50	Concrete (instrea	3'	stream	none	blueish/gray	turbid	some	913	148	0.1	0.25	NA	0.844
4/28/10	Winchester	UR021	9:50	Concrete (instrea	3'	stream	none	blueish/gray	turbid	some	1642	132	0.1	0.25	NA	0.837
4/28/10	Winchester	Skill02	9:55	Concrete	12"	5-10	none	none	fairly clear	none	75	30	NA	~0.1	NA	NA
4/28/10	Winchester	Swan1	10:45	Open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
4/28/10	Woburn	OF118	11:35	Concrete	30"	50	none	none	clear	some suds	154	52	0.07	0.3	NA	0.381
4/28/10	Woburn	OF159A	12:04	Cor.Metal	18"	5-10	none	none	clear	none	268	156	NA	0.3	NA	NA
4/28/10	Woburn	OF159	12:05	Cor.Metal	24-30"	20-30	light sewag	none	clear	none	318	109	0.1	0.25	NA	1.38
4/28/10	Woburn	OF161	12:15	Cor. Metal	5'	stream	slight musty	none	lightly turbi	some	1642	148	ND	0.3	NA	0.153
5/5/10	Arlington	Grove01a	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2747	520	0.07	~0.1	NA	0.101
5/5/10	Arlington	GroveS	8:10	Concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Arlington	Robin	8:45	loose joint grey t	24"	10-15	ght natural g	none	clear	none	9678	295	NA	0.4	NA	NA
5/5/10	Arlington	Brattle	9:10	Open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	RyMill	9:25	Concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	RyderE	9:32	Concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
5/5/10	Arlington	Ryder01	9:35	Stone (instream)	6'	stream	none	light tea	fairly clear	some suds	1954	350	0.07	~0.1	NA	0.135
5/5/10	Arlington	30Park	10:10	Open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	1395MA	10:30	Open stream	na	stream	none	light tea	lightly turbi	none	689	323	0.06	ND	NA	0.133
5/5/10	Arlington	Drake01	10:55	Open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/5/10	Arlington	ArlRes	11:05	Concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
5/5/10	Lexington	Vine01	11:55	Open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/12/10	Woburn	Halls2	8:00	Open stream	na	stream	none	light brown	na	none	212	109	NA	~0.1	NA	NA
5/12/10	Woburn	DRR1	8:15	Open stream	na	stream	none	light brown	clear	none	182	448	NA	~0.1	NA	NA
5/12/10	Woburn	Mys07	9:05	Open stream	na	stream	nulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
5/12/10	Woburn	Mys08	9:10	Open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/12/10	Woburn	Torr01	10:00	Open stream	na	stream	none	light brown	clear	none	223	120	NA	0.25	NA	NA
5/12/10	Woburn	UR023	10:00	Open stream	na	stream	none	light brown	clear	none	182	52	NA	0.25	NA	NA
5/12/10	Woburn	Dart1	10:30	Open stream	na	stream	none	dark brown	clear	some suds	64	31	NA	0.2	NA	NA
5/12/10	Woburn	School01	11:05	Open stream	na	stream	none	dark brown	clear	none	109	20	NA	0.25	NA	NA
5/19/10	Quincy	FBP02	8:15	Open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
5/19/10	Quincy	UR024	8:15	Open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA
5/19/10	Quincy	FBP03	8:55	Open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/19/10	Quincy	Broad1	9:25			stream	none	none	clear	none	3466	2755	NA	2	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
5/26/10	Belmont	UR025	9:10	Open stream	na	stream	g musty/se	med tea	lightly turbi	none	29090	7701	NA	0.2	NA	NA
5/26/10	Belmont	WEB013	9:10	Open stream	na	stream	g musty/se	med tea	lightly turbi	none	11620	6488	NA	0.2	NA	NA
5/26/10	Arlington	ARL043	9:58	Concrete	18-24	5	none	none	clear	none	79	109	NA	~0.1	NA	NA

5/26/10	Arlington	ARL137	10:25	Clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	NA
5/26/10	Arlington	ARL207	11:07	Seep	na	1-2	brassica	na	na	na	25	20	NA	~0.1	NA	NA
5/26/10	Arlington	Drake01	11:25	Open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
5/26/10	Arlington	ArlRes	11:30	Open stream	na	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/26/10	Lexington	Bow01A	12:00	Concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	NA
5/26/10	Lexington	Bow01	12:05	Open stream	na	stream	none	med tea	lightly turbi	none	643	809	NA	~0.1	NA	NA
5/26/10	Lexington	Fott01	12:35	Open stream	na	stream	none	med tea	lightly turbi	none	124	199	NA	ND	NA	NA
5/26/10	Lexington	GMS01	12:55	Open stream	na	stream	none	heavy tea	very murky	thick film	72	52	NA	0.2	NA	NA
6/2/10	Revere	UR026	8:01	Concrete	24	NA	none	brown	turbid	none	20640	9606	NA	0.4	NA	NA
6/2/10	Revere	WashN01	8:01	Concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/2/10	Revere	Sales01	8:10	Open stream	na	stream	none	light brown	fairly clear	trash	4813	2359	NA	0.4	NA	NA
6/2/10	Revere	Green01	8:40	Open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
6/2/10	Boston	29M049	9:10	Concrete	3ft	30-40	none	none	lightly turbi	none	714	3873	NA	3	NA	NA
6/2/10	Boston	25L058	9:50	Concrete	6x6ft box	na	musty	grey	turbid	trash	2069	3448	NA	2	NA	NA
6/2/10	Boston	Bos017	10:20	Concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
6/2/10	Boston	29J212	10:22	Concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
6/2/10	Chelsea	Mill2A	11:20	Concrete	24	<5	usty/chemic	none	clear	trash	58	175	NA	0.8	NA	NA
6/10/10	Lawrence	SLE3	7:25	concrete outfall	3'	NA	strong must	white/tan/gra	ightly cloud	ilamentous	1954	2359	NA	1	NA	NA
6/10/10	Lawrence	UR027	7:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	1741	1314	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	806	2014	NA	0.5	NA	NA
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clear	none	NA	NA	NA	0.5	NA	NA
6/16/10	Concord, M	PRIS01	11:00	Concrete	2ft	2	sewage	none	clear	none	16160	10462	NA	0.8	NA	NA
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	NA
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	NA
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	NA
6/30/10	Falmouth	24IN01	9:30								25	ND	NA	0.25	NA	NA
6/30/10	Falmouth	INF01	9:30								461100	290900	NA	1	NA	NA
6/30/10	Falmouth	12INWA	9:40								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	STE01	9:45								547500	186000	NA	0.75	NA	NA
6/30/10	Falmouth	UR099	9:45								686700	119800	NA	0.75	NA	NA
7/7/10	Manchester	Dunbar	8:20	Stone culvert	3x4	150	ng petroleu	oil sheen	turbid	rash & debri	1089	422	NA	ND	NA	NA
7/7/10	Manchester	Granite	9:00	concrete	4ft	35	rong sewag	none	clear	none	125	110	NA	0.5	NA	NA
7/7/10	Manchester	047N	9:40	concrete	4ft	15-20	rong sewag	none	ightly cloud	none	4	ND	NA	0.25	NA	NA
7/7/10	Manchester	047	10:00	concrete	4ft	NA	e, musty (s	med tea	cloudy	some	64	52	NA	~0.1	NA	NA
7/7/10	Concord, NH	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	218	399	NA	1	NA	NA
7/7/10	Concord, NH	Mer4120a	10:45	concrete	36"	10	ilightly mus	none	ightly cloud	e leaves & d	25	ND	NA	0.5	NA	NA
7/7/10	Concord, NH	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	263	448	NA	1	NA	NA
7/7/10	Concord, NH	Clinton	11:55	Open stream	NA	low	none	none	clear	none	806	341	NA	0.75	NA	NA
7/7/10	Concord, NH	Pleasant	12:15	Open stream	NA	low	none	none	clear	none	1089	1722	NA	0.25	NA	NA
7/14/10	Boston	29J212	7:17	Concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/14/10	Boston	Bos017	7:17	Concrete	72"	na	musty	none	ightly cloud	some	129970	2489	NA	2.5	NA	NA
7/14/10	Boston	UR029	7:17	Concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra	38730	68670	NA	0.2	NA	NA
7/14/10	Salem	Palmer1	9:05	clay	18-24	15-20	slight musty	none	clear	none	13540	17329	NA	3	NA	NA
7/14/10	Beverly	Lynch1	9:35	concrete	12"	25	none	none	clear	none	689	1178	NA	0.2	NA	NA
7/14/10	Beverly	Brac01	10:04	concrete/stone	4'box	na	Sulfur	none	clear	some suds	2452	1725	NA	2	NA	NA
7/14/10	Beverly	Brac02	10:31	Open stream	na	na	none	med tea	turbid	some	2595	3130	NA	ND	NA	NA
7/14/10	Beverly	Lynch02	10:50	plastic	8"	~4	none	none	clear	none	2069	4352	NA	2	NA	NA
7/21/10	Winchester	Swan01	7:25	Open stream	na	na	None	grey	very cloudy	some suds	452	305	NA	~0.1	NA	NA
7/21/10	Winchester	Wash01	7:50	Open stream	na	na	None	grey	very cloudy	some suds	484	512	NA	~0.1	NA	NA
7/21/10	Winchester	Wash02	7:55	Concrete	24"	na	None	grey	very cloudy	some suds	857	318	NA	0.2	NA	NA
7/21/10	Woburn	Mer01up	8:30	Open stream	na	na	None	greyish	very cloudy	none	448	199	NA	0.2	NA	NA

7/21/10	Woburn	Sweet	8:35	Open stream	na	na	none	none	clear	some suds	518	148	NA	0.22	NA	NA
7/21/10	Woburn	Salem	9:25	Open stream	na	na	none	greyish	very cloudy	some	996	301	NA	0.15	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	na	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/21/10	Woburn	Mys01b	10:00	Concrete	16-18"	10-15	none	none	clear	none	4	20	NA	0.3	NA	NA
7/21/10	Woburn	Mys01c	10:10	plastic	4"	1/2	none	none	cloudy	none	ND (4)	ND (10)	NA	ND	NA	NA
7/21/10	Woburn	Halls2	10:55	open stream	na	na	none	none	clear	none	2190	816	NA	ND	NA	NA
7/21/10	Woburn	DRR1	11:00	Open stream	na	na	none	grey	cloudy	none	1549	288	NA	~0.1	NA	NA
7/21/10	Woburn	UR030	11:00	Open stream	na	na	none	grey	cloudy	none	744	253	NA	~0.1	NA	NA
7/28/10	Boston	29J212	7:15	Concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
7/28/10	Boston	Bos017	7:16	Concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/28/10	Dorchester	CantB	8:28	Open stream	na	na	na	grey./green	lightly coud	rash & debri	169	86	NA	0.3	NA	NA
7/28/10	Dorchester	UR031	8:28	Open stream	na	na	na	grey./green	lightly coud	rash & debri	146	51	NA	0.3	NA	NA
7/28/10	Boston	15F288	9:02	Brick	5'	~10	sharp musty	none	clear	none	205	109	NA	0.2	NA	NA
7/28/10	Boston	Mudd1	9:55	stone	bridge	NA	none	na	cloudy	none	2318	703	NA	0.15	NA	NA
7/28/10	Brookline	VillB	10:40	Stone	5'	NA	musty	green	cloudy	ves &sedim	258	52	NA	~0.1	NA	NA
7/28/10	Boston	OF233	11:00	Concrete	20-30"		slightly must	ght oil shee	clear	e trash & de	198630	24196	NA	ND	NA	NA
7/28/10	Boston	Jpond	11:25	spring bubbling up from ground			none	none	none	none	43	ND	NA	ND	NA	NA
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	clean smell	none	none	none	30	10	NA	0.2	NA	NA
8/4/10	Lawrence	SPRLGH	7:40	Open stream	NA	NA	none	none	clear	none	1164	1529	NA	~0.1	NA	NA
8/4/10	Lawrence	Jackson	8:25	Open stream	NA	NA	none	light tea	some	ash and deb	606	512	NA	~0.1	NA	NA
8/4/10	Lawrence	Willow	9:00	Open stream	NA	NA	none	med tea	none	ash and deb	325	158	NA	~0.1	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact	1230	275	NA	~0.1	NA	NA
8/4/10	Lawrence	Shaw01	9:50	Open stream	NA	NA	none	il sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA
8/4/10	Andover	Huss01	10:35	stone box	8-10ft		none	none	clear	surface suds	7945	109	NA	ND	NA	NA
8/4/10	Andover	Huss02	11:00	Open stream	NA	NA	cloudy	ight oil shee	ightly cloud	scum	34	ND (10)	NA	~0.1	NA	NA
8/4/10	Andover	URO32	11:00	Open stream	NA	NA	cloudy	ight oil shee	ightly cloud	scum	8	20	NA	~0.1	NA	NA
8/11/10	Stoneham	100A	7:42	Open stream	NA	NA	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
8/11/10	Stoneham	2Linden	8:25	open stream	na	na	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
8/11/10	Stoneham	Elm2	9:00	stone culvert wit	2' x 4'	~30 - 40	musty	none	clear	none	41060	6867	NA	0.2	NA	NA
8/11/10	Stoneham	URO33	9:00	stone culvert wit	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
8/11/10	Stoneham	Toms	9:50	metal w/asphalt	3'	~5 -7	hault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA
8/11/10	Woburn	Halls2	10:35	Open stream	NA	low	none	light tea		nsome trash and	1379	717	NA	~0.1	NA	NA
8/11/10	Woburn	Halls3	10:50	concrete	~12	< 1	or a few mir	none	clear	suds	4	ND (10)	NA	0.6	NA	NA
8/11/10	Stoneham	31Sixth	11:21	Concrete	18"		none	none	clear	light film or	183	86	NA	0.3	NA	NA
8/11/10	Stoneham	2ndRd	11:50	Open stream	NA	NA	none	med tea	clear	none	430	226	NA	~0.1	NA	NA
8/18/10	Warwick, RI	CBW	8:10	Beach	NA	outgoing tide	none	none	clear	none	28 fecal	ND	NA	3	NA	NA
8/18/10	Warwick, RI	UNKBK	8:22	Open stream	NA	~ 0.3cfs	none	none	ightly cloud	none	504 fecal	4352	NA	2	NA	NA
8/18/10	Warwick, RI	MC01	8:25	Open stream	NA		none	none	can't see bo	none	484 fecal	311	NA	2	NA	NA
8/18/10	Warwick, RI	BB08	8:50	Open stream	NA		none	none	cloudy	none	1340 fecal	1014	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB08P	8:57	concrete	~16	~ 1	none	none	clear	none	1610 fecal	135	NA	1	NA	NA
8/18/10	Warwick, RI	LK04	9:20	Open stream	NA		none	none	clear	and some o	1710 fecal	906	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB07	9:30	Open stream	NA		none	none	clear	none	2870 fecal	1046	NA	0.2	NA	NA
8/18/10	Warwick, RI	WR02	9:45	double culvert			none	none	clear	e oil on sur	300 fecal	148	NA	0.15	NA	NA
8/18/10	Warwick, RI	LK02	10:55	Open stream	NA	NA	none	none	clear	some trash	7100 fecal	1374	NA	0.25	NA	NA
8/18/10	Warwick, RI	Emerson	11:11	perforated alumi	2'	~1 -2	none	none	clear	none	580 fecal	31	NA	ND	NA	NA
8/18/10	Warwick, RI	MB01	11:30	Stone	2'x2'box	~50	none	none	clear	none	484 fecal	161	NA	ND	NA	NA
8/18/10	Warwick, RI	SweetF	11:45	Concrete	~16	~15 - 20	ong musty o	grey	cloudy	d grayish gro	ND fecal	ND	NA	0.2	NA	NA
8/18/10	Warwick, RI	URO34	11:45	Concrete	~16	~15 - 21	ong musty o	grey	cloudy	d grayish gro	ND fecal	62	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none	21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	996-F	8:50	Concrete	16	~10	none	none	clear	none	353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none	16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	GovB	10:40	Swale	NA	stagnant	none	light orange	ightly cloud	some scum	192	98	NA	0.2	NA	NA
8/25/10	Laconia, NH	GovB01	11:00	Stone w/metal lining		~30	none	none	clear	none	857	1223	NA	0.22	NA	NA

8/25/10	Laconia, NH	996-F	11:11	Concrete	16	~20	none	none	clear	some suds	6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	UR035	11:11	Concrete	16	~20	none	none	clear	some suds	6978	17329	NA	0.2	NA	NA
8/25/10	Laconia, NH	Swale	11:40	Concrete	16-18	~10	none	none	clear	none	17200	26030	NA	0.2	NA	NA
8/25/10	Laconia, NH	CBAdmin	11:50	Concrete	18	~50	ght musty o	none	clear	none	621	1553	NA	0.2	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	he suds & de	38730	51720	NA	0.25	NA	NA
9/1/10	Revere	Green01	8:10	Open stream	NA	NA	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
9/1/10	Chelsea	Mill2A	8:30	Concrete	24	<5	usty/chemic	none	clear	trash	8	ND	NA	0.6	NA	NA
9/1/10	Chelsea	Mill2	8:55	Concrete	~30 inches	15	sharp sewa	clear	none	None	282	41	NA	0.5	NA	NA
9/1/10	Revere	Amelia	9:30	Open stream	NA	NA	none	light tea	suspended	some suds	3466	1430	NA	0.6	NA	NA
9/1/10	Revere	Sargent	9:55	Concrete	36	NA	slight musty	none	clear	none	875	201	NA	0.2	NA	NA
9/1/10	Marblehead	DLaunch	11:10	Concrete	4ft	40	none	none	clear	none	31300	2481	NA	0.75	NA	NA
9/1/10	Marblehead	UR036	11:10	Concrete	4ft	40	none	none	clear	none	30760	3076	NA	0.75	NA	NA
9/1/10	Marblehead	Mneck02	11:35	Concrete	24	5	none	ht green/yel	clear	ome fine suc	81640	120330	NA	0.2	NA	NA
9/1/10	Marblehead	GO01	12:00	Concrete	36in	50	None	None	Clear	None	310	145	NA	0.2	NA	NA
9/1/10	Marblehead	StramB	12:30	Open water	NA	NA	none	none	clear	None	211	ND	NA	2	NA	NA
10/5/10	Watertown	SawB01	8:15	Open stream	na	na	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
10/5/10	Watertown	UR037	8:15	Open stream	na	na	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
10/5/10	Watertown	ARLEast	8:35	Open stream	na	na	none	none	clear	none	7946	823	NA	0.25	NA	NA
10/5/10	Watertown	ARL01	8:40	Concrete	4'x4' box	na	none	none	clear	none	9678	1014	NA	NA	NA	NA
10/5/10	Watertown	ARL02	8:42	Concrete	4'x4' box	na	none	none	clear	none	9678	738	NA	NA	NA	NA
10/5/10	Watertown	ARL03	8:45	Concrete	5'x4' box	na	none	none	clear	none	3080	173	NA	NA	NA	NA
10/5/10	Watertown	Wat13	9:20	Concrete	16"	1	none	none	clear	none	92080	2142	NA	0.25	NA	NA
10/5/10	Watertown	Wat12	9:30	Concrete	36"	na	none	none	clear	none	111990	14136	NA	0.6	NA	NA
10/5/10	Watertown	Wat11	9:40	Concrete	4'x3' box	na	none	med tea	turbid	none	19350	1723	NA	0.3	NA	NA
10/5/10	Watertown	LB01	10:35	Concrete	10'x7'box	100	none	none	clear	none	6212	583	NA	0.2	NA	NA
10/5/10	Watertown	Wat5	11:07	Concrete	4'	1	none	none	clear	none	64	20	NA	0.25	NA	NA
10/5/10	Watertown	Wat6	11:11	Concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	NA
10/13/10	Marblehead	DLaunch	8:15	Concrete	4ft	40	none	none	clear	none	1376	860	NA	2	NA	NA
10/13/10	Marblehead	UR038	8:15	Concrete	4ft	40	none	none	clear	none	871	723	NA	2	NA	NA
10/13/10	Marblehead	MH19	8:38	stormdrain	na	~20	ong musty o	none	clear	none	TNTC	24196	NA	0.5	NA	NA
10/13/10	Marblehead	MH32	9:10	stormdrain	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	NA
10/13/10	Marblehead	MH48	9:30	stormdrain	na	~15	lightly must	none	clear	none	8	ND	NA	~0.1	NA	NA
10/13/10	Marblehead	MH29A	9:55	plastic stormdrai	18-24	~10	none	none	clear	none	689	41	NA	~0.1	NA	NA
10/13/10	Marblehead	MH2336	10:30	stormdrain	na	na	none	none	clear	e small white	5654	2489	NA	0.25	NA	NA
10/13/10	Marblehead	MH2203	10:55	stormdrain	na	~15	musty	none	clear	none	5654	5475	NA	0.3	NA	NA
10/13/10	Marblehead	MHWinslow	11:11	stormdrain	na	na	musty	lightly yello	clear	none	2452	118	NA	0.4	NA	NA
10/13/10	Marblehead	MHWinslowA	11:28	stormdrain	18"	~5-10	resh smellin	none	clear	none	43	98	NA	0.2	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
10/27/10	Quincy	WollB1B	8:18	concrete	3-4'	30-40	musty/sulfu	none	ightly cloud	some suds	58	20	NA	2.5	NA	NA
10/27/10	Dorchester	Ten1	8:55	Pipe Mat.	24-30	na	none	Tan/brown	very turbid	none	132	20	NA	1.5	NA	NA
10/27/10	Boston	10L094	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	4813	14136	NA	0.6	NA	NA
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	41060	9208	NA	0.8	NA	NA
10/27/10	Boston	10L094A	9:25	metal	24"	5	musty	grey	cloudy	none	34480	14136	NA	1.5	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	na	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
10/27/10	Quincy	Sag1C	10:58	metal	30"	na	natural gas	light brown	clear	none	2452	2723	NA	0.6	NA	NA
10/27/10	Quincy	Bay1	11:40	Seep/pool	NA	NA	sewage	rk brown/gr	cloudy	none	173290	365400	NA	NA	NA	NA
10/27/10	Quincy	BayBch	11:45	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	NA
10/27/10	Quincy	WollBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	NA
10/27/10	Quincy	WollBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	NA

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH3 - color key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L *** may give false positive at salinity greater than 1 ppt
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPORTING LIMITS

E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Alpha = 0.05 mg/L (Except where otherwise noted)
Surfactants Field = 0.1 mg/L
Surfactant DR-850 = 0.02 mg/L
Ammonia (Alpha) = 0.075 mg/L
Ammonia Field = 0.1 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia DR-850 = 0.08 mg/L
Ammonia Test Strip = 0.1 mg/L
Total Phosphorus = 5 ug/L
CL2 (Total Residual) = 0.02 mg/L
CL2 (Residual Free) = 0.05 mg/L
CL2 Field = 0.02 mg/L
CL2 Test Strip =
Flouride Alpha= 0.20 mg/L
Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Potassium = 2.5 mg/L
Potassium Field = 0.2 mg/L
Nitrogen, Nitrate/Nitrite = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
ND	NA	NA	~0	NA	NA	ND (1.0)	11	ND (0.2)	9.1	56	ND (0.2)	ND (2.0)	31	~0.76	ND	ND	0.08	ND	ND
ND	NA	NA	ND	NA	NA	ND (1.0)	34	ND (0.2)	38	2600	ND (0.2)	ND (2.0)	96	2.2	ND	ND	0.05	ND	ND
1.5	NA	NA	1	NA	NA	ND (1.0)	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.14	ND	0.53
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	NA	NA	3	NA	~135	ND (2.0)	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
ND	NA	NA	ND	NA	11	ND (2.0)	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.23
ND	NA	NA	ND	NA	12	ND (2.0)	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.28
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
~0.1	NA	NA	~0.10	NA	21	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	15	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	ND	ND	ND
ND	NA	NA	ND	NA	78	~4.2	1700	ND (0.4)	120	200	~1.0	ND (4.0)	2500	12	ND	ND	~0.01	ND	ND
~0.1	NA	0.14	0.25	NA	84	~4.9	1600	~0.34	130	240	~1.6	ND (4.0)	3300	7.5	ND	ND	ND	ND	ND
~0.75	NA	NA	3	NA	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0)	55000	200	ND	ND	NA	ND	ND
ND	NA	0.23	ND	NA	35	~5.9	73	~0.74	87	360	~1.1	ND (4.0)	320	10	ND	ND	NA	ND	ND
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
NA	NA	0.15	0.6	NA	34	ND (1.0)	5.8	~0.29	12	34	ND (0.2)	ND (2.0)	2.5	1.5	ND	ND	0.07	ND	ND
NA	NA	0.41	3	NA	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2.0)	11	1.5	ND	ND	0.04	ND	0.54
NA	NA	0.19	~0.10	NA	174	~27	2600	~2.3	530	1100	8.7	ND (2.0)	600	3.2	NA	NA	ND	ND	0.81
>2	NA	1.08	5.5	NA	586	~150	27000	~13	3500	5000	61	ND (2.0)	17000	5.1	ND	ND	0.04	ND	0.37
NA	NA	1.1	6	NA	491	~140	24000	~12	3300	4500	48	ND(2.0)	14000	4.9	ND	ND	0.07	ND	0.36
ND	NA	ND	ND	NA	33	ND (1.0)	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2.0)	2	ND (0.2)	ND	ND	~0.02	ND	ND
ND	NA	ND	ND	NA	29	ND (1.0)	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2.0)	ND (2.0)	1.5	ND	ND	ND	ND	ND
~0	NA	ND	~0.10	NA	46	ND (1.0)	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	~0.01	ND	ND
ND	NA	ND	~0.10	NA	43	ND (1.0)	57	ND (0.2)	17	30	ND (0.2)	ND (2.0)	12	ND (0.2)	ND	ND	ND	ND	ND
~1.0	NA	0.24	3	NA	1080	ND (100.0)	6200	ND (20.0)	1600	4300	ND (20.0)	ND (200.0	7710	ND (20.0)	ND	ND	0.04	ND	0.3
~1.0	NA	0.31	2	NA	380	ND (100.0)	5500	ND (20.0)	1400	4200	ND (20.0)	ND (200.0	7200	ND (20.0)	ND	ND	ND	ND	0.29
ND	NA	~0.08	ND	NA	26	ND (1.0)	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2.0)	250	0.52	ND	ND	0.06	ND	ND
ND	NA	0.22	ND	NA	83	ND (1.0)	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2.0)	270	2.6	ND	ND	0.09	ND	ND
ND	NA	ND	ND	NA	72	ND (1.0)	2.9	ND (0.2)	~4.9	~11	ND (0.2)	ND (2.0)	9.2	0.56	ND	ND	ND	ND	0.75
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
0.5	1	0.24	1.5	NA	84	~62	1100	~3.7	500	980	39	5	2800	7.4	na	na	~0.0	ND	ND
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0)	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
0.5	2	0.51	1	NA	72	~20	280	~1.6	120	360	2.4	ND (4.0)	680	2.9	ND	ND	ND	ND	0.62
0.5	2.5	0.49	0.3	NA	73	~24	310	~2.0	120	320	2.3	ND (4.0)	670	2.6	ND	ND	0.05	ND	0.66
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
ND	0.2	ND	ND	NA	17	ND (2.0)	15	~0.46	7.1	56	ND (0.4)	ND (4.0)	100	4.7	ND	ND	0.14	ND	ND
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA

clear	1.35	ND	ND	NA	98	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	7	0.56	ND	ND	0.38	ND	0.75
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
~0.1	0.5	0.09	0.2	NA	110	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	13	1.6	ND	ND	0.19	ND	ND
ND	0.4	ND	ND	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~0.88	ND (4.0)	14	1.4	ND	ND	0.18	ND	ND
ND	0.5	ND	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	15	1.5	ND	ND	NA	ND	ND
ND	0.8	~0.08	0.25	NA	77	ND (2.0)	ND (2.0)	ND (0.4)	4.4	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	1.2	ND	ND	0.11	ND	ND
~0.1	0.6	0.1	0.4	NA	101	ND (2.0)	ND (2.0)	ND (0.4)	53	5200	~0.52	ND (4.0)	ND (4.0)	17	ND	ND	0.10	ND	ND
ND	0.8	ND	0.5	NA	89	ND (2.0)	ND (2.0)	ND (0.4)	6.5	260	ND (0.4)	ND (4.0)	ND (4.0)	19	NA	NA	0.13	ND	NA
~0.1	1.1	0.13	0.75	NA	148	~49	280	~4.7	100	230	7.7	ND (8.0)	3800	5.7	ND	ND	0.05	ND	ND
ND	0.3	ND	ND	NA	42	ND (4.0)	10	ND (0.8)	10	96	ND (0.8)	ND (8.0)	39	4.1	ND	ND	0.07	ND	ND
ND	0.4	ND	ND	NA	46	ND (4.0)	ND (4.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8.0)	12	14	ND	ND	0.03	ND	ND
>2	>3	23.1	>6	NA	4420	~1800	65000	~51	11000	66000	280	ND (440.0	340000	140	ND	ND	ND	ND	0.56
>2	>3	15	>6	NA	3630	ND (200.0)	590000	ND (40.0)	7300	4400	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.55
>2	>3	14.7	>6	NA	3390	ND (200.0)	600000	ND (40.0)	7500	4700	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.62
0.25	1.4	0.18	2	NA	201	ND (20.0)	69	~4.0	280	180	ND (4.0)	ND (40.0)	5900	ND (4.0)	ND	ND	0.04	ND	ND
ND	0.3	ND	ND	NA	46	ND (3.8)	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7.7)	12	4.6	ND	ND	0.05	ND	ND
ND	0.8	ND	ND	NA	45	ND (2.0)	820	4	23	1400	ND (0.4)	ND (4.0)	180	~2.2	ND	ND	ND	ND	ND
>2	>3	9.3	6	NA	31	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	24	~1.2	ND	ND	0.08	ND	0.62
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2
NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
2	>3	9.8	>3	NA	45	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	14	~1.3	ND	ND	~0.0	ND	0.64
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
~0.1	0.4	0.31	ND	NA	27	ND (2.0)	38	ND (0.4)	4.4	16	ND (0.4)	ND (4.0)	440	6	ND	ND	~0.02	ND	ND
ND	0.4	ND	ND	NA	49	ND (2.0)	69	ND (0.4)	26	850	2.7	ND (4.0)	240	3.5	ND	ND	0.10	ND	ND
ND	0.4	ND	ND	NA	47	ND (2.0)	57	ND (0.4)	24	820	2.2	ND (4.0)	270	3.8	ND	ND	0.10	ND	ND
ND	0.4	0.1	ND	NA	20	ND (2.0)	3.1	ND (0.4)	7	30	ND (0.4)	ND (4.0)	61	5	ND	ND	0.06	ND	ND
ND	0.4	ND	ND	NA	39	ND (2.0)	93	ND (0.4)	14	17	ND (0.4)	ND (4.0)	66	2.5	ND	ND	0.07	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
ND	0.2	ND	ND	NA	~243	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.32
ND	0.4	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
ND	0.8	ND	~0.10	NA	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.9	ND	0.50	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.10	ND	ND
ND	0.8	ND	ND	NA	38	na	na	na	na	na	na	na	na	na	ND	ND	~0.02	ND	ND
ND	0.8	ND	ND	NA	36	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA
ND	1.6	0.22	2.00	NA	35	na	na	na	na	na	na	na	na	na	ND	ND	0.03	ND	ND
0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA
ND	0.3	ND	ND	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.7	ND	ND	NA	78	ND (2.0)	19	ND (0.4)	~8	25	ND (0.4)	ND (4.0)	42	1.1	ND	ND	0.03	ND	ND
~0.1	0.6	ND	ND	NA	65	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.4	ND	ND	NA	20	ND (2.0)	240	ND (0.4)	~20	40	ND (0.4)	ND (4.0)	16000	4.9	ND	ND	0.09	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
ND	0.4	ND	ND	NA	22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND
>2	>3	2.26	6	NA	421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22
ND	0.6	ND	~0.10	NA	28	ND (2.1)	10	ND (0.4)	~10	45	~0.28	ND (4.2)	280	3.4	ND	ND	0.06	ND	ND
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
ND	~0.1	ND	~0.30	NA	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND
ND	~0.1	ND	ND	NA	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
ND	ND	ND	ND	NA	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.1	28	4.1	~20	3.1	6	34	0.7	ND (4.0)	490	1.4	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.95	37	4.8	190	4.6	12	70	1.2	ND (4.0)	1400	0.93	ND	ND	NA	ND	ND

NA	NA	NA	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.78	47	12	280	4.7	30	170	2.9	ND (4.0)	2700	ND (0.4)	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	3	9.1	ND (2.0)	ND (2.0)	0.86	ND (2.0)	5.4	ND (0.4)	ND (4.0)	15	1.2	ND	ND	NA	ND	ND
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	ND	1.1	52	ND (2.5)	ND (2.5)	1	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	14	ND (0.5)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	2	1.2	28	2.3	21	21	7.9	170	ND (0.4)	ND (4.0)	360	0.85	ND	ND	0.06	ND	ND
NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	25	ND (2.0)	27	23	6.4	220	1.4	ND (4.0)	370	0.61	ND	ND	ND	ND	ND
NA	NA	NA	3	1.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.5	2	23	ND (2.0)	5.8	6.7	ND (2.0)	37	ND (0.4)	6.5	1300	4.8	ND	ND	0.04	ND	ND
NA	NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1	0.59	36	ND (2.0)	7.9	10	ND (2.0)	35	ND (0.4)	16	1000	1.2	ND	ND	ND	ND	ND
NA	NA	NA	ND	2.7	28	3.2	120	8.1	19	85	ND (0.5)	7.2	1500	8.6	ND	ND	0.06	ND	ND
NA	NA	NA	ND	0.59	58	8.5	53	10	12	130	ND (0.4)	ND (4.0)	750	0.42	ND	ND	0.09	ND	ND
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	0.37	54	9.1	100	7.7	13	73	0.65	ND (4.0)	1200	0.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	0.31	55	8	5.4	5.7	7.3	35	ND (0.4)	ND (4.0)	590	ND (0.4)	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	9.3	8.3	300	ND (0.5)	ND (5.0)	160	1.4	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	29	ND (2.0)	2.3	1.5	ND (2.0)	6.7	ND (0.4)	ND (4.0)	96	0.72	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	38	ND (2.0)	ND (2.0)	7.5	5.9	140	ND (0.4)	ND (4.0)	80	1.4	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	73	ND (2.0)	2.5	17	6.4	61	ND (0.4)	ND (4.0)	230	1.2	NA	NA	0.11	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	69	ND (2.0)	53	17	7.5	180	ND (0.4)	ND (4.0)	1300	0.84	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	79	45	1200	11	300	1100	4.8	ND (5.0)	12000	4.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

NA	NA	NA	0.25	NA	23	ND (2.0)	ND (2.0)	4.3	4.2	39	ND (0.4)	ND (4.0)	37	ND (0.4)	NA	NA	0.71	1/0.3	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	0.25	NA	NA	ND (2.5)	ND (2.5)	2.4	ND (2.5)	11	ND (0.5)	7.4	30	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	84	3.1	19	2.8	5.1	22	0.63	ND (4.0)	440	ND (0.4)	NA	NA	0.08	ND	NA
NA	NA	NA	1	NA	93	ND (2.0)	ND (2.0)	2.2	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	36	ND (2.0)	ND (2.0)	0.45	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	0.7	NA	NA	4.7	210	53	26	180	0.56	ND (4.0)	1200	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	8	6.6	5.9	54	ND (0.4)	ND (4.0)	78	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	3.4	50	63	26	510	1.3	ND (4.0)	90	1.4	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA
NA	NA	NA	0.75	NA	NA	41	81	62	280	940	ND (0.5)	ND (5.0)	1800	5	NA	NA	0.6	ND	NA
NA	NA	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0)	17000	240	NA	NA	0.13	ND	NA
NA	NA	NA	0.75	NA	NA	450	14	19	31	170	1.3	ND (4.0)	870	170	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	NA	850	99	ND (0.5)	6.1	20	1.3	ND (5.0)	17	170	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.4)	ND (4.0)	ND (4.0)	87	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	NA	670	140	ND (0.4)	2.1	5.8	0.89	ND (4.0)	31	240	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	1800	41000	1300	7300	33000	510	ND (20.0)	550000	280	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	410	ND (2.0)	3.7	6.9	24	0.64	ND (4.0)	14	180	NA	NA	0.18	ND	NA
NA	NA	NA	6+	NA	NA	1400	44000	1900	6300	51000	760	ND (20.0)	580000	300	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	36	ND (2.0)	6.1	6.7	ND (2.0)	5.9	ND (0.4)	ND (4.0)	73	ND (0.4)	NA	NA	0.17	ND	NA
NA	NA	NA	0.25	NA	30	ND (2.5)	9.1	47	3.8	150	2.1	ND (5.0)	10	4.5	NA	NA	0.1	ND	NA
NA	NA	NA	ND	NA	34	ND (2.0)	ND (2.0)	0.99	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	28	18	ND (2.0)	1.8	2.8	6.3	2.1	ND (4.0)	49	3.9	NA	NA	0.22	ND	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	152	ND (2.0)	ND (2.0)	2.8	ND (2.0)	7.3	0.43	ND (4.0)	17	ND (0.4)	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	30	ND (2.0)	ND (2.0)	2.4	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	80	ND (0.4)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	ND (2.5)	ND (2.5)	1.4	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	170	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	112	23	87	12	18	200	4.6	ND (4.0)	790	1.3	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	32	ND (2.0)	ND (2.0)	3.3	ND (2.0)	110	ND (0.4)	ND (4.0)	22	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	45	ND (2.5)	ND (2.5)	1.8	ND (2.5)	6.3	ND (0.5)	ND (5.0)	60	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	59	ND (2.0)	ND (2.0)	1.3	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	92	ND (0.4)	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	46	ND (2.0)	ND (2.0)	8.9	ND (2.0)	5.6	ND (0.4)	ND (4.0)	210	1.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	32	ND (2.0)	ND (2.0)	9.9	ND (2.0)	8.6	ND (0.4)	ND (4.0)	35	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	ND	NA
NA	NA	NA	0.4	NA	27	ND (2.0)	ND (2.0)	8.7	ND (2.0)	7.3	ND (0.4)	ND (4.0)	27	ND (0.4)	NA	NA	ND	ND	NA

NA	NA	NA	ND	NA	53	30	5.3	31	18	82	3.9	4.6	270	10	NA	NA	0.15	ND	NA
NA	NA	NA	4	NA	27	ND (2.0)	ND (2.0)	11	ND (2.0)	55	ND (0.4)	ND (4.0)	45	0.42	NA	NA	0.08	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	26	ND (2.5)	11	8.6	13	470	ND (0.5)	ND (5.0)	35	1.2	NA	NA	0.08	ND	NA
NA	NA	NA	5	NA	35	ND (2.5)	ND (2.5)	2.7	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	470	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	5	NA	151	76	1700	71	270	1200	ND (0.4)	ND (4.0)	3800	ND (0.4)	NA	NA	0.37	ND	NA
NA	NA	NA	5	NA	147	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.37	ND	NA
NA	NA	NA	0.75	NA	74	29	11	3.9	53	40	ND (0.4)	ND (4.0)	750	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	5	NA	166	8.7	63	23	41	160	ND (0.4)	ND (4.0)	790	4.5	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	141	4.7	59	17	28	130	ND (0.4)	ND (4.0)	24	3.5	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	234	230	3900	35	430	3400	11	ND (4.0)	38000	15	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	16	ND (2.5)	17	ND (0.5)	ND (5.0)	20	ND (0.5)	NA	NA	0.06	ND	NA
NA	NA	NA	0.2	NA	12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	51	11	12	7.9	110	410	ND (0.4)	ND (4.0)	11000	0.55	NA	NA	0.2	ND	NA
NA	NA	NA	0.1	NA	40	ND (2.5)	ND (2.5)	3.3	4.7	36	ND (0.5)	ND (5.0)	44	1.8	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	93	320	240	77	700	1300	13	5.9	1100	5.7	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA
NA	NA	NA	ND	NA	33	ND (2.0)	ND (2.0)	3.6	18	470	ND (0.4)	ND (4.0)	ND (4.0)	0.4	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (4.0)	17	35	41	210	ND (0.8)	ND (8.0)	ND (8.0)	ND (0.8)	NA	NA	0.07	ND	NA
NA	NA	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	47	ND (2.5)	ND (2.5)	3.4	ND (2.5)	8.1	ND (0.5)	ND (5.0)	ND (5.0)	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	ND (2.0)	3.8	5.2	18	3.6	ND (4.0)	11	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	7.1	15	73	1.9	ND (4.0)	ND (4.0)	4.3	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	72	ND (2.0)	ND (2.0)	7.8	15	110	ND (0.4)	6	ND (4.0)	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	16	14	10	44	ND (0.4)	6.5	12	18	NA	NA	0.06	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	33	ND (2.5)	ND (2.5)	11	17	100	ND (0.5)	5.4	ND (5.0)	4.8	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	2.3	5.6	24	ND (0.5)	17	ND (5.0)	7.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	21	2.1	29	41	85	240	1.9	ND (4.0)	42	4.9	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	1	NA	40	19	ND (2.0)	1.3	4.8	11	ND (0.4)	130	ND (4.0)	3.7	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.0)	ND (2.0)	ND (0.4)	2.7	ND (4.0)	ND (2.0)	ND (4.0)	ND (4.0)	0.74	NA	NA	ND	ND	NA

NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	58	ND (2.0)	ND (2.0)	ND (0.4)	12	12	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.5)	ND (2.5)	ND (0.5)	11	4.5	ND (2.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	66	ND (2.0)	7	4.5	11	33	ND (0.4)	ND (4.0)	4.6	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	65	ND (2.5)	ND (2.5)	0.65	5.2	ND (5.0)	ND (0.5)	ND (5.0)	ND (5.0)	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	90	14	340	8.4	220	3000	ND (0.4)	ND (4.0)	980	6.5	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.75	NA	57	ND (2.0)	ND (2.0)	0.75	4.4	5.6	ND (0.4)	ND (4.0)	7.1	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	89	ND (2.0)	ND (2.0)	3.8	11	46	ND (0.4)	ND (4.0)	ND (4.0)	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	69	ND (2.5)	ND (2.5)	1.9	39	48	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0)	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	19	190	13	260	730	ND (0.8)	ND (8.0)	ND (8.0)	6.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	5	NA	NA	150	610	150	1400	940	ND (0.4)	ND (4.0)	120	11	NA	NA	0.08	ND	NA
NA	NA	NA	4	NA	NA	190	1100	43	980	12000	ND (4.0)	ND (40.0)	1200	200	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	NA	ND (10.0)	490	16	160	270	ND (2.0)	ND (20.0)	54	18	NA	NA	0.14	ND	NA
NA	NA	NA	ND	NA	NA	6.3	46	14	42	510	ND (0.5)	ND (4.7)	92	3.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.52	4.8	23	ND (0.4)	ND (4.0)	ND (4.0)	6.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	5.4	37	3.7	19	82	ND (0.4)	ND (4.2)	36	3.2	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	14	1.8	12	44	ND (0.4)	ND (4.0)	8.5	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	120	4500	37	2100	4300	ND (4.0)	ND (40.0)	~1500	82	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.4	8.4	6.6	210	120	ND (0.5)	ND (4.8)	~97	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.84	2.8	ND (4.0)	ND (0.4)	ND (4.0)	~4.3	0.52	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.2	21	1	9.4	50	ND (0.5)	ND (4.8)	~15	0.66	NA	NA	0.03	ND	NA
NA	NA	NA	0.75	NA	NA	13	310	19	1100	~48000	ND (0.4)	ND (4.0)	~29	68	NA	NA	0.03	ND	NA
NA	NA	NA	0.4	NA	NA	46	630	13	470	790	ND (0.8)	ND (8.0)	~81	ND (0.8)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	ND (2.0)	110	16	90	130	ND (0.4)	ND (4.0)	ND (4.0)	1.7	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	ND (10.0)	ND (10.0	2.6	10	ND (20.0)	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	47	16	13	~130	14	ND (20.0)	20	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	1800	190	400	~2700	4.3	ND (20.0)	180	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	270	970	170	~4100	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	NA	ND (10.0)	81	280	100	~3200	38	ND (20.0)	64	ND (2.0)	NA	NA	0.06	ND	NA
NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	ND (1000.0	20000	ND (100.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	1.9	~1.6	~16	ND (0.4)	ND (4.0)	~2.9	0.5	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	2.2	4.7	~11	ND (0.4)	ND (4.0)	4.4	0.46	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	2.2	2.4	7.5	~52	ND (0.4)	16	ND (4.0)	ND (0.4)	NA	NA	0.04	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	4.0	4.30	42.515744	-71.136289	Sample taken shady l	Commerce Way locat	na	na	na	Bedford	0	0.06	Dry
NA	5.4	6.30	42.513171	-71.142649	1 foot deep at samplir	Halls Brook behind 18	na	na	na	Bedford	0	0.06	Dry
NA	6.2	32.10	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broc	na	na	na	Bedford	0	0.06	Dry
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
NA	160	46.60	42.40397	-71.021087	odor, gray/black cloud	privately owned	na	na	na	Boston-Logan	0	0.42	Wet
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	clean location	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	duplicate	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	50/180	Boston-Logan	0	0.03	Dry
NA	ND	1.25	42.425963	-71.114988		Meeting house brook	0.1	14.1	291	Boston-Logan	0	0.03	Dry
NA	4.9	4.75	42.399303	-71.160888	waded in stream to co	Winns Brook of Bright	0.6	14.4	1085	Boston-Logan	0	0.03	Dry
0.14	4.7	5.00	42.399303	-71.160888	duplicate		na	na	na	Boston-Logan	0	0.03	Dry
NA	6.6	4.55	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.8	14.1	1625	Boston-Logan	0	0.03	Dry
0.07	6.1	6.30	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.8	13.7	1623	Boston-Logan	0	0.03	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6mS	Boston-Logan	0	0	Dry
0.25	12	9.25	42.287572	-71.022259	lots of orange flocc co	across from CVS on C	1	15	1913	Boston-Logan	0	0	Dry
1.34	350	50+	42.289355	-71.041773	Very, very muddy wat	Tenean Beach	24.5	16.3	38.36m	Boston-Logan	0	0	Dry
1.53	330	50+	42.298373	-71.046379	Started sprinkling abo	at dog park off Victory	24.5/24.6	16.3/16.3	.36/38.	Boston-Logan	0	0	Dry
0.31	7.2	3.75	42.288373	-71.092879	bacteria plague cover	Canterbury Brook, Bo	0.6	14.6	1156	Milton-Blue Hi	0.07	0.07	Dry
0.32	7.1	2.30	42.288373	-71.092879	duplicate		na	na	na	Milton-Blue Hi	0.07	0.07	Dry
0.13	2.8	0.30	42.57664155	-70.92825715		Frost Fish Brook, 34 S	0.3	13.3	585	Beverly	0	0.16	Dry
0.1	3	1.85	42.58395698	-70.92904291	Moss growing in pipe	Downstream of bridge	0.2	12.8	375	Beverly	0	0.16	Dry
0.09	3.5	1.00	42.51446323	-70.86578117	Some moss growing o	Sampled where brook	0.2	13.8	329	Beverly	0	0.16	Dry
0.14	4.6	2.70	42.51182185	-70.85955935		Between Rts. 134A ar	0.4	13.1	641	Beverly	0	0.16	Dry
0.34	5.3	1.70	42.466942	-70.92203147	Sample combined fro	Sampled about 15' do	0.5	14.2	826	Beverly	0	0.16	Dry
0.32	5.1	1.40	42.466942	-70.92203147	Ammonia kits - samples	recorded as 1.0 but	na	na	na	Beverly	0	0.16	Dry
0.23	4.3	1.40	42.262068	-71.046682	sampled downstream	Unquity Brook off Chr	0.5	14.5	800	Milton-Blue Hi	0	0	Dry
0.24	4.1	1.85	42.253703	-71.068976	Heard dripping from u	downstream of Rando	0.5	15.4	797	Milton-Blue Hi	0	0	Dry
1.66	660	44.30	42.266485	-70.997104	Flow was very strong	Wollaston Beach upst	28.5	20.5	*40.4mS	Milton-Blue Hi	0	0	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12mS	Milton-Blue Hi	0	0	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55mS	Milton-Blue Hi	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
0.12	4.6	1.30	42.48685	-71.0985788	Cl2 exceeded holding	Elm St in Stoneham, r	0.7	15.6	1434	Boston-Logan	0.08/0	0.08/0.	Wet
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.1	0.1/0.2	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston M	6.5	20.34	11.36	Boston-Logan	0	0	Dry
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
1.17	200	50*	42.394421	-71.049706	Surf., NH3 (EPA) and	other 500mL bottle sar	14.2	21.5	23.49	Boston-Logan	0	0	Dry
1.15	200	50*	42.394421	-71.049706	Duplicate of IsEnd03		na	na	na	Boston-Logan	0	0	Dry
0.81	130	46.10	42.41380356	-71.13242519	can hear running water	in pipe; YSI measurm	9.1	17.7	15.1	Boston-Logan	0	0	Dry
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
0.22	5.1	1.50	42.250692	-70.997793	Accessed via parking	Canal opening just off	0.5	19.7	1080	Boston-Logan	0.01	0.01	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3mS	Boston-Logan	0.01	0.01	Dry
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry

1.65	530	50*	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	25	18.8	39.10m	Boston-Logan	0.01	0.01	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
0.07	ND	0.15	41.92559804	-70.61841863	lots of eel grass, used	downstream Eel River	0.1	22.8	142.9	Plymouth	0.01	0.01	Dry
ND	ND	0.20	41.92519001	-70.61918863	River: about 1.5' deep	downstream of bridge	0.1	22.6	145.3	Plymouth	0.01	0.01	Dry
~0.05	ND	ND	41.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0.01	0.01	Dry
0.1	ND	0.35	41.92517001	-70.61942993	some grass was gorw	upstream of Sandwich	0.1	21.5	187.7	Plymouth	0.01	0.01	Dry
0.08	4.2	0.60	41.92538204	-70.61810863	dead mouse floating i	directly behind 132 sa	0.2	17.6	326.3	Plymouth	0.01	0.01	Dry
0.15	NA	ND	41.92480601	-70.61774371	very akward sampling	Clean-out pipe, behind	0.2	20.4	315.3	Plymouth	0.01	0.01	Dry
0.12	3.4	1.05	42.266756	-71.094794	green algae and greyi	(actually NR104?) Bel	0.5	18.2	910	Boston-Logan	0.77	0.77	Wet
ND	ND	0.50	42.266710	-71.094816	waded into river for sa	just upstream of Dent	0.2	24.6	427.7	Boston-Logan	0.77	0.77	Wet
ND	3.7	1.65	42.251173	-71.128400	lots of trash in stream	parked off Reservatio	0.3	25.9	625	Boston-Logan	0.77	0.77	Wet
0.05	8.7	21.90	42.247956	-71.125339	difficult access, white	parked off Glenwood,	0.2	20.5	476.6	Boston-Logan	0.77	0.77	Wet
0.66	7.4	14.25	42.244799	-71.126989	green algae in outfall,	behind tennis courts o	0.5	18.4	968	Boston-Logan	0.77	0.77	Wet
0.74	7.2	14.80	42.244799	-71.126989	Duplicate of NR162		na	na	na	Boston-Logan	0.77	0.77	Wet
0.14	4.8	1.15	42.242826	-71.127704	some gray bacteria, g	behind Stop & Shop o	1.2	22.4	24.11	Boston-Logan	0.77	0.77	Wet
0.08	ND	1.00	42.242874	-71.127669	Mainstem Neponset R	behind Stop & Shop o	0.2	25	486	Boston-Logan	0.77	0.77	Wet
0.12	4.6	2.95	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	14.6	780	Bedford	0.01	0.01	Dry
0.74	7.3	26.60	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broo	0.5	14.4	932	Bedford	0.01	0.01	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry
1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
0.73	7.3	28.80	42.51858	-71.146281	after confluence of La	Just south of Landfill E	0.5	14.2	955	Bedford	0.01	0.01	Dry
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrear	0.3	15.3	806	Boston-Logan	0	0	Dry
0.09	3.1	1.05	42.3599847	-71.1809755	"New81" waded to lef	Outfall to Charles off	0.6	14.6	1308	Boston-Logan	0	0	Dry
0.14	ND	0.75	42.3646351	-71.1892039	Used waders	Laundry Brook off Cal	0.4	18	830	Boston-Logan	0	0	Dry
0.14	ND	na	42.3646351	-71.1892039	Duplicate of Laund01		na	na	na	Boston-Logan	0	0	Dry
0.14	3.6	1.35	42.3600600	-71.2169465	taken 6' downstream	Cheessecake Brook n	0.7	16.7	1378	Boston-Logan	0	0	Dry
0.17	4.4	2.20	42.3730420	-71.2283524	shallow stream, collec	Beaver Brook near co	0.5	16.7	1035	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.41	7.8	7.80	42.659814	-71.318830	large duckbill coverin	Beaver Brook outfall	0.1	18.2	468.5	Lawrence	0	0	Dry
NA	NA	1.45	42.659837	-71.318833	sample taken just ups	Beaver Brook Mainste	0.2	16.9	358.8	Lawrence	0	0	Dry
0.15	ND	0.60	42.650395	-71.314502	west channel sampled	off Suffolk Street, clim	0.1	19.1	170	Lawrence	0	0	Dry
0.16	ND	0.10	42.643823	-71.307889	sampled open channe	downstream from Cen	0.1	19.2	168.7	Lawrence	0	0	Dry
0.11	4.1	2.25	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17.5	714	Lawrence	0	0	Dry
0.15	4	ND	42.633655	-71.302505	Duplicate of RMB1		na	na	na	Lawrence	0	0	Dry
NA	NA	1.10	42.631057	-71.305968	1ft at deepest, used re	sampled downstream	0.3	17.6	711	Lawrence	0	0	Dry
0.17	7.2	7.15	42.638346	-71.343658	Flow from 2 large me	Black Brook off Middle	0.6	17.8	1145	Lawrence	0	0	Dry
NA	NA	8.20	42.634459	-71.349404	rocks covered w/ alga	Black Brook off Baldw	0.5	19.5	1077	Lawrence	0	0	Dry
0.15	8.1	3.40	42.520940	-71.104975	about 6 inches deep (	corner of Washington	0.9	16.7	1682	Lawrence	0.01	0.01	Dry
0.2	6.9	4.35	42.65447823	-71.14660047	hiked down hill sampl	5 Dundee Park near Y	0.4	15.1	806	Lawrence	0.01	0.01	Dry
0.19	4.5	0.60	42.65573487	-71.13334922	some deeper pools	Off Chestnut Street, n	0.3	15.1	530	Lawrence	0.01	0.01	Dry
0.25	4.8	0.35	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	15.9	537	Lawrence	0.01	0.01	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	15.5	539	Lawrence	0.01	0.01	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
0.1	5.8	2.30	42.695971	-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
0.32	28	34.90	42.70991636	-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
0.14	8.5	0.80	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0.01	0.01	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
0.21	8.9	~10.5	42.24781922	-71.05546405	collected close to outfall in pool		0.5	15.4	933	Boston-Logan	0.51	0.57	Wet
0.1	2.8	~0.85	42.20481659	-71.19661788	sampled right culvert		0.6	16.7	1146	Norwood	0.54	0.63	Wet
0.16	3.3	~1.6	42.20509841	-71.964841	sample collected before two steams mix		0.2	15.5	515	Norwood	0.54	0.63	Wet
0.07	3.8	ND	42.204594	-71.198514	sample collected near culvert		0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	1.8	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.5	11.3	910	Bedford	0	0	Dry
NA	4.2	6.35	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.5	11.7	921	Bedford	0	0	Dry
NA	NA	NA	42.41803618	-71.15649782	Start of culvert under	Mill Brook near bike p	0.4	11.6	884	Bedford	0	0	Dry
NA	3.6	1.05	42.41800384	-71.1599327	two 3 foot culverts an	Near Arlington High S	0.4	11.6	859	Bedford	0	0	Dry

NA	3.6	2.45	42.41800384	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry
NA	3.4	2.05	42.42030025	-71.16460763	6ft stone channel, foo	Mill Brook instream	0.4	12.1	755	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	8.3	6	42.42321769	-71.17286099	lots of green algae inside pipe		1.4	11.4	2700	Bedford	0	0	Dry
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	2.65	42.42388575	-71.17372022	hole in wall/seep	East side of culvert wa	0.5	10.0	1394	Bedford	0	0	Dry
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	10.1	1450	Bedford	0	0	Dry
NA	ND	0.65	42.42443302	-71.17464016	waders, culvert just up	Outfall to Mill Brook, V	0.6	9.8	1280	Bedford	0	0	Dry
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	4.9	2	42.44732536	-71.13860428	near gauging station	Sampled above dam	0.4	10.3	821	Bedford	0	0.02	Dry
NA	NA	NA	42.45109149	-71.13689456	waterfall ~250ft upstre	Waterfield St bridge	0.4	10.2	806	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45284032	-71.13542441	used reach and wade	Mt Vernon St bridge b	0.4	10.2	794	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45571045	-71.13669402	used reach	Behind Stop & Shop	0.3	12.6	561	Bedford	0.16	0.18	Wet
NA	5.2	2.25	42.4564901	-71.13647243	outfall on far left looki	Skillings road from un	0.4	9.1	907	Bedford	0.16	0.18	Wet
NA	5.4	1.75	42.4564901	-71.13647243	duplicate of Skill01		na	na	na	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45646101	-71.13649804	very low flow - if any	small pipe exiting nea	0.4	9.1	908	Bedford	0.16	0.18	Wet
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	11	5.7	42.47549599	-71.15991194	rust/orange stain on r	main stream outfall on	0.8	19.8	1655	Bedford	0.17	0.19	Wet
NA	NA	NA	42.48090577	-71.15755569	slightly crushed small	Off Harrison Ave near	0.5	12.2	1070	Bedford	0.17	0.19	Wet
NA	15	4.75	42.4809258	-71.15751796	Main outfall	Off Harrison Ave near	1.3	7.9	2495	Bedford	0.17	0.19	Wet
NA	9.7	3.35	42.47993991	-71.15617846	very slow flow	opposite side of ballpa	0.8	12.5	1578	Bedford	0.17	0.19	Wet
NA	4.3	0.9	42.42029396	-71.16475294	Just upstream of Grov	Mill Brook instream	0.4	15.9	850	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.422035	-71.170577	needed ladder/waders	At end of Robin Stree	0.8	12.5	1533	Bedford	0.12	0.12	Wet
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	3.9	1.35	42.424465	-71.174718	neighbor stopped ove	Just upstream of Ryde	0.4	17	729	Bedford	0.12	0.12	Wet
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	3.7	2	42.425348	-71.186230	PPCP bottle broke, re	behind 1395 Mass Av	0.3	18.2	684	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	NA	0.4	42.513171	-71.142649	machinery stored nea	Halls Brook behind 18	0.4	11.1	875	Bedford	0	0	Dry
NA	NA	11.3	42.513291	-71.142539	sampled before timbe	Unnamed stream just	0.4	10.1	839	Bedford	0	0	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	NA	3.85	42.51422481	-71.14551115	flow on downstream s	sampled from left ope	0.4	11.3	878	Bedford	0	0	Dry
NA	NA	3.55	42.51422481	-71.14551115	duplicate of Torr01		0.4	11.3	878	Bedford	0	0	Dry
NA	NA	2.65	42.51048269	-71.15492526	fair amount of litter	upstream of road cros	0.4	12.1	869	Bedford	0	0	Dry
NA	NA	2.7	42.5086557	-71.1583669	construction on bridge	bottom of stone run of	0.5	12.7	987	Bedford	0	0	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before bridge		0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet
NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	10.8	42.25620978	-70.99314315			8.1	13.3	14.1	Milton-Blue Hi	1.5	0	Wet
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	2.2	42.39528219	-71.17631914	duplicate of WEB013		na	na	na	Bedford	0	0	Dry
NA	NA	1.1	42.39528219	-71.17631914	lots of suspended sed	Wellington Brook	0.7	12.6	1433	Bedford	0	0	Dry
NA	NA	NA	42.4225696	-71.14928822		Mystic Valley Parkway	0.6	13.8	1269	Bedford	0	0	Dry

NA	NA	0.25	42.41770489	-71.1574838	may be multiple pipe	pipe discharging to Mi	0.1	17.8	237	Bedford	0	0	Dry
NA	NA	NA	42.42471486	-71.17533266	collected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	2.45	42.42645629	-71.19436402		pipe discharging unde	1.3	17.6	2482	Bedford	0	0	Dry
NA	NA	ND	42.42648362	-71.19440958	6ft wide, rocky stream	Bow street, just downs	0.3	18.3	537	Bedford	0	0	Dry
NA	NA	1.45	42.42834205	-71.19676456	36" double culvert col	Just downstream of F	0.2	19.3	513	Bedford	0	0	Dry
NA	NA	0.05	42.42901218	-71.1975303	tributary, thick film co	Walked ~100yards up	0.2	20.9	362.9	Bedford	0	0	Dry
NA	NA	5.95	42.39988394	-70.99242127	duplicate of WashN01		na	na	na	Boston-Logan	0.08	0.43	Wet
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	11	42.39990454	-70.99237953	just upstream of Was	Sales Creek	1.3	18.2	2527	Boston-Logan	0.08	0.43	Wet
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	17.7	42.3830573	-71.03016877	40min before low tide	Condor Street outfall,	23.3	16.1	36.7mS	Boston-Logan	0.08	0.43	Wet
NA	NA	50*	42.36126566	-71.05083507	near Christopher Colu	Climbed down betwee	26.7	16.3	44.67mS	Boston-Logan	0.08	0.43	Wet
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	2.35	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/18	Lawrence	0.04	0.04	Dry
NA	NA	12.4	42.465157	-71.392813	pool at base of culver	<1/2 mile from bridge	0.2	27.6	90.3/37	Bedford	0	0	Dry
NA	NA	ND			Effluent of a membrane bioreactor			24	495.8	Falmouth	0.12	0.21	Wet
NA	NA	25.10			6" below surface, 6"sa	tip pans (24/day - 1galeach) sto		22.9	479	Falmouth	0.12	0.21	Wet
NA	NA	38.70			12" below surface	12"sand		21.1	602	Falmouth	0.12	0.21	Wet
NA	NA	ND						21.6	351	Falmouth	0.12	0.21	Wet
NA	NA	ND			24" below surface			20.1	571	Falmouth	0.12	0.21	Wet
NA	NA	2.5			Influent			19.3	479	Falmouth	0.12	0.21	Wet
NA	NA	36.80			12" with air			20.3	579	Falmouth	0.12	0.21	Wet
NA	NA	11.5								Falmouth	0.12	0.21	Wet
NA	NA	ND						20.3	606	Falmouth	0.12	0.21	Wet
NA	NA	NA	42.968332	-71.472794	Oil sheen across all ro	called EPA incident re	0.3	18.1	29/446.	Manchester	0	0	Dry
NA	NA	NA	42.985780	-71.469196	Strong musty odor, ta	sampled flow out of pi	1	17.6	934/165	Manchester	0	0	Dry
NA	NA	NA	42.998669	-71.468348	next to outfall 047, thi	outfall just north (adja	2.1	15.2	992/321	Manchester	0	0	Dry
NA	NA	NA	42.998660	-71.468348	steam coming out of p	just south of 047N, by	2.5	17.5	4750	Manchester	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.21004	-71.530441	grated outfall, flow is approx. 10 gal/min poo		0.7	14	1070	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.193970	-71.542492	midstream sample ne	Concord District Cour	0.7	22.9	1458	Concord	0	0	Dry
NA	NA	NA	43.199674	-71.548718	Just upstream of Clin	off Pleasant Street	0.5	23.1	1080	Concord	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.51380064	-70.88804384	Palmer Cover, Salem	White bacterial growth	1.5	21.1	4209	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54714736	-70.86166491	Lynch Park, Beverly N	sampled 2hrs after low	0.7	17.6	1339	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55097916	-70.8503408	Down Brackenbury La	Brackenbury Beach	10	18.6	16.91mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55443402	-70.84983196	sampled under bridge	lots of ducks upstream	0.2	20.5	409.2	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54639263	-70.8616749	Lynch Park, Beverly	Small pipe exiting just	1.8	19.3	7.77mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.46084009	-71.13716417	Downstream of Swan	USGS gauge @ 0.9, g	0.5	20.6	1025	Boston-Logan	0	0	Dry
NA	NA	NA	42.469411	-71.1252171	Downstream of Wash	Water almost opaque	0.5	22	1083	Boston-Logan	0	0	Dry
NA	NA	NA	42.4694521	-71.1249571	Outfall upstream of W	OF more than 1/2 full	0.5	21.4	1004	Boston-Logan	0	0	Dry
NA	NA	NA	42.477141	-71.1176671	(previously '1Merrell')	low/slow flow could no	0.5	21.6	1096	Bedford	0.01	0.13	Dry

NA	NA	NA	42.4770646	-71.1175936	(previously '1Kraft')Sw	2 pipes just upstream	0.7	21.5	1366	Bedford	0.01	0.13	Dry
NA	NA	NA	42.491580	-71.128834	(previously 'Sal')1921	USGS field team mea	0.5	20.9	1086	Bedford	0.01	0.13	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026954	-71.1353458	Outfall downstream o	Raccoon prints in pipe	1.3	19.6	2743	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026965	-71.1351128	Stormdrain cover tipp	gray plaque at bottom	na	na	na	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	19.6	873	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	Unnamed stream just	Very low flow	0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	duplicate of DRR1		0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82m	Boston-Logan	0	0	Dry
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67m	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Canterbury Brook, Bo	fine sediments on bot	0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Duplicate of CantB		0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.308203	-71.12058	Arnold Arboretum off	sides of outfall deteric	0.7	13.6	1304	Boston-Logan	0	0	Dry
NA	NA	NA	42.340354	-71.099856	Muddy River in Back	Sampled just downstr	0.5	20.5	1058	Boston-Logan	0	0	Dry
NA	NA	NA	42.330289	-71.114017	Two stone 5' semi-circ	across from 33 Pondv	0.5	25.4	966	Boston-Logan	0	0	Dry
NA	NA	NA	42.326763	-71.114752	Off Riverdale Pkwy in	downstream of outfall	0.9	15.1	1738	Boston-Logan	0	0	Dry
NA	NA	NA	42.321703	-71.119080	Parked on Chestnut S	just downstream from	0.3	27.1	606	Boston-Logan	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
NA	NA	NA	42.70995636	-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
NA	NA	NA	42.713273	-71.158219	upstream of Jackson	heavy sedimentation	0.3	23.1	530	Lawrence	0	0	Dry
NA	NA	NA	42.713893	-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen	river sample	na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.2	24.3	471.5	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	duplicate of Huss02		0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	Walked upstream fron	Large box culvert cov	0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Ston	0.9	18.1	1701	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	20.6	848	Bedford	0	0.1	Dry
NA	NA	NA	42.51339681	-71.14295383	outfall about 100ft upstream from Halls2 loca		0	24.8	50.3	Bedford	0	0.1	Dry
NA	NA	NA	42.51079059	-71.14820571	most of flow coming f	lots of frogs in stream	1	23.5	1960	Bedford	0	0.1	Dry
NA	NA	NA	42.51333787	-71.14802303	upstream of small pec	end of 2nd st, asked #	0.4	22.4	825	Bedford	0	0.1	Dry
NA	NA	NA	41.71543572	-71.36069556	sampled on outgoing	sampled between 2 ro	29.6	24.6	45.72m	Providence TF	0	0	Dry
NA	NA	NA	41.71380905	-71.36475741		walked up 20 ft from b	20.6	22.4	32.83m	Providence TF	0	0	Dry
NA	NA	NA	41.7135672	-71.36551541	Mill creek, 0.67 ng/L	Sulfamethoxazole was	20.7	23.5	33.13m	Providence TF	0	0	Dry
NA	NA	NA	41.71213909	-71.37518941	leaky storm drain pipe	under bridge, layer of	1.3	21.1	2447	Providence TF	0	0	Dry
NA	NA	NA	41.71205509	-71.37524941	bacteria and kits only		na	na	na	Providence TF	0	0	Dry
NA	NA	NA	41.71372754	-71.37889632	downstream from roa	lockwood brook near b	0.2	20.2	314.2	Providence TF	0	0	Dry
NA	NA	NA	41.70908196	-71.38289364	racoon prints on bank	off westshore drive up	0.2	21.6	329	Providence TF	0	0	Dry
NA	NA	NA	41.70708421	-71.38031976	double culvert under t	upstream side of bridg	0.2	16.9	435.9	Providence TF	0	0	Dry
NA	NA	NA	41.71964024	-71.38696064	bacteria and kits only	upstream side of bridg	0.1	20.9	270	Providence TF	0	0	Dry
NA	NA	NA	41.71935982	-71.38618735	epipe designed to tak	at the end of emerson	0.1	20.1	225.8	Providence TF	0	0	Dry
NA	NA	NA	41.71461744	-71.38035705	bact and kits only	Meadowbrook road ou	0.1	22.2	173.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	1-2 in of green algae	end of sweetfern drive	0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	duplicate of SweetF		0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556520	-71.500969	Governor Brook	No distinct flow, light	0.1	16.3	198.8	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556625	-71.499442	Road crossing upstrea	orange/green growth	0.2	15.9	341.6	Laconia	0.21	0.21	Wet

NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.559021	-71.494120	sampled facility pipe b	sampled during storm	0	18.5	13.5	Laconia	0.21	0.21	Wet
NA	NA	NA	43.266493	-71.483356			0	15.5	14.5	Laconia	0.44	0.44	Wet
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	NA	NA	42.42547262	-71.02662504	walked upstream from	Sampled about 30ft u	2.4	21.5	4509	Boston-Logan	0	0	Dry
NA	NA	NA	42.42105874	-71.02615376	could see light at othe	Corner of Sargent and	0.3	18.3	687	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	near boat launch, sam	outfall across causewa	3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4891136	-70.84335607	green alge at bottom	Ocean Ave off Marble	0.3	19	680	Boston-Logan	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Grace Oliver Beach S	Corner of Crowninshie	0.2	21	632	Boston-Logan	0	0	Dry
NA	NA	NA	42.51447501	-70.86599014	Stamski Beach	sample 20ft from shor	28.3	23.5	43.87mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~100	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364451	-71.154419	downstream side of A	1 ft deep, started sprin	0.7	15.9	1407	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364313	-71.154481	Arlington St culvert - f	~30ft upstream, 8" pip	0.7	16	1414	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364256	-71.154481	Arlington St culvert - d	no inlet pipes can be s	0.7	15.9	1417	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364351	-71.154519	Arlington St culvert - f	sampled far rt of culve	0.7	15.9	1354	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364037	-71.183908	Watertown outfall #13	weather - still sprinklir	0.1	17.8	260.3	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364489	-71.184223	Watertown outfall #12	some small fish, could	0.5	16.8	1012	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364774	-71.184952	Watertown outfall #11	outfall opening under	0.6	16.2	1168	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook	sampled just inside op	0.3	15.5	565	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.367449	-71.198957	culvert on right, not a	lot of flow	0.7	18.1	1348	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.367489	-71.198853	About 1ft of outfall un	can hear running wate	0.7	17.7	1299	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.4922811	-70.85511019	Sampled left culvert,	more flow than last tin	20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492557	-70.859421	Opened drain manhol	Brick sides w/hard bot	0.7	16.3	1483	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.493467	-70.860430	Opened drain manhol	used reach	0.4	16.3	743	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492693	-70.860829	Opened drain manhol	gas odor	0.2	16	491.7	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.494598	-70.859443	Opened drain manhol	Sampled drain pipe en	0.2	16.9	440	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.496982	-70.856396	Opened drain manhol	double 36" pipes com	0.3	16.9	685	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.502967	-70.856873	Opened drain manhol	brick lined, used reach	0.4	16.4	744	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Opened drain manhol	Sampled main flow, 3	0.4	15.2	809	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Pipe flowing into storm	Started flowing after M	0.3	17.5	541	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	24.4	14.7	38.45mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	16.9	14.1	22.24mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.282780	-71.046962	large tide gate ~2? Ho	sampled center of sou	1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282780	-71.046962	duplicate of 10L094		1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282540	-71.046292	1/2 silted up	sampled about 10 fee	1.3	16.3	2514	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275941	-71.031767	green alge at bottom	former drainline that h	0	13.9	91.6	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273990	-71.030634	very dark sediments	Previously named Sag	1.5	16.9	33.20mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299943	-71.006177	seep from sewage line	to main interceptor on	8.4	17.9	834	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299779	-71.005800	Sample collected at b	waded ~ 6 ft	37.1	13.7	43.74mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.277051	-71.009467	Wollaston Beach Sam	waded ~ 6ft between W	31.3	13.2	41.01mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.278670	-71.013452	Wollaston Beach Sam	waded ~ 6ft near Wol	31.3	13.6	47.97mS	Boston-Logan	0.13	0.14	Wet

RARE Stormwater Outfall Inspection & Samp ing Summary

Location				Outfall		Inspection					Sampling																								Coordinates		Comments	Additional Location Information	YSI Meter				Weather			Photo
		Site		Pipe	Dia	Est Flow			urbi	Float	E coli (MPN/1	Entero (MPN/1	Surfact (mg/l)		NH3 (mg/l)		Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flouride	Potassium (mg/L)			GPS West (			Salinity	emp	Conductivity	Rain Gau	24hrs	48hrs	Wet/ Dry?	aken
Date	own	Name	ime	Mat	(in)	(gpm)	Odor	Color	dity	ables	00ml)	00ml)	Alpha	Field	Alpha	est St	A pha	EPA (µg/L)	Aten olol	Acetamin ophen	Cotini ne	D methy xant h ne	Caffei ne	Azithro mycin	Primid one	Urobil in	Carbama zepine	Alpha Free	Alpha otal	Field	est St	Alpha	Alpha	Field	GPS North( )	)			ppt	C	uS	Location	inche	inches		Y or N
/21/10	Arlington	91Mys	8:00	Open stre	na	na	none	eavy te	cloudy	me su	152	1	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	1.8	2. 18716	-71.151379	just downstream of bridge	Mill Brook @ Mystic Stree, next to 91	0.5	11 3	910	Bedford	0	0	Dry	Y
/21/10	Arlington	Mil B	8:10	Open stre	na	na	ong m	eavy te	irly cle	suds	395	52	0 06	~0.1	0.12	ND	1.1	28	.1	~20	3.1	6	3	0.7	ND (.0	90	1.	ND	ND	NA	ND	ND	.2	6.35	2. 18597	-71.1522 7	Sample taken from flow just below	Mill Brook @ opening in Cookes Hollo	0.5	11 7	921	Bedford	0	0	Dry	Y
/21/10	Arlington	MBike	8:50	Stone (ins	10'X8	stream	odera	med te	clear	none	268	233	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 1803618	-71.156 9782	Start of culvert under park at Cooke	Mill Brook near bike path off Mill Stree	0.	11 6	88	Bedford	0	0	Dry	Y
/21/10	Arlington	AHS	9:05	Open stre	na	stream	none	l ght te	clear	some	666	213	0 06	ND	ND	ND	0.95	37	.8	190	.6	12	70	1.2	ND (.0	1 00	0.93	ND	ND	NA	ND	ND	3.6	1.05	2. 180038	-71.1599327	two 3 foot culverts and one small <	Near Arlington High School o f Mi l Brc	0.	11 6	859	Bedford	0	0	Dry	Y
/21/10	Arlington	UR020	9:05	Open stre	na	stream	none	l ght te	clear	some	15 9	173	0 06	ND	ND	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND	3.6	2. 5	2. 180038	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry	Y
/21/10	Arlington	Grove01	9: 0	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	80	529	0 06	~0.1	0 079	ND	0.78	7	12	280	.7	30	170	2.9	ND (.0	2700	ND (0.)	ND	ND	NA	ND	ND	3.	2.05	2. 2030025	-71.16 60763	6ft stone channel, foot deep	Mill Brook instream	0.	12.1	755	Bedford	0	0	Dry	Y
/21/10	Arlington	GroveS	9: 5	Concrete	0	10-15	none	none	clear	none	7	7701	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2032 96	-71.16 7329	moss/algae growing on inside and	Outfa l to Mill Creek	0.6	10.	1200	Bedford	0	0	Dry	Y
/21/10	Arlington	Quinn2	10:30	Concrete	12	19	fresh	none	clear	none	ND	ND	0 05	0.3	ND	ND	3	9.1	ND (2.0	ND (2.0)	0.86	ND (2.0)	5.	ND (0.)	ND (.0	15	1.2	ND	ND	NA	ND	ND	8.3	6	2. 2321769	-71.17286099	lots of green algae inside pipe		1.	11.	2700	Bedford	0	0	Dry	Y
/21/10	Arlington	RyMill	11:05	Concrete	2'X3'	.00	fresh	none	clear	none	1302	0	0.16	0.3	0 677	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0	15000	ND (0.5)	ND	ND	0.08	ND	ND	6.	.15	2. 2389075	-71.1737 022	fresh smel ing	Off Ryder Street lot	1.1	12 8	2188	Bedford	0	0	Dry	Y
/21/10	Arlington	RyMil 2	11:10	hole in wa	na	2.00	none	none	clear	none	ND	ND	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	2.65	2. 2388575	-71.17372022	hole in wall/seep	East s de of culvert wa l	0.5	10 0	139	Bedford	0	0	Dry	Y
/21/10	Arlington	RyderE	11:20	Concrete	30	29	none	none	clear	none	271	336	0.16	0.25	0.13	ND	1.6	21	ND (2.0	ND (2.0)	1.1	5.8	11	0. 3	5.	230	1.3	ND	0.18	0.26	ND	ND	3.8	1.25	2. 2 0075	-71.17 58522	near Out of the Woods contracting	Outfa l to Mill Brook, East side of strea	0.7	10.1	1 50	Bedford	0	0	Dry	Y
/21/10	Arlington	RyderW	11:30	Concrete	36	20-30	none	none	clear	none	30	20	ND	ND	ND	ND	1.1	52	ND (2.5	ND (2.5)	1	ND (2.5)	ND (5.0	ND (0 5)	ND (5.0	1	ND (0.5)	ND	ND	0.05	ND	ND	ND	0.65	2. 2 3302	-71.17 6 016	waders, culvert just upstream s dry	Outfa l to Mill Brook, West s de of stre	0.6	9.8	1280	Bedford	0	0	Dry	Y
/21/10	Arlington	30Park	12:25	Open stre	na	stream	none	l ght te	clear	none	17 1	816	0 08	ND	ND	ND	0.57	56	1	76	.3	1	120	1.6	ND (.0	1900	0. 3	ND	ND	NA	ND	ND	3.3	0.75	2. 2 750 9	-71.181323 9	Park St behind Penzys	Mill Brook main stem, by Golds Gym	0.3	1 .1	612	Bedford	0	0	Dry	Y
/28/10	Winches	ABR006	8:30	Open stre	na	stream	none	none	irly cle	aves/b	899	199	0 09	0.2	0 528	2	1.2	28	2.3	21	21	7.9	170	ND (0.)	ND (.0	360	0.85	ND	ND	0.06	ND	ND	.9	2	2. 732536	-71.13860 28	near gauging station	Sampled above dam	0.	10 3	821	Bedford	0	0 02	Dry	Y
/28/10	Winches	Wf eld	8:50	Open stre	na	stream	none	none	htly tu	some	839	317	NA	0.22	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 51091 9	-71.13689 56	waterfall ~250ft upstream, one goo	Waterfie d St br dge	0.	10 2	806	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Vern01	9:15	Open stre	na	stream	none	none	htly tu	aves/b	6 3	108	NA	0.22	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 528 032	-71.135 2 1	used reach and waders	Mt Vernon St bridge by fire stat on	0.	10 2	79	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Wedge01	9:32	Open stre	na	stream	none	none	htly tu	some	58	10	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 55710 5	-71.13669 02	used reach	Behind Stop & Shop	0.3	12 6	561	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Skill01	9:50	Concrete	3'	stream	none	eish/g	turb d	some	913	1 8	0.1	0.25	0 8	3	1.	25	ND (2.0	27	23	6.	220	1.	ND (.0	370	0.61	ND	ND	ND	ND	ND	5.2	2.25	2. 56 901	-71.136 72 3	outfa l on far left ooking upstream	Skillings road from under ball ield	0.	9.1	907	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	UR021	9:50	Concrete	3'	stream	none	eish/g	turb d	some	16 2	132	0.1	0.25	0 837	3	1.	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	5.	1.75	2. 56 901	-71.136 72 3	duplicate of Skil 01		na	na	na	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Skill02	9:55	Concrete	12	5-10	none	none	irly cle	none	75	30	NA	~0.1	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 56 6101	-71.136 980	very low flow - f any	sma l pipe exiting near Sk ll01	0.	9.1	908	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Swan1	10: 5	Open stre	na	stream	none	l ght te	htly tu	me su	7 0	171	0 08	0.25	0 887	3	1.	23	ND (2.0	29	19	6.5	250	0.63	ND (.0	330	0.65	ND	ND	0.0	ND	ND	5.1	1.	2. 608915	-71.13718955	just downstream near gauging stat	Swanton Street bridge	0.	9.1	905	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Russ1	11:05	Stone (ins	'X '	stream	none	l ght te	clear	me su	38	359	0 07	0.25	0 083	ND	1.	22	ND (2.5	2.8	8.2	ND (2.5)		ND (0 5)	ND (5.0	75	1.8	ND	ND	ND	ND	ND	5.6	2.6	2. 63 55	-71.1 9258	samp ed far right of culvert opening	Russel Brook at the end of Sylvester S	0.5	9.7	965	Bedford	0.16	0.18	Wet	Y
/28/10	Woburn	OF118	11:35	Concrete	30	50	none	none	clear	me su	15	52	0 07	0.3	0 381	0.5	2	23	ND (2.0	5.8	6.7	ND (2.0)	37	ND (0.)	6.5	1300	.8	ND	ND	0.0	ND	ND	11	5.7	2. 75 9599	-71.1599119	rust/orange stain on rocks	main stream out all on corner of Ellis a	0.8	19 8	1655	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF159A	12:0	Cor.Metal	18	5-10	none	none	clear	none	268	156	NA	0.3	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 8090577	-71.15755569	sl ghtly crushed small outfa l pipe	Off Harrison Ave near ballpark, downs	0.5	12 2	1070	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF159	12:05	Cor.Metal	2 -30	20-30	ht sew	none	clear	none	318	109	0.1	0.25	1.38	1	0.59	36	ND (2.0	7.9	10	ND (2.0)	35	ND (0.)	16	1000	1.2	ND	ND	ND	ND	ND	15	.75	2. 809258	-71.15751796	Main outfall	Off Harrison Ave near ballpark, downs	1.3	7.9	2 95	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF161	12:15	Cor. Meta	5'	stream	ht mu	none	htly tu	some	16 2	1 8	ND	0.3	0.153	ND	2.7	28	3.2	120	8.1	19	85	ND (0 5)	7.2	1500	8.6	ND	ND	0.06	ND	ND	9.7	3.35	2. 7993991	-71.156178 6	very slow f ow	oppos te s de of ballpark on Harrison A	0.8	12 5	1578	Bedford	0.17	0.19	Wet	Y
5/5/10	Arlington	Grove01a	8:10	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	27 7	520	0 07	~0.1	0.101	ND	0.59	58	8.5	53	10	12	130	ND (0.)	ND (.0	750	0. 2	ND	ND	0.09	ND	ND	.3	0.9	2. 2029396	-71.16 7529	Just upstream of Grove01, be ore t	Mill Brook instream	0.	15 9	850	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	GroveS	8:10	Concrete	0	10-15	ight g	none	clear	none	202	15531	NA	0.22	NA	2	NA	NA	ND (2.0	2900	5.8	70	190	13	ND (.0	810	1.9	NA	NA	NA	ND	NA	NA	NA	2. 2032 96	-71.16 7329	moss/algae growing on inside and	Outfa l to Mill Creek	0.7	12.	1307	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	UR022	8:10	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	2069	583	0 07	~0.1	0 218	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.0	ND	ND	.2	1.8	2. 2029396	-71.16 7529	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Robin	8: 5	oose join	2	10-15	natur	none	clear	none	9678	295	NA	0.	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 22035	-71.170577	needed ladder/waders dark slimy c	At end of Robin Street, accessed thro	0.8	12 5	1533	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Bratt e	9:10	Open stre	na	stream	none	tea	ry turb	some	1 62	776	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 20 17	-71.168133	lots of suspended sediments, cons	Mill Brook instream near condo's off B	0.	16.1	8 7	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	RyMill	9:25	Concrete	2'X3'	3	mical/m	none	irly cle	none	2190	301	NA	~0.1	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2389075	-71.1737 022	1/2 the f ow from last sample da e,	Off Ryder Street lot	1.1	13 6	2257	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	RyderE	9:32	Concrete	30	29	none	none	clear	none	9	30	NA	0.2	NA	0.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2 0075	-71.17 58522	near Out of the Woods contracting	Outfa l to Mill Brook, East side of strea	0.7	11 7	1 07	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Ryder01	9:35	Stone (ins	6'	stream	none	l ght te	irly cle	me su	195	350	0 07	~0.1	0.135	0.25	0.37	5	9.1	100	7.7	13	73	0.65	ND (.0	1200	0.6	ND	ND	0.05	ND	ND	3.9	1.35	2. 2 65	-71.17 718	neighbor stopped over to say that h	Just upstream of Ryder St bridge and	0.	17	729	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	30Park	10:10	Open stre	na	stream	none	l ght te	clear	none	1302	350	0 07	ND	0.16	ND	0.35	5	10	1	6.7	9	72	0.6	ND (.0	920	0.5	ND	ND	ND	ND	ND	3.8	1.95	2. 2 750 9	-71.181323 9	Park St behind Penzys	Mill Brook main stem, by Golds Gym	0.3	17 6	71	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	1395MA	10:30	Open stre	na	stream	none	l ght te	htly tu	none	689	323	0 06	ND	0.133	ND	0.31	55	8	5.	5.7	7.3	35	ND (0.)	ND (.0	590	ND (0.)	ND	ND	0.0	ND	ND	3.7	2	2. 253 8	-71.186230	PPCP bottle broke, resampled at 1	behind 1395 Mass Ave, Sunrise assis	0.3	18 2	68	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Drake01	10:55	Open stre	na	stream	none	med te	htly tu	none	2318	960	0.1	ND	0 257	0.75	0.52	129	32	23	12	19	98	0.8	ND (.0	2700	1.9	ND	ND	ND	ND	ND	.1	2.3	2. 2689	-71.189660	Drake' slow flow, just upstream or r	Between condo comp ex s off Drake	0.	15 8	726	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	ArlRes	11:05	Concrete	3'	stream	none	l ght te	clear	me su	183	7	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 26882	-71.18958	just before confluence with Mill Bro	just downstream of Ar ington reservoir	0.3	20 2	660	Bedford	0.12	0.13	Wet	Y
5/5/10	Lexingto	WF01	11:25	Stone (ins	'X '	stream	none	none	cloudy	me sc	16	52	0 07	ND	ND	ND	1.	93	ND (2.5	2.6	1.5	ND (2.5)	5.8	ND (0 5)	ND (5.0	390	ND (0.5)	ND	ND	ND	ND	ND	6.3	1.2	2. 277872	-71.2050922	lots of duck weed on surface	Mass ave across from Wi son Farms	0.5	18	9 6	Bedford	0.12	0.13	Wet	Y
5/5/10	Lexingto	Vine01	11:55	Open stre	na	stream	none	eavy te	htly tu	me ea	1302	393	NA	~0.1	NA	3	NA	NA	.3	3	2.1	1	93	1.	ND (5.0	1700	2.9	NA	NA	NA	ND	NA	NA	NA	2. 503760	-71.2202638		Near corner Grant St & Hayes Ln	0.	12 3	7 1	Bedford	0.12	0.13	Wet	Y
5/12/10	Woburn	Ha ls2	8:00	Open stre	na	stream	none	ht bro	na	none	212	109	NA	~0.1	NA	ND	NA	NA	ND (2.5	ND (2.5)	9.3	8.3	300	ND (0 5)	ND (5.0	160	1.	NA	NA	ND	ND	NA	NA	0.	2.513171	-71.1 26 9	machinery stored nearby	Ha ls Brook behind 185 New Boston,	0.	11.1	875	Bedford	0	0	Dry	Y
5/12/10	Woburn	DRR1	8:15	Open stre	na	stream	none	ht bro	clear	none	182	8	NA	~0.1	NA		NA	29	ND (2.0	2.3	1.5	ND (2.0)	6.7	ND (0.)	ND (.0	96	0.72	NA	NA	ND	ND	NA	NA	11.3	2.513291	-71.1 2539	samp ed before timber in stream,	Unnamed stream just upstream of Ha	0.	10.1	839	Bedford	0	0	Dry	Y
5/12/10	Woburn	Mys07	9:05	Open stre	na	stream	ch/sew	rk bro	ry mu	algae	131	1 5	NA	~0.1	NA		NA	22	ND (2.5	ND (2.5)	1.3	ND (2.5)	5.6	ND (0 5)	ND (5.0	100	0.77	NA	NA	0.06	ND	NA	NA	19.5	2.518563	-71.1 6526	A gae and oil on surface. Dumpste	New Boston St where culvert enters, d	0.	9..9	815	Bedford	0	0	Dry	Y
5/12/10	Woburn	Mys08	9:10	Open stre	na	stream	ulch/s	ht bro	clear	none	92	ND	NA	ND	NA		NA	19	ND (2.0	3.3	1.7	ND (2.0)	ND (.0	ND (0.)	ND (.0	29	0.63	NA	NA	ND	ND	NA	NA	20	2.518739	-71.1 6 11	not as strong smelling as Mys07	Opposite stream from Mys7	0.	10 2	896	Bedford	0	0	Dry	Y
5/12/10	Woburn	Torr01	10:00	Open stre	na	stream	none	ht bro	clear	none	223	120	NA	0.25	NA	ND	NA	38	ND (2.0	ND (2.0)	7.5	5.9	1 0	ND (0.)	ND (.0	80	1.	NA	NA	ND	ND	NA	NA	3.85	2.51 22 81	-71.1 551115	flow on downstream side of road	samp ed from eft opening	0.	11 3	878	Bedford	0	0	Dry	
5/12/10	Woburn	UR023	10:00	Open stre	na	stream	none	ht bro	clear	none	182	52	NA	0.25	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	3.55	2.51 22 81	-71.1 551115	duplicate of Torr01		0.	11 3	878	Bedford	0	0	Dry	
5/12/10	Woburn	Dart1	10:30	Open stre	na	stream	none	rk bro	clear	me su	6	31	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	2.65	2.510 8269	-71.15 92526	fair amount of itter	upstream of road crossing	0.	12.1	869	Bedford	0	0	Dry	
5/12/10	Woburn	School01	11:05	Open stre	na	stream	none	rk bro	clear	none	109	20	NA	0.25	NA	0.25	NA	73	ND (2.0	2.5	17	6.	61	ND (0.)	ND (.0	230	1.2	NA	NA	0.11	ND	NA	NA	2.7	2.5086557	-71.1583669	construction on bridge above, lots o	bottom of stone run off channel	0.5	12 7	987	Bedford	0	0	Dry	
5/19/10	Quincy	FBP02	8:15	Open stre	na	stream	none	none	clear	none	813	3873	NA	0.25	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0	560	0.67	NA	NA	ND	ND	NA	NA	NA	2.25766282	-71.008968 9	samp ed stream before bridge		0.2	12 2	360.6	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	UR02	8:15	Open stre	na	stream	none	none	clear	none	3922	365	NA	0.3	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	0.05	2.25766282	-71.008968 9	duplicate of FBP02		na	na	na	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	FBP03	8:55	Open stre	na	stream	pt c sm	ht bro	nild	none	565	5172	NA	0.	NA	ND	NA	9	5	6	18	11	160	ND (0 5)	ND (5.0	600	0.68	NA	NA	ND	ND	NA	NA	ND	2.25627321	-71.02067588	onle t side of culvert		0.2	12 3	28.5	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Broad1	9:25			stream	none	none	clear	none	3 66	2755	NA	2	NA	ND	NA	69	ND (2.0	53	17	7.5	180	ND (0.)	ND (.0	1300	0.8	NA	NA	0.03	ND	NA	NA	10.8	2.25620978	-70.9931 315			8.1	13 3	1 .1	Milton-Blu	1.5	0	Wet	Y
5/19/10	Quincy	Sag1A	10:15		ft		s ight septic	ht bro	clear	none	133 0	2098	NA	1.7	NA	ND	NA	70	7.1	210	19	1	380	1.7	ND (.0	2700	3.6	NA	NA	0.15	ND	NA	NA	35.80	2.27602123	-71.0320993	samp ed inf ow from culvert		.3	12 6	7.78	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Wo lB1A	10: 0	CM	'x3' bo	.5L/mi	sewag	none	clear	none	80	3282	NA	0.5	NA	0.1	NA	108	21	56	16	5	190	9.3	ND (.0	3900	1.	NA	NA	ND	ND	NA	NA	11.3	2.277357	-71.008933	outfa l across from clam shack	just south of Wo lB1 on Wollaston Be	0.3	12.	675	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Wo lB1	11:00	CM	x bo	1	sewag	none	clear	none	27 7	6131	NA	0.75	NA	ND	NA	70	6.2	130	13	60	720	ND (0.)	ND (.0	15000	ND (0.)	NA	NA	0.07	ND	NA	NA	8.65	2.278672	-71.012859		outfa l between yacht clubs on Quincy	3.5	12 8	.87	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Sag1B	11: 5		5x6 t	slowly	sewag	ht bro	mi d	none	20980	365	NA	0.5	NA	1	NA	118	6	350	22	1 0	530	17	ND (.0	6100	3	NA	NA	0.05	ND	NA	NA	NA	2.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blu	1.5	0	Wet	
5/26/10	Belmont	UR025	9:10	Open stre	na	stream	musty	med te	htly tu	none	29090	7701	NA	0.2	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	2.2	2.39528219	-71.1763191	duplicate of WEB013		na	na	na	Bedford	0	0	Dry	
5/26/10	Belmont	WEB013	9:10	Open stre	na	stream	musty	med te	htly tu	none	11620	6 88	NA	0.2	NA	0.25	NA	79	5	1200	11	300	1100	.8	ND (5.0	12000	.3	NA	NA	0.0	ND	NA	NA	1.1	2.39528219	-71.1763191	lots of suspended sediments, wate	We lington Brook	0.7	12 6	1 33	Bedford	0	0	Dry	
5/26/10	Arlington	ARL0 3	9:58	Concrete	18-2	5	none	none	clear	none	79	109	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 225696	-71.1 928822		Mystic Val ey Parkway	0.6	13 8	1269	Bedford	0	0	Dry	
5/26/10	Arlington	ARL137	10:25	Clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	0.25	NA	23	ND (2.0	ND (2.0)	.3	.2	39	ND (0.)	ND (.0	37	ND (0.)	NA	NA	0.71	1/0.3	NA	NA	0.25	2. 1770 89	-71.157 838	may be multiple pipe coming togeth	pipe d scharging to Mill Brook, Under	0.1	17 8	237	Bedford	0	0	Dry	
5/26/10	Arlington	ARL207	11:07	Seep	na	1-2	brassic	na	na	na	25	20	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2 71 86	-71.17533266	col ected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry	
5/26/10	Arlington	Drake01	11:25	Open stre	na	stream	none	med te	htly tu	none	1230	663	NA	~0.1	NA	2	NA	205	3	99	1	67	230	1.3	ND (.0	3000	3.3	NA	NA	0.06	ND	NA	NA	1.05	2. 2689	-71.189660	slow f ow, just upstream or reservoi	Between condo comp ex s off Drake	0.5	21 5	665	Bedford	0	0	Dry	
5/26/10	Arlington	ArlRes	11:30	Open stre	na	stream	none	med te	htly tu	none	79	5 8	NA	~0.1	NA	2	NA	180	33	100	11	7	190	1	ND (.0	2000	2.8	NA	NA	~0.02	ND	NA	NA	0.18	2. 26882	-71.18958	before confluence with Mill Brook, f	just downstream of Ar ington reservoir	0.3	21 2	667	Bedford	0	0	Dry	
5/26/10	Lexingto	Bow01A	12:00	Concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	0.25	NA	NA	ND (2.5	ND (2.5)	2.	ND (2.5)	11	ND (0 5)	7.	30	6.6	NA	NA	0.11	ND	NA	NA	2. 5	2. 26 5629	-71.19 36 02		pipe d scharging under bow street br c	1.3	17 6	2 82	Bedford	0	0	Dry	
5/26/10	Lexingto	Bow01	12:05	Open stre	na	stream	none	med te	htly tu	none	6 3	809	NA	~0.1	NA	ND	NA	8	3.1	19	2.8	5.1	22	0.63	ND (.0	0	ND (0.)	NA	NA	0.08	ND	NA	NA	ND	2. 26 8362	-71.19 0958	6ft wide, rocky streambed flow <6in	Bow street, just downstream of bridge	0.3	18 3	537	Bedford	0	0	Dry	
5/26/10	Lexingto	Fott01	12:35	Open stre	na	stream	none	med te	htly tu	none	12	199	NA	ND	NA	1	NA	93	ND (2.0	ND (2.0)	2.2	ND (2.0)	ND (.0	ND (0.)	ND (.0	ND (.0	ND (0.)	NA	NA	0.06	ND	NA	NA	1. 5	2. 283 205	-71.19676 56	36 double culvert co lected compo	Just downstream of Fottler ave Bridge	0.2	19 3	513	Bedford	0	0	Dry	
5/26/10	Lexingto	GMS01	12:55	Open stre	na	stream	none	eavy te	ry mu	ick fil	72	52	NA	0.2	NA	0.25	NA	36	ND (2.0	ND (2.0)	0. 5	ND (2.0)	ND (.0	ND (0.)	ND (.0	ND (.0	ND (0.)	NA	NA	ND	ND	NA	NA	0.05	2. 2901218	-71.1975303	tributary, thick film covering surface	Walked ~100yards upstream from Fo	0.2	20 9	362.9	Bedford	0	0	Dry	
6/2/10	Revere	UR026	8:01	Concrete	2	NA	none	brown	turb d	none	206 0	9606	NA	0.	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	5.95	2.3998839	-70.992 2127	duplicate of WashN01		na	na	na	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	WashN01	8:01	Concrete	2	NA	none	brown	turb d	none	17250	16070	NA	0.3	NA	6	NA	NA	1	900	80	00	1900	13	ND (.0	2 000	1.8	NA	NA	0.0	ND	NA	NA	6.90	2.3998839	-70.992 2127	outfa l about 1ft under water, no no	Behind Shaw's back corner of parking	0.5	16 9	993	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	Sa es01	8:10	Open stre	na	stream	none	ht bro	irly cle	trash	813	2359	NA	0.	NA	0.7	NA	NA	.7	210	53	26	180	0.56	ND (.0	1200	1.8	NA	NA	0.03	ND	NA	NA	11	2.39990 5	-70.99237953	just upstream of WashN01 outfall	Sales Creek	1.3	18 2	2527	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	Green01	8: 0	Open stre	na	stream	musty	grey	turb d	trash	>2 1960	31300	NA	0.75	NA	2	NA	NA	1 0	3900	100	850	1800	3.5	ND (.0	2 000	13	NA	NA	0.06	ND	NA	NA	ND	2. 0260397	-71.003 6085	off 1A by esquire club	Green Street in Revere	0.5	17 8	9 3	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	29M0 9	9:10	Concrete	3ft	30- 0	none	none	htly tu	none	71	3873	NA	3	NA	ND	NA	NA	ND (2.0	8	6.6	5.9	5	ND (0.)	ND (.0	78	1.3	NA	NA	0.03	ND	NA	NA	17.7	2.3830573	-71.03016877	0min before low t de	Condor Street outfall, near park	23.3	16.1	36.7mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	25L058	9:50	Concrete	x6ft bo	na	musty	grey	turb d	trash	2069	3 8	NA	2	NA	ND	NA	NA	3.	50	63	26	510	1.3	ND (.0	90	1.	NA	NA	0.03	ND	NA	NA	50*	2.36126566	-71.05083507	near Christopher Columbus Park	Climbed down between Joe's Amer ca	26.7	16 3	67mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	Bos017	10:20	Concrete	72	na	none	none	cloudy	rticula	612	203	NA	2	NA	ND	NA	NA	.3	33	1	17	180	ND (0 5)	ND (5.0	120	1.3	NA	NA	0.03	ND	NA	NA	35.50	2.385 766	-71.06883007	Appeared to be mixed tidal flow, Ea	Behidnd Schra t's building down from	18.7	18 7	30 85mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	29J212	10:22	Concrete	60	na	none	none	cloudy	rticula	568	52	NA	2	NA	ND	NA	NA	5.	68	1	26	200	0.7	ND (5.0	510	3.2	NA	NA	0.05	ND	NA	NA	33.90	2.385 9883	-71.06886597	Outf ow w/some tidal mix, sampled	Behidnd Schra t's building down from	17.2	19 5	28.5mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Chelsea	Mil 2A	11:20	Concrete	2	<5	ty/che	none	clear	trash	58	175	NA	0.8	NA	6	NA	NA	ND (2.0	8.7	33	9.7	220	ND (0.)	ND (.0	7	ND (0.)	NA	NA	ND	ND	NA	NA	15.9	2. 0367	-71.020987	sign ficant gray bacter a growth	privately owned, drains Parks de Com	0.5	16 2	1688	Boston-Lo	0.08	0. 3	Wet	
6/10/10	Lawrence	SLE3	7:25	crete out	3'	NA	ong m	te/tan/	htly c o	mentou	195	2359	NA	1	NA	ND	NA	NA	ND (.0	7.5	16	5.3	51	ND (0 8)	ND (8.0	ND (8.0	3.3	NA	NA	ND	ND	NA	NA	3	2.70688	-71.1 76552	SLE3a' significant white/tan/gray ba	South Lawrence E ementary, behind t	0.5	1 6	10 5/835	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	UR027	7:25	crete out	3'	NA	ong m	none	htly c o	mentou	17 1	131	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	2.35	2.70688	-71.1 76552	sign ficant white/tan gray bacteria g	South Lawrence E ementary, behind t	na	na	na	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SLE3	8:25	crete out	3'	NA	ong m	none	htly c o	mentou	899	88	NA	0.2	NA	ND	NA	NA	ND (.0	28	78	2	00	ND (0 8)	ND (8.0	130	3.5	NA	NA	0.0	ND	NA	NA	1.25	2.70688	-71.1 76552	SLE3b' N trate: 2. Nitrite: 0.3. Phos	South Lawrence E ementary, behind t	0.5	1 8	98 /790	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SLE3	9:00	crete out	3'	NA	ong m	none	htly c o	mentou	806	201	NA	0.5	NA	ND	NA	NA	ND (5.0	2	9	18	310	ND (1 0)	ND (10.0	130	3	NA	NA	0.0	ND	NA	NA	1.65	2.70688	-71.1 76552	SLEc' Lawrence DPW stopped (did	South Lawrence E ementary, behind t	0.5	1 7	957/7 7	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SPR05	9:35	concrete	18	10	none	none	ery c e	none	NA	NA	NA	0.5	NA	ND	NA	NA	ND (2.5	ND (2.5)	35	6	130	3.3	ND (5.0	38	.8	NA	NA	0.15	ND	NA	NA	NA	2.70991636	-71.15129912	samp es sent for PCR	pipe o f Lawrence Hospital	0.1	18 8	12.18/18	Lawrence	0.0	0 0	Dry	
6/16/10	Concord	PRIS01	11:00	Concrete	2ft	2	sewag	none	clear	none	16160	10 62	NA	0.8	NA	0.75	NA	NA	1	81	62	280	9 0	ND (0 5)	ND (5.0	1800	5	NA	NA	0.6	ND	NA	NA	12.	2. 65157	-71.392813	pool at base of culvert (~3 t down) w	<1/2 mi e from br dge on rte 2E towar	0.2	27 6	390.3/37	Bedford	0	0	Dry	
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0	17000	2 0	NA	NA	0.13	ND	NA	NA	ND			E fluent of a membrane bioreactor			2	95.8	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	0.75	NA	NA	50	1	19	31	170	1.3	ND (.0	870	170	NA	NA	ND	ND	NA	NA	25.10			6 below sur ace, 6 sand btw so l in	tip pans (2 /day - 1galeach) stone trench wsar		22 9	79	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	1	NA	NA	850	99	ND (0.5	6.1	20	1.3	ND (5.0	17	170	NA	NA	0.06	ND	NA	NA	38.70			12 below sur ace	12 sand		21.1	602	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.)	ND (.0	ND (.0	87	NA	NA	0.07	ND	NA	NA	ND						21 6	351	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	2 IN01	9:30								25	ND	NA	0.25	NA	1	NA	NA	670	1 0	ND (0.	2.1	5.8	0.89	ND (.0	31	2 0	NA	NA	ND	ND	NA	NA	ND			2 below sur ace			20.1	571	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	NF01	9:30								61100	290900	NA	1	NA	ND	NA	NA	1800	1000	1300	7300	33000	510	ND (20.0	#####	280	NA	NA	ND	ND	NA	NA	2.5			Influent			19 3	79	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	12INWA	9: 0								ND	ND	NA	0.75	NA	ND	NA	NA	10	ND (2.0)	3.7	6.9	2	0.6	ND (.0	1	180	NA	NA	0.18	ND	NA	NA	36.80			12 w th air			20 3	579	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	STE01	9: 5								5 7500	186000	NA	0.75	NA	6	NA	NA	1 00	000	1900	6300	51000	760	ND (20.0	#####	300	NA	NA	ND	ND	NA	NA	11.5								Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	UR099	9: 5								686700	119800	NA	0.75	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND						20 3	606	Falmouth	0.12	0 21	Wet	N
7/7/10	Manches	Dunbar	8:20	Stone cul	3x	150	petrol	o l shee	turb d	h & de	1089	22	NA	ND	NA	ND	NA	36	ND (2.0	6.1	6.7	ND (2.0)	5.9	ND (0.)	ND (.0	73	ND (0.)	NA	NA	0.17	ND	NA	NA	NA	2.968332	-71. 7279	Oil sheen across all rocks, trash an	cal ed EPA incident response to repor	0.3	18.1	529/ 6.2	Mancheste	0	0	Dry	Y

7/7/10	Manches	Granite	9:00	concrete	ft	35	ng sew	none	clear	none	125	110	NA	0.5	NA	0.25	NA	30	ND (2.5	9.1	7	3.8	150	2.1	ND (5.0	10	.5	NA	NA	0.1	ND	NA	NA	NA	2.985780	-71. 69196	Strong musty odor, tan bacter a gro	samp ed flow out of pipe; a lot of hom	1	17 6	93 /165	Mancheste	0	0	Dry	Y
7/7/10	Manches	0 7N	9: 0	concrete	ft	15-20	ng sew	none	htly c o	none		ND	NA	0.25	NA	ND	NA	3	ND (2.0	ND (2.0)	0.99	ND (2.0)	ND (.0	ND (0.)	ND (.0	10	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2.998669	-71. 683 8	next to outfa l 0 7, th ck orange pla	outfa l just north (adjacent) of the c ty	2.1	15 2	3992/321	Mancheste	0	0	Dry	Y
7/7/10	Manches	0 7	10:00	concrete	ft	NA	must	med te	cloudy	some	6	52	NA	~0.1	NA	ND	NA	28	18	ND (2.0)	1.8	2.8	6.3	2.1	ND (.0	9	3.9	NA	NA	0.22	ND	NA	NA	NA	2.998660	-71. 683 8	steam coming out of pipe w/strong	just south of 0 7N, by about 1foot	2.5	17 5	750	Mancheste	0	0	Dry	Y
7/7/10	Concord	Mer 120	10: 5	br ck	semi-c	NA	none	none	htly c o	h & de	218	399	NA	1	NA	ND	NA	17	ND (2.0	.5	5.5	.7	0	1	ND (.0	3000	ND (.0)	NA	NA	ND	ND	NA	NA	NA	3.209555	-71.5310 1	thick black/orange coating on bottom, tadpoles in stream, samp ed flow ~2		0.6	16 7	120	Concord	0	0	Dry	Y
7/7/10	Concord	Mer 120a	10: 5	concrete	36	10	htly m	none	htly c o	aves &	25	ND	NA	0.5	NA	6	NA	152	ND (2.0	ND (2.0)	2.8	ND (2.0)	7.3	0. 3	ND (.0	17	ND (0.)	NA	NA	0.11	ND	NA	NA	NA	3.2100	-71.530 1	grated ou fall, flow is approx. 10 gal/min poo ing		0.7	1	1070	Concord	0	0	Dry	Y
7/7/10	Concord	UR028	10: 5	br ck	semi-c	NA	none	none	htly c o	h & de	263	8	NA	1	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA	NA	NA	3.209555	-71.5310 1	duplicate of Mer 120		0.6	16 7	120	Concord	0	0	Dry	Y
7/7/10	Concord	Clinton	11:55	Open stre	NA	low	none	none	clear	none	806	3 1	NA	0.75	NA	ND	NA	30	ND (2.0	ND (2.0)	2.	ND (2.0)	ND (.0	ND (0.)	ND (.0	80	ND (0.)	NA	NA	0.0	ND	NA	NA	NA	3.193970	-71.5 2 92	midstream sample near parking lot	Concord District Court off Clinton Stre	0.7	22 9	1 58	Concord	0	0	Dry	Y
7/7/10	Concord	Pleasant	12:15	Open stre	NA	low	none	none	clear	none	1089	1722	NA	0.25	NA	ND	NA	31	ND (2.5	ND (2.5)	1.	ND (2.5)	ND (5.0	ND (0 5)	ND (5.0	170	ND (0.5)	NA	NA	0.0	ND	NA	NA	NA	3.19967	-71.5 8718	Just upstream of C inton sample	off Pleasant Street	0.5	23.1	1080	Concord	0	0	Dry	Y
7/1 /10	Boston	29J212	7:17	Concrete	60	na	none	none	clear	none	3683	199	NA	3	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (.0	300	300	NA	NA	ND	ND	NA	NA	NA	2.385 9883	-71.06886597	Behidnd Schra t's building down fro	Sampled 10 min before low tide	22.6	20 8	35 83mS	Boston-Lo	0.1	0 35	Wet	Y
7/1 /10	Boston	Bos017	7:17	Concrete	72	na	musty	none	htly c o	some	129970	2 89	NA	2.5	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (.0	700	13	NA	NA	0.03	ND	NA	NA	NA	2.385 766	-71.06883007	Behidnd Schra t's building down fro	East of 29J212	21.7	21 8	3 . mS	Boston-Lo	0.1	0 35	Wet	Y
7/1 /10	Boston	UR029	7:17	Concrete	60	na	none	none	clear	none	3922	256	NA	3	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA	NA	NA	2.385 9883	-71.06886597	duplicate of 29J212		22.6	20.8	35 83mS	Boston-Lo	0.1	0 35	Wet	Y
7/1 /10	Swamps	StaceyN	8:20	CM	'x8'	00-15	l2 stro	none	clear	ber g c	109	161	NA	0.2	NA	3	NA	3 2	29	90	27	95	1200	0.56	ND (5.0	2600	2.7	NA	NA	0.56	ND	NA	NA	NA	2. 669 2	-70.922031 7	Stacey Brook, Swampscott STRON	Met Town Engineer, Victor a Masone	0.3	21 9	621	Beverly Air	0.23	0 23	Wet	Y
7/1 /10	Lynn	StaceyS	8:20	CM	'x8'	300- 0(	musty	none	cloudy	suds	38730	68670	NA	0.2	NA	0.75	NA	97	ND (2.0	62	27	5.1	350	0.66	ND (.0	8000	2.1	NA	NA	0.03	ND	NA	NA	NA	2. 669 2	-70.922031 7	Stacey Brook, Lynn		0.	21 9	776	Beverly Air	0.23	0 23	Wet	Y
7/1 /10	Salem	Palmer1	9:05	clay	18-2	15-20	ht mu	none	clear	none	135 0	17329	NA	3	NA	2	NA	112	23	87	12	18	200	.6	ND (.0	790	1.3	NA	NA	ND	ND	NA	NA	NA	2.5138006	-70.8880 38	Palmer Cover, Sa em	Wh te bac erial growth at bottom of pi	1.5	21.1	209	Beverly Air	0.23	0 23	Wet	Y
7/1 /10	Beverly	Lynch1	9:35	concrete	12	25	none	none	clear	none	689	1178	NA	0.2	NA	2	NA	32	ND (2.0	ND (2.0)	3.3	ND (2.0)	110	ND (0.)	ND (.0	22	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2.5 71 736	-70.86166 91	Lynch Park, Beverly Main outfall to	samp ed 2hrs after low tide	0.7	17 6	1339	Beverly Air	0.23	0 23	Wet	Y
7/1 /10	Beverly	Brac01	10:0	concrete/s	'box	na	Sulfu	none	clear	me su	2 52	1725	NA	2	NA	0.25	NA	5	ND (2.5	ND (2.5)	1.8	ND (2.5)	6.3	ND (0 5)	ND (5.0	60	ND (0.5)	NA	NA	ND	ND	NA	NA	NA	2.55097916	-70.8503 08	Down Brackenbury Lane	Brackenbury Beach	10	18 6	16 91mS	Beverly Air	0.23	0 23	Wet	Y
7/1 /10	Beverly	Brac02	10:31	Open stre	na	na	none	med te	turb d	some	2595	3130	NA	ND	NA	0.3	NA	59	ND (2.0	ND (2.0)	1.3	ND (2.0)	ND (.0	ND (0.)	ND (.0	92	ND (0.)	NA	NA	0.05	ND	NA	NA	NA	2.55 3 02	-70.8 983196	samp ed under br dge on 127/near	lots of ducks upstream, upstream of B	0.2	20 5	09.2	Beverly Air	0.23	0 23	Wet	Y
7/1 /10	Beverly	Lynch02	10:50	p ast c	8	~	none	none	clear	none	2069	352	NA	2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	ND	NA	NA	NA	2.5 639263	-70.86167 9	Lynch Park, Beverly	Small pipe exiting just north of Lynch0	1.8	19 3	7.77mS	Beverly Air	0.23	0 23	Wet	Y
7/21/10	Winches	Swan01	7:25	Open stre	na	na	None	grey	ry clou	me su	52	305	NA	~0.1	NA	0.3	NA	6	ND (2.0	ND (2.0)	8.9	ND (2.0)	5.6	ND (0.)	ND (.0	210	1.6	NA	NA	ND	ND	NA	NA	NA	2. 608 009	-71.13716 17	Downstream of Swanton St br dge	USGS gauge @ 0 9, geese upstream	0.5	20 6	1025	Boston-Lo	0	0	Dry	Y
7/21/10	Winches	Wash01	7:50	Open stre	na	na	None	grey	ry clou	me su	8	512	NA	~0.1	NA	ND	NA	32	ND (2.0	ND (2.0)	9.9	ND (2.0)	8.6	ND (0.)	ND (.0	35	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 69 11	-71.1252171	Downstream of Washington Street	Water almost opaque/ used reach to s	0.5	22	1083	Boston-Lo	0	0	Dry	Y
7/21/10	Winches	Wash02	7:55	Concrete	2	na	None	grey	ry clou	me su	857	318	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	ND	NA	NA	NA	2. 69 521	-71.12 9571	Outfa l upstream of Washington St	OF more than 1/2 fu l w/flow, not visua	0.5	21.	100	Boston-Lo	0	0	Dry	Y
7/21/10	Woburn	Mer01up	8:30	Open stre	na	na	None	grey sh	ry clou	none	8	199	NA	0.2	NA	0.	NA	27	ND (2.0	ND (2.0)	8.7	ND (2.0)	7.3	ND (0.)	ND (.0	27	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 771 1	-71.1176671	(previously '1Merrell) Upstream of d	low/slow low cou d not see 1' down us	0.5	21 6	1096	Bedford	0.01	0.13	Dry	Y
7/21/10	Woburn	Sweet	8:35	Open stre	na	na	none	none	clear	me su	518	1 8	NA	0.22	NA	ND	NA	53	30	5.3	31	18	82	3.9	.6	270	10	NA	NA	0.15	ND	NA	NA	NA	2. 7706 6	-71.1175936	(previously '1Kraft)Sweetwa er Broo	2 pipes just upstream	0.7	21 5	1366	Bedford	0.01	0.13	Dry	Y
7/21/10	Woburn	Sa em	9:25	Open stre	na	na	none	grey sh	ry clou	some	996	301	NA	0.15	NA		NA	27	ND (2.0	ND (2.0)	11	ND (2.0)	55	ND (0.)	ND (.0	5	0. 2	NA	NA	0.08	ND	NA	NA	NA	2. 91580	-71.12883	(previously 'Sal)1921 Salem Street	USGS field team measuring high wa e	0.5	20 9	1086	Bedford	0.01	0.13	Dry	N
7/21/10	Woburn	Mys01	9:56	open stre	na	na	none	bluish	htly c o	h & de	238	110	NA	0.2	NA	>6	NA	23	ND (2.0	ND (2.0)	11	ND (2.0)	79	ND (0.)	ND (.0	67	ND (.0)	NA	NA	0.07	ND	NA	NA	NA	2.5031787	-71.13529801	Mishawum Br dge, downstream fro	lots of moss on rocks/ gauge 0.5'	0.	23 2	1035	Bedford	0.01	0.13	Dry	Y
7/21/10	Woburn	Mys01b	10:00	Concrete	16-18	10-15	none	none	clear	none		20	NA	0.3	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.502695	-71.1353 58	Outfa l downstream of Mys01	Raccoon prints in pipe	1.3	19 6	27 3	Bedford	0.01	0.13	Dry	Y
7/21/10	Woburn	Mys01c	10:10	p ast c		1/2	none	none	cloudy	none	ND ( )	ND (10)	NA	ND	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2.5026965	-71.1351128	Stormdrain cover tipped o f - samp	gray p aque at bottom of pipe	na	na	na	Bedford	0.01	0.13	Dry	Y
7/21/10	Woburn	Ha ls2	10:55	open stre	na	na	none	none	clear	none	2190	816	NA	ND	NA	ND	NA	26	ND (2.5	11	8.6	13	70	ND (0 5)	ND (5.0	35	1.2	NA	NA	0.08	ND	NA	NA	NA	2.513171	-71.1 26 9	1 ft deep at sampling pool	Ha ls Brook behind 185 New Boston,	0.	19 6	873	Bedford	0.01	0.13	Dry	Y
7/21/10	Woburn	DRR1	11:00	Open stre	na	na	none	grey	cloudy	none	15 9	288	NA	~0.1	NA	5	NA	35	ND (2.5	ND (2.5)	2.7	ND (2.5)	ND (5.0	ND (0 5)	ND (5.0	70	ND (0.5)	NA	NA	0.07	ND	NA	NA	NA	2.513291	-71.1 2539	Unnamed stream just upstream of	Very low f ow	0.	23.	897	Bedford	0.01	0.13	Dry	Y
7/21/10	Woburn	UR030	11:00	Open stre	na	na	none	grey	cloudy	none	7	253	NA	~0.1	NA	6	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA	NA	NA	2.513291	-71.1 2539	duplicate of DRR1		0.	23.	897	Bedford	0.01	0.13	Dry	Y
7/28/10	Boston	29J212	7:15	Concrete	60	na	htly m	none	clear	none	890	ND	NA	3	NA	ND	NA	121	ND (2.5	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0	6.3	ND (0.5)	NA	NA	ND	ND	NA	NA	NA	2.385 9883	-71.06886597	Behidnd Schra t's building down fro	Sampled 10 min before low tide	28.3	18 9	82mS	Boston-Lo	0	0	Dry	Y
7/28/10	Boston	Bos017	7:16	Concrete	72	na	htly m	none	clear	some	120330	2613	NA	3	NA	2	NA	152	6	610	23	200	1 00	1.2	ND (.0	2000	12	NA	NA	ND	ND	NA	NA	NA	2.385 766	-71.06883007	Behidnd Schra t's building down fro	East of 29J212	28.2	18 6	3 67mS	Boston-Lo	0	0	Dry	Y
7/28/10	Dorchest	CantB	8:28	Open stre	na	na	na	ey./gre	htly co	h & de	169	86	NA	0.3	NA	5	NA	151	76	1700	71	270	1200	ND (0.)	ND (.0	3800	ND (0.)	NA	NA	0.37	ND	NA	NA	NA	2.288373	-71.092879	Canterbury Brook, Boston	fine sediments on bottom, s gns of rec	0.2	20	3 .	Boston-Lo	0	0	Dry	Y
7/28/10	Dorchest	UR031	8:28	Open stre	na	na	na	ey./gre	htly co	h & de	1 6	51	NA	0.3	NA	5	NA	1 7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.37	ND	NA	NA	NA	2.288373	-71.092879	Dup ica e of CantB		0.2	20	3 .	Boston-Lo	0	0	Dry	Y
7/28/10	Boston	15F288	9:02	Brick	5'	~10	arp mu	none	clear	none	205	109	NA	0.2	NA	0.75	NA	7	29	11	3.9	53	0	ND (0.)	ND (.0	750	1.3	NA	NA	0.0	ND	NA	NA	NA	2.308203	-71.12058	Arnold Arboretum o f 203	sides of outfall deteriorating, seeps co	0.7	13 6	130	Boston-Lo	0	0	Dry	Y
7/28/10	Boston	Mudd1	9:55	stone	bridge	NA	none	na	cloudy	none	2318	703	NA	0.15	NA	5	NA	166	8.7	63	23	1	160	ND (0.)	ND (.0	790	.5	NA	NA	0.06	ND	NA	NA	NA	2.3 035	-71.099856	Muddy River in Back Bay Fens	Sampled just downstream of Fenway	0.5	20 5	1058	Boston-Lo	0	0	Dry	Y
7/28/10	Brook ine	Vi lB	10: 0	Stone	5'	NA	musty	green	cloudy	&sed	258	52	NA	~0.1	NA	ND	NA	1 1	.7	59	17	28	130	ND (0.)	ND (.0	2	3.5	NA	NA	0.06	ND	NA	NA	NA	2.330289	-71.11 017	Two stone 5' semi-circle outfal s. S	across from 33 Pondview Apts	0.5	25.	966	Boston-Lo	0	0	Dry	Y
7/28/10	Boston	OF233	11:00	Concrete	20-30		s ightly m	t oil sh	clear	rash &	198630	2 196	NA	ND	NA	2	NA	23	230	3900	35	30	3 00	11	ND (.0	38000	15	NA	NA	ND	ND	NA	NA	NA	2.326763	-71.11 752	Off Riverdale Pkwy in Jamaicaway	downstream of outfall	0.9	15.1	1738	Boston-Lo	0	0	Dry	Y
7/28/10	Boston	Jpond	11:25	spring bubb ing up from			none	none	none	none	3	ND	NA	ND	NA	ND	NA	25	ND (2.5	ND (2.5)	16	ND (2.5)	17	ND (0 5)	ND (5.0	20	ND (0.5)	NA	NA	0.06	ND	NA	NA	NA	2.321703	-71.119080	Parked on Chestnut St, bubbling u	just downstream from manho e cover,	0.3	27.1	606	Boston-Lo	0	0	Dry	Y
8/ /10	Lawrence	SPR05	7:35	concrete	18	~5 - 10	an sm	none	none	none	30	10	NA	0.2	NA	0.2	NA	12	ND (2.5	ND (2.5)	3.7	ND (2.5)	5	ND (0 5)	ND (5.0	ND (5.0	ND (0.5)	NA	NA	0.0	ND	NA	NA	NA	2.70991636	-71.15129912	samp es sent for PCR	pipe o f Lawrence Hospital	1.	20.1	26	Lawrence	0	0	Dry	Y
8/ /10	Lawrence	SPRLGH	7: 0	Open stre	NA	NA	none	none	clear	none	116	1529	NA	~0.1	NA	ND	NA	21	ND (2.0	3	12	17	65	ND (0.)	ND (.0	32	1.7	NA	NA	0.06	ND	NA	NA	NA	2.70995636	-71.15139912	mainstem Spickett river	lots of growth on bottom LOTS of tras	0.3	22 6	535	Lawrence	0	0	Dry	Y
8/ /10	Lawrence	Jackson	8:25	Open stre	NA	NA	none	l ght te	some	and d	606	512	NA	~0.1	NA	ND	NA	6.3	ND (2.0	ND (2.0)	10	6.6	26	ND (0.)	ND (.0	ND (.0	1.5	NA	NA	0.07	ND	NA	NA	NA	2.713273	-71.158219	upstream of Jackson Street bridge	heavy sedimentation on bottom, ots o	0.3	23.1	530	Lawrence	0	0	Dry	Y
8/ /10	Lawrence	Wi low	9:00	Open stre	NA	NA	none	med tea	none	and d	325	158	NA	~0.1	NA	ND	NA	2	ND (2.0	ND (2.0)	9.3	.7	32	ND (0.)	ND (.0	ND (.0	1.2	NA	NA	0.03	ND	NA	NA	NA	2.713893	-71.17262	mainstem Spickett river	samp ed at the end of Wi low Street	0.3	23 2	529	Lawrence	0	0	Dry	Y
8/ /10	Lawrence	SLE3	9:30	concrete	3'		sharp pun	none	clear	s of ba	1230	275	NA	~0.1	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.)	ND (.0	18	2.6	NA	NA	0.05	ND	NA	NA	NA	2.70688	-71.1 76552	sign ficant white/tan gray bacteria g	South Lawrence E ementary, behind t	0.6	15 6	1120	Lawrence	0	0	Dry	Y
8/ /10	Lawrence	Shaw01	9:50	Open stre	NA	NA	none	sheen, s ight t		leaves	208	86	NA	~0.1	NA	ND	NA	23	ND (2.0	ND (2.0)	6.3	12	5	ND (0.)	ND (.0	5.1	2.1	NA	NA	0.0	ND	NA	NA	NA	2.69698	-71.1 3777	Mainstem Shawsheen river samp e		na	na	na	Lawrence	0	0	Dry	Y
8/ /10	Andover	Huss01	10:35	stone box	8-10ft		none	none	clear	face s	79 5	109	NA	ND	NA	0.3	NA	51	11	12	7.9	110	10	ND (0.)	ND (.0	11000	0.55	NA	NA	0.2	ND	NA	NA	NA	2.67330118	-71.1 97 812	2-3 feet deep	Across from Shawsheen garage, Hus	0.2	2 3	71.5	Lawrence	0	0	Dry	Y
8/ /10	Andover	Huss02	11:00	Open stre	NA	NA	cloudy	ht oil sh	htly c o	scum	3	ND (10)	NA	~0.1	NA	0.1	NA	0	ND (2.5	ND (2.5)	3.3	.7	36	ND (0 5)	ND (5.0		1.8	NA	NA	0.09	ND	NA	NA	NA	2.672 7656	-71.151 3865	lots of bacterial growth on intake pa	Hussy Brook - samp ed just upstream	0.3	2 7	676	Lawrence	0	0	Dry	Y
8/ /10	Andover	URO32	11:00	Open stre	NA	NA	cloudy	ht oil sh	htly c o	scum	8	20	NA	~0.1	NA	ND	NA	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA	NA	NA	2.672 7656	-71.151 3865	duplicate of Huss02		0.3	2 7	676	Lawrence	0	0	Dry	Y
8/11/10	Stonehar	100A	7: 2	Open stre	NA	NA	must	l ght te	clear	none	22820	323	NA	0.35	NA	ND	NA	100	39	.6	2	30	90	ND (0.)	8.1	.	2.	NA	NA	0.09	ND	NA	NA	NA	2. 7878 1	-71.1131562	Sweetwater Brook west of Map e St	behind serv ce master - had to ask pe	0.6	21.	1193	Boston-Lo	0	0.7	Dry	Y
8/11/10	Stonehar	1West	8:03	stone	2x3	50-100	oldy m	ght film	clear	face s	79 5	2613	NA	0.2	NA	0.75	NA	8	15	1	20	280	330	ND (0.)	ND (.0	1 00	1.	NA	NA	ND	ND	NA	NA	NA	2. 826072	-71.10 6187	C 2 exceeded holding time/surfacta	Unnamed tributary to Sweetwater Bro	0.6	15.1	1280	Boston-Lo	0	0.7	Dry	Y
8/11/10	Stonehar	2Linden	8:25	pen strea	na	na	etroleu	htly clo	clear	none	713	285	NA	0.2	NA	ND	NA	25	91	31	32	31	1 0	ND (0 5)	ND (5.0	8	2.3	NA	NA	ND	ND	NA	NA	NA	2. 83930	-71.1039388	C 2 exceeded holding time/surfacta	Sweetwater Brook @ Lindenwood (up	0.7	18 2	1 32	Boston-Lo	0	0.7	Dry	Y
8/11/10	Stonehar	2Lincul	8:30	clay	8	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA	NA	NA	2. 8 1 1	-71.103935	Inside culvert upstream from 2 LIN	samp ed largest pipe ~1 in d amete	0.5	19.	950	Boston-Lo	0	0.7	Dry	Y
8/11/10	Stonehar	Elm2	9:00	stone cul	2' x	~30 -	musty	none	clear	none	1060	6867	NA	0.2	NA		NA	93	320	2 0	77	700	1300	13	5.9	1100	5.7	NA	NA	0.05	ND	NA	NA	NA	2. 8607	-71.0976008	Walked upstream from animal hosp	Large box culvert covered w/grate tras	0.8	16.1	1632	Boston-Lo	0	0.7	Dry	Y
8/11/10	Stonehar	URO33	9:00	stone cul	2' x	~30 -	musty	none	clear	none	1060	352	NA	0.2	NA		NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 8607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Lo	0	0.7	Dry	Y
8/11/10	Stonehar	Toms	9:50	metal w/a	3'	~5 -7	ult/ pe	none	e flocc	none	212	10	NA	0.15	NA	0.	NA	3	ND (2.0	9.9	22	27	750	ND (0.)	ND (.0		ND (0.)	NA	NA	0.13	ND	NA	NA	NA	2. 90277	-71.101799	C 2 exceeded holding time/surfacta	Off Toms Way in Stoneham	0.9	18.1	1701	Boston-Lo	0	0.7	Dry	Y
8/11/10	Woburn	Ha ls2	10:35	Open stre	NA	low	none	l ght tea	some	trash ar	1379	717	NA	~0.1	NA	ND	NA	33	ND (2.0	ND (2.0)	3.6	18	70	ND (0.)	ND (.0	ND (.0	0.	NA	NA	0.0	ND	NA	NA	NA	2.513171	-71.1 26 9	1 ft deep at sampling pool	Ha ls Brook behind 185 New Boston,	0.	20 6	8 8	Bedford	0	0.1	Dry	Y
8/11/10	Woburn	Ha ls3	10:50	concrete	~12	< 1	a few	none	clear	suds		ND (10)	NA	0.6	NA	3	NA	NA	ND (.0	17	35	1	210	ND (0 8)	ND (8.0	ND (8.0	ND (0.8)	NA	NA	0.07	ND	NA	NA	NA	2.51339681	-71.1 295383	outfa l about 100ft upstream from Ha ls2 ocat on		0	2 8	50.3	Bedford	0	0.1	Dry	Y
8/11/10	Stonehar	31Sixth	11:21	Concrete	18		none	none	clear	ht film	183	86	NA	0.3	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	ND	NA	NA	NA	2.51079059	-71.1 820571	most of flow coming from 18in cond	lots of frogs in stream, under sixth stre	1	23 5	1960	Bedford	0	0.1	Dry	Y
8/11/10	Stonehar	2ndRd	11:50	Open stre	NA	NA	none	med te	clear	none	30	226	NA	~0.1	NA	ND	NA	7	ND (2.5	ND (2.5)	3.	ND (2.5)	8.1	ND (0 5)	ND (5.0	ND (5.0	0.76	NA	NA	ND	ND	NA	NA	NA	2.51333787	-71.1 802303	upstream of small pedestrian bridg	end of 2nd st, asked #1condo owner f	0.	22.	825	Bedford	0	0.1	Dry	Y
8/18/10	Warw ck	CBW	8:10	Beach	NA	tgoing t	none	none	clear	none	28 fecal	ND	NA	3	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA	NA	NA	1.715 3572	-71.36069556	samp ed on outgoing t de in about	samp ed between 2 rock etties on we	29.6	2 6	5 72mS	Providence	0	0	Dry	Y
8/18/10	Warw ck	UNKBK	8:22	Open stre	NA	~ 0.3cfs	none	none	htly c o	none	50 feca	352	NA	2	NA		NA	NA	ND (2.0	ND (2.0)	3.8	5.2	18	3.6	ND (.0	11	1.8	NA	NA	0.03	ND	NA	NA	NA	1.71380905	-71.36 757 1		walked up 20 ft from beach	20.6	22.	32 83mS	Providence	0	0	Dry	Y
8/18/10	Warw ck	MC01	8:25	Open stre	NA		none	none	n t see	none	8 feca	311	NA	2	NA	ND	NA	NA	ND (2.0	ND (2.0)	7.1	15	73	1.9	ND (.0	ND (.0	.3	NA	NA	0.05	ND	NA	NA	NA	1.7135672	-71.365515 1	Mill creek, 0.67 ng/L Su famethoxazole was detected		20.7	23 5	33.13mS	Providence	0	0	Dry	Y
8/18/10	Warw ck	BB08	8:50	Open stre	NA		none	none	cloudy	none	3 0 feca	101	NA	~0.1	NA	ND	NA	72	ND (2.0	ND (2.0)	7.8	15	110	ND (0.)	6	ND (.0	6.6	NA	NA	0.11	ND	NA	NA	NA	1.71213909	-71.375189 1	leaky storm drain pipe under br dge,	layer of algae on bottom rocks lots of	1.3	21.1	2 7	Providence	0	0	Dry	Y
8/18/10	Warw ck	BB08P	8:57	concrete	~16	~ 1	none	none	clear	none	610 feca	135	NA	1	NA		NA	NA	ND (2.0	16	1	10		ND (0.)	6.5	12	18	NA	NA	0.06	ND	NA	NA	NA	1.71205509	-71.3752 9 1	bacter a and kits only		na	na	na	Providence	0	0	Dry	Y
8/18/10	Warw ck	LK0	9:20	Open stre	NA		none	none	clear	som	710 feca	906	NA	~0.1	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	1.7137275	-71.37889632	downstream from road	lockwood brook near brady's liquors. S	0.2	20 2	31 .2	Providence	0	0	Dry	Y
8/18/10	Warw ck	BB07	9:30	Open stre	NA		none	none	clear	none	870 feca	10 6	NA	0.2	NA	ND	NA	33	ND (2.5	ND (2.5)	11	17	100	ND (0 5)	5.	ND (5.0	.8	NA	NA	0.08	ND	NA	NA	NA	1.70908196	-71.3828936	racoon prints on bank, arge crab. S	off westshore drive upstream of bridge	0.2	21 6	329	Providence	0	0	Dry	Y
8/18/10	Warw ck	WR02	9: 5	double culvert			none	none	clear	oil on s	300 feca	1 8	NA	0.15	NA	ND	NA	25	ND (2.5	ND (2.5)	2.3	5.6	2	ND (0 5)	17	ND (5.0	7.3	NA	NA	0.0	ND	NA	NA	NA	1.70708 21	-71.38031976	double culvert under the road	upstream side of bridge	0.2	16 9	35.9	Providence	0	0	Dry	Y
8/18/10	Warw ck	LK02	10:55	Open stre	NA	NA	none	none	clear	me tra	100 feca	137	NA	0.25	NA	ND	NA	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	1.7196 02	-71.3869606	bacter a and kits only	upstream side of bridge on overlook ro	0.1	20 9	270	Providence	0	0	Dry	Y
8/18/10	Warw ck	Emerson	11:11	perforated	2'	~1 -2	none	none	clear	none	580 feca	31	NA	ND	NA	ND	NA	21	2.1	29	1	85	2 0	1.9	ND (.0	2	.9	NA	NA	ND	ND	NA	NA	NA	1.71935982	-71.38618735	epipe designed to take in groundwa	at the end of emerson road (dead end	0.1	20.1	225.8	Providence	0	0	Dry	Y
8/18/10	Warw ck	MB01	11:30	Stone	'x2'bo	~50	none	none	clear	none	8 feca	161	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA	NA	NA	1.71 617	-71.38035705	bact and kits only	Meadowbrook road outfall at end of ro	0.1	22 2	173.9	Providence	0	0	Dry	Y
8/18/10	Warw ck	SweetF	11: 5	Concrete	~16	~15 - 20	mus	grey	cloudy	ayish	ND feca	ND	NA	0.2	NA	1	NA	0	19	ND (2.0)	1.3	.8	11	ND (0.)	130	ND (.0	3.7	NA	NA	ND	ND	NA	NA	NA	1.7396 713	-71.39538267	1-2 in of green a gae growth on bot	end of sweetfern drive	0.1	18.	220.9	Providence	0	0	Dry	Y
8/18/10	Warw ck	URO3	11: 5	Concrete	~16	~15 - 2	mus	grey	cloudy	ayish	ND feca	62	NA	0.2	NA	0.25	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	1.7396 713	-71.39538267	duplicate of Swee F		0.1	18.	220.9	Providence	0	0	Dry	Y
8/25/10	Laconia,	Beach RT	8:30	Beach	NA	NA	none	none	clear	none	21	ND	NA	0.2	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.0	NA	NA	NA	NA	3.556117	-71.500635	Ahern State Park Beach	pre-storm sample. R ght side	0	21.7	90.8	Laconia	0.01	0.02	Dry	Y
8/25/10	Laconia,	996-F	8:50	Concrete	16	~10	none	none	clear	none	353	52	NA	0.	NA	.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	3.55708	-71. 9 182	Faci ity pipe to stream	Pre-storm sample.	0.1	16 8	18 .6	Laconia	0.01	0 02	Dry	Y
8/25/10	Laconia,	Beach RT	10:30	Beach	NA	NA	none	none	clear	none	16	ND	NA	0.25	NA	ND	NA	12	ND (2.0	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (.0	ND (.0	ND (0.)	NA	NA	0.03	ND	NA	NA	NA	3.556117	-71.500635	Ahern State Park Beach	2nd sample, taken during rain event	0	89 3	21.7	Laconia	0.13	0.13	Wet	Y
8/25/10	Laconia,	GovB	10: 0	Swale	NA	tagnan	none	ht oran	htly c o	me sc	192	98	NA	0.2	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	3.556520	-71.500969	Governor Brook	No distinct flow, ight orange co or, so	0.1	16 3	198.8	Laconia	0.13	0.13	Wet	Y
8/25/10	Laconia,	GovB01	11:00	Stone w/metal i		~30	none	none	clear	none	857	1223	NA	0.22	NA	ND	NA	55	ND (2.0	ND (2.0)	ND (0.	2.7	ND (.0	ND (2.0)	ND (.0	ND (.0	0.7	NA	NA	ND	ND	NA	NA	NA	3.556625	-71. 99 2	Road crossing upstream of GovB	orange/green growth on bottom of pip	0.2	15 9	3 1.6	Laconia	0.21	0 21	Wet	Y
8/25/10	Laconia,	996-F	11:11	Concrete	16	~20	none	none	clear	me su	6932	19863	NA	0.2	NA	ND	NA	68	ND (2.0	ND (2.0)	ND (0.	11	7.8	ND (2.0)	ND (.0	ND (.0	ND (0.)	NA	NA	ND	ND	NA	NA	NA	3.55708	-71. 9 182	Faci ity pipe to stream	same sample location as previous, jus	0	17 6	5	Laconia	0.21	0 21	Wet	Y
8/25/10	Laconia,	UR035	11:11	Concrete	16	~20	none	none	clear	me su	6978	17329	NA	0.2	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	3.55708	-71. 9 182	Dup icate of 996-F		0	17.6	5	Laconia	0.21	0.21	Wet	Y
8/25/10	Laconia,	Swale	11: 0	Concrete	16-18	~10	none	none	clear	none	17200	26030	NA	0.2	NA	ND	NA	58	ND (2.0	ND (2.0)	ND (0.	12	12	ND (2.0)	ND (.0	ND (.0	ND (0.)	NA	NA	ND	ND	NA	NA	NA	3.559021	-71. 9 120	samp ed facility pipe before depos t	samp ed during storm, no low before	0	18 5	13.5	Laconia	0.21	0.21	Wet	Y
8/25/10	Laconia,	CBAdmin	11:50	Concrete	18	~50	must	none	clear	none	621	1553	NA	0.2	NA	ND	NA	55	ND (2.5	ND (2.5)	ND (0.5	11	.5	ND (2 5)	ND (5.0	ND (5.0	ND (0.5)	NA	NA	ND	ND	NA	NA	NA	3.266 93	-71. 83356			0	15 5	1 .5	Laconia	0.	0.	Wet	Y
8/25/10	Concord	Mer 120	12: 5	br ck	semi-c	NA	musty	grey	cloudy	uds &	38730	51720	NA	0.25	NA	ND	NA	97	ND (2.5	ND (2.5)	16	2	110	ND (2 5)	ND (5.0	7.3	0.76	NA	NA	ND	ND	NA	NA	NA	3.209555	-71.5310 1			0	18 3	18.3	Concord	1.02	1 0	Wet	Y
9/1/10	Revere	Green01	8:10	Open stre	NA	NA	musty	none	clear	none	27550	6867	NA	0.25	NA	2	NA	285	ND (2.0	550	82	0	290	ND (0.)	ND (.0	ND (.0	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 0269115	-71.00375656	C oudy; algae on rocks; lots of trash	Sampled under pedestrian bridge bet	0.9	21	18 0	Boston-Lo	0	0	Dry	Y
9/1/10	Chelsea	Mil 2A	8:30	Concrete	2	<5	ty/che	none	clear	trash	8	ND	NA	0.6	NA	>6	NA	53	ND (2.0	ND (2.0)	31	15	110	ND (0.)	ND (.0	ND (.0	5.6	NA	NA	ND	ND	NA	NA	NA	2. 0367	-71.020987	sign ficant gray bacter a growth	privately owned, drains Parks de Com	1	19 6	1850	Boston-Lo	0	0	Dry	Y
9/1/10	Chelsea	Mil 2	8:55	Concrete	0 inch	15	arp se	c ear	none	None	282	1	NA	0.5	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 033 0	-71.020587	gray bacteria plaque, some suds	(Gil ooly) Cabot St behind Beacon Me	2	18.1	3750	Boston-Lo	0	0	Dry	Y
9/1/10	Revere	Amelia	9:30	Open stre	NA	NA	none	ight ea	spend	me su	3 66	1 30	NA	0.6	NA	0.25	NA	66	ND (2.0	7	.5	11	33	ND (0.)	ND (.0	.6	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 25 7262	-71.0266250	walked upstream from end of Amel	Sampled about 30ft upstream of 'tri on	2.	21 5	509	Boston-Lo	0	0	Dry	Y
9/1/10	Revere	Sargent	9:55	Concrete	36	NA	ht mu	none	clear	none	875	201	NA	0.2	NA	ND	NA	65	ND (2.5	ND (2.5)	0.65	5.2	ND (5.0	ND (0 5)	ND (5.0	ND (5.0	13	NA	NA	0.03	ND	NA	NA	NA	2. 210587	-71.02615376	cou d see ight at other end of stree	Corner of Sargent and Greentree Lan	0.3	18 3	687	Boston-Lo	0	0	Dry	Y
9/1/10	Marb ehe	DLaunch	11:10	Concrete	ft	0	none	none	clear	none	31300	2 81	NA	0.75	NA	0.25	NA	90	1	3 0	8.	220	3000	ND (0.)	ND (.0	980	6.5	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	near boat launch, samp e culvert o	outfa l across causeway from Devereu	3.8	19 6	6.92mS	Boston-Lo	0	0	Dry	Y
9/1/10	Marb ehe	UR036	11:10	Concrete	ft	0	none	none	clear	none	30760	3076	NA	0.75	NA	0.25	NA	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	duplicate of D aunch		3.8	19 6	6.92mS	Boston-Lo	0	0	Dry	Y
9/1/10	Marb ehe	Mneck02	11:35	Concrete	2	5	none	green/	clea	e ine	816 0	120330	NA	0.2	NA	0.75	NA	57	ND (2.0	ND (2.0)	0.75	.	5.6	ND (0.)	ND (.0	7.1	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 891136	-70.8 335607	green a ge at bottom of outfall	Ocean Ave o f Marblehead Neck	0.3	19	680	Boston-Lo	0	0	Dry	Y
9/1/10	Marb ehe	GO01	12:00	Concrete	36in	50	None	None	C ear	None	310	1 5	NA	0.2	NA	ND	NA	89	ND (2.0	ND (2.0)	3.8	11	6	ND (0.)	ND (.0	ND (.0	1.3	NA	NA	0.0	ND	NA	NA	NA	2.51 62618	-70.8 629 6	Grace Oliver Beach Swimming chil	Corner of Crowninsh eld Road and Be	0.2	21	632	Boston-Lo	0	0	Dry	Y
9/1/10	Marb ehe	StramB	12:30	Open wat	NA	NA	none	none	clear	None	211	ND	NA	2	NA	ND	NA	69	ND (2.5	ND (2.5)	1.9	39	8	ND (0 5)	ND (5.0	ND (5.0	ND (0.5)	NA	NA	0.07	ND	NA	NA	NA	2.51 7501	-70.8659901	Stamski Beach	samp e 20ft from shore, incoming tide	28.3	23 5	3 87mS	Boston-Lo	0	0	Dry	Y
10/5/10	Watertov	SawB01	8:15	Open stre	na	na	none	med te	clear	aves &	899	156	NA	0.2	NA	0.25	NA	NA	D (20.	99	21	99	550	ND (0)	ND (0.0	D (0.	ND (.0)	NA	NA	ND	ND	NA	NA	NA	2.3628777	-71.1509558	Sawins Brook	sma l trib f owing ~100' upstream; wat	0.3	1 .1	571	Boston-Lo	0.02	0 51	Wet	Y
10/5/10	Watertov	UR037	8:15	Open stre	na	na	none	med te	clear	aves &	890	122	NA	0.2	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2.3628777	-71.1509558	duplicate of SawB01		0.3	1 .1	571	Boston-Lo	0.02	0 51	Wet	Y
10/5/10	Watertov	ARLEast	8:35	Open stre	na	na	none	none	clear	none	79 6	823	NA	0.25	NA	0.3	NA	NA	19	190	13	260	730	ND (0 8)	ND (8.0	ND (8.0	6.8	NA	NA	0.0	ND	NA	NA	NA	2.36 51	-71.15 19	downstream side of Arlinton St br d	1 ft deep, started sprink ing	0.7	15 9	1 07	Boston-Lo	0.02	0 51	Wet	Y
10/5/10	Watertov	ARL01	8: 0	Concrete	'x ' bo	na	none	none	clear	none	9678	101	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2.36 313	-71.15 81	Ar ington St culvert - ar left ooking	~30ft upstream, 8 pipe flowing less th	0.7	16	1 1	Boston-Lo	0.02	0 51	Wet	Y
10/5/10	Watertov	ARL02	8: 2	Concrete	'x ' bo	na	none	none	clear	none	9678	738	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2.36 256	-71.15 81	Ar ington St culvert - center outfall	no in et pipes can be seen	0.7	15 9	1 17	Boston-Lo	0.02	0 51	Wet	Y
10/5/10	Watertov	ARL03	8: 5	Concrete	'x ' bo	na	none	none	clear	none	3080	173	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2.36 351	-71.15 519	Ar ington St culvert - ar right lookin	samp ed far rt of culvert - about 50ft u	0.7	15 9	135	Boston-Lo	0.02	0 51	Wet	Y
10/5/10	Watertov	Wat13	9:20	Concrete	16	1	none	none	clear	none	92080	21 2	NA	0.25	NA	5	NA	NA	150	610	150	1 00	9 0	ND (0.)	ND (.0	120	11	NA	NA	0.08	ND	NA	NA	NA	2.36 037	-71.183908	Wa ertown outfa l #13	weather - st ll sprinkling	0.1	17 8	260.3	Boston-Lo	0.03	0 52	Wet	Y

10/5/10	Watertov	Wat12	9:30	Concrete	36	na	none	none	clear	none	111990	1 136	NA	0.6	NA		NA	NA	190	1100	3	980	12000	ND (0)	ND (0.0	1200	200	NA	NA	ND	ND	NA	NA	NA	2.36 89	-71.18 223	Wa ertown outfa l #12	some small fish, cou dn't determine f o	0.5	16 8	1012	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	Wat11	9: 0	Concrete	'x3' bo	na	none	med te	turb d	none	19350	1723	NA	0.3	NA	0.1	NA	NA	D (10.	90	16	160	270	ND (2.0)	ND (20.0	5	18	NA	NA	0.1	ND	NA	NA	NA	2.36 77	-71.18 952	Wa ertown outfa l #11	outfa l opening under water sampled a	0.6	16 2	1168	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	LB01	10:35	Concrete	0'x7'bo	100	none	none	clear	none	6212	583	NA	0.2	NA	ND	NA	NA	6.3	6	1	2	510	ND (0 5)	ND (.7	92	3.6	NA	NA	0.11	ND	NA	NA	NA	2.36 733	-71.189067	Laundry Brook	samp ed just ins de opening	0.3	15 5	565	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	Wat5	11:07	Concrete	'	1	none	none	clear	none	6	20	NA	0.25	NA	ND	NA	NA	ND (2.0	ND (2.0)	0.52	.8	23	ND (0.)	ND (.0	ND (.0	6.6	NA	NA	ND	ND	NA	NA	NA	2.367 9	-71.198957	culvert on right, not a ot of f ow		0.7	18.1	13 8	Boston-Lo	0.0	0 53	Wet	Y
10/5/10	Watertov	Wat6	11:11	Concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	ND	NA	NA	5.	37	3.7	19	82	ND (0.)	ND (.2	36	3.2	NA	NA	0.08	ND	NA	NA	NA	2.367 89	-71.198853	About 1ft of outfall underwater, som	can hear running water upstream	0.7	17 7	1299	Boston-Lo	0.0	0 53	Wet	Y
10/13/10	Marb ehe	DLaunch	8:15	Concrete	ft	0	none	none	clear	none	1376	860	NA	2	NA	ND	NA	NA	ND (2.0	1	1.8	12		ND (0.)	ND (.0	8.5	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	Sampled eft culvert, ooking upstre	more f ow than last time DPW & DPH	20.7	11 9	33.13mS	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	UR038	8:15	Concrete	ft	0	none	none	clear	none	871	723	NA	2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	duplicate of D aunch		20.7	11 9	33.13mS	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH19	8:38	stormdrai	na	~20	mus	none	clear	none	TNTC	2 196	NA	0.5	NA		NA	NA	120	500	37	2100	300	ND (0)	ND (0.0	~1500	82	NA	NA	ND	ND	NA	NA	NA	2. 92557	-70.859 21	Opened drain manhole at #62 Bea	Br ck sides w/hard bottom, Wide slow	0.7	16 3	1 83	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH32	9:10	stormdrai	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	ND	NA	NA	2.	8.	6.6	210	120	ND (0 5)	ND (.8	~97	ND (0.5)	NA	NA	ND	ND	NA	NA	NA	2. 93 67	-70.860 30	Opened drain manhole at #78 E. C	used reach	0.	16 3	7 3	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH 8	9:30	stormdrai	na	~15	htly m	none	clear	none	8	ND	NA	~0.1	NA	ND	NA	NA	ND (2.0	ND (2.0)	0.8	2.8	ND (.0	ND (0.)	ND (.0	~ .3	0.52	NA	NA	ND	ND	NA	NA	NA	2. 92693	-70.860829	Opened drain manhole at corner of	gas odor	0.2	16	91.7	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH29A	9:55	p ast c sto	18-2	~10	none	none	clear	none	689	1	NA	~0.1	NA	ND	NA	NA	2.2	21	1	9.	50	ND (0 5)	ND (.8	~15	0.66	NA	NA	0.03	ND	NA	NA	NA	2. 9 598	-70.859 3	Opened drain manhole at #37 Bub	Sampled drain pipe entering system	0.2	16 9	0	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH2336	10:30	stormdrai	na	na	none	none	clear	nall wh	565	2 89	NA	0.25	NA	0.75	NA	NA	13	310	19	1100	~ 8000	ND (0.)	ND (.0	~29	68	NA	NA	0.03	ND	NA	NA	NA	2. 96982	-70.856396	Opened drain manhole on Chestnu	double 36 pipes coming into 3 deep	0.3	16 9	685	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH2203	10:55	stormdrai	na	~15	musty	none	clear	none	565	5 75	NA	0.3	NA	0.	NA	NA	6	630	13	70	790	ND (0 8)	ND (8.0	~81	ND (0.8)	NA	NA	ND	ND	NA	NA	NA	2.502967	-70.856873	Opened drain manhole on Sewall S	brick lined, used reach	0.	16.	7	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MHWinslo	11:11	stormdrai	na	na	musty	htly ye	clear	none	2 52	118	NA	0.	NA	0.3	NA	NA	ND (2.0	110	16	90	130	ND (0.)	ND (.0	ND (.0	1.7	NA	NA	ND	ND	NA	NA	NA	2.506562	-70.856223	Opened drain manhole at corner of	Sampled main flow, 3'deep	0.	15 2	809	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MHWinslo	11:28	stormdrai	18	~5-10	h sme	none	clear	none	3	98	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.506562	-70.856223	Pipe flowing into stormdrain system	Star ed flowing after MHWins ow sam	0.3	17 5	5 1	Boston-Lo	0	0 05	Dry	Y
10/27/10	Quincy	Wo lB1	8:05	CM	x bo	50	musty	none	clear	none	1 7	197	NA	1.25	NA	ND	NA	NA	D (10.	120	8.1	6	~130	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	0.0	ND	NA	NA	NA	2.278672	-71.012859	Pungent 'corpse-y' odor, thick seaw	outfa l between yacht clubs on Quincy	17.3	13 8	28.18mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Quincy	Wo lB1A	8:10	CM	'x3' bo	30- 0	sty/su	none	htly c o	oily film	192	121	NA	2	NA	ND	NA	NA	D (10.	~6.7	2.	12	~22	ND (2.0)	ND (20.0	20	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.277357	-71.008933	trash in water and p astered on gra	just south of Wo lB1 on Wollaston Be	13.2	1 3	2 89mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Quincy	Wo lB1B	8:18	concrete	3- '	30- 0	sty/su	none	htly c o	me su	58	20	NA	2.5	NA	0.25	NA	NA	D (10.	ND (10.0)	2.6	10	D (20.	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.277357	-71.008933	barnac e encrusted outfall, must be	outfa l south of two yacht clubs, about	2 .	1 7	38. 5mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Dorchest	Ten1	8:55	Pipe Mat.	2 -30	na	none	an/brow	ry turb	none	132	20	NA	1.5	NA	3	NA	NA	D (10.	7	16	13	~130	1	ND (20.0	20	ND (2.0)	NA	NA	0.0	ND	NA	NA	NA	2.289355 7	-71.0 17732	Took Beach sample here as well (s	Tenean Beach, off Tenean Street and	16.9	1 .1	22 2 mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Boston	10L09	9:20	concrete	(2) 6'x	na	sewag	grey	cloudy	none	813	1 136	NA	0.6	NA	3	NA	NA	D (10.	1800	190	00	~2700	.3	ND (20.0	180	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.282780	-71.0 6962	large t de gate ~2? Holding back w	samp ed center of southern tide gate	1.8	1 8	33 68mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x	na	sewag	grey	cloudy	none	1060	9208	NA	0.8	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.282780	-71.0 6962	duplicate of 10L09		1.8	1 8	33 68mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Boston	10L09 A	9:25	metal	2	5	musty	grey	cloudy	none	3 80	1 136	NA	1.5	NA	3	NA	NA	D (10.	270	970	170	~ 100	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	0.03	ND	NA	NA	NA	2.2825 0	-71.0 6292	1/2 si ted up	samp ed about 10 feet from outfall	1.3	16 3	251	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1A	10:15	open stre	na	na	ht mu	/med b	ry turb	me su	5630	2909	NA	0.75	NA	6	NA	NA	D (10.	330	260	130	~ 100	8	3	910	ND (2.0)	NA	NA	0.03	ND	NA	NA	NA	2.275935	-71.031798	main chane l under her tage Drive	prev ously named SagA	3.	15 8	6.23mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.2759 1	-71.031767	green a ge at bottom of outfall	former drainline that had been plugge	0	13 9	91.6	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	lty/turb	none	80	2851	NA	0.5	NA	1	NA	NA	D (10.	320	99	110	~2000	ND (2.0)	ND (20.0	10	3.8	NA	NA	ND	ND	NA	NA	NA	2.273601	-71.03 010	large wooden tide gate ~5ft into ou	Previously named SagB	0.8	15.	1590	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1C	10:58	metal	30	na	tural g	ht bro	clear	none	2 52	2723	NA	0.6	NA	0.5	NA	NA	D (10.	81	280	100	~3200	38	ND (20.0	6	ND (2.0)	NA	NA	0.06	ND	NA	NA	NA	2.273990	-71.03063	very dark sediments 1/2 s lted, t de	Previously named SagC	1.5	16 9	33 20mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Bay1	11: 0	Seep/poo	NA	NA	sewag	brown	cloudy	none	173290	365 00	NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	D (1000	20000	ND (100.0	NA	NA	NA	ND	NA	NA	NA	2.2999 3	-71.006177	seep from sewage line to main interceptor on Bayside drive		8.	17 9	83	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	BayBch	11: 5	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	ND	NA	NA	ND (2.0	ND (2.0)	1.9	~1.6	~16	ND (0.)	ND (.0	~2.9	0.5	NA	NA	ND	ND	NA	NA	NA	2.299779	-71.005800	Sample collected at beach off Bays	waded ~ 6 ft	37.1	13 7	3 7 mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Wo lBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	ND	NA	NA	ND (2.0	ND (2.0)	2.2	.7	~11	ND (0.)	ND (.0	.	0. 6	NA	NA	ND	ND	NA	NA	NA	2.277051	-71.009 67	Wo laston Beach Sample	waded ~ 6ft between WollB1A & Wo l	31.3	13 2	1 01mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Wo lBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	ND	NA	NA	ND (2.0	2.2	2.	7.5	~52	ND (0.)	16	ND (.0	ND (0.)	NA	NA	0.0	ND	NA	NA	NA	2.278670	-71.013 52	Wo laston Beach Sample	waded ~ 6ft near WollB1	31.3	13 6	7 97mS	Boston-Lo	0.13	0.1	Wet	Y

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col 100ml

Entero - co or key: Red ≥ 1000 col/100ml, Orange ≥ 350 Ye low ≥ 61 col/100ml, Black < 61 col/100ml

NH3 - co or key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Ye low ≥ 0.5 mg/L, B ack < 0.5 mg/L

Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Ye low ≥ 0.25 mg/L, B ack < 0.25 mg/L *** may give alse positive at sa inity greater than 1 ppt

Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yel ow ≥ 0.02 mg L, B ack < 0.02 mg/L

Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yel ow ≥ 0.5 mg/L, B ack < 0.5 mg/L

Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPOR ING LIMI S

E. coli = MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Alpha = 0.05 mg/L (Except where otherwise
Surfactants Field = 0.1 mg/L
Surfactant DR-850 = 0.02 mg/L
Ammonia (Alpha) = 0.075 mg/L
Ammonia F eld = 0.1 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia DR-850 = 0.08 mg/L
Ammonia Test Strip = 0.1 mg/L

Total Phosphorus = 5 ug/L
CL2 (Total Res dual) = 0.02 mg/L
CL2 (Residual Free) = 0.05 mg/L
CL2 Field = 0.02 mg/L
CL2 Test Strip =
Flouride Alpha= 0.20 mg/L
Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Potassium = 2.5 mg/L
Potassium Field = 0.2 mg L
N trogen, Nitrate/Nitr te = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
( ) data reported as estimate

RARE Stormwater Outfall Inspection & Sampl ng Summary

Location				Outfa l		Inspection							Surfact (mg/l)			NH3 (mg/l)					P	PPCP ng/L								
Date	own	Site Name	ime	Pipe Mat	D a (in)	Est Flow (gpm)	Odor	Color	urbidi ty	Floatabl es	E co i (MPN/100 m)	Entero (MPN/100 ml)	Alpha	Fie d	DR 850	Alpha	F eld	Nessle r	DR 850	est St	EPA (µg/L)	A enol ol	Aceta minop hen	Cotinin e	7- me xa e	Caffei ne	Azithrom ycin	Primid one	Urobi in	Carbamaz epine
5 19/09	Woburn	Comm1	7:57	pen strea	na	na	none	ea	none	ew	82	~20	0.07	0.2	NA	0.17	ND	NA	NA	~0	NA	ND (1 0	11	ND (0.2)	9.1	56	ND (0.2)	ND (2 0	31	~0.76
5 19/09	Woburn	Ha ls2	8:51	pen strea	na	na	none	light tea	none	None	606	~1 6	0.06	~0.1	NA	0.161	ND	NA	NA	ND	NA	ND (1 0	3	ND (0.2)	38	2600	ND (0.2)	ND (2 0	96	2.2
5 19/09	Woburn	DRR1	9:33	pen strea	na	that of ha	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50	1.5	NA	NA	1	NA	ND (1 0	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5
5 19/09	Woburn	Mys07	10:01	pen strea	na	na	none	ea	heavy	None	518	~63	0.06	~0.1	NA	.88	1.5	NA	NA	NA	NA	ND (1 0	.7	ND (0.2)	~ .8	18	~0.	10	150	1.8
5 19/09	Woburn	Mys08	10:20	pen strea	na	na	none	med tea	none	None	~	~10	~0.05	~0.1	NA	15.80	0.75	NA	NA	NA	NA	ND (1.1	7.6	ND (0.2)	~6.2	13	1.	ND (2 2	7	1.5
5 19/09	Woburn	Mys08d	10:20	pen strea	na	na	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50	0.5	NA	NA	NA	NA	ND (1 0	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2 0	86	1.5
5 26/09	Somervil e	MWRA205	7:57	CM	x bo	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93	0.5	NA	NA	0.25	315	~30	1500	~2.9	650	2800	1	ND (2 0	13000	26
5 26/09	Chelsea	Mill2	10:06	CM	30 inch	-10gal/m	rong od	clear	none	some sud		20	0.19	1.5	NA	.31	0.25	NA	NA	3	155	ND (2 0	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	D (20.	ND (0.2)
5 26/09	Chelsea	Mill2b	10: 5	CM	inch	-2gal/mi	rong od	/black cl	med	None	100	ND	0.21	1	NA	.92	1.5	NA	NA	3	~135	ND (2 0	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)
5 26/09	Chelsea	Mill2a	11:10	CM	inch	1 gal/min	none	clear	none	None	~	ND	0.39	1	NA	7.02	>2	NA	NA	6	170	~1.8	21	~ 6	~67	1600	ND (2.0)	ND (2 0	1100	9.8
5 26/09	Stoneham	SPB0	12:50	pen strea	na	na	none	clear	none	None	21	31	ND	ND	NA	ND	ND	NA	NA	ND	11	ND (2 0	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2 0	ND (2 0	ND (0.2)
5 26/09	Stoneham	SPB0d	12:50	pen strea	na	na	none	clear	none	None	16	~10	~0.05	ND	NA	ND	ND	NA	NA	ND	12	ND (2 0	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2 0	ND (2 0	ND (0.2)
6/2/09	Medford	MHB	7:25	CM	0	low	gas	gh ly clou	none	None	53	78	ND	~0.1	ND	0.2	0.2	NA	0.2	ND	23.0	~6.9	170.0	ND (0.)	21.0	33.0	~2.1	ND (0	230 0	6.0
6/2/09	Medford	MHBup	8:07	pen strea	na	na	none	clear	none	None	8	1 2	ND	ND	NA	0.086	~0.1	NA	NA	~0.10	21	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	15	ND (0.)	ND (0	ND (0	ND (0.)
6/2/09	Belmont	WinB	9:10	pen strea	na	na	none	clear	none	None	6212	2908	ND	0.2	NA	0.21	ND	NA	NA	ND	78	~ .2	1700	ND (0.)	120	200	~1.0	ND (0	2500	12
6/2/09	Belmont	WinBd	9:10	pen strea	na	na	none	clear	none	None	6212	2 52	ND	0.2	0.02	0.172	~0.1	NA	0.1	0.25	8	~ .9	1600	~0.3	130	2 0	~1.6	ND (0	3300	7.5
6/2/09	Arlington	91Mys	10:20	pen strea	na	na	musty	cloudy	none	None	>2 1960	1373	1.3	1.25	0.665	1.53	~0.75	NA	NA	3	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0	55000	200
6/2/09	Arlington	MillB	10:50	CM	10x15f	na	musty	ery cloud	none	None	550	5	0.06	0.2	0.031	0.206	ND	NA	0.23	ND	35	~5.9	73	~0.7	87	360	~1.1	ND (0	320	10
6/9/09	Quincy	Wo lB1	7:35	CM	x bo	50-100	ick mus	clear	none	some sud	20	17 1	ND	1.5	ND	0.187	NA	NA	ND	ND	87	~1.9	55	~0.63	7	71	ND (0.2)	ND (2 0	78	0.58
6/9/09	Quincy	Wo lB5	8:25	CM	16	-15gal/m	none	clear	none	None	ND	ND	ND	0.2	0.0 6	0.62	NA	NA	0.15	0.6	3	ND (1 0	5.8	~0.29	12	3	ND (0.2)	ND (2 0	2.5	1.5
6/9/09	Dorcheste	Ten1	9:35	Pipe Mat	2 -30	na	none	an	ve y, ver	None	96	21	0.08	2	0.0 8	1.28	NA	NA	0. 1	3	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2 0	11	1.5
6/9/09	Boston	Bos090	9:57	CM	x10 b	na	musty	tea/tan	some	None	5 750	1 9	0.1	2	0.091	0.823	NA	NA	0.19	~0.10	17	~27	2600	~2.3	530	1100	8.7	ND (2 0	600	3.2
6/9/09	Dorcheste	CantB	11:35	pen strea	na	na	sty sew	lue/grayi	some	None	198630	3 658	1.6	1.5	1.03	.66	>2	NA	1.08	5.5	586	~150	27000	~13	3500	5000	61	ND (2 0	17000	5.1
6/9/09	Dorcheste	CantBD	11:35	pen strea	na	na	sty sew	lue/grayi	some	None	173290	8392	1.5	1.5	1.05	.75	NA	NA	1.1	6	91	~1 0	2 000	~12	3300	500	8	ND 2.0	1 000	.9
6 16/09	Danvers	F sh00	7:55	pen strea	na	na	none	light tan	none	None	250	68	~0.05	0.2	0.028	ND	ND	NA	ND	ND	33	ND (1 0	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2 0	2	ND (0.2)
6 16/09	Danvers	F sh005	8:35	pen strea	na	na	none	clear	none	None	333	71	ND	~0.1	0.022	ND	ND	NA	ND	ND	29	ND (1 0	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2 0	ND (2 0	1.5
6 16/09	Marblehe	Stram01	10:05	pen strea	na	na	none	ery ight t	none	None	89	3	~0.05	ND	0.029	0.37	~0	NA	ND	~0.10	6	ND (1 0	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2 0	ND (2 0	ND (0.2)
6 16/09	Marblehe	Stram02	10: 0	pen strea	na	na	none	ery ight t	none	None	9	52	~0.05	ND	0.0	0.193	ND	NA	ND	~0.10	3	ND (1 0	57	ND (0.2)	17	30	ND (0.2)	ND (2 0	12	ND (0.2)
6 16/09	Lynn	Stacey	11:25	CM	'x8'	>100	musty	NS	none	None	>2 1960	22398	0.31	0.	0.216	1.0	~1.0	NA	0.2	3	1080	D (100.	6200	ND (20.0	1600	300	ND (20.0)	D (200.	7710	ND (20.0
6 16/09	Lynn	StaceyD	11:25	CM	'x8'	>100	musty	NS	none	None	>2 1960	2 066	0.29	0.	0.208	0.9 9	~1.0	NA	0.31	2	380	D (100.	5500	ND (20.0	1 00	200	ND (20.0)	D (200.	7200	ND (20.0
7 1 /09	Milton	UNB016	8:36	pen strea	na	na	none	clear	none	None	599	109	ND	~0.1	ND	0.30	ND	NA	~0.08	ND	26	ND (1 0	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2 0	250	0.52
7 1 /09	Milton	UNB002	9:02	CM br dg	3'x6' bo	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37	ND	NA	0.22	ND	83	ND (1 0	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2 0	270	2.6
7 1 /09	Quincy	Wo lB2	9:50	pen strea	na	y strong	none	ea	yes	None	265	~8	ND	2	0.029	0.09	ND	NA	ND	ND	72	ND (1 0	2.9	ND (0.2)	~ .9	~11	ND (0.2)	ND (2 0	9.2	0.56
7 1 /09	Quincy	Wo lB1A	11:08	CM	3'x3' bo	-15gal/m	ong mu	clear	none	e trash in	3080	18	ND	0.75	0.023	0.19	~0.1	NA	ND	ND	15	3.1	26	0. 3	~22	58	ND (0.2)	ND (2 0	290	
7 1 /09	Quincy	UR001	11:27	CM	x bo	50-100	ulfur od	clear	none	None	17 1	565	ND	NA	0.033	0.196	NA	NA	ND	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2 0	1900	0. 6
7 1 /09	Quincy	Wo lB1	11:27	CM	x bo	50-100	ulfur od	clear	none	None	2190	6932	~0.05	0.25	0.0	0.125	ND	NA	ND	ND	66	6.3	15	0.93	55	58	ND (0.2)	ND (2 0	2500	0. 8
7 21/09	Stoneham	1West	9:20	stone	2x3	50-100	htly mu	clear	none	None	~6 880	~2318	~0.28	0.6	0.1 8	0.117	~0.1	NA	ND	ND	8	ND (5 0	120	2	110	710	ND (1.0)	ND (10.0	680	ND (1.0)
7 21/09	Stoneham	2Linden	9:35	pen strea	na	na	none	light tea	none	None	~79 5	~1302	~0.32	0.75	0.1 2	0.206	~0.1	0.9	ND	ND	56	~27	350	~3.1	9	710	ND (1.0)	33	17	ND (1.0)
7 21/09	Stoneham	Elm1	10:10	open stre	na	0-50	htly mu	med tea	none	None	~51720	~565	~0.12	0.3	0.083	0.578	0.5	1	0.2	1.5	8	~62	1100	~3.7	500	980	39	5	2800	7.
7 21/09	Stoneham	Toms	10:30	metal w/	3'	50	htly mu	clear	none	None	~16070	~5818	~0. 3	0.75	0.176	0.20	ND	0.7	0.2	ND	7	ND (5 0	95	~2.	60	790	ND (1.0)	ND (10.0	D (10.	ND (1.0)
7 21/09	Stoneham	UR003	10:30	metal w/	3'	50	htly mu	clear	none	None	~2069	~92	~0. 3	0.75	0.189	0.198	ND	0.8	ND	ND	9	ND (5 0	96	~3.0	69	900	ND (1.0)	ND (10.0	D (10.	ND (1.0)
7 21/09	Stoneham	Toms	11:30	metal w/	3'	250-500	ong mu	gray	cloudy	, sticks, p	~3080	~690	~0.08	0.6	0.169	0.193	0.3	0.6	0.22	0.3	203	ND (5 0	77	~2.3	67	5 0	ND (1.0)	ND (10.0	D (10.	ND (1.0)
7 28/09	Chelsea	Mill2	8:05	CM	30 inch	15	arp sew	clear	none	None	310	12	0.23	0.8	0.126	3.8	1.5	>3.0	1.11	6	1	ND (10.0	ND (10 0	ND (2.0)	ND (10.0)	ND (20.0	ND (2.0)	ND (20.0	0	ND (2.0)
7 28/09	Chelsea	IsEnd03A	9:05	open stre		na	or; sl gh	ish/yel o	none	None	9678	388	0.1	0.8	0.05	0.831	0.3	2.3	0.19	3	80	~11	70	~2.5	150	30	1.9	8.7	1100	2.2
7 28/09	Chelsea	IsEnd02	9:25	CM, sem	7'		strong petroleu	tea/tan	cloudy	None	565	122	0.16	0.6	0.068	0.252	1	1.6	ND	0.2	52	~3.0	200	~0.89	37	110	0 69	ND (0	250	1.
7 28/09	Chelsea	IsEnd03	9:26	CM, sem	12'		strong petroleu	lue/grayi	cloudy	me soap s	167 0	368	0.09	1.5	0.055	1.76	0.5	2	0.51	1	72	~20	280	~1.6	120	360	2.	ND (0	680	2.9
7 28/09	Chelsea	UR005	9:26	CM, sem	12'		strong petroleu	lue/grayi	cloudy	me soap s	15850	35	0.09	1.5	0.05	1.6	0.5	2.5	0. 9	0.3	73	~2	310	~2.0	120	320	2.3	ND (0	670	2.6
7 28/09	Somervil e	MWRA205	11:08	CM	x box		sl ght sewage	gray/gree	suspend	None	9678	1211	0.2	1.2	0.15	2.65	0.5	>3.0	0.96	1	300	~9	100	~18	970	5000	31	ND (0	20000	3 0
8/ /09	Winchest	Russ1	8:00	s one	3'x ' bo	na	musty	gray sh	h ly clou	None	1 7	196	~0.05	0.2	0.025	0.108	ND	0.2	ND	ND	18	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	15	~2.9
8/ /09	Winchest	UR007	8:00	s one	3'x ' bo	na	musty	gray sh	h ly clou	None	176	118	ND	0.2	0.028	ND	ND	0.2	ND	ND	19	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	12	~2.2
8/ /09	Woburn	US3	8:50	s one	6inche	na	none	light tea	h ly clou	None	587	1 0	~0.05	ND	0.029	0.1	~0.1	0.6	ND	0.75	5	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	1	ND (0.)	ND (0	ND (0	ND (0.)
8/ /09	Woburn	US	8:55	CM	inch	na	none	light tan	h ly clou	None	806	222	~0.05	ND	0.026	0.167	0.2	0.7	~0.08	0.6	6	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	11	ND (0.)	ND (0	ND (0	ND (0.)
8/ /09	Woburn	US5	9:05	open stream		na	none	light tea	clear	None	5 2	18	ND	ND	0.032	0.133	ND	0.6	ND	0.5		ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	1	ND (0.)	ND (0	ND (0	ND (0.)
8/ /09	Woburn	Olym1	9:55	open stream		na	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076	~0.1	0.65	ND	ND	50	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	7.8	ND (0.)	ND (0	ND (0	~0.71
8 11/09	Quincy	Canal1	7:55	concrete	5'x8' bo	na	ght mus	clear	none	None	18	17	~0.05	0.15	0.038	0.22	ND	0.2	ND	ND	17	ND (2 0	15	~0. 6	7.1	56	ND (0.)	ND (0	100	.7
8 11/09	Quincy	SAG1	8:25	concrete	x10 b	na	ght mus	brown	ery turbi	None	3922	1230	ND	2	0.025	0.	~0.25	1.6	ND	0.75	92	~3.3	81	ND (0.)	1	100	0 55	ND (0	700	2.9
8 11/09	Quincy	SAG2	8:50	ground seep		3-5	ong su	clear	none	None	ND	ND	NA	0.7	NA	NA	1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8 11/09	Quincy	Wo lB1B	9: 0	concrete	3- '	15	musty	clear	none	None	133	12	ND	2.2	ND	ND	clear	1.35	ND	ND	98	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	7	0.56
8 11/09	Quincy	Wo lB1A	9: 5	concrete	3- '	na	usty/sul	clear	none	None	37	161	ND	1.5	0.026	0.136	~0.1	0.9	ND	ND	73	ND (2 0	3.8	ND (0.)	ND (2.0)	20	ND (0.)	ND (0	23	3.2
8 11/09	Quincy	UR009	10:25	concrete	x bo	30- 0	ong su	ostly cle	none	None	89	363	ND	0.6	0.028	0.076	0.2	0.6	ND	~0.10	68	ND (2 0	0	~0.78	6.6	28	1.6	ND (0	260	0.5
8 11/09	Quincy	Wo lB1	10:25	concrete	x bo	30- 0	ong su	ostly cle	none	None	626	518	ND	0.7	0.02	ND	0.2	0.7	ND	~0.10	69	ND (2 0	1	~0.82	7	31	1.6	ND (0	250	0.6
8 18/09	Plymouth	Eel1	9:20	pen stream		na	none	light tan	clear	None	30	82	ND	ND	ND	ND	~0.1	0.5	0.09	0.2	110	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~1.2	ND (0	13	1.6
8 18/09	Plymouth	Ee 2	9:30	pen stream		na	none	light tan	clear	None	70	82	ND	ND	ND	ND	ND	0.	ND	ND	6	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~0 88	ND (0	1	1.
8 18/09	Plymouth	UR011	9:30	pen stream		na	none	light tan	clear	None	1 0	82	ND	ND	ND	ND	ND	0.5	ND	ND	68	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~1.2	ND (0	15	1.5
8 18/09	Plymouth	Ee 3	9: 0	pen stream		na	none	light tan	clear	None	17 1	52	ND	ND	ND	0.092	ND	0.8	~0.08	0.25	77	ND (2 0	ND (2.0)	ND (0.)	.	ND (0	ND (0.)	ND (0	ND (0	1.2
8 18/09	Plymouth	SandRd1	10:00	clay	16		none	light tan	clear	None	265	172	ND	~0.1	0.021	ND	~0.1	0.6	0.1	0.	101	ND (2 0	ND (2.0)	ND (0.)	53	5200	~0 52	ND (0	ND (0	17
8 18/09	Plymouth	SandRd2	11: 0	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088	ND	0.8	ND	0.5	89	ND (2 0	ND (2.0)	ND (0.)	6.5	260	ND (0.)	ND (0	ND (0	19
8 25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	sty sew	None	h ly clou	None	33000	3683	0.22	0.	0.133	0.	~0.1	1.1	0.13	0.75	1 8	~ 9	280	~ .7	100	230	7.7	ND (8 0	3800	5.7
8 25/09	Boston	Blueup	8:00	open stream		na	none	an	clear	None	226	6	~0.05	~0.1	0.028	ND	ND	0.3	ND	ND	2	ND (0	10	ND (0.8)	10	96	ND (0.8)	ND (8 0	39	.1
8 25/09	Boston	Mother	9:05	open stream		na	none	light tea	clear	None	129	56	0.06	ND	0.0 6	ND	ND	0.	ND	ND	6	ND (0	ND (.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8 0	12	1
8 25/09	Boston	NR20	10:00	concrete	3 feet	15	ewage	None	h ly clou	te/gray p	>2 1960	> 8392	8.7	>3	0.975	20.1	>2	>3	23.1	>6	20	~1800	65000	~51	11000	66000	280	D (0.	#####	1 0
8 25/09	Boston	NR162	11:00	concrete	36 inch	3	sewage	None	clear	None	198630	5226	0.89	3	0.6	13.2	>2	>3	15	>6	3630	D (200.	590000	ND (0.0	7300	00	ND (0.0)	D (00.	#####	ND (0.0
8 25/09	Boston	UR013	11:00	concrete	36 inch	3	sewage	None	clear	None	2 1960	5510	0.92	2.75	0.635	12.	>2	>3	1 .7	>6	3390	D (200.	600000	ND (0.0	7500	700	ND (0.0)	D (00.	#####	ND (0.0
8 25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	17 1	1 9	~0.05	0.25	0.023	0.598	0.25	1.	0.18	2	201	ND (20.0	69	~ .0	280	180	ND (.0)	ND (0.0	5900	ND (.0)
8 25/09	Boston	Esp01	12:02	open stream		na	none	ea	clear	None	2 1	58	0.07	~0.1	0.03	0.1	ND	0.3	ND	ND	6	ND (3 8	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7 7	12	.6
9/1/09	Woburn	Ha ls2	7:35	open stream		na	None	ight b ow	clear	None	2595	602	ND	~0.1	0.029	0.218	ND	0.8	ND	ND	5	ND (2 0	820		23	1 00	ND (0.)	ND (0	180	~2.2
9/1/09	Woburn	DRR1	7: 5	open stream		na	None	ight b ow	clear	None	185	12976	ND	0.25	0.035	8.99	>2	>3	9.3	6	31	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	2	~1.2
9/1/09	Woburn	Mys08	9:30	open stream		na	None	ight b ow	clear	None	363	150	ND	0.25	0.027	1 .3	2	>3	1 .7	>3	18	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	10	~1.1
9/1/09	Woburn	UR015	9:30	open stream		na	None	ight b ow	clear	None	22	1 8	ND	NA	0.021	1	NA	NA	13.8	NA	23	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	15	~0.55
9/1/09	Woburn	Mys78	10:15	open stream		na	ht oil sr	None	clear	None	5199	103	ND	0.25	0.031	10.1	2	>3	9.8	>3	5	ND (2 2	ND (2.2)	ND (0.)	ND (2.2)	ND (.	ND (0.)	ND (.	1	~1.3
9/1/09	Woburn	Mys09	10: 5	open stream		na	None	None	clear	None	205	82	ND	~0.1	ND	16	2	>3	16.7	>3	25	ND (2 2	ND (2.2)	ND (0.)	ND (2.2)	ND (.	ND (0.)	ND (.	7.5	~1.1
9/8/09	Watertow	SawB01	8: 5	open stream		50-100	petroleu	Orange	cloudy	some sud	16 2	10	~0.05	0.2	0.032	0.308	ND	0.8	0.11	0.35	2	~ .	250	~0.79	62	170	1.	ND (0	80	5.5
9/8/09	Watertow	SawB01b	9:05	cast iron	12	5	sewage	None	clear	None	~	ND	NA	0.25	NA	NA	~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/8/09	Newton	Hyde01	9: 5	concrete	x8 bo	100	None	None	clear	None	565	1 2	ND	0.2	ND	ND	~0.1	0.	0.31	ND	27	ND (2 0	38	ND (0.)	.	16	ND (0.)	ND (0	0	6
9/8/09	Newton	Laund01	10:25	concrete	6x8 bo	na	None	light tea	clear	some sud	1 62	92	ND	~0.1	ND	ND	ND	0.	ND	ND	9	ND (2 0	69	ND (0.)	26	850	2.7	ND (0	2 0	3.5
9/8/09	Newton	UR016	10:25	concrete	6x8 bo	na	None	light tea	clear	some sud	195	5	~0.05	~0.1	ND	ND	ND	0.	ND	ND	7	ND (2 0	57	ND (0.)	2	820	2.2	ND (0	270	3.8
9/8/09	Newton	Chee01	11:11	open stream		50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND	ND	0.	0.1	ND	20	ND (2 0	3.1	ND (0.)	7	30	ND (0.)	ND (0	61	5
9/8/09	Wa tham	Beav01	11:35	concrete	3x10 b	na	None	None	h ly clou	some sud	713	292	~0.05	0.2	0.023	0.162	ND	0.	ND	ND	39	ND (2 0	93	ND (0.)	1	17	ND (0.)	ND (0	66	2.5
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	ght mus	None	clear	None		0	~0.05	ND	0.03	0.266	~0.1	1.1	ND	0.50	211	ND (2 2	ND (2.2)	ND (0.)	3.8	27	ND (0.)	ND (3	76	ND (0.)
9/8/09	Lexington	Vine01	13:00	concrete	3x3 bo	na	Musty	rust/brow	cloudy	None	29090	2752	0.08	NA	0.19	1.12	2	2.2	ND	2.00	121	~ .7	600	ND (0.5)	100	750	2.9	ND (6	1300	.6
9 15/09	Lowell	Beaver1a	7:37	concrete	'	15	None	None	clear	None	8	75	ND	0.25	ND	ND	ND	0.2	ND	ND	~2 3	NA	NA	NA	NA	NA	NA	NA	NA	NA
9 15/09	Lowell	Beaver1	7: 0	open stream		na	None	light tea	clear	None	117	63	NA	~0.1	NA	NA	ND	0.	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9 15/09	Lowell	Su folk1	8: 0	open stream		na	None	light tea	clear	None	208	1	ND	ND	0.02	ND	ND	0.8	ND	~0.10	56	NA	NA	NA	NA	NA	NA	NA	NA	NA
9 15/09	Lowell	Central1	9:15	open stream		na	None	None	clear	some sud	58	~10	ND	~0.1	0.02	0.088	ND	0.9	ND	0.50	50	NA	NA	NA	NA	NA	NA	NA	NA	NA
9 15/09	Lowell	RMB1	10:10	open stream		na	None	light tea	clear	some sud	18	281	~0.05	0.25	0.022	ND	ND	0.8	ND	ND	38	na	na	na	na	na	na	na	na	na
9 15/09	Lowell	UR017	10:10	open stream		na	None	light tea	clear	some sud	2069	65	~0.05	0.25	0.0 6	ND	ND	0.8	ND	ND	36	na	na	na	na	na	na	na	na	na
9 15/09	Lowell	NewH1	10:50	open stream		na	None	light tea	clear	some sud	16	275	NA	0.2	NA	NA	ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9 15/09	Lowell	BlackB1	11:25	open stream		na	None	None	murky	None	15	798	0.07	0.25	0.028	0. 3	ND	1.6	0.22	2.00	35	na	na	na	na	na	na	na	na	na
9 15/09	Lowell	BlackB2	12:00	open stream		na	None	None	clear	None	182	97	NA	0.2	NA	NA	0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9 22/09	Reading	RRR1	8:10	CM	x bo	na	None	None	clear	None	21	20	ND	0.25	0.022	ND	ND	0.3	ND	ND	19	NA	NA	NA	NA	NA	NA	NA	NA	NA
9 22/09	Andover	RogerD	9:00	concrete	5'	na	usty od	k tea stai	clear	some sud	2	657	~0.05	~0.1	0.67	0.098	ND	0.7	ND	ND	78	ND (2 0	19	ND (0.)	~8	25	ND (0.)	ND (0	2	1.1
9 22/09	Andover	Rogerup	9:32	pen stream		na	no odor	med tea	clear	some sud		6 88	~0.05	0.2	1.31	ND	~0.1	0.6	ND	ND	65	na	na	na	na	na	na	na	na	na
9 22/09	Andover	Huss01	10:20	concrete	10' x 5	na	None	light tea	clear	some sud	2319	987	ND	0.2	0.036	0.079	ND	0.	ND	ND	20	ND (2 0	2 0	ND (0.)	~20	0	ND (0.)	ND (0	16000	.9

		Cl2 (mg l)				Flouride		Potass um (mg/L)		Coordinates				YSI Meter				Weather		
Date	Site Name	Alpha Free	Alpha otal	F eld	est St	Alpha	DR 850	Alpha	Field	GPS North( )	GPS West ( )	Comments	Additional Location Information	Sal ni ty ppt	emp C	Cond uctivit uS	Rain Gauge Location	24hr s inche	48hr s inches	Wet Dry?
5 19/09	Comm1	ND	ND	0.08	ND	ND	NA	.0	.30	2.5157	-71.136289	Sample aken shady	Commerce Way loca	na	na	na	Bedford	0	0.06	Dry
5 19/09	Ha ls2	ND	ND	0.05	ND	ND	NA	5.	6.30	2.513171	-71.1 26 9	1 foot deep at sampl	Hal s Brook behind 1	na	na	na	Bedford	0	0.06	Dry
5 19/09	DRR1	ND	ND	0.1	ND	0.53	NA	6.2	32.10	2.513291	-71.1 2539	Unnamed stream just	upstream of Hal s Br	na	na	na	Bedford	0	0.06	Dry
5 19/09	Mys07	ND	ND	0.03	ND	ND	NA	7.3	20.90	2.518563	-71.1 6526	Landfi l Brook, very s	Just south of Landf ll	na	na	na	Bedford	0	0.06	Dry
5 19/09	Mys08	ND	ND	ND	ND	1.1	NA	.8	3 .60	2.518739	-71.1 6 11	some (very l ttle) sud	Southeast of Land ill	na	na	na	Bedford	0	0.06	Dry
5 19/09	Mys08d	ND	ND	0.0	ND	1.1	NA	.8	50.00	2.518739	-71.1 6 11	duplicate		na	na	na	Bedford	0	0.06	Dry
5 26/09	MWRA205	ND	ND	0.0	ND	0.67	NA	280	50	2. 1380356	-71.132 2519	some surface inf ow	Near Ame ia Earhart	12	12 5	**20mS	Boston-Log	0	0. 2	Wet
5 26/09	Mill2	ND	ND	0.10	0.1/0.1	0.50	NA	150	50	2. 033 0	-71.020587	gray bacteria plaque	(Gil ooly) Cabot St be	7.5	11 5	na	Boston-Log	0	0. 2	Wet
5 26/09	Mill2b	ND	ND	ND	ND	0.52	NA	160	6.60	2. 0397	-71.021087	odor, gray/black clou	privately owned	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	Mill2a	ND	ND	0.05	ND	0.22	NA	2	50	2. 0367	-71.020987	signi icant gray bacte	privately owned, drai	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	SPB0	ND	ND	ND	ND	0.23	NA	ND	NA	2. 557 1	-71.08 0671	clean location	Spot Pond Brook	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	SPB0d	ND	ND	ND	ND	0.28	NA	ND	NA	2. 557 1	-71.08 0671	duplicate	Spot Pond Brook	na	na	na	Boston-Log	0	0. 2	Wet
6/2/09	MHB	ND	ND	~0.02	ND	ND	0.3	ND	0.85	2. 1921	-71.117619	clouder than normal	Meeting house brook	0.3/1	1.7/11.	50/180	Boston-Log	0	0.03	Dry
6/2/09	MHBup	ND	ND	ND	ND	ND	NA	ND	1.25	2. 25963	-71.11 988		Meeting house brook	0.1	1 .1	291	Boston-Log	0	0.03	Dry
6/2/09	WinB	ND	ND	~0.01	ND	ND	NA	.9	.75	2.399303	-71.160888	waded in stream o c	Winns Brook of Br gh	0.6	1 .	1085	Boston-Log	0	0.03	Dry
6/2/09	WinBd	ND	ND	ND	ND	ND	0.1	.7	5.00	2.399303	-71.160888	duplicate		na	na	na	Boston-Log	0	0.03	Dry
6/2/09	91Mys	ND	ND	NA	ND	ND	NA	6.6	.55	2. 18716	-71.151379	just downstream of b	M ll Brook @ Myst c	0.8	1 .1	1625	Boston-Log	0	0.03	Dry
6/2/09	MillB	ND	ND	NA	ND	ND	0.07	6.1	6.30	2. 18597	-71.1522 7	Sample aken from f	M ll Brook @ opening	0.8	13 7	1623	Boston-Log	0	0.03	Dry
6/9/09	Wo lB1	ND	ND	ND	ND	0. 6	1.01	200	50	2.278672	-71.012859	Pungent 'corpse-y' o	outfa l between yach	.7	15 2	*10.6m	Boston-Log	0	0	Dry
6/9/09	Wo lB5	ND	ND	0.07	ND	ND	0.25	12	9.25	2.287572	-71.022259	lots of orange flocc c	across from CVS on	1	15	1913	Boston-Log	0	0	Dry
6/9/09	Ten1	ND	ND	0.0	ND	0.5	1.3	350	50	2.289355	-71.0 1773	Very, very muddy wa	Tenean Beach	2 .5	16 3	38 36m	Boston-Log	0	0	Dry
6/9/09	Bos090	NA	NA	ND	ND	0.81	1.53	330	50	2.298373	-71.0 6379	Started sprinkling ab	at dog park off Vic or	.5/2	6.3/16.	36/38	Boston-Log	0	0	Dry
6/9/09	CantB	ND	ND	0.0	ND	0.37	0.31	7.2	3.75	2.288373	-71.092879	bacter a p ague cove	Can erbury Brook, Bo	0.6	1 6	1156	Milton-Blue	0 07	0.07	Dry
6/9/09	CantBD	ND	ND	0.07	ND	0.36	0.32	7.1	2.30	2.288373	-71.092879	duplicate		na	na	na	Milton-Blue	0 07	0.07	Dry
6 16/09	F sh00	ND	ND	~0.02	ND	ND	0.13	2.8	0.30	2.5766 155	-70.92825715		Frost F sh Brook, 3	0.3	13 3	585	Beverly	0	0.16	Dry
6 16/09	F sh005	ND	ND	ND	ND	ND	0.1	3	1.85	2.58395698	-70.9290 291	Moss growing in pipe	Downstream of bridg	0.2	12 8	375	Beverly	0	0.16	Dry
6 16/09	Stram01	ND	ND	~0.01	ND	ND	0.09	3.5	1.00	2.51 6323	-70.86578117	Some moss growing	Sampled where broo	0.2	13 8	329	Beverly	0	0.16	Dry
6 16/09	Stram02	ND	ND	ND	ND	ND	0.1	.6	2.70	2.51182185	-70.85955935		Between Rts. 13 A a	0.	13.1	6 1	Beverly	0	0.16	Dry
6 16/09	Stacey	ND	ND	0.0	ND	0.3	0.3	5.3	1.70	2. 669 2	-70.922031 7	Sample combined fr	Sampled about 15' d	0.5	1 2	826	Beverly	0	0.16	Dry
6 16/09	StaceyD	ND	ND	ND	ND	0.29	0.32	5.1	1. 0	2. 669 2	-70.922031 7	Ammonia k ts - samples recorded as 1.0 bu		na	na	na	Beverly	0	0.16	Dry
7 1 /09	UNB016	ND	ND	0.06	ND	ND	0.23	.3	1. 0	2.262068	-71.0 6682	sampled downstream	Unquity Brook o f Ch	0.5	1 5	800	Milton-Blue	0	0	Dry
7 1 /09	UNB002	ND	ND	0.09	ND	ND	0.2	.1	1.85	2.253703	-71.068976	Heard dripping from	downstream of Rand	0.5	15.	797	Milton-Blue	0	0	Dry
7 1 /09	Wo lB2	ND	ND	ND	ND	0.75	1.66	660	.30	2.266 85	-70.99710	Flow was very strong	Wol as on Beach ups	28.5	20 5	* 0. m	Milton-Blue	0	0	Dry
7 1 /09	Wo lB1A	ND	ND	0.53	ND	0.39	0.77	200	1.20	2.277357	-71.008933	trash in water and pl	just south of WollB1	2.7	17.1	**12mS	Milton-Blue	0	0	Dry
7 1 /09	UR001	ND	ND	NA	ND	0.36	0.63	5	NA	2.278672	-71.012859	duplicate of Wo lB1	duplicate of WollB1	na	na	na	Milton-Blue	0	0	Dry
7 1 /09	Wo lB1	ND	ND	0.10	ND	0.38	0.61	55	29.30	2.278672	-71.012859	water lowing out of b	outfa l between yach	3	16.1	*5.55m	Milton-Blue	0	0	Dry
7 21/09	1West	na	na	~0.0	ND	ND	0.15	.8	0.25	2. 826072	-71.10 6187	Cl2 exceeded holdin	Unnamed tributary to	0.	1 5	798	Boston-Log	0.0 (	0.0 (	Wet
7 21/09	2Linden	na	na	~0.0	ND	ND	0.15	3.	0.90	2. 83930	-71.1039388	Cl2 exceeded holdin	Sweetwa er Brook @	0.	17	821	Boston-Log	0.0 (	0.0 (	Wet
7 21/09	Elm1	na	na	~0.0	ND	ND	0.12	.6	1.30	2. 8685	-71.0985788	Cl2 exceeded holdin	Elm St in Stoneham,	0.7	15 6	1 3	Boston-Log	0.08 (	0.08 (	Wet
7 21/09	Toms	na	na	~0.02	ND	ND	0.11	3.2	0. 0	2. 90277	-71.101799	Cl2 exceeded holdin	Off Toms Way in S o	0.5	19.1	977	Boston-Log	0.08 (	0.08 (	Wet
7 21/09	UR003	NA	NA	ND	ND	ND	0.16	3.1	1.05	2. 90277	-71.101799	Cl2 exceeded holdin	duplicate of Toms	na	na	na	Boston-Log	0.08 (	0.08 (	Wet
7 21/09	Toms	NA	NA	ND	ND	ND	ND (0.1)	ND	ND	2. 90277	-71.101799	Cl2 exceeded holdin	same location as Tor	0.1	21	2 5	Boston-Log	0.1/0.	0.1/0.	Wet
7 28/09	Mill2	ND	ND	~0.01	ND	0.	0.62	77	9.20	2. 033 0	-71.020587	grey bacterial plaque	Corner of Cabot and	0.7	16 7	3631	Boston-Log	0	0	Dry
7 28/09	IsEnd03A	ND	ND	ND	ND	0.6	0.96	1 0	50*	2.399997	-71.05398	thick bacteria/algae o	top corner of Boston	6.5	20.3	11.36	Boston-Log	0	0	Dry
7 28/09	IsEnd02	ND	ND	0.08	ND	0. 5	0.97	1 0	35.30	2.39 36	-71.0 9780	lots of trash; ground	Just a few feet West	8	20 2	12.28	Boston-Log	0	0	Dry
7 28/09	IsEnd03	ND	ND	ND	ND	0.62	1.17	200	50*	2.39 21	-71.0 9706	Surf., NH3 (EPA) and other 500mL bottle s		1 .2	21 5	23. 9	Boston-Log	0	0	Dry
7 28/09	UR005	ND	ND	0.05	ND	0.66	1.15	200	50*	2.39 21	-71.0 9706	Dupl cate of IsEnd03		na	na	na	Boston-Log	0	0	Dry
7 28/09	MWRA205	ND	ND	0.16	ND	0. 8	0.81	130	6.10	2. 1380356	-71.132 2519	can hear running water in pipe; YSI measu		9.1	17 7	15.1	Boston-Log	0	0	Dry
8/ /09	Russ1	ND	ND	~0.01	ND	ND	0.13	5.8	.25	2. 63 55	-71.1 9258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0 01	0.02	Dry
8/ /09	UR007	ND	ND	0.09	ND	ND	0.16	6	1.30	2. 63 55	-71.1 9258	Dupl cate of Russ1		na	na	na	Bedford	0 01	0.02	Dry
8/ /09	US3	ND	ND	0.08	ND	ND	0.09	3.7	0*	2. 95550	-71.133700	flow out of small ston	plue panel covering t	0.3	22.1	660	Bedford	0 01	0.02	Dry
8/ /09	US	ND	ND	0.08	ND	ND	0.09	3.	0.90	2. 95 00	-71.133700	sampled on other sid	about 10 eet from U	0.3	21.	6 3	Bedford	0 01	0.02	Dry
8/ /09	US5	ND	ND	0.06	ND	ND	0.11	3.7	0.70	2. 95 12	-71.13 111	about 6 inches deep	back corner of Uni ed	0	22 3	671	Bedford	0 01	0.02	Dry
8/ /09	Olym1	ND	ND	0.0	ND	ND	0.11	5.6	2.35	2. 98925	-71.137 0	duck instream~ 0 aw	Off Olymp a Ave r gh	0.7	18	1 16	Bedford	0 01	0.02	Dry
8 11/09	Canal1	ND	ND	0.1	ND	ND	0.22	5.1	1.50	2.250692	-70.997793	Accessed v a parking	Canal opening just o	0.5	19 7	1080	Boston-Log	0 01	0.01	Dry
8 11/09	SAG1	ND	ND	0.11	ND	0.58	1.15	270	50*	2.27616	-71.037225	occasional ine soap	Sagamore Creek out	13	18 5	*23.3m	Boston-Log	0 01	0.01	Dry
8 11/09	SAG2	NA	NA	0.21	ND	NA	NA	NA	50*	2.27617	-71.037325	groundwa er seep, w	about 50ft downstrea	na	na	na	Boston-Log	0 01	0.01	Dry
8 11/09	Wo lB1B	ND	ND	0.38	ND	0.75	1.65	530	50*	2.277357	-71.008933	barnac e encrusted o	outfa l south of two y	25	18 8	39.10m	Boston-Log	0 01	0.01	Dry
8 11/09	Wo lB1A	ND	ND	0.15	ND	0.	0.8	210	50*	2.277357	-71.008933	as tide comes in it ar	outfa l between Woll	12	19.	*30.7m	Boston-Log	0 01	0.01	Dry
8 11/09	UR009	ND	ND	~0.02	ND	0. 7	0.8	110	50*	2.278672	-71.012859	duplicate of Wo lB1		na	na	na	Boston-Log	0 01	0.01	Dry
8 11/09	Wo lB1	ND	ND	~0.02	ND	0. 7	0.76	100	50*	2.278672	-71.012859	water drops into sma	outfa l between yach	1.9	19	172	Boston-Log	0 01	0.01	Dry
8 18/09	Eel1	ND	ND	0.19	ND	ND	0.07	ND	0.15	1.9255980	-70.618 1863	lots of eel grass, use	downstream Eel Rive	0.1	22 8	1 2.9	Plymouth	0 01	0.01	Dry
8 18/09	Ee 2	ND	ND	0.18	ND	ND	ND	ND	0.20	1.92519001	-70.61918863	River: about 1.5' dee	downstream of br dg	0.1	22 6	1 5.3	Plymouth	0 01	0.01	Dry
8 18/09	UR011	ND	ND	NA	ND	ND	~0.05	ND	ND	1.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0 01	0.01	Dry
8 18/09	Ee 3	ND	ND	0.11	ND	ND	0.1	ND	0.35	1.92517001	-70.619 2993	some grass was gor	upstream of Sandwic	0.1	21 5	187.7	Plymouth	0 01	0.01	Dry
8 18/09	SandRd1	ND	ND	0.10	ND	ND	0.08	.2	0.60	1.9253820	-70.61810863	dead mouse f oating	direc ly behind 132 s	0.2	17 6	326.3	Plymouth	0 01	0.01	Dry
8 18/09	SandRd2	NA	NA	0.13	ND	NA	0.15	NA	ND	1.92 80601	-70.6177 371	very akward samp in	Clean-out pipe, behin	0.2	20.	315.3	Plymouth	0 01	0.01	Dry
8 25/09	Dent285	ND	ND	0.05	ND	ND	0.12	3.	1.05	2.266756	-71.09 79	green algae and grey	(actually NR10) Be	0.5	18 2	910	Boston-Log	0 77	0.77	Wet
8 25/09	Blueup	ND	ND	0.07	ND	ND	ND	ND	0.50	2.266710	-71.09 816	waded in o river for s	just upstream of Den	0.2	2 6	27.7	Boston-Log	0 77	0.77	Wet
8 25/09	Mother	ND	ND	0.03	ND	ND	ND	3.7	1.65	2.251173	-71.128 00	lots of trash in stream	parked off Reservatio	0.3	25 9	625	Boston-Log	0 77	0.77	Wet
8 25/09	NR20	ND	ND	ND	ND	0.56	0.05	8.7	21.90	2.2 7956	-71.125339	dif icult access, whit	parked off G enwood	0.2	20 5	76.6	Boston-Log	0 77	0.77	Wet
8 25/09	NR162	ND	ND	ND	ND	0.55	0.66	7.	1 .25	2.2 799	-71.126989	green algae in out al	behind tennis courts	0.5	18.	968	Boston-Log	0 77	0.77	Wet
8 25/09	UR013	ND	ND	ND	ND	0.62	0.7	7.2	1 .80	2.2 799	-71.126989	Dupl cate of NR162		na	na	na	Boston-Log	0 77	0.77	Wet
8 25/09	NR160	ND	ND	0.0	ND	ND	0.1	.8	1.15	2.2 2826	-71.12770	some gray bacter a,	behind Stop & Shop	1.2	22.	2 .11	Boston-Log	0 77	0.77	Wet
8 25/09	Esp01	ND	ND	0.05	ND	ND	0.08	ND	1.00	2.2 287	-71.127669	Mainstem Neponset	behind Stop & Shop	0.2	25	86	Boston-Log	0 77	0.77	Wet
9/1/09	Ha ls2	ND	ND	ND	ND	ND	0.12	.6	2.95	2.513171	-71.1 26 9	1 ft deep at sampling	Hal s Brook behind 1	0.	1 6	780	Bedford	0 01	0.01	Dry
9/1/09	DRR1	ND	ND	0.08	ND	0.62	0.7	7.3	26.60	2.513291	-71.1 2539	Unnamed stream just	upstream of Hal s Br	0.5	1 .	932	Bedford	0 01	0.01	Dry
9/1/09	Mys08	ND	ND	0.08	ND	1.2	1.26	.6	31.50	2.518739	-71.1 6 11	Halls Brook across fr	Southeast of Land ill	0.5	1	9.17	Bedford	0 01	0.01	Dry
9/1/09	UR015	ND	ND	NA	ND	1.2	1.2	.	NA	2.518739	-71.1 6 11	duplicate of Mys08		na	na	na	Bedford	0 01	0.01	Dry
9/1/09	Mys78	ND	ND	~0.0	ND	0.6	0.73	7.3	28.80	2.51858	-71.1 6281	after confluence of L	Just south of Landf ll	0.5	1 2	955	Bedford	0 01	0.01	Dry
9/1/09	Mys09	ND	ND	0.07	ND	1.2	1.28	.	27.80	2.520981	-71.1 7709	Upst eam of Mys08 w	Low flow, ight brow	0.5	16.1	935	Bedford	0 01	0.01	Dry
9/8/09	SawB01	ND	ND	0.08	ND	0.29	0.31	5.2	3.00	2.3628777	-71.1509558	Sawins Brook, samp	Near lot off Arsenal S	0.8	16 2	1521	Boston-Log	0	0	Dry
9/8/09	SawB01b	NA	NA	0.07	ND	NA	NA	NA	16.70	2.3636533	-71.1511559	pipe d scharging to S	about 30 eet upstrea	0.3	15 3	806	Boston-Log	0	0	Dry
9/8/09	Hyde01	ND	ND	~0.02	ND	ND	0.09	3.1	1.05	2.35998 7	-71.1809755	New81 waded o le	Outfall o Cha les off	0.6	1 6	1308	Boston-Log	0	0	Dry
9/8/09	Laund01	ND	ND	0.10	ND	ND	0.1	ND	0.75	2.36 6351	-71.1892039	Used wade s	Laundry Brook off Ca	0.	18	830	Boston-Log	0	0	Dry
9/8/09	UR016	ND	ND	0.10	ND	ND	0.1	ND	na	2.36 6351	-71.1892039	Dupl cate of Laund01		na	na	na	Boston-Log	0	0	Dry
9/8/09	Chee01	ND	ND	0.06	ND	ND	0.1	3.6	1.35	2.3600600	-71.2169 65	taken 6' downstream	Cheessecake Brook	0.7	16 7	1378	Boston-Log	0	0	Dry
9/8/09	Beav01	ND	ND	0.07	ND	ND	0.17	.	2.20	2.3730 20	-71.228352	shallow stream, co le	Beaver Brook near co	0.5	16 7	1035	Boston-Log	0	0	Dry
9/8/09	WF01	ND	ND	0.06	ND	ND	0.11	7.9	6.90	2. 277872	-71.2050922	Lo s of duck weed on	Off Mass Ave	0.	17.1	819	Boston-Log	0	0	Dry
9/8/09	Vine01	ND	ND	0.03	ND	ND	0.19	6.1	.55	2. 503760	-71.2202638		Near corner Grant St	0.	15 8	859	Boston-Log	0	0	Dry
9 15/09	Beaver1a	ND	ND	ND	ND	0.32	0. 1	7.8	7.80	2.65981	-71.318830	large duckbi l coverin	Beaver Brook outfa l	0.1	18 2	68.5	Lawrence	0	0	Dry
9 15/09	Beaver1	NA	NA	0.07	ND	NA	NA	NA	1. 5	2.659837	-71.318833	sample taken just up	Beaver Brook Mainst	0.2	16 9	358.8	Lawrence	0	0	Dry
9 15/09	Su folk1	ND	ND	~0.01	ND	ND	0.15	ND	0.60	2.650395	-71.31 502	west channel samp e	off Suffolk Street, c in	0.1	19.1	170	Lawrence	0	0	Dry
9 15/09	Central1	ND	ND	0.10	ND	ND	0.16	ND	0.10	2.6 3823	-71.307889	sampled open chann	downstream from Ce	0.1	19 2	168.7	Lawrence	0	0	Dry
9 15/09	RMB1	ND	ND	~0.02	ND	ND	0.11	.1	2.25	2.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17 5	71	Lawrence	0	0	Dry
9 15/09	UR017	ND	ND	0.08	ND	ND	0.15		ND	2.633655	-71.302505	Dupl cate of RMB1		na	na	na	Lawrence	0	0	Dry
9 15/09	NewH1	NA	NA	~0.02	ND	NA	NA	NA	1.10	2.631057	-71.305968	1ft at deepest, used	samp ed downstream	0.3	17 6	711	Lawrence	0	0	Dry
9 15/09	BlackB1	ND	ND	0.03	ND	ND	0.17	7.2	7.15	2.6383 6	-71.3 3658	Flow from 2 large me	Black Brook off Midd	0.6	17 8	11 5	Lawrence	0	0	Dry
9 15/09	BlackB2	NA	NA	0.25	ND	NA	NA	NA	8.20	2.63 59	-71.3 9 0	rocks covered w/ alg	Black Brook off Bald	0.5	19 5	1077	Lawrence	0	0	Dry
9 22/09	RRR1	ND	ND	~0.01	ND	ND	0.15	8.1	3. 0	2.5209 0	-71.10 975	about 6 inches deep	corner of Washington	0.9	16 7	1682	Lawrence	0 01	0.01	Dry
9 22/09	RogerD	ND	ND	0.03	ND	ND	0.2	6.9	.35	2.65 7823	-71.1 6600 7	hiked down hill samp	5 Dundee Park near	0.	15.1	806	Lawrence	0 01	0.01	Dry
9 22/09	Rogerup	ND	ND	0.08	ND	ND	0.19	.5	0.60	2.65573 87	-71.1333 922	some deeper pools	Off Chestnut Street,	0.3	15.1	530	Lawrence	0 01	0.01	Dry
9 22/09	Huss01	ND	ND	0.09	ND	ND	0.25	.8	0.35	2.67330118	-71.1 97 812	2-3 feet deep	Across from Shawsh	0.3	15 9	537	Lawrence	0 01	0.01	Dry

9 22/09	Andover	Huss02	10:50	pen stream		na	None	light tea	clear	None	39	ND	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	2.672 7656	-71.151 3865	lots of bacter al grow	Hussy Brook - sampl	0.3	15 5	539	Lawrence	0 01	0.01	Dry
9 22/09	Lawrence	SLE3	11:30	crete ou	3'	na	ght mus	None	Clear	None	205	5	ND	~0.1	ND	ND	ND	0.	ND	ND	9	ND (2.1	11	ND (0.)	ND (2.1)	17	ND (0.)	ND (2	82	6.3	ND	ND	0.11	ND	ND	0.1	5.5	2.35	2.695971	-71.1 55601	stream scoured, lots	South Lawrence Eler	0.6	15.1	1158	Lawrence	0 01	0.01	Dry
9 22/09	Lawrence	UR018	11:30	crete ou	3'	na	ght mus	None	Clear	None	279	2 9	ND	~0.1	ND	ND	ND	0.	ND	ND	22	ND (2 0	11	ND (0.)	~2.5	20	ND (0.)	ND (0	6	6.1	ND	ND	0.09	ND	ND	0.1	5.8	2.30	2.695971	-71.1 55601	duplicate of SLE3		na	na	na	Lawrence	0 01	0.01	Dry
9 22/09	Lawrence	SPR05	12:30	concrete	18	10	ght mus	None	Clear	Yes, pape	29870	19863	~0.05	0.25	0.05	7.02	>2	>3	2.26	6	21	~310	6900	~1.6	~5600	5500	6.3	ND (0	28000	2.	ND	ND	0.0	ND	0.22	0.32	28	3 .90	2.70991636	-71.15129912	v deo taken of what l	pipe off Lawrence Ho	0.	19.1	888	Lawrence	0 01	0.01	Dry
9 22/09	Lowell	RMB1	13:20	open stream		na	None	light tea	Clear	None	16 2	199	ND	~0.1	0.031	0.138	ND	0.6	ND	~0.10	28	ND (2.1	10	ND (0.)	~10	5	~0 28	ND (2	280	3.	ND	ND	0.06	ND	ND	0.1	8.5	0.80	2.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0 01	0.01	Dry
9 29/09	Milton	CunPk02	8:30	concrete	18	2	mild se	None	M ld	Leave, bu	195	6131	0.06	0.18	0.0 1	0.291	ND	0.2	ND	~0.1	8	ND (1 0	3.8	ND (0.2)	2.	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.0	ND	ND	0.18	6.9	~7.5	2.251003	-71.051930	sample collected wh	about 1yard from out	0.	1 9	712	Boston-Log	0 51	0.57	Wet
9 29/09	Milton	CunPk03	9:30	open stream		na	None	None	Clear	Foam	116	2098	0.06	~0.1	0.038	0.206	ND	~0.1	ND	~0.30	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND	0.21	8.9	~10.5	2.2 781922	-71.055 6 05	co lected close to outfall in pool		0.5	15.	933	Boston-Log	0 51	0.57	Wet
9 29/09	Norwood	PB02A	10: 5		18	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1	ND	~0.1	ND	ND	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	0.1	2.8	~0.85	2.20 81659	-71.19661788	sampled r ght culvert		0.6	16 7	11 6	Norwood	0 5	0.63	Wet
9 29/09	Norwood	PB02B	11:00	open stream		na	None	light brow	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139	ND	ND	ND	ND	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND	0.16	3.3	~1.6	2.205098 1	-71.96 8 1	sample collected before two s eams mix		0.2	15 5	515	Norwood	0 5	0.63	Wet
9 29/09	Norwood	PB02	12:00		18	3	Septic	C oudy	very turb	None	68670	6131	0.07	0.25	0.05	0.695	ND	1	0.15	0.50	109	~27	500	~0.95	80	710	6.	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND	0.07	3.8	ND	2.20 59	-71.19851	sample collected near culvert		0.3	17.	712	Norwood	0 5	0.63	Wet
9 29/09	Norwood	UR019	12:00		18	3	Septic	C oudy	very turb	None	88 0	5 75	0.09	0.25	0.061	0.556	ND	1.6	0.17	0.70	103	~30	550	~0.92	560	770	6.	100	~9 00	ND (0.2)	ND	ND	0.05	ND	ND	0.08	3.8	~1.7	2.20 59	-71.19851	duplicate of PB02		0.3	17.	712	Norwood	0 5	0.63	Wet

E. coli - co or key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml

Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Ye low ≥ 61 col 100ml, B ack < 61 col/100ml

NH3 - color key: Red ≥ 6 mg L, Orange ≥ 3 mg/L, Ye low ≥ 0.5 mg/L, Black < 0.5 mg/L

Surfactants - co or key: Red ≥ 1.0 mg/L, Orange ≥ 0 5 mg/L, Yellow ≥ 0 25 mg/L, Black < 0.25 mg/L *** may give false posi ive at sa in ty grea er than 1 ppt

C 2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0 02 mg/L, Black < 0.02 mg/L

Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Ye low ≥ 0.5 mg/L, Black < 0.5 mg/L

Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPOR ING LIMI S

E. coli = MPN 100mL	To al Phosphorus = 5 ug/L
Enterococcus = 10 MPN/100mL	CL2 (Total Residual) = 0.02 mg/L
Surfactants Alpha = 0 05 mg/L (Except where otherwise n	CL2 (Residual Free) = 0.05 mg/L
Surfactants Field = 0.1 mg/L	CL2 Field = 0.02 mg/L
Surfactant DR-850 = 0.02 mg/L	CL2 Test Strip =
Ammonia (Alpha) = 0.075 mg/L	Flouride Alpha= 0.20 mg/L
Ammonia Fie d = 0.1 mg/L	Flouride DR-850 = 0.05 mg/L (Except where otherwise no ed)
Ammonia Nessler = 0.2 mg/L	Potassium = 2.5 mg/L
Ammonia DR-850 = 0.08 mg/L	Potassium Fie d = 0.2 mg/L
Ammonia Test Strip = 0.1 mg/L	Nitrogen, Nitrate/Nitr te = 0.10 mg/l

ND – not detected above the associated detection l mit

NA – not applicable (analyte not tested for at that site at this time)

( ) data reported as estimate

Urban Rivers Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection					Sampling										Coordinates				YSI Meter			Weather			
														Field Kits					Test Strips												
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow gpm	Odor	Color	Turbidity	Floatables	Sampler	E.coli (cfu / 100ml)	Entero (cfu / 100ml)	Lab PPCP	Surfact. mg/L	NH3 mg/L	Cl2 mg/L	K mg/L	NH3 mg/L	Cl2 mg/L	GPS North(+)	GPS West (-)	Comments	ditional Location Informa	Salinity	Temp	Condu	Rain G	24hrs	48hrs	et/Dry
																								ppt	C	uS	Locatio	inches	inches	
6/10/09	Lawrence	Shaw1	12:30	pen strea	na		musty	tea	yes	None	TB	353	NA	NA	0.05	.5 ness	NA	1.65	ND	ND	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks off Sutto	0.3	16.6	700	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE1	12:58	pen strea	na		None	light tea	Clear	None	LB	251	NA	NA	0.10	.4 ness	NA	0.35	ND	ND	42.696201	-71.1459901	Combined sample from SLE2 and	Behind S. Lawrence elementa	0.3	16.7	577	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE2	13:02	pen strea	na		None	light tea	Clear	None	LB	328	NA	NA	0.05	.5 ness	NA	2.35	ND	ND	42.696209	-71.1457001	Shawsheen River	main stream sample before co	0.3	16.7	679	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE3	13:11	CM	36	strong musty		None	Clear	None	TB	616	NA		0.10	.6 ness	NA	5.05	ND	ND	42.695971	-71.1455601	strong flow, lots and lots of gray s	Concrete outfall metal grate co	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
8/19/09	Lawrence	SPR01	7:55	open stream			None	None	Clear	None	LB	96	NA	NA	ND	ND	NA	NA	ND	ND	42.70688	-71.1476552	downstream of waterfall and Spik	confluence of canal & Spikett	0.1	26.5	188	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR02	8:00	open stream			musty	None	Clear	None	LB	96	NA	NA	0.10	ND	NA	NA	0.10	ND	42.7070375	-71.1481583	some algae on streambed, water	just down stream of canal wat	0.1	25.6	192.9	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR03	8:10	pen stream			None	None	Clear	ome suds	TB	319	NA	NA	0.10	ND	NA	NA	ND	ND	42.7074775	-71.1484665	shallow 1' aglae on rocks, some s	Upstream (~50') of Spickett R	0.2	23.2	480	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR04	8:15	m concrete pipe			None	None	Clear	None	LB	ND	NA	NA	ND	NA	NA	NA	ND	ND	42.7072588	-71.1480978	on Merrimack river side	leaky pipe under Spickett Rive	0.1	22.6	230	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	ght sewa	None	Clear	None	LB	1741	NA	NA	0.25	0.6	na	NA	4.00	ND	42.7099164	-71.1512991	tace hemoglobin off urine test stri	pipe off Lawrence Hospital	1.2	22.6	2291	Lawrence	0	0	Dry
8/19/09	Lawrence	Shaw01	9:40	cement	) 15' x 15'		None	med tea	cloudy	suds and	LB	157	NA	NA	0.10	NA	NA	NA	0.10	ND	42.7051688	-71.1400548	waded in, about 400' long channe	mouth of Shawsheen river, sa	0.3	24.6	633	Lawrence	0	0	Dry
8/19/09	Lawrence	UR012	9:40	cement	) 15' x 15'		None	med tea	cloudy	suds and	LB	174	NA	NA	NA	NA	NA	NA	NA	NA	42.7051688	-71.1400548	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
8/19/09	Lawrence	SLE3	10:20	ment ou	3'	trong, musty sew		None	Clear	None	TB	34	NA	NA	0.20	NA	NA	NA	ND	ND	42.695971	-71.1455601	took additional photos	South Lawrence Elementary, l	0.5	15.5	1072	Lawrence	0	0	Dry

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH_3 - color key: Red ≥ 10 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

Surfactant reading given as estimates (actual steps 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3)
Ammonia test strip reading given as estimates (actual steps 0, 0.25, 0.5, 1, 3, 6)

REPORTING LIMITS
E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Field = 0.05 mg/L
Ammonia Field = 0.05 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia Test Strip = 0.1 mg/L
CL2 Test Strip =
Potassium Field = 0.2 mg/L

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Urban Rivers Stormwater Outfall Inspection & Sampling Summary

Location				Sampling										Coordinates		
Date	Town	Site Name	Time	E.coli (cfu / 100ml)	Coliform (cfu / 100ml)	NH3 mg/L Alpha	NH3 mg/L Hach	Surfact. mg/L	OB	TSS	BOD	Cl2 mg/L	TP mg/L	GPS North(+)	GPS West (-)	Comments
7/21/08	Chelsea	IsEnd01	11:20	2595	NA	ND	NA	0.08	87.5	NA	NA	NA	NA	42.394445	71.049817	End of beachum and
7/21/08	Chelsea	IsEnd02	11:25	3080	NA	ND	NA	0.19	213	NA	NA	NA	NA	42.394436	71.049780	End of beachum and
7/21/08	Chelsea	IsEnd04	11:30	>241960	NA	13.0	NA	0.14	20.0	NA	NA	NA	NA	42.394405	71.049676	End of beachum and
8/21/08	Chelsea	IsEnd04	10:35	2595	NA	2.68	NA	ND	178	NA	NA	NA	NA	42.394405	71.049676	End of beachum and
7/21/08	Chelsea	IsEnd04d	11:30	>241960	NA	13.5	NA	0.15	20.0	NA	NA	NA	NA	42.394405	71.049676	Duplicate
9/4/08	Chelsea	Mill	11:00	7945	NA	ND	NA	0.08	61.1	NA	NA	NA	NA	42.403301	71.017871	Mill Creek sample mid
7/21/08	Chelsea	Mill1	9:35	9330	NA	ND	NA	0.18	246	NA	NA	NA	NA	42.403156	71.018129	Broadway at New Cro
9/4/08	Chelsea	Mill1A	10:52	406	NA	0.78	NA	0.13	342	NA	NA	NA	NA	42.40334224	71.017761	Culvert across stream
7/21/08	Chelsea	Mill2	9:55	9678	NA	1.33	NA	0.18	308	NA	NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be
9/4/08	Chelsea	Mill2	11:20	38	NA	4.12	NA	0.24	324	NA	NA	ND	NA	42.403340	71.020587	(Gillooly) Cabot St be
9/4/08	Chelsea	Mill2d	11:20	54	NA	4.01	NA	0.22	309.0	NA	NA	ND	NA	42.403340	71.020587	Duplicate
7/21/08	Chelsea	Mill3	10:10	15530	NA	ND	NA	0.09	170	NA	NA	NA	NA	42.407977	71.027112	Downstream of Rev06
8/21/08	Chelsea	Mill3	9:55	1844	NA	0.27	NA	0.07	66.6	NA	NA	NA	NA	42.407977	71.027112	Downstream of Rev06
8/21/08	Chelsea	Mill3A	10:04	271	NA	ND	NA	0.06	29.2	NA	NA	NA	NA	42.407993	71.027011	Small culvert opening
7/21/08	Chelsea	Mill4	10:35	3266	NA	ND	NA	0.11	266	NA	NA	NA	NA	42.410125	71.028722	Head of Millcreek
7/21/08	Chelsea	Rev06	10:30	7945	NA	ND	NA	0.08	185	NA	NA	NA	NA	42.409914	71.028297	Downstream of Mill04
7/21/08	Boston	Bos014	8:10	3266	NA	ND	NA	0.08	103	NA	NA	NA	NA	42.382423	71.027076	Upstream of Condor U
7/21/08	Boston	Con	7:55	54750	NA	ND	NA	0.09	101	NA	NA	NA	NA	42.383054	71.030131	Condor Urban Wild, o
8/21/08	Everett	AF1	11:56	138	NA	0.41	NA	0.14	213	NA	NA	NA	NA	42.407709	71.069853	Down Air force road b
8/21/08	Everett	Floyd	11:15	48	NA	0.11	NA	0.05	35.7	NA	NA	NA	NA	42.412663	71.069288	Culvert near Madeline
8/21/08	Everett	IsEnd03A	10:45	11870	NA	0.82	NA	0.11	138	NA	NA	NA	NA	42.399997	71.053984	Where stream exits ur
9/4/08	Everett	IsEnd03A	9:57	86640	NA	1.03	NA	0.11	88.4	NA	NA	NA	NA	42.399997	71.053984	Where stream exits ur
9/22/08	Everett	IsEnd03A	11:40	6932	NA	0.542	1.70	0.14	96.6	NA	NA	0.06	NA	42.399997	71.053984	Where stream exits ur
8/21/08	Everett	IsEnd03B	10:50	3266	NA	1.17	NA	0.08	NA	NA	NA	0.10	NA	42.400115	71.050172	small pipe near IsEnd
9/4/08	Everett	IsEnd03B	9:58	9678	NA	0.56	NA	0.09	63.4	NA	NA	NA	NA	42.400115	71.050172	small pipe near IsEnd
9/22/08	Everett	IsEnd03B	11:42	1164	NA	0.48	NA	0.11	55.8	NA	NA	NA	NA	42.400115	71.050172	small pipe near IsEnd
8/4/08	Lawrence	SP01	7:16	458	NA	ND	NA	0.08	165	NA	NA	NA	NA	42 42'31.12"	71 9'1.07"	Channel
8/4/08	Lawrence	SP02	7:40	445	NA	ND	NA	0.08	165	NA	NA	NA	NA	42.711980	71.152671	Fulton Street
8/4/08	Lawrence	SP03	8:00	395	NA	ND	NA	0.07	161	NA	NA	NA	NA	42.714655	71.156191	Brook Street
8/4/08	Lawrence	SP04	8:23	12	NA	ND	NA	0.24	233	NA	NA	ND	NA	42 42'49.21"	71 10'21.11"	Exchange Street outfa
8/4/08	Lawrence	SP05	8:35	363	NA	ND	NA	0.07	160	NA	NA	NA	NA	42 42'49.31"	71 10'20.89"	Exchange Street
8/21/08	Malden	TLB2	8:47	312	NA	1.44	NA	0.10	154	NA	NA	NA	NA	42.424881	71.041827	Town Line Brook whe
9/4/08	Medford	Kohl01	8:40	68	NA	0.50	NA	0.09	382	NA	NA	NA	NA	42.40717819	71.090874	broken down culvert o
7/21/08	Medford	Mhb	12:30	7945	NA	ND	NA	0.06	98.2	NA	NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (M
7/21/08	Medford	Mhb2	12:40	9678	NA	NA	NA	NA	203	NA	NA	NA	NA	42.419214	71.117619	Culvert off Meeting He
9/4/08	Medford	Ship01	7:42	4	NA	0.49	NA	ND	11.1	NA	NA	0.63	NA	42.41539348	71.103014	Small pipe next to cul
8/21/08	Medford	Tufts	12:09	91	NA	0.19	NA	0.06	79.1	NA	NA	NA	NA	42.413180	71.076268	Little Creek near Tufts
9/4/08	Medford	WB01	7:08	6212	NA	0.40	NA	0.07	79.7	NA	NA	NA	NA	42 25'07.64	71 87'40.33	Whittmore Brook off A
8/25/08	Melrose	Ell1	11:15	1741	NA	ND	NA	0.53	63	NA	NA	NA	NA	42.461136	71.069376	Across from 50 Tremo
8/25/08	Melrose	Ell1d	11:15	1462	NA	ND	NA	0.21	62.5	NA	NA	NA	NA	42.461136	71.069376	Duplicate
8/25/08	Melrose	Ell2	11:20	716	NA	ND	NA	0.20	68.4	NA	NA	NA	NA	42.461136	71.069370	Across from 50 tremo
8/25/08	Melrose	Ell3	11:35	23820	NA	0.09	NA	0.07	162	NA	NA	NA	NA	42.461429	71.068840	culvert across from D
8/25/08	Melrose	Mal1	7:53	774	NA	0.12	NA	0.06	103	NA	NA	NA	NA	42.440652	71.070136	Malden River across f
8/25/08	Melrose	Mal2	9:08	749	NA	0.10	NA	0.06	97.5	NA	NA	NA	NA	42.444227	71.069626	Just downstream of N
8/25/08	Melrose	Mal3	10:15	1462	NA	0.11	NA	0.06	83.2	NA	NA	NA	NA	42.449076	71.069831	Outlet of Malden Rive
8/25/08	Melrose	OM1	8:20	80	NA	0.14	NA	0.13	76.2	NA	NA	NA	NA	42.441688	71.071068	Old Mill at head of str
8/25/08	Melrose	OM2	8:15	25	NA	1.18	NA	0.16	162	NA	NA	NA	NA	42.441720	71.070899	Old Mill Sample small
8/25/08	Melrose	OM3	8:25	12	NA	ND	NA	ND	54.8	NA	NA	ND	NA	42.441687	71.071070	12inch clay pipe next
6/23/08	Melrose	Otis	8:50	3266	NA	0.77	NA	0.09	95.2	NA	NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch
8/25/08	Melrose	Otis	11:52	96	NA	ND	NA	0.33	29.1	NA	NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch
8/25/08	Melrose	Roo1	12:12	9678	NA	0.13	NA	0.08	153	NA	NA	NA	NA	42.464603	71.070066	Roosevelt School off E
8/25/08	Melrose	SP1	10:45	186	NA	0.15	NA	ND	33.5	NA	NA	NA	NA	42.455333	71.080747	Corner of Philips Rd &
6/30/08	Methuen	Mer1	8:43	1162	1495	ND	NA	0.05	224	NA	NA	NA	NA	42.743207	71.208453	walked in from small r
8/4/08	Methuen	Mer1	10:45	293	NA	ND	NA	0.07	137	NA	NA	NA	NA	42.743250	71.208438	walked in from small r
8/13/08	Methuen	MSPCA1	9:00	80	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.729569	71.195557	mid-channel sample ju
8/13/08	Methuen	MSPCA3	9:30	81	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.731521	71.200097	downstream side of 1s
8/13/08	Methuen	MSPCA4	9:40	54	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734448	71.199880	Just upstream of 2nd 1
8/13/08	Methuen	MSPCA5	9:55	136	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734293	71.199230	pond Northwest of MS
8/13/08	Methuen	MSPCA6	10:30	58	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734889	71.200300	~ 50m upsreatm of MS
8/13/08	Methuen	MSPCA7	10:40	20	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.736056	71.201397	~100m upsreatm of MS
8/4/08	Methuen	SP06	9:05	342	NA	ND	NA	0.08	153	NA	NA	NA	NA	42.724919	71.183033	RT 28 castle park
8/4/08	Methuen	SP07	9:55	12	NA	ND	NA	0.05	49.2	NA	NA	~0.02	NA	42.727453	71.188366	Outfall downstream el
7/21/08	Revere	Hadd	9:00	612	NA	ND	NA	0.15	257	NA	NA	NA	NA	42.402480	71.010704	Revere Beach Parkwa
8/21/08	Revere	LinB	7:55	2190	NA	0.27	NA	0.07	79	NA	NA	NA	NA	42.434553	71.020547	Linden Brook as it day
8/21/08	Revere	Rt1trib	8:10	351	NA	0.14	NA	0.07	83.7	NA	NA	NA	NA	42.434497	71.020322	Tributary to Linden Br
8/21/08	Revere	TLB1	8:25	3266	NA	0.30	NA	0.08	153	NA	NA	NA	NA	42.433793	71.021460	Town Line Brook at ho
8/21/08	Revere	trifone	9:20	14010	NA	0.11	NA	0.06	96.8	NA	NA	NA	NA	42.425568	71.026803	Stream at the of Amel
6/30/08	Salem, NH	Mer2	9:06	288	694	ND	NA	0.05	195	NA	NA	NA	NA	42.755268	71.207933	Walked in behind auto
8/4/08	Salem, NH	Mer2	12:02	302	NA	ND	NA	0.07	127	NA	NA	NA	NA	42.755035	71.208086	Walked in behind auto
6/30/08	Salem, NH	Mer3	9:35	590	590	ND	NA	0.07	303	NA	NA	NA	NA	42.762503	71.222746	Parked at Lancelot Co
6/30/08	Salem, NH	Mer4	10:00	580	590	ND	NA	0.06	298	NA	NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's
6/30/08	Salem, NH	Mer4d	10:00	631	811	ND	NA	0.07	306	NA	NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's
6/30/08	Salem, NH	Mer5	10:27	883	739	ND	NA	0.06	340	NA	NA	NA	NA	42.767438	71.223016	Parked behind Kohl's
6/30/08	Salem, NH	Mer6	11:05	775	955	ND	NA	0.07	355	ND	NA	NA	NA	42.774065	71.224326	Parked at Salem Mar
6/30/08	Salem, NH	Mer6A	10:55	802	847	ND	NA	0.07	385	ND	NA	NA	NA	42.774045	71.224331	Parked at Salem Mar

6/30/08	Salem, NH	Mer7	11:30	775	955	ND	NA	0.05	267	ND	NA	NA	NA	42.778121	71.227147	Parked across from nc
6/30/08	Salem, NH	Mer8	11:51	568	649	ND	NA	0.05	257	ND	NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh
8/4/08	Salem, NH	SP08	11:43	464	NA	0.108	NA	0.07	127	NA	NA	NA	NA	42.751038	71.212086	Spencer Street
8/4/08	Salem, NH	SP08d	11:43	847	NA	ND	NA	0.07	128	NA	NA	NA	NA	42.751038	71.212086	duplicate
6/23/08	Stoneham	100A	11:00	14400	NA	ND	NA	0.19	246	NA	NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook wes
9/15/08	Stoneham	100A	9:42	1642	NA	ND	NA	0.07	135	NA	NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook wes
6/23/08	Stoneham	1Linden	11:16	6932	NA	ND	NA	0.20	243	NA	NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @
9/15/08	Stoneham	1Linden	9:54	1549	NA	ND	NA	0.06	122	NA	NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @
9/15/08	Stoneham	1Lindend	9:54	1844	NA	ND	NA	0.05	122	NA	NA	NA	NA	42.4824877	71.1060371	Duplicate
6/23/08	Stoneham	1West	11:42	14100	NA	0.410	NA	0.29	305	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
7/15/08	Stoneham	1West	7:57	3266	NA	ND	0.00	0.05	36.2	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
8/12/08	Stoneham	1West	7:29	4813	NA	0.18	NA	NA	147	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
9/22/08	Stoneham	1West	10:45	54750	NA	ND	0.30	0.05	24	NA	NA	0.09	NA	42.4826072	71.1046187	Unnamed tributary to
6/23/08	Stoneham	2dLinden	12:02	13700	NA	ND	NA	0.30	336	NA	NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @
9/22/08	Stoneham	2dLinden	9:56	3266	NA	0.098	0.40	0.06	56.7	NA	NA	0.10	NA	42.483930	71.1039388	Duplicate
7/15/08	Stoneham	2Lincul	8:20	430	NA	ND	NA	0.06	40.7	NA	NA	NA	NA	42.484141	71.103935	Inside culvert upstrea
9/22/08	Stoneham	2Lincul	10:10	9678	NA	0.078	0.55	0.06	23.4	NA	NA	0.03	NA	42.484141	71.103935	Inside culvert upstrea
6/23/08	Stoneham	2Linden	12:02	9600	NA	ND	NA	0.32	361	NA	NA	ND	NA	42.483930	71.1039388	Sweetwater Brook @
7/15/08	Stoneham	2Linden	8:15	689	NA	ND	0.00	0.05	83.5	NA	NA	ND	NA	42.483930	71.1039388	Sweetwater Brook @
8/12/08	Stoneham	2Linden	7:18	8800	NA	0.37	NA	0.14	108	NA	NA	ND	132	42.484033	71.103950	Sweetwater Brook @
9/22/08	Stoneham	2Linden	9:56	2747	NA	0.217	0.40	0.07	55.4	NA	NA	0.10	NA	42.483930	71.1039388	Sweetwater Brook @
9/11/08	Waltham	1st	13:28	455	NA	ND	NA	0.14	130	NA	NA	NA	NA	42.397176	-71.265148	across street from 55
9/11/08	Waltham	BB1	12:05	2595	NA	ND	NA	0.12	354	NA	NA	NA	NA	42.381368	-71.213770	Beaver Brook just ups
9/11/08	Waltham	CB1	12:59	310	NA	ND	NA	0.09	274	NA	NA	0.03	NA	42.381687	-71.233383	DPW outfall flowing in
9/11/08	Waltham	CB1d	12:59	319	NA	ND	NA	0.11	278	NA	NA	0.03	NA	42.381687	-71.233383	Duplicate
9/11/08	Waltham	Pars	12:01	714	NA	ND	NA	0.07	36.9	NA	NA	NA	NA	42.381394	-71.213800	Edwin Rd and Parson
9/11/08	Waltham	Wal23	11:10	4185	NA	ND	NA	0.09	71.8	NA	NA	ND	NA	42.367267	-71.218116	Intersection of Pleasa
9/11/08	Watertown	LB1	9:41	2190	NA	ND	NA	0.05	211	NA	NA	0.10	NA	42.364733	-71.189067	Laundry Brook just off
9/11/08	Watertown	Saw1	8:08	395	NA	ND	NA	0.09	162	NA	NA	NA	NA	42.361991	-71.147963	Corner of Greenough
9/11/08	Watertown	Saw2	9:04	416	NA	ND	NA	0.09	111	NA	NA	NA	NA	42.363675	-71.155668	Outfall - So. Sawins B
9/11/08	Watertown	Wat5	10:25	222	NA	ND	NA	0.08	212	NA	NA	NA	NA	42.367449	-71.198957	Culvert on right, 290 F
9/11/08	Watertown	Wat6	10:27	260	NA	ND	NA	0.12	225	NA	NA	NA	NA	42.367489	-71.198853	Culvert on left, 290 Pl
6/23/08	Winchester	62Sun	9:30	533	NA	ND	NA	ND	179	NA	NA	NA	NA	42.4733306	71.1187503	unnamed stream in W
7/28/08	Winchester	M01	7:35	2452	NA	ND	NA	0.09	124	NA	NA	NA	NA	42.441521	71.149149	Sandy Beach Location
7/28/08	Winchester	M02	7:58	4813	NA	ND	NA	0.09	133	NA	NA	NA	NA	42.442878	71.142845	Mystic River pkwy, un
7/28/08	Winchester	M03	8:14	3683	NA	ND	NA	0.09	132	NA	NA	NA	NA	42.444363	71.138845	commuter rail station
7/28/08	Winchester	M04	8:31	156	NA	ND	NA	0.07	84.6	NA	NA	NA	NA	42.455647	71.137980	Main street bridge bet
7/28/08	Winchester	M05	8:42	126	NA	ND	NA	0.06	88.6	NA	NA	NA	NA	42.456789	71.138966	bridge across from W
7/28/08	Winchester	M06	9:10	44	NA	ND	NA	0.06	82.6	NA	NA	NA	NA	42.464865	71.151279	Horn Pond outlet, lake
7/28/08	Winchester	M07	9:26	4813	NA	ND	NA	0.08	155	NA	NA	NA	NA	42.456149	71.136269	ambient stream samp
8/25/08	Winchester	M07	12:55	806	NA	0.24	NA	0.07	122	NA	NA	NA	NA	42.456149	71.136269	ambient stream samp
7/28/08	Winchester	M08	9:40	64	NA	3.11	NA	0.07	145	NA	NA	ND	NA	42.456399	71.136447	small pipe exiting ball
9/4/08	Winchester	M08A	12:15	408	NA	0.994	NA	0.25	99.3	NA	NA	NA	NA	42.456365	71.136337	flow from directly und
7/28/08	Winchester	M09	9:55	6212	NA	ND	NA	0.07	157	NA	NA	NA	NA	42.460935	71.137149	down street from Abe
7/28/08	Winchester	M10	10:16	5654	NA	ND	NA	0.06	157	NA	NA	NA	NA	42.464339	71.132424	Tufts school behind st
7/28/08	Winchester	M10a	10:30	162	NA	ND	NA	0.07	81.4	NA	NA	NA	NA	42.464200	71.131111	Tufts school stream ne
7/28/08	Winchester	M11	10:48	241	NA	ND	NA	0.07	122	NA	NA	NA	NA	42.468186	71.130921	park near Forest rd, o
7/28/08	Winchester	M11d	10:48	248	NA	ND	NA	0.09	120	NA	NA	NA	NA	42.468186	71.130921	Duplicate
7/28/08	Winchester	M12	11:35	6932	NA	ND	NA	0.05	165	NA	NA	NA	NA	42.469507	71.125285	behind hospital, MyRV
9/15/08	Winchester	M12	8:25	7945	NA	0.63	NA	0.09	268	NA	NA	NA	NA	42.469507	71.125285	behind hospital, MyRV
7/28/08	Winchester	M13	12:31	248	NA	NA	NA	NA	56.8	NA	NA	NA	NA	42.467019	71.120658	outlet to resevoir
9/15/08	Winchester	MO5	8:00	373	NA	ND	NA	0.07	148	NA	NA	NA	NA	42.456789	71.138966	bridge across from W
9/15/08	Winchester	MO8	7:35	7945	NA	0.615	NA	0.08	250	NA	NA	NA	NA	42.456399	71.136447	small pipe exiting ball
9/15/08	Winchester	MO8main	7:40	5654	NA	0.876	NA	0.08	259	NA	NA	NA	NA	42.456425	71.136466	Main stream next to M
6/23/08	Woburn	1Kraft	10:17	5654	NA	ND	NA	0.27	346	NA	NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus
9/15/08	Woburn	1Kraft	8:50	767	NA	ND	NA	0.09	131	NA	NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus
6/23/08	Woburn	1Merrell	10:00	2069	NA	0.76	NA	0.10	244	NA	NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in
9/15/08	Woburn	1Merrell	8:40	6212	NA	0.776	NA	0.08	274	NA	NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in
6/23/08	Woburn	2Merrell	10:23	2190	NA	0.41	NA	0.08	236	NA	NA	NA	NA	42.477141	71.1176671	Aberjona upstream o
7/15/08	Woburn	Aber	9:20	408	NA	ND	NA	0.06	194.3	NA	NA	NA	NA	42.493138	71.124117	Washington street corr
7/15/08	Woburn	Burb	9:08	599	NA	ND	0.00	0.06	197.0	NA	NA	NA	NA	42.491300	71.127027	Operator of AMR gran
7/15/08	Woburn	Fit	10:55	152	NA	3.91	>3	0.09	226.0	NA	NA	NA	NA	42.501121	71.134909	near 60 Olympia Ave
7/15/08	Woburn	Fitd	10:55	152	NA	3.94	>3	0.08	228.7	NA	NA	NA	NA	42.501121	71.134909	Duplicate
9/15/08	Woburn	McDO1	9:20	5654	NA	1.02	NA	0.09	278	NA	NA	NA	NA	42.478598	71.118001	
8/12/08	Woburn	Mys 9	9:15	445	NA	NA	NA	NA	89.3	NA	NA	NA	59	42.520981	71.147709	Upstream of Mys 8 wi
7/10/08	Woburn	Mys1	8:15	7945	NA	2.37	NA	0.09	334	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
7/15/08	Woburn	Mys1	11:15	164	NA	3.46	>3	0.08	237.0	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
8/12/08	Woburn	Mys1	8:35	3922	NA	NA	NA	NA	185	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
7/10/08	Woburn	Mys10	11:13	2452	NA	1.25	NA	0.06	339	ND	2.50	NA	NA	42.517881	71.150535	Just upstream from M
8/12/08	Woburn	Mys10	10:00	4480	NA	NA	NA	NA	175	NA	NA	NA	18	42.517881	71.150535	Upstream of Mys 7 an
7/10/08	Woburn	Mys2	8:45	1230	NA	3.70	NA	0.08	116	NA	NA	NA	NA	42.513504	71.138870	74 Commerce Way (M
7/10/08	Woburn	Mys3	9:11	6932	NA	ND	NA	0.08	307	NA	NA	NA	NA	42.515744	71.136289	Marshall's shipping lot
7/10/08	Woburn	Mys4	9:20	5199	NA	0.50	NA	0.10	289	NA	NA	NA	NA	42.516016	71.136885	Across Street from las
7/10/08	Woburn	Mys5	9:38	239	NA	ND	NA	ND	175	NA	NA	NA	NA	42.517193	71.141968	Turn on Atlantic Ave p
7/10/08	Woburn	Mys6	9:56	2452	NA	0.73	NA	0.08	296	NA	NA	NA	NA	42.513758	71.144110	where hulls brook cros
7/10/08	Woburn	Mys7	10:18	27230	NA	4.29	NA	0.07	396	ND	6.30	NA	NA	42.518563	71.146526	New Boston St where
8/12/08	Woburn	Mys7	8:46	111990	NA	NA	NA	NA	236	NA	NA	NA	181	42.518563	71.146526	New Boston St where
9/22/08	Woburn	Mys7	8:09	3080	NA	6.22	>3	0.06	121	NA	NA	ND	NA	42.518563	71.146526	New Boston St where
8/12/08	Woburn	Mys71	9:50	57940	NA	106.00	NA	0.16	329	NA	NA	NA	196	42.518477	71.148139	Stream entering upstr
9/22/08	Woburn	Mys71	9:00	3466	NA	124	NA	0.18	582	NA	NA	NA	NA	42.518477	71.148139	Stream entering upstr
8/12/08	Woburn	Mys72	9:45	32550	NA	3.30	NA	0.08	176	NA	NA	NA	27	42.518433	71.148226	upstream from 7 and

9/22/08	Woburn	Mys72	8:51	395	NA	4.45	NA	0.07	112	NA	NA	NA	NA	42.518433	71.148226	upstream from 7 and 7
7/10/08	Woburn	Mys8	10:30	41060	NA	4.57	NA	0.06	192	10.0	4.90	NA	NA	42.518739	71.146411	Opposite stream from
8/12/08	Woburn	Mys8	8:47	1954	NA	16.40	NA	0.06	92.5	NA	NA	NA	34	42.518739	71.146411	Opposite stream from
8/12/08	Woburn	Mys81	9:10	992	NA	15.10	NA	0.06	88.7	NA	NA	NA	41	42.519578	71.146937	Just upstream from M
7/10/08	Woburn	Mys8d	10:30	41060	NA	4.52	NA	0.06	178	12.0	3.20	NA	NA	42.518739	71.146411	Duplicate
8/12/08	Woburn	Mys8d	8:47	1954	NA	16.90	NA	0.05	88.5	NA	NA	NA	35	42.518739	71.146411	Duplicate
7/10/08	Woburn	Mys9	10:45	1549	NA	4.93	NA	0.06	190	ND	ND	NA	NA	42.520981	71.147709	Just upstream from M
7/15/08	Woburn	Olym	10:35	606	NA	ND	0.50	0.09	123.9	NA	NA	NA	NA	42.500145	71.141333	Olympia Ave
8/12/08	Woburn	Olym1	10:45	3922	NA	0.26	NA	0.12	188	NA	NA	NA	51	42.498925	71.137440	Olympia Ave, just dov
9/15/08	Woburn	Olym1	11:31	258	NA	ND	NA	0.08	272	NA	NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov
9/15/08	Woburn	Olym2	11:20	568	NA	ND	NA	0.08	266	NA	NA	NA	NA	42.497445	71.134658	Off Olym Ave back o
9/22/08	Woburn	Olym2	7:46	1549	NA	0.196	NA	0.09	104	NA	NA	NA	NA	42.497445	71.134658	Off Olym Ave back o
7/15/08	Woburn	Sal	9:40	430	NA	1.84	NA	0.09	231.5	NA	NA	NA	NA	42.491580	71.128834	1921yr culvert
7/15/08	Woburn	US1	9:55	125	NA	ND	0.30	0.07	108.3	NA	NA	NA	NA	42.495445	71.134031	behind United Station
7/15/08	Woburn	US2	10:05	740	NA	ND	0.60	1.60	117.8	NA	NA	NA	NA	42.495411	71.133994	closer to culvert than
8/12/08	Woburn	US3	7:53	>241960	NA	0.14	NA	0.18	120	NA	NA	NA	NA	42.495550	71.133700	Blue culvert across R
9/15/08	Woburn	US3	10:38	7945	NA	ND	NA	0.08	128	NA	NA	NA	NA	42.495550	71.133700	Blue culvert across R
9/22/08	Woburn	US3	7:14	1140	NA	0.132	0.45	0.07	55.7	NA	NA	0.05	NA	42.495550	71.133700	Blue culvert across R
8/12/08	Woburn	US4	8:03	198630	NA	0.12	NA	0.17	117	NA	NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south
9/15/08	Woburn	US4	10:41	1164	NA	ND	NA	0.09	162	NA	NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south
9/15/08	Woburn	US5	10:47	2595	NA	ND	NA	0.07	129	NA	NA	NA	NA	42.495412	71.134111	Upstream of US3, san
9/22/08	Woburn	US5	7:24	1102	NA	0.109	NA	0.08	55.4	NA	NA	NA	NA	42.495412	71.134111	Upstream of US3, san
7/15/08	Woburn	WashC	8:55	316	NA	1.32	2.20	0.07	220.5	NA	NA	NA	NA	42.485896	71.120882	Wash Cir, just off Wa

Additional Location Information	Weather			
	Rain Gauge	24hrs	48hrs	/et/Dry?
	Location	inches	inches	
(closest to road) stron	Boston-Logan	1.28	1.28	Wet
(midpoint from road) s	Boston-Logan	1.28	1.28	Wet
(farthest from road) s	Boston-Logan	1.28	1.28	Wet
not quite as black as l	Boston-Logan	0	0	Dry
Duplicate	Boston-Logan	1.28	1.28	Wet
Clear flow, low flow ro	Boston-Logan	0	0	Dry
Outfall on opposite st	Boston-Logan	1.28	1.28	Wet
Lots of orange flock a	Boston-Logan	0	0	Dry
Sewage odor (Gillool	Boston-Logan	1.28	1.28	Wet
water looks clear. Flo	Boston-Logan	0	0	Dry
	Boston-Logan	0	0	Dry
Plaque covering outfa	Boston-Logan	1.28	1.28	Wet
Very little flow, greeni	Boston-Logan	0	0	Dry
water clea,r gray bact	Boston-Logan	0	0	Dry
	Boston-Logan	1.28	1.28	Wet
- walked culvert	Boston-Logan	1.28	1.28	Wet
White plaque coverin	Boston-Logan	1.28	1.28	Wet
Sewage odor, plaque	Boston-Logan	1.28	1.28	Wet
Scum on top, some pe	Boston-Logan	0	0	Dry
1/4" growth/deposit of	Boston-Logan	0	0	Dry
orange all over the ro	Boston-Logan	0	0	Dry
very silty, bacteria and	Boston-Logan	0	0	Dry
plaque accumulation,	Boston-Logan	0.31	0.31	Wet
very orange, very turb	Boston-Logan	0	0	Dry
orange, slimy, and ve	Boston-Logan	0	0	Dry
orange, slimy, and ve	Boston-Logan	0.31	0.31	Wet
No GPS taken at site, no satellites avail		0.12		Wet
No noticable odor to stream.		0.12		Wet
No noticable odor to stream.		0.12		Wet
No odor, a little foam though		0.12		Wet
No noticable odor to stream.		0.12		Wet
Orange floc, oil slick,	Boston-Logan	0	0	Dry
culvert has collapsed	Boston-Logan	0	0	Dry
Pretty clear	Boston-Logan	1.28	1.28	Wet
Strong sewage odor c	Boston-Logan	1.28	1.28	Wet
Very fresh smelling	Boston-Logan	0	0	Dry
slight film on top of wa	Boston-Logan	0	0	Dry
Some plaque on rocks	Boston-Logan	0	0	Dry
slight flow, clear	Bedford	0.01	0.02	Dry
	Bedford	0.01	0.02	Dry
flow appeared to chan	Bedford	0.01	0.02	Dry
flow clear, some algae	Bedford	0.01	0.02	Dry
6-8" in depth, slight tu	Bedford	0.01	0.02	Dry
sampled western char	Bedford	0.01	0.02	Dry
Highly turbid - orange	Bedford	0.01	0.02	Dry
flow 3x-4x in matter o	Bedford	0.01	0.02	Dry
~2 gal/min. entering c	Bedford	0.01	0.02	Dry
2 or 3gal/min, clear flo	Bedford	0.01	0.02	Dry
4 gal/min flow est, Mu	Boston-Logan	0	0	Dry
Had to move manhole	Bedford	0.01	0.02	Dry
Trash gate clogged ~S	Bedford	0.01	0.02	Dry
downstream of spot p	Bedford	0.01	0.02	Dry
Dry weather during sampling		0.43		Wet
Right on MA/NH border		0.12		Wet
ıst past RR bridge		0.48	0.38	Wet
ːt 113 bridge		0.48	0.38	Wet
l13 bridge		0.48	0.38	Wet
Pond entirely covered in duck weed		0.48	0.38	Wet
SPCA		0.48	0.38	Wet
SPCA		0.48	0.38	Wet
No noticable odor to stream.		0.12		Wet
Possible stream culvert, lots of algae th		0.12		wet
White PVC beside br	Boston-Logan	1.28	1.28	Wet
Heavy silt deposits on	Boston-Logan	0	0	Dry
Good flow, high sedim	Boston-Logan	0	0	Dry
Very silty	Boston-Logan	0	0	Dry
Deer prints, low flow,	Boston-Logan	0	0	Dry
parts/glass stor on right after bridge beh		0.43		Wet
No noticable odor to stream.		0.12		Wet
urt apartments behind 1st bu8ilding on le		0.43		Wet
storage on left off So. Policy. Sampled		0.43		Wet
storage on left off So. Policy. Sampled		0.43		Wet
		0.43		Wet
No noticable odor to stream. Dark to m		0.43		Wet
No noticable odor to stream. Very dark		0.43		Wet

No noticable odor to stream. Low turbid		0.43		Wet
No noticable odor to stream. Low turbid		0.43		Wet
Took GPS from street, no satellites at s		0.12		Wet
		0.12		Wet
Slight musty odor	Boston-Logan	0.38	0.38	Wet
Clear flow, no obvious	Bedford	0.33	0.33	Wet
No odor	Boston-Logan	0.38	0.38	Wet
downstream	Bedford	0.33	0.33	Wet
Duplicate	Bedford	0.33	0.33	Wet
Medium sewage odor	Boston-Logan	0.38	0.38	Wet
Musty odor	Boston-Logan	0.07	0.07	Dry
Unnamed tributary to	Bedford	0.24	0.51	Wet
No distinct odor	Boston-Logan	0.31	0.31	Wet
Duplicate	Boston-Logan	0.38	0.38	Wet
Duplicate	Boston-Logan	0.31	0.31	Wet
sampled largest pipe -	Boston-Logan	0.07	0.07	Dry
flow about 2-3 gal/min	Boston-Logan	0.31	0.31	Wet
Slight odor coming fro	Boston-Logan	0.38	0.38	Wet
No odor	Boston-Logan	0.07	0.07	Dry
(0.1" 48hrs prior to sa	Bedford	0.24	0.51	Wet
Slightly musty odor	Boston-Logan	0.31	0.31	Wet
sampled pond as it flowed out into culve		0	0.35	Wet
water tannish tea color pretty clear, high		0	0.35	Wet
water fairly clear no odor		0	0.35	wet
		0	0.35	Wet
Walked in along stream, water was poss		0	0.35	Wet
Water flowing approx. 5 gal/min. Looks		0	0.35	Wet
Fairly clear, no odor waded to just outsid		0	0.35	wet
Green algae covering rocks, grayish tint		0	0.35	Wet
Good flow strong rushing water sound h		0	0.35	Wet
light tannish tint to water, medium suspe		0	0.35	Wet
very large snapping turtle half inside/ha		0	0.35	Wet
No odor	Boston-Logan	0	0	Dry
	Bedford	0.31	0.64	Wet
Downstream	Bedford	0.31	0.64	Wet
bacon street bridge M	Bedford	0.31	0.64	Wet
between car lot and g	Bedford	0.31	0.64	Wet
Wedge Pond inlet	Bedford	0.31	0.64	Wet
lake ave, near water	Bedford	0.31	0.64	Wet
Near Super Stop & S	Bedford	0.31	0.64	Wet
Murky, some foam on	Bedford	0.01	0.02	Dry
small pipe	Bedford	0.31	0.64	Wet
site has deep deposits	Boston-Logan	0	0	Dry
2 pipes on bridge bot	Bedford	0.31	0.64	Wet
Next to Amtrack rail	Bedford	0.31	0.64	Wet
ear bus circle	Bedford	0.31	0.64	Wet
on cross culvert unde	Bedford	0.31	0.64	Wet
Duplicate	Bedford	0.31	0.64	Wet
MyRWA baseline site	Bedford	0.31	0.64	Wet
High flow no distinct o	Bedford	0.33	0.33	Wet
Across from Highland	Bedford	0.31	0.64	Wet
High flow pretty clear	Bedford	0.33	0.33	Wet
Occasional discharge	Bedford	0.33	0.33	Wet
Lots of leaf litter, mar	Bedford	0.33	0.33	Wet
strong strawberry jello	Bedford	0.18	0.18	Wet
very little odor, may b	Bedford	0.33	0.33	Wet
No odor	Bedford	0.18	0.18	Wet
Low TSS, tannish sta	Bedford	0.33	0.33	Wet
strong strawberry jello	Bedford	0.18	0.18	Wet
ner of Salem St	Bedford	0.01	0.01	Dry
Lots of seeds in the w	Bedford	0.01	0.01	Dry
Pretty clear water	Bedford	0.01	0.01	Dry
Duplicate	Bedford	0.01	0.01	Dry
Manhole nearby with	Bedford	0.33	0.33	Wet
Low flow, light brown	Bedford	0.24	0.51	Wet
culvert to right not flow	Bedford	0.89	0.89	Wet
Sampled main stream	Bedford	0.01	0.01	Dry
Waded 3 ft upstream	Bedford	0.24	0.51	Wet
walked in about 1-2 m	Bedford	0.89	0.89	Wet
Good flow	Bedford	0.24	0.51	Wet
No odor	Bedford	0.89	0.89	Wet
Marshalls shipping lo	Bedford	0.89	0.89	Wet
some geese swimmin	Bedford	0.89	0.89	Wet
No odor	Bedford	0.89	0.89	Wet
ses under New Boston	Bedford	0.89	0.89	Wet
water very turbid sligh	Bedford	0.89	0.89	Wet
Film on water, low flo	Bedford	0.24	0.51	Wet
Water grayish/green	Bedford	0.15	0.15	wet
Thick sediment, oily, t	Bedford	0.24	0.51	Wet
most likiliy from lands	Bedford	0.15	0.15	Wet
Thick layer of duck w	Bedford	0.24	0.51	Wet

'1, downstream of Mys	Bedford	0.15	0.15	Wet
Very turbid, foul odor	Bedford	0.89	0.89	Wet
Suspended solids	Bedford	0.24	0.51	Wet
were driveway enters	Bedford	0.24	0.51	Wet
Duplicate	Bedford	0.89	0.89	Wet
Duplicate	Bedford	0.24	0.51	Wet
were stream exits outf	Bedford	0.89	0.89	Wet
On N. side grass clipp	Bedford	0.01	0.01	Dry
Sandy bottom, beave	Bedford	0.24	0.51	Wet
Sandy bottom, med f	Bedford	0.33	0.33	Wet
Lots of duck weed. Li	Bedford	0.33	0.33	Wet
Clear, low flow (less t	Bedford	0.15	0.15	Wet
Downstream side	Bedford	0.01	0.01	Dry
Lots of trash in the ar	Bedford	0.01	0.01	Dry
Very turbid water, bro	Bedford	0.01	0.01	Dry
Grey, turbid water	Bedford	0.24	0.51	Wet
Med flow tannish colo	Bedford	0.33	0.33	Wet
Clear, good flow, no o	Bedford	0.15	0.15	Wet
Lots of green duck we	Bedford	0.24	0.51	Wet
Very little flow, believ	Bedford	0.33	0.33	Wet
Clear flow	Bedford	0.33	0.33	Wet
Clear flow	Bedford	0.15	0.15	Wet
downstream side	Bedford	0.01	0.01	Dry

RARE 2009						RARE 2010					Urban Rivers (2009)			
Town	Sites	Events	Lab	Field	YSI	Sites	Events	Lab	Field	YSI	**Sites	Events	Lab	Field
Andover	4	4	39	27	4	2	3	27	12	2	4	5	5	15
Arlington	2	2	24	10	0	26	32	363	142	32	0	0	0	0
Belmont	1	2	23	12	0	1	2	15	10	2	0	0	0	0
Beverly	0	0	0	0	0	4	4	28	20	4	0	0	0	0
Boston	8	9	115	71	5	12	19	290	80	19	6	9	10	30
Brookline	0	0	0	0	0	1	1	12	4	1	0	0	0	0
Chelsea	6	8	95	68	5	2	3	25	13	3	0	2	2	8
Concord, MA	0	0	0	0	0	1	1	11	5	1	0	0	0	0
Concord, NH	0	0	0	0	0	4	6	72	24	6	0	0	0	0
Danvers	2	2	26	12	3	0	0	0	0	0	0	0	0	0
Dorchester	2	3	39	14	2	0	0	0	0	0	0	2	1	5
Everett	0	0	0	0	0	0	0	0	0	0	1	1	1	4
Falmouth	0	0	0	0	0	8	9	99	45	8	0	0	0	0
Groveland	0	0	0	0	0	0	0	0	0	0	2	2	2	8
Haverhill	0	0	0	0	0	0	0	0	0	0	5	6	7	23
Laconia, NH	0	0	0	0	0	6	9	69	35	9	0	0	0	0
Lawrence	2	3	39	24	2	6	11	116	48	10	8	12	13	45
Lexington	2	2	26	13	2	4	4	47	20	4	0	0	0	0
Lowell	8	10	91	79	9	0	0	0	0	0	0	0	0	0
Lynn	1	2	23	12	1	1	1	12	4	1	1	1	1	3
Malden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manchester, NH	0	0	0	0	0	4	4	48	16	4	0	0	0	0
Marblehead	2	2	26	12	2	12	15	161	60	15	3	3	4	12
Medford	2	2	23	12	2	0	0	0	0	0	1	2	2	4
Melrose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Methuen	0	0	0	0	0	0	0	0	0	0	4	4	4	18
Milton	4	4	49	30	4	0	0	0	0	0	7	9	10	30
Newton	3	4	52	31	3	0	0	0	0	0	0	0	0	0
Norwood	3	4	50	32	4	0	0	0	0	0	11	13	15	39
Peabody	0	0	0	0	0	0	0	0	0	0	5	5	5	15
Plymouth	5	6	71	41	5	0	0	0	0	0	0	0	0	0
Quincy	8	13	159	78	10	14	19	208	72	19	8	18	20	66
Reading	1	1	13	8	1	0	0	0	0	0	7	10	10	31
Revere	0	0	0	0	0	5	7	71	32	7	8	9	9	32
Salem	0	0	0	0	0	1	1	12	4	1	2	2	4	6
Salem, NH	0	0	0	0	0	0	0	0	0	0	8	9	9	38
Somerville	1	2	20	14	2	0	0	0	0	0	2	3	3	9
Stoneham	5	8	86	51	5	8	9	102	44	11	1	5	5	13
Swampscott	0	0	0	0	0	1	1	12	4	1	1	2	2	3
Waltham	1	1	13	7	1	0	0	0	0	0	0	0	0	0
Warwick, RI	0	0	0	0	0	12	13	106	52	12	0	0	0	0
Watertown	2	2	15	14	2	11	12	96	36	12	0	0	0	0
Winchester	1	2	25	16	1	11	12	109	45	12	7	8	9	26
Woburn	11	16	184	115	10	19	23	214	94	20	15	24	30	104
Total	**87**	**114**	**1326**	**803**	**85**	**176**	**221**	**2325**	**921**	**216**	**117**	**166**	**183**	**587**
TOTAL RARE	**263**	**335**	**3651**	**1724**	**301**									
TOTAL (All)	**511**	**680**	**4335**	**2525**	**417**									

Upper Mystic														
Melrose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reading	1	1	13	8	1	0	0	0	0	0	7	10	10	31
Stoneham	5	8	86	51	5	8	9	102	44	11	1	5	5	13
Winchester	1	2	25	16	1	11	12	109	45	12	7	8	9	26
Woburn	11	16	184	115	10	19	23	214	94	20	15	24	30	104
Total	**18**	**27**	**308**	**190**	**17**	**38**	**44**	**425**	**183**	**43**	**30**	**47**	**54**	**174**
TOTAL	**154**	**221**	**1057**	**679**	**78**									

Lower Mystic														
Arlington	2	2	24	10	0	26	32	363	142	32	0	0	0	0
Belmont	1	2	23	12	0	1	2	15	10	2	0	0	0	0
Chelsea	6	8	95	68	5	2	3	25	13	3	0	2	2	8
Everett	0	0	0	0	0	0	0	0	0	0	1	1	1	4
Lexington	2	2	26	13	2	4	4	47	20	4	0	0	0	0
Malden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medford	2	2	23	12	2	0	0	0	0	0	1	2	2	4
Somerville	1	2	20	14	2	0	0	0	0	0	2	3	3	9
Total	**14**	**18**	**211**	**129**	**11**	**33**	**41**	**450**	**185**	**41**	**4**	**8**	**8**	**25**
TOTAL	**73**	**98**	**764**	**376**	**55**									

South Shore														
Dorchester	2	3	39	14	2	0	0	0	0	0	0	2	1	5
Milton	4	4	49	30	4	0	0	0	0	0	7	9	10	30
Quincy	8	13	159	78	10	14	19	208	72	19	8	18	20	66
Total	**14**	**20**	**247**	**122**	**16**	**14**	**19**	**208**	**72**	**19**	**15**	**29**	**31**	**101**
TOTAL	**43**	**68**	**486**	**295**	**60**									

North Shore														
Beverly	0	0	0	0	0	4	4	28	20	4	0	0	0	0
Danvers	2	2	26	12	3	0	0	0	0	0	0	0	0	0
Lynn	1	2	23	12	1	1	1	12	4	1	1	1	1	3
Marblehead	2	2	26	12	2	12	15	161	60	15	3	3	4	12
Peabody	0	0	0	0	0	0	0	0	0	0	5	5	5	15
Revere	0	0	0	0	0	5	7	71	32	7	8	9	9	32
Salem	0	0	0	0	0	1	1	12	4	1	2	2	4	6
Swampscott	0	0	0	0	0	1	1	12	4	1	1	2	2	3
Total	**5**	**6**	**75**	**36**	**6**	**24**	**29**	**296**	**124**	**29**	**20**	**22**	**25**	**71**
TOTAL	**54**	**62**	**411**	**236**	**55**									

Merrimack														
Andover	4	4	39	27	4	2	3	27	12	2	4	5	5	15
Concord, NH	0	0	0	0	0	4	6	72	24	6	0	0	0	0
Groveland	0	0	0	0	0	0	0	0	0	0	2	2	2	8
Haverhill	0	0	0	0	0	0	0	0	0	0	5	6	7	23
Laconia, NH	0	0	0	0	0	6	9	69	35	9	0	0	0	0
Lawrence	2	3	39	24	2	6	11	116	48	10	8	12	13	45
Lowell	8	10	91	79	9	0	0	0	0	0	0	0	0	0
Machester, NH	0	0	0	0	0	4	4	48	16	4	0	0	0	0
Methuen	0	0	0	0	0	0	0	0	0	0	4	4	4	18
Salem, NH	0	0	0	0	0	0	0	0	0	0	8	9	9	38
Total	**14**	**17**	**169**	**130**	**15**	**22**	**33**	**332**	**135**	**31**	**31**	**38**	**40**	**147**
TOTAL	**90**	**115**	**629**	**435**	**77**									

Plymouth														
Plymouth	5	6	71	41	5	0	0	0	0	0	0	0	0	0
Total	**5**	**6**	**71**	**41**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**5**	**6**	**71**	**41**	**5**									

Norwood														
Norwood	3	4	50	32	4	0	0	0	0	0	11	13	15	39
Total	**3**	**4**	**50**	**32**	**4**	**0**	**0**	**0**	**0**	**0**	**11**	**13**	**15**	**39**
TOTAL	**25**	**30**	**80**	**110**	**26**									

Charles														
Boston	8	9	115	71	5	12	19	290	80	19	6	9	10	30
Brookline	0	0	0	0	0	1	1	12	4	1	0	0	0	0
Newton	3	4	52	31	3	0	0	0	0	0	0	0	0	0

Waltham	1	1	13	7	1	0	0	0	0	0	0	0	0	0	
Watertown	2	2	15	14	2	11	12	96	36	12	0	0	0	0	
Total	**14**	**16**	**195**	**123**	**11**	**24**	**32**	**398**	**120**	**32**	**6**	**9**	**10**	**30**	
TOTAL	**51**	**64**	**624**	**281**	**51**										
Concord, MA															
Concord, MA	0	0	0	0	0	1	1	11	5	1	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**11**	**5**	**1**	**0**	**0**	**0**	**0**	
TOTAL	**1**	**1**	**11**	**5**	**1**										
Falmouth, MA															
Falmouth, MA	0	0	0	0	0	8	9	99	45	8	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**8**	**9**	**99**	**45**	**8**	**0**	**0**	**0**	**0**	
TOTAL	**8**	**9**	**99**	**45**	**8**										
Warwick, RI															
Warwick, RI	0	0	0	0	0	12	13	106	52	12	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**12**	**13**	**106**	**52**	**12**	**0**	**0**	**0**	**0**	
TOTAL	**12**	**13**	**106**	**52**	**12**										

Urban Rivers (2008)						Incomplete Sample Sets	
YSI	**Sites	Events	Lab	Field	YSI	Lab	Field
5	0	0	0	0	0		
0	0	0	0	0	0	3	15
0	0	0	0	0	0		
0	0	0	0	0	0		
8	2	2	6	2	0		
0	0	0	0	0	0		
2	11	16	48	18	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
1	4	8	24	10	0		8
0	0	0	0	0	0		
2	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
11	5	5	15	6	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
0	1	1	6	2	0		
0	0	0	0	0	0		
3	0	0	0	0	0		
0	6	6	17	7	0		
0	12	14	42	15	0		
2	9	10	24	5	0		
8	0	0	0	0	0		
0	0	0	0	0	0		
11	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
16	0	0	0	0	0		
3	0	0	0	0	0		
8	5	5	15	5	0		
2	0	0	0	0	0		
6	9	12	49	12	0		10
0	0	0	0	0	0		
0	5	17	52	33	0		15
1	0	0	0	0	0		
0	6	6	12	9	0		
0	0	0	0	0	0		
0	5	5	15	6	0		
6	20	22	65	23	0		1
9	31	50	111	61	0		
116	**131**	**179**	**501**	**214**	**0**	**3**	**49**

0	12	14	42	15	0		
3	0	0	0	0	0		
0	5	17	52	33	0		15
6	20	22	65	23	0		1
9	31	50	111	61	0		
18	**68**	**103**	**270**	**132**	**0**		**16**

0	0	0	0	0	0	3	15
0	0	0	0	0	0		
2	11	16	48	18	0		
1	4	8	24	10	0		8
0	0	0	0	0	0		
0	1	1	6	2	0		
0	6	6	17	7	0		
0	0	0	0	0	0		
3	**22**	**31**	**95**	**37**	**0**	**3**	**23**

1	0	0	0	0	0		
8	0	0	0	0	0		
16	0	0	0	0	0		
25	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
3	0	0	0	0	0		
5	0	0	0	0	0		
8	5	5	15	5	0		
2	0	0	0	0	0		
1	0	0	0	0	0		
20	**5**	**5**	**15**	**5**	**0**	**0**	**0**

5	0	0	0	0	0		
0	0	0	0	0	0		
2	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
11	5	5	15	6	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
2	9	10	24	5	0		
6	9	12	49	12	0		10
31	**23**	**27**	**88**	**23**	**0**	**0**	**10**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

11	11	13	15	39	11		
11	**11**	**13**	**15**	**39**	**11**		**0**

8	2	2	6	2	0		
0	0	0	0	0	0		
0	0	0	0	0	0		

0	0	0	0	0	0		
0	5	5	15	6	0		
8	**7**	**7**	**21**	**8**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
4/21/10	Arlington	30Park	12:25	open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
5/5/10	Arlington	30Park	10:10	open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	ArlRes	11:05	concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/26/10	Arlington	ArlRes	11:30	concrete	3'	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/5/10	Arlington	Brattle	9:10	open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	Drake01	10:55	open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/26/10	Arlington	Drake01	11:25	open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
4/21/10	Arlington	GroveS	9:45	concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
5/5/10	Arlington	GroveS	8:10	concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
4/21/10	Arlington	RyderE	11:20	concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
5/5/10	Arlington	RyderE	9:32	concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
4/21/10	Arlington	RyMill	11:05	concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
5/5/10	Arlington	RyMill	9:25	concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Lexington	Vine01	11:55	open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
6/2/10	Boston	29J212	10:22	concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
7/14/10	Boston	29J212	7:17	concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/28/10	Boston	29J212	7:15	concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
6/2/10	Boston	Bos017	10:20	concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
7/14/10	Boston	Bos017	7:17	concrete	72"	na	musty	none	lightly cloud	some	129970	2489	NA	2.5	NA	NA
7/28/10	Boston	Bos017	7:16	concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/14/10	Boston	UR029	7:17	concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/21/08	Chelsea	IsEnd02	11:25	CM, semi-round	7'						3080	NA	0.19	NA	NA	ND
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'		strong petroleum		tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/21/08	Chelsea	IsEnd04	11:30									>241960	NA	0.14	NA	NA	13.0
8/21/08	Chelsea	IsEnd04	10:35									2595	NA	ND	NA	NA	2.68
7/21/08	Chelsea	IsEnd04d	11:30									>241960	NA	0.15	NA	NA	13.5
7/21/08	Chelsea	Mill2	9:55	concrete	~30 inches							9678	NA	0.18	NA	NA	1.33
9/4/08	Chelsea	Mill2	11:20	concrete	~30 inches							38	NA	0.24	NA	NA	4.12
5/26/09	Chelsea	Mill2	10:06	concrete	~30 inches	5-10gal/min	strong odor	clear	none	some suds		44	20	0.19	1.5	NA	4.31
7/28/09	Chelsea	Mill2	8:05	concrete	~30 inches	15	sharp sewa	clear	none	None		310	12	0.23	0.8	0.126	3.84
7/29/09	Chelsea	Mill2	8:30	concrete	~30 inches	10	strong odor	clear	none	none		NA	52	NA	0.70	NA	NA
9/1/10	Chelsea	Mill2	8:55	concrete	~30 inches	15	sharp sewa	clear	none	None		282	41	NA	0.5	NA	NA
5/26/09	Chelsea	Mill2A	11:10	CM	~24 inches	1 gal/min	none	clear	none	None		~4	ND	0.39	1	NA	7.02
7/29/09	Chelsea	Mill2A	8:40			3	dor - chemi	None	none	None		NA	10	NA	0.75	NA	NA
6/2/10	Chelsea	Mill2A	11:20	concrete	24	<5	usty/chemic	none	clear	trash		58	175	NA	0.8	NA	NA
9/1/10	Chelsea	Mill2A	8:30	concrete	24	<5	usty/chemic	none	clear	trash		8	ND	NA	0.6	NA	NA
9/4/08	Chelsea	Mill2d	11:20									54	NA	0.22	NA	NA	4.01
7/21/08	Chelsea	Mill3	10:10									15530	NA	0.09	NA	NA	ND
8/21/08	Chelsea	Mill3	9:55									1844	NA	0.07	NA	NA	0.27
7/7/10	Concord, NH	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri		218	399	NA	1	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	e suds & de		38730	51720	NA	0.25	NA	NA
7/7/10	Concord, NH	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri		263	448	NA	1	NA	NA
8/21/08	Everett	IsEnd03A	10:45									11870	NA	0.11	NA	NA	0.82
9/4/08	Everett	IsEnd03A	9:57									86640	NA	0.11	NA	NA	1.03
9/22/08	Everett	IsEnd03A	11:40									6932	NA	0.14	NA	NA	0.542
7/28/09	Everett	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None		9678	388	0.1	0.8	0.054	0.831
8/21/08	Everett	IsEnd03B	10:50									3266	NA	0.08	NA	NA	1.17
9/4/08	Everett	IsEnd03B	9:58									9678	NA	0.09	NA	NA	0.56
9/22/08	Everett	IsEnd03B	11:42									1164	NA	0.11	NA	NA	0.48
7/29/09	Everett	IsEnd03B	12:40	NS	NS	20	slight musty	orange	very cloudy	None		NA	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	996-F	8:50	concrete	16	~10	none	none	clear	none		353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	996-F	11:11	concrete	16	~20	none	none	clear	some suds		6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none		21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none		16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	UR035	11:11	concrete	16	~20	none	none	clear	some suds		6978	17329	NA	0.2	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le		157	NA	NA	0.10	NA	NA
8/4/10	Lawrence	Shaw01	9:50	open stream	na	stream	none	oil sheen, slight tea		leaves		208	86	NA	~0.1	NA	NA
6/10/09	Lawrence	Shaw1	12:30	open stream	na	stream	musty	tea	yes	None		353	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE3	13:11	concrete	3'		strong musty o	None	Clear	None		616	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'		strong, musty sewa	None	Clear	None		34	NA	NA	0.20	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete	3'	na	slight musty	None	Clear	None		205	445	ND	~0.1	ND	ND
6/10/10	Lawrence	SLE3	7:25	concrete	3'	NA	strong must	white/tan/gra	ightly cloud	ilamentous		1954	2359	NA	1	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete	3'	NA	strong must	none	ightly cloud	ilamentous		899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete	3'	NA	strong must	none	ightly cloud	ilamentous		806	2014	NA	0.5	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact		1230	275	NA	~0.1	NA	NA
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None		29090	2752	0.08	NA	0.19	1.12
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None		44	40	~0.05	ND	0.03	0.266
6/17/09	Lynn	StaceyS	12:11	CM	4'x8'		NS	None	Clear	None		NA	14136	NA	0.70	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra		38730	68670	NA	0.2	NA	NA
7/21/08	Medford	Mhb	12:30									7945	NA	0.06	NA	NA	ND
5/13/09	Medford	MHB	8:07	CM			None	None	Clear	None		455	NA	NA	0.10	NA	NA
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None		534	78	ND	~0.1	ND	0.2
7/21/08	Medford	Mhb2	12:40									9678	NA	NA	NA	NA	NA
5/13/09	Medford	MHB2	8:07	CM	24	5-10	None	Yellowish	Light	None		117	NA	NA	ND	NA	NA
6/30/08	Methuen	Mer1	8:43									1162	1495 Fecal	0.05	NA	NA	ND
8/4/08	Methuen	Mer1	10:45									293	NA	0.07	NA	NA	ND
6/3/09	Methuen	Mer1	8:57	open stream	na	stream	None	tea	very	None		58	NA	NA	0.10	NA	NA

8/4/08	Methuen	SP06	9:05								342	NA	0.08	NA	NA	ND
6/3/09	Methuen	SP06	7:38	open stream	na	stream	None	None	Clear	None	124	NA	NA	0.10	NA	NA
8/4/08	Methuen	SP07	9:55								12	NA	0.05	NA	NA	ND
6/3/09	Methuen	SP07	8:10	open stream	na	stream	None	None	Clear	None	86	NA	NA	ND	NA	NA
8/12/09	Milton	CunPk02	8:12	cement	2, 2'	30	None	None	Clear	None	3466	NA	NA	0.30	NA	NA
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	d sewage sr	None	Mild	Leave, bubt	1954	6131	0.06	0.18	0.041	0.291
8/5/09	Norwood	PB02	11:24		2-3ft	20	y and natur	None	Clear	None	4185	NA	NA	0.15	NA	NA
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
8/12/09	Quincy	FBP02	8:40	open stream	na	stream	None	None	Clear	None	4813	NA	NA	0.20	NA	NA
5/19/10	Quincy	FBP02	8:15	open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
8/12/09	Quincy	FBP03	9:10	cement	2, 3'		None	None	Clear	None	2069	NA	NA	0.10	NA	NA
5/19/10	Quincy	FBP03	8:55	open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/27/09	Quincy	SAG1	9:15	cement	10x10box		None	tea	cloudy	Yes	~6212	NA	NA	1.00	NA	NA
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/12/09	Quincy	SAG1	10:20	cement	10x10box		petroleum od	very brown	y turbid; clo	some suds	NA	2359	NA	2.00	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	stream	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA
8/12/09	Quincy	SAG2	10:22	seep	na	3 gal/min	strong sulfu	None	Clear	None	NA	ND	NA	0.60	NA	NA
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/12/09	Quincy	UR010	11:30	cement	6' x 8' box		None	None	Clear	None	4185	NA	NA	0.10	NA	NA
5/19/10	Quincy	UR024	8:15	open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA
5/27/09	Quincy	WollB1	7:58	CM	4x4 box	50-100	sewage odo	None	Clear	Some suds	NA	~12997	NA	1.00	NA	NA
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/12/09	Quincy	WollB1	11:00	CM	4x4 box		sulfur	None	Clear	None	NA	1720	NA	0.75	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
8/11/09	Quincy	WollB1A	9:45	CM	3'x3' box	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/12/09	Quincy	WollB1A	10:50	CM	3'x3' box		musty/sulfur	gray	cloudy	None	NA	2755	NA	2.00	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
7/29/09	Revere	Green01	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	0.70	NA	NA
6/2/10	Revere	Green01	8:40	open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
9/1/10	Revere	Green01	8:10	open stream	na	stream	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
7/29/09	Revere	WashN01	10:10	concrete	24		none	NS	NS	None	NA	2282	NA	0.75	NA	NA
6/2/10	Revere	WashN01	8:01	concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/30/08	Salem, NH	Mer2	9:06	open stream	na	stream					288	694 Fecal	0.05	NA	NA	ND
8/4/08	Salem, NH	Mer2	12:02	open stream	na	stream					302	NA	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer2	9:22	open stream	na	stream	None	reddish	med	None	48	NA	NA	0.10	NA	NA
6/30/08	Salem, NH	Mer3	9:35	open stream	na	stream					590	590 Fecal	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer3	9:46	open stream	na	stream	None	tea	Clear	None	75	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer5	10:45	open stream	na	stream	None	tea	Clear	None	465	NA	NA	0.15	NA	NA
6/30/08	Salem, NH	Mer5	10:27	open stream	na	stream					883	739 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer6A	10:55								802	847 Fecal	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer6a	11:13				None	tea	Clear	None	293	NA	NA	0.20	NA	NA
6/30/08	Salem, NH	Mer7	11:30	CM	3-4 ft						775	955 Fecal	0.05	NA	NA	ND
6/3/09	Salem, NH	Mer7	11:46	CM	3-4 ft		None	light tea	Clear	None	166	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer7d	11:46	CM	3-4ft		None	light tea	Clear	None	114	NA	NA	NA	NA	NA
6/30/08	Salem, NH	Mer8	11:51	open stream	na	stream					568	649 Fecal	0.05	NA	NA	ND
6/3/09	Salem, NH	Mer8	12:07	open stream	na	low flow	None	None	Clear	None	126	NA	NA	ND	NA	NA
5/13/09	Somerville	MWRA205	10:07	CM	4x4 box	me in, some	None	Murky	Light	None	NA	10462	NA	1.80	NA	NA
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box		slight sewage o	gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
6/23/08	Stoneham	100A	11:00	open stream	na	stream					14400	NA	0.19	NA	NA	ND
9/15/08	Stoneham	100A	9:42	open stream	na	stream					1642	NA	0.07	NA	NA	ND
8/11/10	Stoneham	100A	7:42	open stream	na	stream	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
6/23/08	Stoneham	1West	11:42	stone	2x3						14100	NA	0.29	NA	NA	0.410
7/15/08	Stoneham	1West	7:57	stone	2x3						3266	NA	0.05	NA	NA	ND
8/12/08	Stoneham	1West	7:29	stone	2x3						4813	NA	NA	NA	NA	0.18
9/22/08	Stoneham	1West	10:45	stone	2x3						54750	NA	0.05	NA	NA	ND
5/13/09	Stoneham	1West	11:45	stone	2x3		None	None	Clear	None	913	NA	NA	0.10	NA	NA
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
6/23/08	Stoneham	2dLinden	12:02	open stream	na	stream					13700	NA	0.30	NA	NA	ND
9/22/08	Stoneham	2dLinden	9:56	open stream	na	stream					3266	NA	0.06	NA	NA	0.098
7/15/08	Stoneham	2Lincul	8:20	clay	8"						430	NA	0.06	NA	NA	ND
9/22/08	Stoneham	2Lincul	10:10	clay	8"						9678	NA	0.06	NA	NA	0.078
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
6/23/08	Stoneham	2Linden	12:02	open stream	na	stream					9600	NA	0.32	NA	NA	ND
7/15/08	Stoneham	2Linden	8:15	open stream	na	stream					689	NA	0.05	NA	NA	ND
8/12/08	Stoneham	2Linden	7:18	open stream	na	stream					8800	NA	0.14	NA	NA	0.37
9/22/08	Stoneham	2Linden	9:56	open stream	na	stream					2747	NA	0.07	NA	NA	0.217
5/13/09	Stoneham	2Linden	12:05	open stream	na	stream	None	None	Clear	None	2190	NA	NA	0.20	NA	NA
7/21/09	Stoneham	2Linden	9:35	open stream	na	stream	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
8/11/10	Stoneham	2Linden	8:25	open stream	na	stream	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
5/13/09	Stoneham	Toms	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	242	NA	NA	0.10	NA	NA
7/21/09	Stoneham	Toms	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	Toms	11:30	tal w/asphalt bot	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
8/11/10	Stoneham	Toms	9:50	tal w/asphalt bot	3'	~5 -7	bhault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA

5/13/09	Stoneham	Tomsd	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	186	NA	NA	NA	NA	NA
7/21/09	Stoneham	UR003	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
8/11/10	Stoneham	URO33	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
6/17/09	Swampscot	StaceyN	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	0.50	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
6/17/09	Swampscot	StaceyND	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	NA	NA	NA
9/8/09	Watertown	SawB01	8:45	open stream	na	50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
10/5/10	Watertown	SawB01	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage d	None	clear	None	~4	ND	NA	0.25	NA	NA
10/5/10	Watertown	UR037	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
7/28/08	Winchester	M07	9:26								4813	NA	0.08	NA	NA	ND
8/25/08	Winchester	M07	12:55								806	NA	0.07	NA	NA	0.24
7/22/09	Winchester	Russ1	7:55	Stone (instream)	4'X4'		slightly must	None	Clear	some suds*	1954	NA	NA	0.10	NA	NA
8/4/09	Winchester	Russ1	8:00	Stone (instream)	4'X4'	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
5/13/09	Winchester	Swan1	11:11	metal	12	50	None	None	Clear	None	98	NA	NA	0.08	NA	NA
4/28/10	Winchester	Swan1	10:45	open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
6/23/08	Woburn	1Merrell	10:00	open stream	na	stream					2069	NA	0.10	NA	NA	0.76
9/15/08	Woburn	1Merrell	8:40	open stream	na	stream					6212	NA	0.08	NA	NA	0.776
7/15/09	Woburn	1Merrell	8:55	open stream	na	stream	none	light tea	lightly turbi	None	~494	NA	NA	0.10	NA	NA
7/10/08	Woburn	Mys01	8:15	open stream	na	stream					7945	NA	0.09	NA	NA	2.37
7/15/08	Woburn	Mys01	11:15	open stream	na	stream					164	NA	0.08	NA	NA	3.46
8/12/08	Woburn	Mys01	8:35	open stream	na	stream					3922	NA	NA	NA	NA	NA
5/20/09	Woburn	Mys01	7:36	open stream	na	low flow	None	None	Clear	None	~250	NA	NA	0.10	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	stream	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/10/08	Woburn	Mys07	10:18	open stream	na	stream					27230	NA	0.07	NA	NA	4.29
8/12/08	Woburn	Mys07	8:46	open stream	na	stream					111990	NA	NA	NA	NA	NA
9/22/08	Woburn	Mys07	8:09	open stream	na	stream					3080	NA	0.06	NA	NA	6.22
5/19/09	Woburn	Mys07	10:01	open stream	na	stream	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/12/10	Woburn	Mys07	9:05	open stream	na	stream	hulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
7/10/08	Woburn	Mys08	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.57
8/12/08	Woburn	Mys08	8:47	open stream	na	stream					1954	NA	0.06	NA	NA	16.40
5/19/09	Woburn	Mys08	10:20	open stream	na	stream	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
9/1/09	Woburn	Mys08	9:30	open stream	na	stream	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3
5/12/10	Woburn	Mys08	9:10	open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/19/09	Woburn	Mys08d	10:20	open stream	na	stream	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
7/10/08	Woburn	Mys09	10:45	open stream	na	stream					1549	NA	0.06	NA	NA	4.93
9/1/09	Woburn	Mys09	10:45	open stream	na	stream	None	None	clear	None	205	82	ND	~0.1	ND	16
8/12/08	Woburn	Olym1	10:45	open stream	na	stream					3922	NA	0.12	NA	NA	0.26
9/15/08	Woburn	Olym1	11:31	open stream	na	stream					258	NA	0.08	NA	NA	ND
8/4/09	Woburn	Olym1	9:55	open stream	na	stream	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
9/1/09	Woburn	UR015	9:30	open stream	na	stream	None	light brown	clear	None	422	148	ND	NA	0.021	14
8/12/08	Woburn	US3	7:53	stone	~16inches	na					>241960	NA	0.18	NA	NA	0.14
9/15/08	Woburn	US3	10:38	stone	~16inches	na					7945	NA	0.08	NA	NA	ND
9/22/08	Woburn	US3	7:14	stone	~16inches	na					1140	NA	0.07	NA	NA	0.132
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/12/08	Woburn	US4	8:03	CM	~24 inches	na					198630	NA	0.17	NA	NA	0.12
9/15/08	Woburn	US4	10:41	CM	~24 inches	na					1164	NA	0.09	NA	NA	ND
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
9/15/08	Woburn	US5	10:47	open stream	na	stream					2595	NA	0.07	NA	NA	ND
9/22/08	Woburn	US5	7:24	open stream	na	stream					1102	NA	0.08	NA	NA	0.109
8/4/09	Woburn	US5	9:05	open stream	na	stream	none	light tea	clear	None	542	184	ND	ND	0.032	0.133

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0)	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
1.1	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
~1.1	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	NA	NA
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
~0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.00	NA	NA										NA	NA	NA	ND	NA
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
0.35*	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA
NA	NA	NA	5.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
ND	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
~0	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	132	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA

NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0)	ND (4.0)	NA	NA	ND	ND	NA
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	NA	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.10	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
NA	NA	NA	NA	NA	51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	10.1	1450	Bedford	0	0	Dry
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82mS	Boston-Logan	0	0	Dry
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.394436	71.049780	End of beachum and	(midpoint from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	End of beachum and	(farthest from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	End of beachum and	not quite as black as l	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	Duplicate	Duplicate	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	Sewage odor (Gillool	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	water looks clear. Flo	na	na	na	Boston-Logan	0	0	Dry
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
NA	NA	NA	42.40333987	71.020587	gray plaque on bottom	and below outfall	0.5	15.8	291-246	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	NA	NA	42.40376623	-71.02130017	significant gray bacterial	plaque; some suds;	1.1/0.1	17.5/17.5	517/142	Boston-Logan	0	0	Dry
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	Duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Plaque covering outfa	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Very little flow, greeni	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	orange all over the roc	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	very silty, bacteria and	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	plaque accumulation,	na	na	na	Boston-Logan	0.31	0.31	Wet
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston M	6.5	20.34	11.36	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	very orange, very turb	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4001152	-71.050172	Very cloudy, significa	Upstream of Island En	1	19.5	2014	Boston-Logan	0	0	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen	river sample	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks	0.3	16.6	700	Lawrence	0.1	0.1	Wet
NA	NA	5.05	42.695971	-71.1455601	strong flow, lots and lo	Concrete outfall meta	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the S	0.5	14.2	1780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (W	Pretty clear	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.41921413	-71.11761932	Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	550/180	Boston-Logan	0	0.03	Dry
NA	NA	NA	42.419214	71.117619	Culvert off Meeting H	Strong sewage odor c	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.41921413	-71.11761932	Pipe off Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.743207	71.208453	walked in from small	Dry weather during sa	na	na	na		0.43		Wet
NA	NA	NA	42.743250	71.208438	walked in from small	Right on MA/NH borde	na	na	na		0.12		Wet
NA	NA	2.10	42.74320743	-71.20845291	needed reach	Hampshire Rd on boa	0.2	16.9	365.2	Lawrence	0	0	Dry

NA	NA	NA	42.724919	71.183033	RT 28 castle park	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	0.30	42.72491896	-71.18303334	sample collected just	RT 28 castle park	0.2	16.7	384.6	Lawrence	0	0	Dry
NA	NA	NA	42.727453	71.188366	Outfall downstream e	Possible stream culve	na	na	na		0.12		wet
NA	NA	NA	42.72745251	-71.18836554	hydroelectric stream,	Osgood Street	na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.25100306	-71.0519303	Stream 2ft deep. thick	corner of Fullers Roac	0.3	18.1	635	Boston-Logan	0.05	0.06	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
NA	NA	NA	42.20459437	-71.19851397	Plantingfield Brook, a	corner of Ash Rd and	0.3	16.9	663	Norwood	0	0	Dry
0.07	3.8	ND	42.204594	-71.198514	sample collected near culvert		0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	NA	42.25774194	-71.00886049	6 feet across	sampled just upstrean	0.3	18	709	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before bridge		0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.25623392	-71.02049266	2 cement culverts san	off Furnace Brook Par	0.4	17.1	790	Boston-Logan	0.05	0.06	Dry
NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	>50	42.27616359	-71.03722522	oil sheen, jelly fish co	Office park off Heritag	8.1	13.4	na	Boston-Logan	0	0	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3m	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27616359	-71.03722522	sampled on incoming	Office park off Heritag	23.7	20	**37.4	Boston-Logan	0.05	0.06	Dry
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27616359	-71.03722522	groundwater seep, thi	just downstream of SA	2.3	16.4	3645	Boston-Logan	0.05	0.06	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.25069222	-70.99779295	duplicate of Canal1		na	na	na	Boston-Logan	0.05	0.06	Dry
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet
NA	NA	>50	42.27867229	-71.01285912	covered w/metal grate	Between yacht clubs	15	12	na	Boston-Logan	0	0	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6m	Boston-Logan	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55m	Milton-Blue Hi	0	0	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27867229	-71.01285912	sampled inside of out	Wollaston Beach outf	3.2	18	*5.81m	Boston-Logan	0.05	0.06	Dry
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12mS	Milton-Blue Hi	0	0	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27716403	-71.00777498	sampled after tide hac	Wollaston Beach outf	29	19.4	44.56m	Boston-Logan	0.05	0.06	Dry
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled over pedestr	1.7	18.1	3271	Boston-Logan	0	0	Dry
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.399852	-70.99260269	sample taken from ab	NE back corner of Sh	4.3	20.4	7.6	Boston-Logan	0	0	Dry
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.755268	71.207933	Walked in behind autoparts/glass stor on righ		na	na	na		0.43		Wet
NA	NA	NA	42.755035	71.208086	Walked in behind auto	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	1.80	42.75526814	-71.20793271	red rusty color, some	By auto glass place of	0.2	313.5	17.2	Lawrence	0	0	Dry
NA	NA	NA	42.762503	71.222746	Parked at Lancelot Court apartments behind		na	na	na		0.43		Wet
NA	NA	2.15	42.76250258	-71.22274645	slightly more cloudy th	downstream of road, s	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.76743837	-71.22301615	low flow	behind Kohl's parked	0.4	16.2	757	Lawrence	0	0	Dry
NA	NA	NA	42.767438	71.223016	Parked behind Kohl's		na	na	na		0.43		Wet
NA	NA	NA	42.774045	71.224331	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	0.50	42.77404525	-71.22433096	thick algae growth, ve	flow from east under R	0.3	19.6	638	Lawrence	0	0	Dry
NA	NA	NA	42.778121	71.227147	Parked across from n	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	1.80	42.77812136	-71.22714727	flow from under Rockingham park		0.3	15.8	650	Lawrence	0	0	Dry
NA	NA	NA	42.77812136	-71.22714727	duplicate		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	0.20	42.77659345	-71.23104502	sample taken approx	main stream sample	0.3	18.6	665	Lawrence	0	0	Dry
NA	NA	49.30	42.39401523	-71.07608867	Sample taken out out flow		na	na	na	Boston-Logan	0	0	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
0.81	130	46.10	42.41380356	-71.13242519	can hear running water in pipe; YSI measurm		9.1	17.7	15.1	Boston-Logan	0	0	Dry
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Slight musty odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Clear flow, no obvious	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Medium sewage odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Musty odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Unnamed tributary to	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	No distinct odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4826072	-71.1046187	Unnamed tributary to	Sweetwater Brook opp	na	na	na	Boston-Logan	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Duplicate	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Duplicate	Duplicate	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	sampled largest pipe	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	flow about 2-3 gal/min	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slight odor coming fro	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484033	71.103950	Sweetwater Brook @	(0.1" 48hrs prior to sa	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slightly musty odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	2.65	42.48393	-71.1039388	Sweetwater Brook @	Lindenwood (upstream	na	na	na	Boston-Logan	0	0	Dry
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	0.40	42.490277	-71.101799	much less than 2linde	Off Toms Way in Stor	na	na	na	Boston-Logan	0	0	Dry
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.	0.1/0.2	Wet
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.9	18.1	1701	Boston-Logan	0	0.7	Dry

NA	NA	NA	42.490277	-71.101799	duplicate		na	na	na	Boston-Logan	0	0	Dry
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the N	1.1	14.8	1784	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	duplicate		na	na	na	Beverly	0	0	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~10(	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrean	0.3	15.3	806	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Near Super Stop & S	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Murky, some foam on	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.46345477	-71.14925777	very light rain, small w	at end of Sylvester St	0.4	17.4	775	Boston-Logan	0	0.47	Wet
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	NA	NA	42.46084009	-71.13716417	90 degree angle on pipe	downward, very stro	na	na	na	Boston-Logan	0	0	Dry
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	No odor	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	Low TSS, tannish sta	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	0.80	42.4764251	-71.1182001	name on data sheet is	Aberjona mainstem in	0.5	17	935	Bedford	0	0	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	culvert to right not flo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Sampled main stream	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Waded 3 ft upstream	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	12.00	42.50317874	-71.13529801	warmer than yesterda	99 restaurant, Aberjor	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.518563	71.146526	New Boston St where	water very turbid slight	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Film on water, low flo	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Water grayish/green	na	na	na	Bedford	0.15	0.15	wet
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	NA	42.518739	71.146411	Opposite stream from	Very turbid, foul odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Suspended solids	na	na	na	Bedford	0.24	0.51	Wet
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	NA	NA	42.520981	71.147709	Just upstream from M	were stream exits outf	na	na	na	Bedford	0.89	0.89	Wet
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov	Sandy bottom, beave	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov	Sandy bottom, med f	na	na	na	Bedford	0.33	0.33	Wet
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Grey, turbid water	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Med flow tannish colo	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Clear, good flow, no c	na	na	na	Bedford	0.15	0.15	Wet
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Lots of green duck we	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Very little flow, believ	na	na	na	Bedford	0.33	0.33	Wet
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
NA	NA	NA	42.495412	71.134111	Upstream of US3, sam	Clear flow	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, sam	Clear flow	na	na	na	Bedford	0.15	0.15	Wet
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry

	Location				Outfall		Inspection					13
	Date		Site	Time								E.coli
		Sampler			Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	(MPN/100 ml)
1	10/23/07	MassDEP	ShaR02t					very			sewage	1,904
2	11/29/07	MassDEP	ShaR02t					very			sewage	52
3	5/8/08	MassDEP	ShaR02t					strong	gray, with			2,909
4	7/11/08	NEET	ShaR02t									7,400
5	7/17/08	MassDEP	ShaR02t									19,863
6	7/30/08	MassDEP	ShaR02t									7,270
7	8/28/08	NEET	ShaR02t									130
8	6/10/09	OES	SLE3	13:11	CM	36	strong musty o		None	Clear	None	616
9	9/22/09	OES	SLE3	11:30	oncrete outf	3'	na	slight musty	None	Clear	None	205
10	3/23/10	OES	SLE3	14:30			10 to 12 inches deep i		gray	cloudy	/ gease / paper	
11	3/24/10	OEME ECA	SHAW01	9:50								307,600
12	3/26/10	Citizen					Gray water.					
13	5/12/10	AECOM	East Schoo	9:00				sewage	green/grey	cloudy	trees, floating matter (n	
14	5/19/10	AECOM	OSGOOD STREET				very strong sew		gray	cloudy	garbage	1,200
15	5/24/10	AECOM	Outfall (dry)				very slight od		clear	clear	None	40
16	6/4/10	AECOM	SLE	10:55			4000	none	clear	clear	branches	
17	6/10/10	OES	SLE3	7:25	oncrete outf	3'	NA	trong must	hite/tan/gra	lightly cloud	lamentous	1,954
18	6/10/10	OES	SLE3	8:25	oncrete outf	3'	NA	trong must	none	lightly cloud	lamentous	899
19	6/10/10	OES	SLE3	9:00	oncrete outf	3'	NA	trong must	none	lightly cloud	lamentous	806
20	6/11/10	AECOM	SLE	11:42			4000	none		clear	none	
21	6/16/10	AECOM	OUTFALL	13:00			rotten egg odor, very slig		clear	clear	none	39,000
22	6/18/10	AECOM	SLE				4000	none	none	none	none	
23	6/25/10	AECOM	SLE				4000	none	none	none	none	
24	7/22/10	City						sewage	gray	suspended solids		
25	7/23/10	AECOM	OUTFALL	15:00			faint musty/sewag		gray	cloudy	lids and ha	20,000
26	7/28/10	City						none	none	clear	surfaces of rocks and c	
27	8/4/10	OES	SLE3	9:30	concrete	3'	sharp punge		none	clear	nks of bact	1,230
28	8/5/10	City					none in stream, slight musty		none	clear	/grayish growth present	
29	8/12/10	City						none	none	clear	the stream bed at the	
30	8/12/10	AECOM	OUTFALL	12:15								3,800
31	8/18/10	City						none	none	clear	uth of the outfall, which	
32	8/23/10	AECOM	OUTFALL	14:30								2,400
33	8/25/10	AECOM	OUTFALL	15:00			slight sulpher odor			clear		4,500
34	9/1/10	City						none	none	clear	terial, which later disap	
35	9/9/10	City					sewage-like		none	clear	aptured on bar grate.	
36	9/10/10	City							white material returns following a dump of ba			

37	9/15/10	City						slight musty o	none	clear	none	
38	9/23/10	City						none	none	clear	none	
39	9/29/10	City						none	none	clear	none	
40	10/6/10	City						none	none	clear	none	
41	10/14/10	City						none	none	clear	none	
42	10/20/10	City						none	none	clear	none	
43	10/27/10	City						none	dark	cloudy	none	
44	10/29/10	City						none	none	clear	none	
45	11/3/10	City						none		clear	none	
46	11/5/10	AECOM	OUTFALL	14:15								1,600
47	11/10/10	City						none	slightly dark	ightly cloud	none	
48	11/19/10	City						none	none; slight sheen, possibly due to leaf c			
49	11/22/10	AECOM	OUTFALL	13:55				none		clear	none	280
50	12/1/10	City						none		none, no debris or growth		
51	12/8/10	City						none		none, no debris or growth		
52	12/16/10	City						none		clear		
53	12/23/10	City						none		clear		
54	1/6/11	City						cottony, doughy substance observed on the bottom c				
55	1/25/11	City						sewage	suspended solids, cottony material on outfal			
56	2/9/11	City						none		cloudy		
57	2/16/11	City						none		cloudy		
58	2/23/11	City						sewage		cloudy	trash	
59	3/4/11	City						none	gray	cloudy		
60	3/9/11	City						none	gray	cloudy	n/surface coating	
61	3/16/11	City						none	gray	cloudy		
62	3/23/11	City						sewage	gray	cloudy		
63	3/28/11	City						sour milk	gray	cloudy		
64	4/6/11	City						none	gray			
65	4/13/11	City						mild sour mi	clear			
66	4/19/11	City							green/gray			
67	4/21/11	City							green/gray			
68	4/28/11	City						none	gray	cloudy		
69	5/2/11	City						sour milk	gray	cloudy		
70	5/11/11	City						sour milk	gray	cloudy		
71	5/18/12	City						sour milk	gray	cloudy		
72	5/26/11	City						none	clear			

73	5/31/11	City						none	clear			
74	6/8/11	City						none	clear			
75	6/9/11	City						none	clear	t from morning rain		
76	6/14/11	City						none	clear			
77	6/22/11	City						none	clear			
78	6/30/11	City						none	clear			
79	7/6/11	City						none	clear			
80	7/15/11	City						none	clear			
81	7/19/11	MassDEP	ShaR02t									517
82	7/21/11	City						none	clear			
83	7/22/11	AECOM	Shawshee	9:15								17,000
84	7/27/11	City						none	clear			
85	8/4/11	City						none	clear			
86	8/10/11	City						none	clear			
87	8/17/11	City						none	clear			
88	8/22/11	City						none	clear			
89	8/29/11	City						none	clear			
90	9/7/11	City						musty odor	clear			
91	9/14/11	City						none	clear			
92	9/19/11	City						none	clear			
93	9/26/11	City						none	clear			
94	10/11/11	City						none	clear			
95	10/17/11	City						none	clear			
96	11/1/11	City						none	clear			
97	11/9/11	City						none	clear			
98	11/14/11	City						none	clear			
99	11/21/11	City						none	clear			
100	11/28/11	City						none	clear			
101	12/6/11	City						none	clear			
102	12/12/11	City						none	clear			
103	12/20/11	City						none	clear			
104	12/26/11	City						none	clear			
105	1/3/12	City						none	clear			
106	1/10/12	City						none	clear			
107	1/17/12	City						none	clear			
108	1/24/12	City						none	clear			

109	1/30/12	City						none	clear			
110	2/7/12	City						none	clear			
111	2/15/12	City						none	clear			
112	2/22/12	City						none	clear			
113	2/27/12	City						none	clear			
114	3/6/12	ity / AECO	OUTFALL	11:35			sewage odor			cloudy		1,000,000
115	3/12/12	City						cloudy flow has subsided				
116	3/19/12	City					sewage odor			cloudy		
117	3/21/12	AECOM	OUTFALL	15:00								210,000
118	3/26/12	City					sewage odo		gray	cloudy		
119	3/30/12	City						none	clear			
120	4/2/12	City						none	clear			
121	4/10/12	City					slight, intermittent sewage odor			clear		
122	4/16/12	City						none		clear		
123	4/24/12	OES	LAW02	8:10			No odor observed; discharge appeared to be clear. Mod					857
124	4/25/12	AECOM	OF	14:20				none	clear	clear		520
125	4/30/12	City						none	clear			
126	5/7/12	City						none	clear			
127	5/14/12	City						none	clear			
128	5/15/12	OEME	OUTFALL	12:24								186
129	5/21/12	City						mild odor	gray	cloudy	toilet paper residue	
130	5/24/12	City						none	clear			
131	5/29/12	City						none	clear			
132	6/8/12	City						none	clear			
133	6/18/12	City						none	clear			
134	6/25/12	City						none	clear			
135	6/27/12	OES	LAW02	10:15			Strong sewage odor observed. Discharge appeared to b					1,986,280
136	6/28/12	City						none		clear		
137	6/29/2012	City								cloudy		
138	7/2/2012	City						none			sediment deposition	
139	7/9/2012	City						none		clear		
140	7/17/2012	City						none		clear		
141	7/24/2012	City						none		clear		
142	7/31/2012	City						none		clear		
143	8/6/2012	City						none		clear		
144	8/13/2012	City						none		clear		
145	8/20/2012	City						none		clear		
146	8/27/2012	City						none		clear		
147	9/4/2012	City						none		clear		

148	9/11/2012	City						none		clear		
149	9/17/2012	City						none		clear		
150	9/25/2012	City						none		clear		
151	10/4/2012	City						none		clear		
152	10/11/2012	City						none		clear		
153	10/15/2012	City						none		clear		
154	10/24/2012	AECOM	E SCHOO	13:10								310
155	10/30/2012	City						none		clear		
156	11/13/2012	City						odor of ashes and burnt material				
157	11/14/2012	City						none		clear		
158	11/14/2012	JM, NH, E	SHAW03	8:30	concrete outfall		20	Slight musty odor, clear, some green growth c				1,164
159	11/19/2012	City						none		clear		
160	11/27/2012	City						none		clear		
161	12/3/2012	City						none		clear		
	12/11/2012	City						none		clear		
	12/19/2012	City						none		clear		
	12/26/2012	City						none		clear		
	1/2/2013	City						none		clear		
	1/9/2013	City						none		clear		
	1/14/2013	City						none		clear		
	1/24/2013	City						none		clear		
	1/30/2013	City						none		clear		
	2/4/2013	City						none		clear		
	2/13/2013	City						none		clear		
	2/19/2013	City						none		clear		
	2/26/2013	City						none		clear		
	3/4/2013	City						none		clear		
	3/13/2013	City						none		clear		
	3/22/2013	City						none		clear		
	3/25/2013	City						none		clear		
	4/1/2013	City						none		clear		
	4/9/2013	City						none		clear		
	4/17/2013	City						none		clear		
	4/22/2013	City						none		clear		
	4/29/2013	City						none		clear		
	5/6/2013	City						none		clear	aquatic plants or algea	
	5/13/2013	City						none		clear		
	5/20/2013	City						none		clear		
	5/28/2013	City						none		clear		
	6/3/2013	City						none		clear		

6/10/2013	City		none		clear	
6/17/2013	City		none		clear	
6/25/2013	City		none		clear	
7/1/2013	City		none		clear	
7/9/2013	City		none		clear	
7/15/2013	City		none		clear	
7/24/2013	City		none		clear	
7/31/2013	City		none		clear	
8/5/2013	City		none		clear	
8/12/2013	City		none		clear	
8/19/2013	City		none		clear	
8/26/2013	City		none		clear	
9/3/2013	City		none		clear	
9/9/2013	City		none		clear	
9/16/2013	City		none		clear	
9/23/2013	City		none		clear	
9/30/2013	City		none		clear	
10/9/2013	City		none		clear	
10/15/2013	City		none		clear	
10/22/2013	City		none		clear	
10/28/2013	City		none		clear	
11/4/2013	City		none		clear	
11/12/2013	City		none		clear	
11/18/2013	City		none		clear	
11/26/2013	City		none		clear	
12/2/2013	City		none		clear	
12/10/2013	City		none		clear	
1/7/2014	City		none		clear	
1/14/2014	City		none		clear	
1/21/2014	City		none		clear	
1/27/2014	City		none		clear	
2/3/2014	City		none		clear	
2/11/2014	City		none		frozen dirt/debris	
2/20/2014	City		none	brown	silty	
2/24/2014	City		none		clear	
3/5/2014	City		none		clear	
3/10/2014	City		none		clear	brown silty deposits fro
3/17/2014	City		none		clear	brown silty deposits fro
3/24/2014	City		none		clear	
4/1/2014	City		Shawsheen flooding			

4/7/2014	City			none	clear		
4/17/2014	EPA	Law 02	7:50				7,945
4/17/2014	City		11:15	none	clear		
4/17/2014	EPA	Law 02	12:35				4,185
4/22/2014	City			none	clear		
4/29/2014	City			none	clear		
5/7/2014	City			none	hazy	macro algae	
5/12/2014	City			none	clear	macro algae	
5/19/2014	City			none	clear		
5/27/2014	City			none	clear		
6/2/2014	City			none	clear		
6/11/2014	City			none	clear		
6/17/2014	City			none	clear		
6/23/2014	City			none	clear		
6/30/2014	City			none	clear		
7/7/2014	City			none	clear		
7/14/2014	City			none	clear		
7/21/2014	City			none	clear		
7/28/2014	City			none	clear		
8/4/2014	City			none	clear		
8/12/2014	City			none	clear		
8/18/2014	City			none	clear		
8/26/2014	City			none	clear		

14	15	16	17	18	19	20	21	22	23	24	25	26
Entero (MPN/100 ml)	Surfact. (mg/l)				NH3 (mg/l)						P	
	Any	Alpha	Field	DR-850	Any	Alpha	Field	Nessler	DR-850	Test St.	EPA (µg/L)	Atenolol
	ND (0.10)		ND (0.10)		0.31	0.31						
	0.10		0.10		0.6			0.6				
445	0.10		0.1		0.4			0.4			9	ND (2.1)
					3		3					
17,329												
ot sewage)												
	0.12	0.12			0.095	0.095						
	ND (0.05)	ND (0.05)			ND (0.075)	ND (0.075)						
2,359	1		1									ND (4.0)
4,884	0.2		0.2									ND (4.0)
2,014	0.5		0.5									ND (5.0)
	ND (0.05)	ND (0.05)			0.084	0.084						
	3	3			5.17	5.17						
oncrete in flow path												
275	0.1		0.1							ND	52	5.8
t												
mouth of the outfall												
	ND (0.05)	ND (0.05)			0.085	0.085						
transitions to a yellow color further downstream												
	0.06	0.06			0.105		0.105					
	ND (0.05)	ND (0.05)			0.096		0.096					
peared												
agel water												

	0.08	0.08			0.1	0.1						
decay												
	ND (0.05)	ND (0.05)			0.116	0.116						
of the outfall apron												
l surfaces												

	0.25		0.25		ND (0.10)		ND (0.10)					
	0.05	0.05			0.465	0.465						

	0.48	0.48			1.72	1.72						
	0.49	0.49			1.26	1.26						
30	0.2		0.2		ND (0.10)		ND (0.10)					8.8
	ND (0.05)	ND (0.05)			0.146	0.146						
488,400	2.5		2.5		6		6					820

	ND (0.05)	ND (0.05)			0.176	0.176						
120		NA				NA						1.7

›m catch basins and some green growth
›m catch basins

313
231

4.3
8.7

27	28	29	30	31	32	33	34	35	36			
PPCP ng/L									Chlorine			
Acetaminophen	Cotinine	1,7-Dimethyl	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Metoprolol	Any	Alpha Total	Field	Test St.
									ND (0.02)		ND (0.02)	
11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3		0.11		0.11	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3					
28	78	24	400	ND (0.8)	ND (8.0)	130	3.5		0.04		0.04	
24	49	18	310	ND (1.0)	ND (10.0)	130	3		0.04		0.04	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6		0.05		0.05	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		

								ND (0.02)	ND (0.02)		
								ND (0.02)	ND (0.02)		

									ND (0.02)	ND (0.02)		

									ND (0.02)	ND (0.02)		
27	2.2	5	59				3		0.3		0.3	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
15000	260	5300	25000				ND (4.0)	380	ND (0.02)		ND (0.02)	

									ND (0.02)	ND (0.02)		
17	64	20	290		71		2.9	3.5				

200	3.6	26	190				2.1	5.2
95	ND (0.4)	14	150				2.3	2.5

				Coordinates			
Flouride		Potassium (mg/L)					
Alpha	DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information
				42.69553	-71.14606		Conduit at upper end of
			5.05	42.69597	-71.14556	strong flow, lots and lots of gray stringy bacterial gro	Concrete outfall metal grate
	0.14	5.5	2.35	42.69597	-71.14556	stream scoured, lots of bacteria growth washed awa	South Lawrence Elementar
						Todd visit following several days of heavy rain.	South Lawrence Elementary
						White growth on all surfaces in flow path	
			3	42.70688	-71.14766	SLE3a' significant white/tan/gray bacteria growth, al	South Lawrence Elementar
			1.25	42.70688	-71.14766	SLE3b' Nitrate: 2. Nitrite: 0.3. Phos Strip: 4	South Lawrence Elementar
			1.65	42.70688	-71.14766	SLEc' Lawrence DPW stopped (didn't get out of truc	South Lawrence Elementar
						white/orange growth below water surface covers most rock/concrete surfaces. E	
				42.70688	-71.14766	significant white/tan/gray bacteria growth, almost m	South Lawrence Elementar

						SSO due to blocked sewer	0.47" precip 3 days prior
						SSO due to blocked sewer	
				42.69553	-71.14615	Outfall located on East Boxford Street, north of Law	had rained previous mornin
				42.69553	-71.14615	Outfall located on East Boxford Street, north of Lawrence High School.	
						SSO due to sewer collapse	

NA						42.69552111	-71.14611578

Shawsheen flooding

Shawsheen flooding

YSI Meter			Weather		
Salinity	Temp	Conducti	24hrs	48hrs	Wet/Dry?
ppt	C	uS	inches	inches	
			0.09	0.09	dry
			0.1	0.1	wet
			0	0.01	dry
					dry
					dry
					dry
0.5	14.1	1078	0.1	0.1	Wet
0.6	15.1	1158	0.01	0.01	Dry
/, behind the school			1.26	1.29	wet
					dry
			0.03	0.52	wet
			0	0	dry
			0	0.02	dry
0.5	14.6	1045/835	0.04	0.04	Dry
0.5	14.83	984/790	0.04	0.04	Dry
0.5	14.7	957/747	0.04	0.04	Dry
			0.13		wet
Bare patches of rock and soil now			0	0	dry
0.6	15.6	1120	0	0	Dry
		0.09" - 0.47"			wet
			~2"		wet

					wet
					wet

					WET

			0	0	dry
			0	0	dry
			0	0	dry
0.3	13.5	614	Trace	1.67	wet
			0	trace	dry
			0	0.06	dry
0.5	15.8	935	Trace	Trace	dry

			0	0	dry
South		0.5	14.5	950	0.26

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 23 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Wednesday, 10 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at multiple locations between East Boxford Street and Merrimack Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Christina Murphy.

At approximately 12:30 pm EPA collected a sample from the center of the Shawsheen River just prior to entering a culvert beneath Merrimack Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 700 uS/16.6 °C/0.3 ppt, respectively at the "Shaw1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as "Shaw1". EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges.

EPA observed the outfall just east of the intersection of East Boxford Street and Crawford Street at approximately 1235 hours. The EPA Inspector observed a large culvert emerging from beneath East Boxford Street with a moderate flow of surface water coming from the outfall. A strong smell of sewage was noted all along the approximate 200 yard length of the unnamed tributary channel before it empties into the Shawsheen River. EPA personnel noted some of the most significant filamentous bacterial growth they had ever observed in the field throughout the unnamed stream channel (see photos). The thickness and variety of the bacterial growth, and the fact that the growth extended throughout the approximate 200-yard length of the stream channel, was quite unusual.

EPA collected sample "SLE1" at 12:58 in the Shawsheen river approximately 10 yards downstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 577 uS/16.7 °C/0.3 ppt, respectively at the "SLE1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel

processed a surface water sample collected at the location. Field kits indicated low levels of

ammonia (0.4 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE1”.

EPA collected sample “SLE2” at 13:02 in the Shawsheen river approximately 30 yards upstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 679 uS/16.7 °C/0.3 ppt, respectively at the “SLE2” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as “SLE2”.

EPA collected sample “SLE3” at 13:05 in the unnamed tributary approximately 6 feet downstream of outfall from beneath East Boxford Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 1078 uS/14.1 °C/0.5 ppt, respectively at the “SLE3” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.6 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE3”. As stated above, there was a significant sewage smell throughout this location and the bacterial growth along the stream bed was quite significant.

EPA notified MassDEP (Kevin Brander and Jenny Birnbaum) of their observations and referred the situation for potential enforcement, as MassDEP has an existing enforcement relationship with the City.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during wet weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was 0.1 inches on 9 June 2009 (Lawrence Municipal Airport gauge).

Inspection ended at 1315.

Photographs Attached.

Photo 1: 6/10/09 12:30 PM View facing west – Shawsheen River, flowing left to right, prior to entering culvert beneath Merrimack Street.

Photo 2: 6/10/09 View of confluence of unnamed stream and Shawsheen River. Shawsheen flow is right to left. Unnamed stream enters fro lower left. Note bacterial growth along unnamed stream bottom.

Photo 3: 6/10/09 View of sample location “SLE3” just downstream from culvert opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/09. Sample location “SLE3” and close up of bacterial growth. Entire stream bed is covered in thick white/gray bacterial growth.

Photo 5: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout stream.

Photo 6: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout streambed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 5 April 2010

Subj: NPDES Compliance Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Tuesday, 23 March 2010, EPA inspector Todd Borci conducted an unannounced inspection of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at East Boxford Street in Lawrence, MA.

At approximately 2:30 pm EPA observed an unnamed outfall at the eastern terminus of East Boxford Street in Lawrence, MA. EPA had visited the location multiple times during the 2009 calendar year, and had sampled the outfall during several of those visits. During previous observations, the outfall often has a strong odor, the stream bed is stained gray, and the streambed is covered in gray filamentous bacteria, all indicators of an illicit discharge. After several days of heavy rain, EPA was inspecting the condition of the discharge.

EPA observed the Shawsheen River to be flooded, and the entire streambed from the unnamed outfall to the Shawsheen River was under water. The water level was approximately 10 to 12 inches in the pipe, and a distinct gray plume was visible for approximately 50 feet within the outfall opening. Upon closer inspection, gray, turbid water with a grease or oil sheen and a significant amount of small pieces of shredded paper were visible discharging from the outfall.

EPA collected a sample of the discharge for field screening for ammonia using Hach brand test strips. The field screening indicated an ammonia level of approximately 3 mg/l.

EPA notified the City of Lawrence of the apparent Sanitary Sewer Overflow (SSO) at approximately 3 pm. After speaking with a secretary at the City Public Works Department, EPA was instructed to leave a message for Matt Howland (978-382-2453).

The EPA inspector contacted Tim Bridges at EPA's Regional Laboratory in Chelmsford, MA to arrange for the outfall to be sampled. Due to the time of day, EPA scheduled the outfall for sampling the next morning.

Photo 1: 3/23/10 2:30 PM Unnamed outfall at eastern terminus of East Boxford Street. Water level is level of Shawsheen River. Distinct gray discharge with oil/grease/small pieces of paper coming from the outfall.

Photo 2: 3/23/10 Close up view of small pieces of paper being discharged from the unnamed outfall at the eastern terminus of East Boxford Street in Lawrence, MA.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/04/24	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
7:45AM 4/24/2012	August 2003
Exit Time/Date	**Permit Expiration Date**
12:00PM 4/24/2012	August 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data

Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.

John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Todd Borci	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/06/27	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
In-stream sample collected from the canal located upstream of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
Control sample collected from Merrimack River upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
8:25AM 6/27/2012	
Exit Time/Date	**Permit Expiration Date**
12:00PM 6/27/2012	

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data
Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.
John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	7/13/2012
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	7/13/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 15 June 2010

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Thursday, 15 June 2010, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at an outfall located to the east of East Boxford Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Leanna Conway.

At approximately 0700 EPA personnel arrived on site. EPA initiated the inspection based on predicted rainfall of 0.5 inches overnight; however, no heavy precipitation had materialized overnight. Conditions upon arrival were a light drizzle and the ground and all surfaces were wet.

Upon initial examination, a strong sewage odor was noted within 20 to 30 feet of the outfall, and significant white/gray/tan bacterial and/or fungal growth was visible at the mouth of the outfall and along the stream bottom (Photograph Nos. 1 and 2). The unnamed stream travels for a total distance of approximately 500 feet to the northeast and then curving to the west before joining the Shawsheen River, and the entire stream bed over this distance was observed to be covered in the same bacterial/fungal growth observed at the outfall (see photos). The same strong odor was observed along the stream channel as well. Based on previous EPA visits to this outfall, the only real difference from prior events was that it appeared trash had been cleaned from the metal grate at the outfall opening.

At 0735, EPA collected the first set of samples. EPA collected a total of three sample sets at 0735, 0825, and 0900 hours. Each sample set consisted of a bacterial sample, a pharmaceutical sample, and a sample for field kit analyses. Water temperature, conductivity, and salinity were recorded during the collection of each sample set. A duplicate bacterial sample was collected during the 0735 sample set. All field results were recorded in the sample note book. Final data will be attached to this report once it has received quality assurance approval.

The City is required to investigate this outfall under a recent EPA Information Request. EPA will pass along analytical results to the City once received.

EPA departed the site at 1000 hours.

Photo 1: 6/10/10 0735 hrs. View facing Northeast – Flow from culvert toward Shawsheen River. Note thick gray bacterial growth throughout entire stream bed.

Photo 2: 6/10/10 0735 hrs. View of outfall opening. Note thick gray bacterial growth on stream

bed.

Photo 3: 6/10/10 0834 hrs. View of outfall opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/10. 9:03 hrs. Close-up photo of thick bacterial growth coating stream bed. Photo taken just downstream of outfall opening.

Photo 5: 9:10 hrs. Photo taken looking into culvert through metal grate. Note significant bacterial growth along culvert bottom.

Photo 6: 9:11 hrs. Photo taken facing northeast from outfall opening toward Shawsheen River. Note significant bacterial growth throughout streambed.

Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

July 02, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: Enterococcus in Water
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 06/27/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Enterococcus by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

Enterococcus in Water

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100mL	RL MPN/100mL	Qualifier
LAW 01	AB30854	06/27/12 9:40 am	06/27/12 1:39 pm	Enterococcus in Water	**63**	10	
LAW 02	AB30855	06/27/12 10:15 am	06/27/12 1:39 pm	Enterococcus in Water	**488,400**	1000	
LAW 03	AB30851	06/27/12 8:25 am	06/27/12 1:39 pm	Enterococcus in Water	**20**	10	
LAW 03 UP	AB30853	06/27/12 8:50 am	06/27/12 1:39 pm	Enterococcus in Water	ND	10	
LAW 04	AB30852	06/27/12 8:30 am	06/27/12 1:39 pm	Enterococcus in Water	**10**	10	
LAW 05	AB30857	06/27/12 11:55 am	06/27/12 1:39 pm	Enterococcus in Water	**41**	10	
LAW 07	AB30856	06/27/12 11:10 am	06/27/12 1:39 pm	Enterococcus in Water	ND	10	

Number of Samples: 7

Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

July 02, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: E. Coli Defined Substrate
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 06/27/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Total Coliform/E. coli by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
LAW 01	AB30854	06/27/12 9:40 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**91**	4	
LAW 02	AB30855	06/27/12 10:15 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**1,986,280**	1000	
LAW 03	AB30851	06/27/12 8:25 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**115**	4	
LAW 03 UP	AB30853	06/27/12 8:50 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**98**	4	
LAW 04	AB30852	06/27/12 8:30 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**96**	4	
LAW 05	AB30857	06/27/12 11:55 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**86,640**	100	
LAW 07	AB30856	06/27/12 11:10 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**252**	4	

Number of Samples: 7

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
12060044	Lawrence MS4

SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	E. Coli	Enterococcus					REMARKS
Law03	6/27/12	0825		X		1	X	X					
Law04		0830		X		1	X	X					
Law3up		0850		X		1	X	X					
Law01		0940		X		1	X	X					
Law02		1015		X		1	X	X					
~~Law06~~ @07		11:10		X	Law07	1	X	X					
Law05		11:55		X		1	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	6/27/12 13:34				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Brittany [signature]	6/27/12 13:34	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

1- 18981

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: July 13, 2012

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Wednesday, June 27, 2012, 8:25 AM

B. Weather Conditions: Overcast, scattered rain, approximately 65 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: Various locations within the City of Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Samples were collected from seven (7) stormwater outfalls/culverts in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
- Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W).
- Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
- In-stream sample collected from the canal located upstream (to the south) of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
- Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
- Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
- Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

IV. Inspection Observations and Findings

On Wednesday, June 27, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at seven locations which discharge into the Merrimack and Shawsheen Rivers.

The inspection started in Lawrence at approximately 8:25 AM. At the time of the inspection, the weather was overcast with scattered rain and approximately 65 degrees Fahrenheit. A rain event of approximately 1 inch occurred within 48 hours of the inspection. At the time of the inspection, water level of the Merrimack River was artificially lowered downstream of the Great Stone Dam by Enel Green Power to a depth of approximately 9 feet.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory analytical results are anticipated to be available July 2012.

Attachments → Photogrpahs

End of Report

Summary of Lawrence, MA MS4 Inspection, June 27, 2012

Sample ID	LAW01	LAW02	LAW03	LAW03up	LAW04	LAW05	LAW07
Time	09:40	10:15	08:25	08:50	08:30	11:55	11:10
Latitude/Longitude	42.70861770 N/ 71.13402411 W	42.69552796 N/ 71.14615106 W	42.70352069 N/ 71.15579820 W	42.70243609 N/ 71.13576928 W	42.70349669 N/ 71.15589465 W	42.69218977 N/ 71.17582728 W	42.69453064 N/ 71.17665595 W
Description of Location	Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.	Outfall located on East Boxford Street, north of Lawrence High School.	Outfall located along south side of Merrimack River, north of New Balance factory.	In-stream sample collected from the canal located upstream (to the south) of LAW03.	Approximately 10 feet upstream of LAW03.	Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.	Outfall located along north side of Merrimack River, off of Water Street.
Physical Observations	Musty odor observed. Flow approximately 100-200 GPM.	Strong sewage odor observed. Discharge appeared to be cloudy. Grey bacterial growth observed on concrete outfall and spillway. Approximate flow 60-80 GPM.	Outfall submerged, sample collected on left side of concrete structure approximately one foot below water surface where upwelling in river was observed.	Musty odor observed. Flow greater than 100 GPM.	Control sample collected from river to compare results with LAW 03.	Outfall partially submerged. Moderate sewage odor. Debris/scum present above flow from outfall.	No odor observed. Flow from outfall did not appear mix with river until approximately 20 feet from point of sample collection.
Temperature, ºC	20.5	15.8	23.4	23.5	23.6	14.8	20.7
Specific Conductivity, µS	320	935	162	134	164.4	729	521
Salinity, ppt	0.2	0.5	0.1	0.1	0.1	0.4	0.3
Ammonia, mg/l	0.25	>6	0	0	NA	0	0.5
Total Chlorine, mg/l	0	0	0	0.48	NA	0	0.03
Detergent, mg/l	0.1	2.5	0.1	0.05	NA	0.2	0.2

NA: Not analyzed

LAW01: Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School.

LAW02: Grey bacterial growth on concrete spillway at LAW02.

LAW03: Outfall located along south side of Merrimack River, north of New Balance factory.

LAW03up: Canal located upstream (to the south) of LAW03.

LAW04: Control sample collected upstream of sample identified as LAW03 to compare results.

LAW05: Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.

LAW07: Outfall located along north side of Merrimack River, off of Water Street.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: April 24, 2012

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

I. Background Information

A. Date, Time of inspection: Tuesday, April 24, 2012, 7:00 AM

B. Weather Conditions: Mostly sunny, approximately 55 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: Various locations within the City of Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Samples were collected from seven (7) stormwater outfalls/culverts in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
- Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W).
- Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
- Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
- Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
- Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
- Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

IV. Inspection Observations and Findings

On Tuesday, April 24, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at seven locations which discharge into the Merrimack and Shawsheen Rivers.

The inspection started in Lawrence at approximately 7:00 AM. At the time of the inspection, the weather was mostly sunny and approximately 55 degrees Fahrenheit. A rain event of approximately 2.5 inches occurred within 48 hours of the inspection. Low to moderate flows were generally observed. Based on USGS Hydrologic Unit 01100000, located in the City of Lowell, and USGS Hydrologic Unit 01100693, located in the Town of Haverhill, the Merrimack River had an increased gauge depth of approximately 3.5 feet between April 22, 2012 and the time of the inspection.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory analytical results are anticipated to be available May 2012.

Summary of Lawrence, MA MS4 Inspection, April 24, 2012

Sample ID	LAW01	LAW02	LAW03	LAW04	LAW05	LAW06	LAW07
Time	7:45	8:10	8:54	9:00	9:40	10:30	11:08
Latitude/Longitude	42.70861770 N/ 71.13402411 W	42.69552796 N/ 71.14615106 W	42.70352069 N/ 71.15579820 W	42.70349669 N/ 71.15589465 W	42.69218977 N/ 71.17582728 W	42.68850280 N/ 71.17926558 W[1]	42.69453064 N/ 71.17665595 W
Description of Location	Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.	Outfall located on East Boxford Street, north of Lawrence High School.	Outfall located along south side of Merrimack River, north of New Balance factory.	Approximately 10 feet upstream of LAW03.	Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.	Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park.	Outfall located along north side of Merrimack River, off of Water Street.
Physical Observations	Slight sewage odor, possibly treated discharge. Some suds present.	No odor observed; discharge appeared to be clear. Moderate flow.	Outfall submerged, sample collected where upwelling in river was observed.	Control sample collected from river to compare results with LAW 03.	Outfall partially submerged. Moderate sewage odor. Debris/scum present above flow from outfall.	No odor observed; discharge appeared to be clear. Flow approximately 50-100 GPM.	Slight musty odor. Flow appeared to be flowing in then out of outfall. Debris present above sampling location.
Temperature, ºC	12.6	13.5	14.8	14.5	11	11.3	12.9
Specific Conductivity, µS	286	614	185	182	506	390.7	532.2
Salinity, ppt	0.14	0.3	0.09	0.09	0.24	0.19	0.26
Ammonia, mg/l	0.25	0	NA	NA	0	0	0.25
Total Chlorine, mg/l	0.43	0.3	NA	NA	0.17	0.04	0.11
Detergent, mg/l	<0.25	0.2	NA	NA	<0.25	<0.25	0.50

1. GPS coordinates were taken from Shepard Street due to limited satellite coverage.

NA: Not analyzed

LAW01: Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School.

LAW03: Outfall located along south side of Merrimack River, north of New Balance factory.

LAW04: Control sample collected upstream of sample identified as LAW03 to compare results.

LAW05: Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.

LAW06: Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park.

LAW07: Outfall located along north side of Merrimack River, off of Water Street.

End of Report.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: May 27, 2014

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REVIEWED BY: Todd Borci, May 20, 2014

I. Background Information

A. Date, Time of inspection: Tuesday, April 17, 2014, 7:45 AM

B. Weather Conditions: Mostly sunny and cool, approximately 40 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: East Boxford Street, Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Two samples were collected from the stormwater outfall located at the end of East Boxford Street in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Inspection Observations and Findings

On Tuesday, April 17, 2014, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at the outfall located on East Boxford Street, north of Lawrence High School (42.69552796 N, 71.14615106 W).

The inspection started in Lawrence at approximately 7:45 AM. At the time of the inspection, the weather was mostly sunny and cool, approximately 40 degrees Fahrenheit. A rain event of approximately 3/4 inches occurred within 48 hours of the inspection. High flows in the receiving water were observed.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

Two samples, spaced approximately 5 hours apart, were collected from the stormwater outfall located at the end of East Boxford Street. The samples were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included.

Summary of Lawrence, MA MS4 Inspection, April 17, 2014

Sample ID	LAW02	LAW02
Time	7:50	12:35
Physical Observations	High level in Shawsheen River. Low flow from outfall confirmed. Sample collected straight down from concrete headwall. Slight sheen in water surface.	Shawsheen River appears to have risen since AM sample. Sample collected up by grates.
Temperature, ºC	12.2	12.0
Specific Conductivity, µS	980	1109
Salinity, ppt	0.5	0.6
Ammonia, mg/l	0.25	0
Total Chlorine, mg/l	0	0.0
Detergent, mg/l	0.25	0.25
Atenolol, ng/l	4.3	8.7
Acetaminophen, ng/l	200	95
Cotinine, ng/l	3.6	ND
1,7-Dimethylxanthine, ng/l	26	14
Caffeine, ng/l	190	150
Carbamazepine, ng/l	2.1	2.3
Metoprolol, ng/l	5.2	2.5
E.Coli, MPN/100ml	7,945	4,185
Enterococcus, MPN/100ml	313	231

ND: Not detected above laboratory reporting limit.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School, 0750.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School, 1235.

End of Report.

EPA
Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

July 12, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: HPLC/MS/MS Source Tracking Analysis
Analyst: Peter Philbrook Peter Philbrook 12-JULY-2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIA-LCMS_STA.0.

The SOP is based on an EPA Regional Analytical Method developed at the EPA New England Laboratory.

Date Samples Received by the Laboratory: 06/27/2012

Data were reviewed in accordance with the internal verification procedures described in the EPA New England OEME Chemistry QA Plan.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Report may contain multiple sections and each section will be numbered independently.

If you have any questions please call me at 617-918-8340

Sincerely,

Daniel N Boudreau 7/16/12
Daniel N Boudreau
Chemistry Team Leader

DATA QUALIFIERS

RL	Reporting limit
J	Estimated value
E	Estimated value exceeds the calibration range
L	Estimated value is below the calibration range
B	Analyte is associated with the lab blank or trip blank contamination.
R	No recovery was calculated since the analyte concentration is greater than four times the spike level.
ND	Not Detected above Reporting limit
NA	Not Applicable due to high sample dilutions or sample interferences
ME	Matrix Effect - Sample matrix was responsible for either enhanced or suppressed ionization within the electrospray ionization probe

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NARRATIVE

Aqueous samples (500mL) were extracted using a solid phase extraction (SPE) technique, following EPA Method 1694, in which samples were passed through a cartridge containing a solid sorbent material which pre-concentrates the target compounds onto the sorbent. The target compounds (TCs) were then eluted off the sorbent material using methanol. The resulting eluant is concentrated to dryness and re-constituted to a final volume of 1 mL with 20/80 Methanol/Water.

A 5uL aliquot of the sample extract was injected into a Ultra High Performance Liquid Chromatograph (UPLC), and the TCs were separated chromatographically using a C18 UPLC column running a buffered water/methanol gradient. The ionization mode used was electrospray with the polarity operating in the positive mode. The TCs were detected using a Waters Acquity TQD Tandem Quadrupole Mass Spectrometer. The tandem quadrupole is used to perform multiple reaction monitoring (MRM) where the precursor ion of interest is fragmented to product ion(s).

Quantitation was performed by the internal standard calibration method using isotopically labeled analogues. Sulfamethazine *13*C6 and Primidone d5 were used as a surrogate compounds to monitor extraction efficiency.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 03	Lab Sample ID:	AB30851
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.47

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	30	2.00	
103-90-2	Acetaminophen	4.4	2.00	
486-56-6	Cotinine	3.4	0.40	
611-59-6	1,7-Dimethylxanthine	12	4.00	
58-08-2	Caffeine	27	8.00	
298-46-4	Carbamazepine	9.4	0.40	
56392-17-7	Metoprolol	22	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	68	23 - 181
Sulfamethazine 13C6	97	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 04	Lab Sample ID:	AB30852
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.22

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**35**	2.00	
103-90-2	Acetaminophen	**3.7**	2.00	
486-56-6	Cotinine	**3.7**	0.40	
611-59-6	1,7-Dimethylxanthine	**12**	4.00	
58-08-2	Caffeine	**24**	8.00	
298-46-4	Carbamazepine	**4.9**	0.80	
56392-17-7	Metoprolol	**21**	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	66	23 - 181
Sulfamethazine 13C6	99	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 03 UP	Lab Sample ID:	AB30853
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.16

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**30**	2.00	
103-90-2	Acetaminophen	**4.8**	2.00	
486-56-6	Cotinine	**3.5**	0.40	
611-59-6	1,7-Dimethylxanthine	**13**	4.00	
58-08-2	Caffeine	**28**	8.00	
298-46-4	Carbamazepine	**11**	0.80	
56392-17-7	Metoprolol	**24**	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	67	23 - 181
Sulfamethazine 13C6	102	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 01	Lab Sample ID:	AB30854
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.33

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	**6.0**	4.00	
486-56-6	Cotinine	**13**	0.40	
611-59-6	1,7-Dimethylxanthine	**27**	4.00	
58-08-2	Caffeine	**94**	8.00	
298-46-4	Carbamazepine	**0.49**	0.80	L
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	57	23 - 181
Sulfamethazine 13C6	109	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 02	Lab Sample ID:	AB30855
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	100
Volume Extracted:	500 mL	pH:	6.92

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**820**	20.00	
103-90-2	Acetaminophen	**15000**	200.00	
486-56-6	Cotinine	**260**	4.00	
611-59-6	1,7-Dimethylxanthine	**5300**	200.00	
58-08-2	Caffeine	**25000**	400.00	
298-46-4	Carbamazepine	ND	4.00	
56392-17-7	Metoprolol	**380**	20.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	78	23 - 181
Sulfamethazine 13C6	132	15 - 132

Comments: Sample required multiple dilutions to quantitate target compounds. The extract was run at both a 10X and 100X dilution.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 07	Lab Sample ID:	AB30856
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1,2,20
Volume Extracted:	500 mL	pH:	7.49

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**31**	2.00	
103-90-2	Acetaminophen	**2500**	40.00	
486-56-6	Cotinine	**3.3**	0.40	
611-59-6	1,7-Dimethylxanthine	**190**	4.00	
58-08-2	Caffeine	**74**	8.00	
298-46-4	Carbamazepine	**1.8**	0.80	
56392-17-7	Metoprolol	**2.8**	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	58	23 - 181
Sulfamethazine 13C6	73	15 - 132

Comments: Sample was run at 1X, 2X , and 20X dilutions to quantitate target compounds.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 05	Lab Sample ID:	AB30857
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	7.38

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**3.8**	2.00	
103-90-2	Acetaminophen	**40**	2.00	
486-56-6	Cotinine	**1.2**	0.40	
611-59-6	1,7-Dimethylxanthine	**9.5**	2.00	
58-08-2	Caffeine	**23**	4.00	
298-46-4	Carbamazepine	**3.7**	0.40	
56392-17-7	Metoprolol	**2.2**	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	58	23 - 181
Sulfamethazine 13C6	90	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	FIELD BLANK 01	Lab Sample ID:	AB30858
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	6.39

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	ND	2.00	
486-56-6	Cotinine	ND	0.40	
611-59-6	1,7-Dimethylxanthine	ND	2.00	
58-08-2	Caffeine	ND	4.00	
298-46-4	Carbamazepine	ND	0.40	
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	91	23 - 181
Sulfamethazine 13C6	81	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	6.39

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	ND	2.00	
486-56-6	Cotinine	ND	0.40	
611-59-6	1,7-Dimethylxanthine	ND	2.00	
58-08-2	Caffeine	ND	4.00	
298-46-4	Carbamazepine	ND	0.40	
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Sulfamethazine 13C6	65	
Primidone d5	81	

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

LABORATORY FORTIFIED BLANK (LFB) RECOVERY

MS4 Outfalls - Lawrence, MA

COMPOUND	SPIKE ADDED ng/L	LFB CONCENTRATION ng/L	LFB RECOVERY %	QC LIMITS (% REC)
1,7-Dimethylxanthine	120	114	95.0	64 - 135
Acetaminophen	120	98.0	81.7	48 - 122
Atenolol	120	97.5	81.2	52 - 128
Caffeine	240	212	88.3	68 - 126
Carbamazepine	24	20.1	83.8	65 - 121
Cotinine	24	20.4	85.0	60 - 120
Metoprolol	120	102	85.0	60 - 140

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MATRIX SPIKE RECOVERY

Sample ID: AB30850

PARAMETER	SPIKE ADDED ng/L	SAMPLE CONCENTRATION ng/L	MS CONCENTRATION ng/L	MS % REC	QC LIMITS (% REC)
1,7-Dimethylxanthine	120	16	129	94.2	13 - 174
Acetaminophen	120	12	106	78.3	23 - 138
Atenolol	120	ND	102	85.0	49 - 137
Caffeine	240	126	229	42.9	31 - 156
Carbamazepine	24	2.2	22	82.5	47 - 143
Cotinine	24	11	24	54.2	46 - 121
Metoprolol	120	4.4	140	113	60 - 140

LABORATORY DUPLICATE RESULTS

Sample ID: AB30849

PARAMETER	SAMPLE RESULT ng/L	SAMPLE DUPLICATE RESULT ng/L	PRECISION RPD %	QC LIMITS
1,7-Dimethylxanthine	5.7	5.3	7.27	50
Acetaminophen	2.8	2.4	15.4	50
Atenolol	ND	ND	ND	50
Caffeine	16	17	6.06	50
Carbamazepine	2.0	1.9	5.13	50
Cotinine	3.3	3.4	2.98	50
Metoprolol	4.2	2.9	36.6	50

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
120600 44	Lawrence MS4

SAMPLERS: *(Signature)*

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	STA	REMARKS
Law 03	6/27/12	0825		X		1	X	
Law 04	6/27/12	0830		X		1	X	
Law 3up	6/27/12	0850		X		1	X	
Law 01	6/27/12	0940		X		1	X	
Law 02	6/27/12	1015		X		1	X	
Law 06	6/27/12	11:10		X		1	X	
Law 05	6/27/12	11:55		X		1	X	
Field Blank 01	6/27/12	07:00		X		1	X	

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
	6/27/12 12:46				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)* ESAT	Date / Time	Remarks	
			6/27/12 12:46		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

20°C -

1- 18986

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

DRAFT REPORT

May 21, 2012

Tim Bridges - ECA / OEME
US EPA New England Regional Laboratory
11 Technology Dr.
North Chelmsford, MA 01863 - 2431

Project Number: 12050022
Project: Lawrence High School - Lawrence, MA
Analysis: E. Coli Defined Substrate
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 05/15/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Total Coliform/E. coli by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

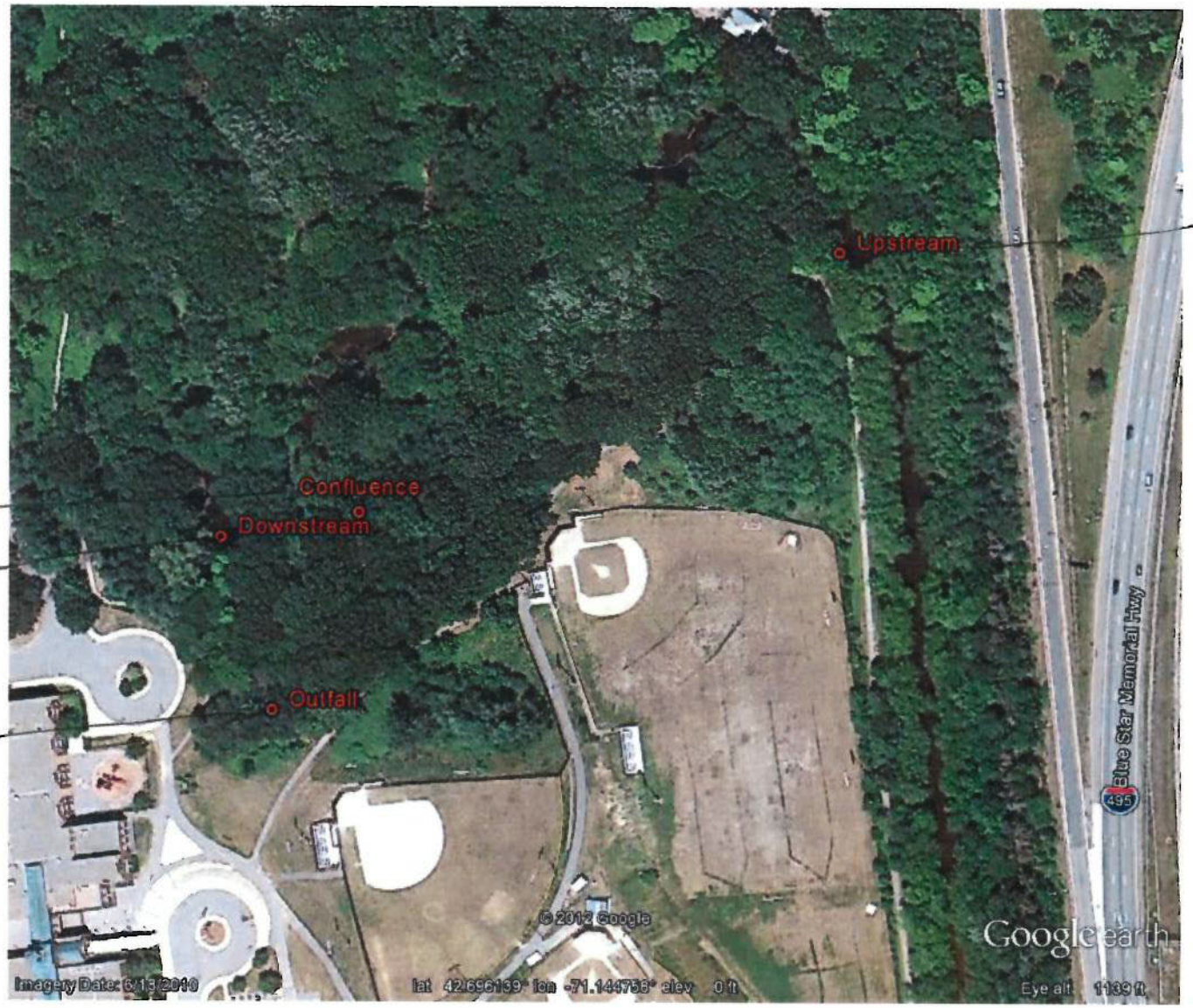
Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

Lawrence High School Sampling Locations May 15, 2012



2190

1844

1642

186

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

Lawrence High School - Lawrence, MA

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
CONFLUENCE	AB29959	05/15/12 12:33 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**1844**	4	
DOWNSTREAM	AB29956	05/15/12 12:27 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**1642**	4	
OUTFALL	AB29957	05/15/12 12:24 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**186**	4	
UPSTREAM	AB29958	05/15/12 12:48 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**2190**	4	

Number of Samples: 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: January 2, 2012

SUBJ: MS4 Compliance Sampling Inspections
Municipalities of Lawrence, North Andover, and Methuen, Massachusetts

FROM: Jack Melcher, Inspector

THRU: Neil Handler, Senior Enforcement Coordinator

TO: File

I. Background Information

A. Date, Time of inspection: Wednesday, November 14, 8:00 AM

B. Weather Conditions: Sunny, approximately 50 degrees F

C. USEPA Representatives: Jack Melcher
Erin Trainor
Neil Handler

D. Site Representative(s): John Isensee
City of Lawrence
Acting Director of Public Works
200 Common Street, Lawrence, MA 01840

Eugene Willis
Town of North Andover
Town Engineer
384 Osgood St, North Andover, MA 01845

Frank Russo
City of Methuen
Chief Engineer
41 Pleasant St, Methuen, MA 01844

Note: Site Representatives were not contacted and were not present during the inspection.

E. Address: Various locations within the municipalities of Lawrence, North Andover, and Methuen (refer to Section III).

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the municipalities of Lawrence, North Andover, and Methuen municipal separate stormwater sewer systems (MS4s) that may adversely impact the water quality. Samples were collected from eight (8) stormwater outfalls/culverts and/or directly from the stream, in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

Refer to attachments for a map of sampling locations.

Lawrence

- Outfall behind the South Lawrence East Elementary School, identified as SHAW03 (42.69552111, -71.14611578).
- Culverted Bloody Brook outfall to the Spickett River, identified as SPI07 (42.71510088, -71.15405144).
- Outfall to the Merrimack River near Doyle Street, identified as MERR08 (42.69445544, -71.17662812).
- Outfall to the Merrimack River near Fordham Road, identified as MERR09 (42.69590063, -71.18520015).
- Outfall to an unnamed tributary of the Merrimack River near the Abe Bashara community boathouse, identified as MERR04 (42.69220019, -71.17585447).

North Andover

- Chochechiwick River near Sutton Street, upstream of the sewer force main, identified as CHOC01 (42.70726365, -71.13327503).
- Chochechiwick River near the Greater Lawrence Sanitary District Riverside Pump Station, downstream of the sewer force main, identified as CHOC02 (42.70829022, -71.13395397).

Methuen

- Bloody Brook entering storm drain behind CVS off of Swan Street (Rte 110) in Methuen, identified as BLOO05 (42.72349286, -71.15844595).

IV. Inspection Observations and Findings

On Wednesday, November 14, 2012, EPA inspectors John Melcher, Neil Handler, and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) within the municipalities of Lawrence, North Andover, and Methuen at eight locations along the Shawsheen River, Chochechiwick River, Bloody Brook, Spickett River, and the Merrimack River.

The inspection started in Lawrence at approximately 8:00 AM. At the time of the inspection, the weather was sunny and approximately 50 degrees Fahrenheit. A rain event occurred in the sampling area on the previous day (November 13, 2012), with approximately 0.26 inches of rainfall[1].

The municipalities of Lawrence, North Andover, and Methuen are covered under the 2003 EPA NPDES General Permit for Storm Water Discharges from Small MS4s ("Permit"). The Permit, Notices of Intent (NOIs), and other information for these municipalities are available on the Permit website at http://www.epa.gov/region1/npdes/stormwater/2003-permit-archives.html. Permit numbers and NOI effective dates for these municipalities are summarized in the following table:

Municipality	**Permit Number**	**NOI Date Effective**
Lawrence	MAR041201	March 7, 2003
Methuen	MAR041210	July 25, 2003
North Andover	MAR041214	July 22, 2003

At all of the locations described in Section III, samples were analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol, Primidone, and Sulfamethazine. In-situ measurements for conductivity, salinity, and temperature were also recorded at the time of sampling. At some of the sampling locations described in Section III, samples field screened using test kits for ammonia, chlorine, and surfactants. Field test kits were not conducted on samples SHAW03, MERR08, MERR09, and MERR04 because of constraints on the holding time of the bacteria samples. Table 1 summarizes the field data and Table 2 summarizes the laboratory data.

End of Report

Attachments:
Map: Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012
Table 1: Summary of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012
Photos

[1] Based on observations at Lawrence Municipal Airport, provided by NCDC.

Map: Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

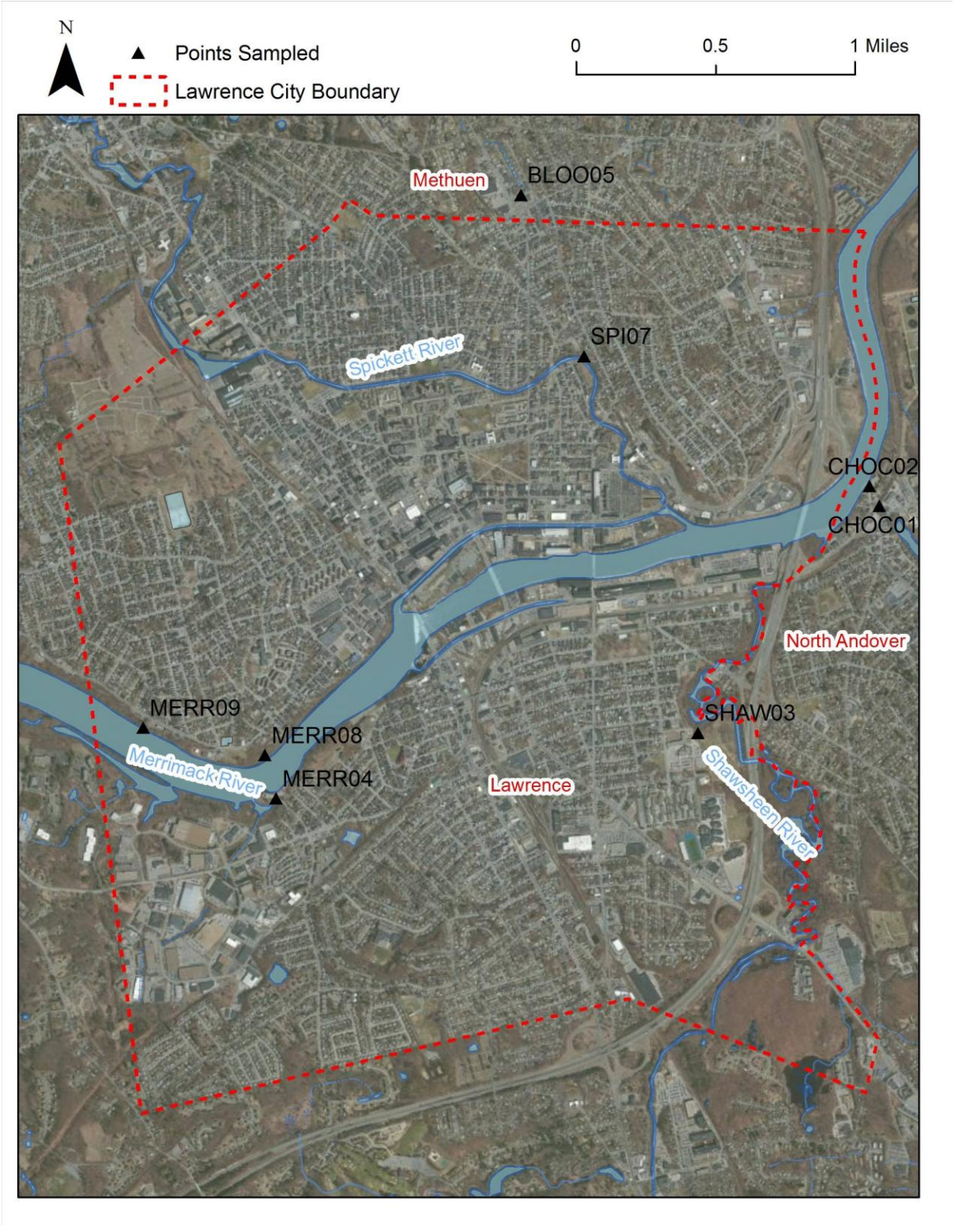


Table 1: Field Data of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

Sample ID	SHAW03	CHOC01	CHOC02	BLOO05	SPI07	MERR08	MERR09	MERR04
Time	8:30	9:10	9:45	10:25	11:00	12:40	13:10	13:40
Description of Location	South Lawrence East Elementary School	Chochechiwick River upstream of sewer main	Chochechiwick River downstream of sewer main	Bloody Brook entering storm drain behind CVS in Methuen	Culverted Bloody Brook outfall to Spickett River	Outfall to Merrimack River near Doyle Street	Outfall to Merrimack River near Fordham St	Outfall to the Merrimack River near boathouse
Coordinates of Location (decimal degrees)	42.69552111, -71.14611578	42.70726365, -71.13327503	42.70829022, -71.13395397	42.72349286, -71.15844595	42.71510088, -71.15405144	42.69445544, -71.17662812	42.69590063, -71.18520015	42.69220019, -71.17585447
Photos	3447	3448	3449	3450	3451, 3452, 3453	3454	3455, 3456	3458
Physical Observations	Slight musty odor, clear, some green growth on rocks	Slight sewer odor, cloudy	Slight odor	Slight odor, cloudy	Black film on rocks in channel	No odor, clear	Very little flow	Partially submerged
Estimated Flow, gpm	20	NA	50	NA	100	5-10	<1	NA
Temperature, ˚C	14.5	7.3	7.3	8.0	9.4	10.5	11.5	14.4
Specific Conductivity, µS/cm	950	535	475	1,050	1,032	288	1,410	690
Salinity, ppt	0.5	0.3	0.2	0.5	0.5	0.1	0.7	0.3
Ammonia, mg/L	NA	ND (0.1)	0.25	ND (0.1)	0.25	NA	NA	NA
Total Chlorine, mg/L	NA	0.03	0.02	0.04	0.03	NA	NA	NA
Surfactants, mg/L	NA	<0.25 (0.2)	<0.25 (0.1)	<0.25 (0.2)	0.25	NA	NA	NA

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute (X.X): estimated value

Table 2: Laboratory Data of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

Sample ID	SHAW03	CHOC01	CHOC02	BLOO05	SPI07	MERR08	MERR09	MERR04
Time	8:30	9:10	9:45	10:25	11:00	12:40	13:10	13:40
Description of Location	South Lawrence East Elementary School	Chochechiwick River upstream of sewer main	Chochechiwick River downstream of sewer main	Bloody Brook entering storm drain behind CVS in Methuen	Culverted Bloody Brook outfall to Spickett River	Outfall to Merrimack River near Doyle Street	Outfall to Merrimack River near Fordham St	Outfall to the Merrimack River near boathouse
Atenolol, ng/l	1.7	ND (4.00)	ND (4.00)	ND (4.0)	11	14	ND (2.0)	140
Acetaminophen, ng/l	17	10	11	4.1	130	690	ND (2.0)	330
Cotinine, ng/l	64	9.4	9.4	8.4	9.8	4.5	0.81	17
1,7-Dimethylxanthine, ng/l	20	6.6	5.2	6.7	35	63	2.2	140
Caffeine, ng/l	290	94	94	57	220	250	6.9	290
Carbamazepine, ng/l	2.9	ND (0.80)	ND (0.80)	ND (0.80)	ND (0.8)	2.6	2.1	14
Metoprolol, ng/l	3.5	ND (4.00)	ND (4.00)	ND (4.00)	1.9	7.1	ND (2.0)	88
Primidone, ng/l	71	66	61	64	63	60	75	68
Sulfamethazine, ng/l	114	82	96	75	87	75	126	106
E.Coli, MPN/100ml	1,164	39	34	2,595	9,678	16	53	92,080
Enterococcus, MPN/100ml	120	31	41	909	583	ND (10)	ND (10)	11,199

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute

Photo Log:

Photo 3447. SHAW04. 11/14/12. Photo by Jack Melcher.
Outfall behind the South Lawrence East Elementary School.

Photo 3448. CHOC01. 11/14/12. Photo by Jack Melcher.
Chochechiwick River upstream of the sewer force main.

Photo 3449. CHOC02. 11/14/12. Photo by Jack Melcher.
Chochechiwick River downstream of the sewer force main.

Photo 3450. BLOO05. 11/14/12. Photo by Jack Melcher.
Bloody Brook entering storm drain behind CVS in Methuen.

Photo 3451. SPI07. 11/14/12. Photo by Jack Melcher.
Culverted Bloody Brook outfall to the Spickett River.

Photo 3452. SPI07. 11/14/12. Photo by Jack Melcher.
Channel to the Spickett River.

Photo 3453. SPI07. 11/14/12. Photo by Jack Melcher.
Black growth on rocks in channel to Spickett River.

Photo 3454. MERR08. 11/14/12. Photo by Jack Melcher.
Outfall to the Merrimack River near Doyle Street.

Photo 3455. MERR09. 11/14/12. Photo by Jack Melcher.
Outfall to the Merrimack River near Fordham Road.

Photo 3456. MERR09. 11/14/12. Photo by Jack Melcher.
Concrete channel to Merrimack River from outfall.

Photo 3458. MERR04. 11/14/12. Photo by Jack Melcher.
Outfall to an unnamed tributary of the Merrimack River near the community boathouse.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 23 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Wednesday, 10 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at multiple locations between East Boxford Street and Merrimack Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Christina Murphy.

At approximately 12:30 pm EPA collected a sample from the center of the Shawsheen River just prior to entering a culvert beneath Merrimack Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 700 uS/16.6 °C/0.3 ppt, respectively at the "Shaw1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as "Shaw1". EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges.

EPA observed the outfall just east of the intersection of East Boxford Street and Crawford Street at approximately 1235 hours. The EPA Inspector observed a large culvert emerging from beneath East Boxford Street with a moderate flow of surface water coming from the outfall. A strong smell of sewage was noted all along the approximate 200 yard length of the unnamed tributary channel before it empties into the Shawsheen River. EPA personnel noted some of the most significant filamentous bacterial growth they had ever observed in the field throughout the unnamed stream channel (see photos). The thickness and variety of the bacterial growth, and the fact that the growth extended throughout the approximate 200-yard length of the stream channel, was quite unusual.

EPA collected sample "SLE1" at 12:58 in the Shawsheen river approximately 10 yards downstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 577 uS/16.7 °C/0.3 ppt, respectively at the "SLE1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel

processed a surface water sample collected at the location. Field kits indicated low levels of

ammonia (0.4 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE1”.

EPA collected sample “SLE2” at 13:02 in the Shawsheen river approximately 30 yards upstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 679 uS/16.7 °C/0.3 ppt, respectively at the “SLE2” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as “SLE2”.

EPA collected sample “SLE3” at 13:05 in the unnamed tributary approximately 6 feet downstream of outfall from beneath East Boxford Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 1078 uS/14.1 °C/0.5 ppt, respectively at the “SLE3” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.6 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE3”. As stated above, there was a significant sewage smell throughout this location and the bacterial growth along the stream bed was quite significant.

EPA notified MassDEP (Kevin Brander and Jenny Birnbaum) of their observations and referred the situation for potential enforcement, as MassDEP has an existing enforcement relationship with the City.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during wet weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was 0.1 inches on 9 June 2009 (Lawrence Municipal Airport gauge).

Inspection ended at 1315.

Photographs Attached.

Photo 1: 6/10/09 12:30 PM View facing west – Shawsheen River, flowing left to right, prior to entering culvert beneath Merrimack Street.

Photo 2: 6/10/09 View of confluence of unnamed stream and Shawsheen River. Shawsheen flow is right to left. Unnamed stream enters fro lower left. Note bacterial growth along unnamed stream bottom.

Photo 3: 6/10/09 View of sample location “SLE3” just downstream from culvert opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/09. Sample location “SLE3” and close up of bacterial growth. Entire stream bed is covered in thick white/gray bacterial growth.

Photo 5: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout stream.

Photo 6: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout streambed.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/04/24	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
7:45AM 4/24/2012	August 2003
Exit Time/Date	**Permit Expiration Date**
12:00PM 4/24/2012	August 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data

Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.

John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Todd Borci	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/06/27	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
In-stream sample collected from the canal located upstream of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
Control sample collected from Merrimack River upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
8:25AM 6/27/2012	
Exit Time/Date	**Permit Expiration Date**
12:00PM 6/27/2012	

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data
Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.
John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

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[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	7/13/2012
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	7/13/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
8/19/09	Lawrence	SPR01	7:55	open stream	na	stream	None	None	Clear	None	96	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR02	8:00	open stream	na	stream	musty	None	Clear	None	96	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR03	8:10	open stream	na	stream	None	None	Clear	some suds*	319	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR04	8:15	x from concrete pipe			None	None	Clear	None	ND	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	light sewag	None	Clear	None	1741	NA	NA	0.25	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	157	NA	NA	0.10	NA	NA
8/19/09	Lawrence	UR012	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	174	NA	NA	NA	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'	strong, musty sewa		None	Clear	None	34	NA	NA	0.20	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.70688	-71.1476552	downstream of waterf	confluence of canal &	0.1	26.5	188	Lawrence	0	0	Dry
NA	NA	NA	42.70703754	-71.14815826	some algae on stream	just down stream of ca	0.1	25.6	192.9	Lawrence	0	0	Dry
NA	NA	NA	42.70747755	-71.14846649	shallow 1' aglae on ro	Upstream (~50') of Sp	0.2	23.2	480	Lawrence	0	0	Dry
NA	NA	NA	42.70725878	-71.14809783	on Merrimack river sid	leaky pipe under Spic	0.1	22.6	230	Lawrence	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	tace hemoglobin off u	pipe off Lawrence Hos	1.2	22.6	2291	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection															
													Surfact. (mg/l)			NH3 (mg/l)				
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha	Field	Nessler	DR-850	Test St.
9/22/09	Lawrence	SLE3	11:30	ncrete out	3'	na	light must	None	Clear	None	205	445	ND	~0.1	ND	ND	ND	0.4	ND	ND
9/22/09	Lawrence	UR018	11:30	ncrete out	3'	na	light must	None	Clear	None	279	249	ND	~0.1	ND	ND	ND	0.4	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	light must	None	Clear	Yes, pape	29870	19863	~0.05	0.25	0.05	7.02	>2	>3	2.26	6
3/24/10		Shaw01																		
6/10/10	Lawrence	SLE3	7:25	ncrete out	3'	NA	rong mus	hite/tan/gr	ghtly clou	amentous	1954	2359	NA	1	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	UR027	7:25	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	1741	1314	NA	0.2	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SLE3	8:25	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	899	4884	NA	0.2	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SLE3	9:00	ncrete out	3'	NA	rong mus	none	ghtly clou	amentous	806	2014	NA	0.5	NA	NA	NA	NA	NA	ND
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clea	none	NA	NA	NA	0.5	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	lean sme	none	none	none	30	10	NA	0.2	NA	NA	NA	NA	NA	0.2
8/4/10	Lawrence	SPRLGH	7:40	Open stre	NA	NA	none	none	clear	none	1164	1529	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Jackson	8:25	Open stre	NA	NA	none	light tea	some	sh and deb	606	512	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Willow	9:00	Open stre	NA	NA	none	med tea	none	sh and deb	325	158	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bac	1230	275	NA	~0.1	NA	NA	NA	NA	NA	ND
8/4/10	Lawrence	Shaw01	9:50	Open stre	NA	NA	none	l sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA	NA	NA	NA	ND

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH3 - color key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L *** may give false positive at salinity greater than 1 ppt
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPORTING LIMITS

E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Alpha = 0.05 mg/L (Except where otherwise noted)
Surfactants Field = 0.1 mg/L
Surfactant DR-850 = 0.02 mg/L
Ammonia (Alpha) = 0.075 mg/L
Ammonia Field = 0.1 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia DR-850 = 0.08 mg/L
Ammonia Test Strip = 0.1 mg/L
Total Phosphorus = 5 ug/L
CL2 (Total Residual) = 0.02 mg/L
CL2 (Residual Free) = 0.05 mg/L
CL2 Field = 0.02 mg/L
CL2 Test Strip =
Flouride Alpha= 0.20 mg/L
Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Potassium = 2.5 mg/L
Potassium Field = 0.2 mg/L
Nitrogen, Nitrate/Nitrite = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

																			Coordi
P	PPCP ng/L									Cl2 (mg/l)				Flouride		Potassium (mg/L)		
EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha	DR-850	Alpha	Field	GPS North(+)
9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND	0.14	5.5	2.35	42.695971
22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND	0.1	5.8	2.30	42.695971
421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22	0.32	28	34.90	42.70991636
	920	8800	86	1800	12000	34	nd	79000	ND (0.5)									
NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA	NA	NA	3	42.70688
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2.35	42.70688
NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA	NA	NA	1.25	42.70688
NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA	NA	NA	1.65	42.70688
NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA	NA	NA	NA	42.70991636
12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA	NA	NA	NA	42.70991636
21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA	NA	NA	NA	42.70995636
6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA	NA	NA	NA	42.713273
24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA	NA	NA	NA	42.713893
52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA	NA	NA	NA	42.70688
23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA	NA	NA	NA	42.696984

nates			YSI Meter				Weather		
			Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inche	inches	
-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
-71.1476552	SLE3a' significant whi	South Lawrence Elem	0.5	14.6	045/83	Lawrence	0.04	0.04	Dry
-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/1	Lawrence	0.04	0.04	Dry
-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
-71.158219	upstream of Jackson	heavy sedimentation o	0.3	23.1	530	Lawrence	0	0	Dry
-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
-71.143777	Mainstem Shawsheen river sample		na	na	na	Lawrence	0	0	Dry

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
6/23/08	Melrose	Otis	8:50								3266	NA	0.09	NA	NA	0.77
6/23/08	Winchester	62Sun	9:30								533	NA	ND	NA	NA	ND
6/23/08	Woburn	1Merrell	10:00	open stream	na	stream					2069	NA	0.10	NA	NA	0.76
6/23/08	Woburn	1Kraft	10:17								5654	NA	0.27	NA	NA	ND
6/23/08	Woburn	2Merrell	10:23								2190	NA	0.08	NA	NA	0.41
6/23/08	Stoneham	100A	11:00	open stream	na	stream					14400	NA	0.19	NA	NA	ND
6/23/08	Stoneham	1Linden	11:16								6932	NA	0.20	NA	NA	ND
6/23/08	Stoneham	1West	11:42	stone	2x3						14100	NA	0.29	NA	NA	0.410
6/23/08	Stoneham	2dLinden	12:02	open stream	na	stream					13700	NA	0.30	NA	NA	ND
6/23/08	Stoneham	2Linden	12:02	open stream	na	stream					9600	NA	0.32	NA	NA	ND
6/30/08	Methuen	Mer1	8:43								1162	1495 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer2	9:06	open stream	na	stream					288	694 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer3	9:35	open stream	na	stream					590	590 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer4	10:00								580	590 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer4d	10:00								631	811 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer5	10:27	open stream	na	stream					883	739 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer6A	10:55								802	847 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer6	11:05								775	955 Fecal	0.07	NA	NA	ND
6/30/08	Salem, NH	Mer7	11:30	CM	3-4 ft						775	955 Fecal	0.05	NA	NA	ND
6/30/08	Salem, NH	Mer8	11:51	open stream	na	stream					568	649 Fecal	0.05	NA	NA	ND
7/10/08	Woburn	Mys01	8:15	open stream	na	stream					7945	NA	0.09	NA	NA	2.37
7/10/08	Woburn	Mys02	8:45								1230	NA	0.08	NA	NA	3.70
7/10/08	Woburn	Mys03	9:11								6932	NA	0.08	NA	NA	ND
7/10/08	Woburn	Mys04	9:20								5199	NA	0.10	NA	NA	0.50
7/10/08	Woburn	Mys05	9:38								239	NA	ND	NA	NA	ND
7/10/08	Woburn	Mys06	9:56								2452	NA	0.08	NA	NA	0.73
7/10/08	Woburn	Mys07	10:18	open stream	na	stream					27230	NA	0.07	NA	NA	4.29
7/10/08	Woburn	Mys08	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.57
7/10/08	Woburn	Mys8d	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.52
7/10/08	Woburn	Mys09	10:45	open stream	na	stream					1549	NA	0.06	NA	NA	4.93
7/10/08	Woburn	Mys10	11:13								2452	NA	0.06	NA	NA	1.25
7/15/08	Stoneham	1West	7:57	stone	2x3						3266	NA	0.05	NA	NA	ND
7/15/08	Stoneham	2Linden	8:15	open stream	na	stream					689	NA	0.05	NA	NA	ND
7/15/08	Stoneham	2Lincul	8:20	clay	8"						430	NA	0.06	NA	NA	ND
7/15/08	Woburn	WashC	8:55								316	NA	0.07	NA	NA	1.32
7/15/08	Woburn	Burb	9:08								599	NA	0.06	NA	NA	ND
7/15/08	Woburn	Aber	9:20								408	NA	0.06	NA	NA	ND
7/15/08	Woburn	Sal	9:40								430	NA	0.09	NA	NA	1.84
7/15/08	Woburn	US1	9:55								125	NA	0.07	NA	NA	ND
7/15/08	Woburn	US2	10:05								740	NA	1.60	NA	NA	ND
7/15/08	Woburn	Olym	10:35								606	NA	0.09	NA	NA	ND
7/15/08	Woburn	Fit	10:55								152	NA	0.09	NA	NA	3.91
7/15/08	Woburn	Fitd	10:55								152	NA	0.08	NA	NA	3.94
7/15/08	Woburn	Mys01	11:15	open stream	na	stream					164	NA	0.08	NA	NA	3.46
7/21/08	Boston	Con	7:55								54750	NA	0.09	NA	NA	ND
7/21/08	Boston	Bos014	8:10								3266	NA	0.08	NA	NA	ND
7/21/08	Revere	Hadd	9:00								612	NA	0.15	NA	NA	ND
7/21/08	Chelsea	Mill1	9:35								9330	NA	0.18	NA	NA	ND
7/21/08	Chelsea	Mill2	9:55	concrete	~30 inches						9678	NA	0.18	NA	NA	1.33
7/21/08	Chelsea	Mill3	10:10								15530	NA	0.09	NA	NA	ND
7/21/08	Chelsea	Rev06	10:30								7945	NA	0.08	NA	NA	ND
7/21/08	Chelsea	Mill4	10:35								3266	NA	0.11	NA	NA	ND
7/21/08	Chelsea	IsEnd01	11:20								2595	NA	0.08	NA	NA	ND
7/21/08	Chelsea	IsEnd02	11:25	CM, semi-round	7'						3080	NA	0.19	NA	NA	ND
7/21/08	Chelsea	IsEnd04	11:30								>241960	NA	0.14	NA	NA	13.0
7/21/08	Chelsea	IsEnd04d	11:30								>241960	NA	0.15	NA	NA	13.5
7/21/08	Medford	Mhb	12:30								7945	NA	0.06	NA	NA	ND
7/21/08	Medford	Mhb2	12:40								9678	NA	NA	NA	NA	NA
7/28/08	Winchester	M01	7:35								2452	NA	0.09	NA	NA	ND
7/28/08	Winchester	M02	7:58								4813	NA	0.09	NA	NA	ND
7/28/08	Winchester	M03	8:14								3683	NA	0.09	NA	NA	ND
7/28/08	Winchester	M04	8:31								156	NA	0.07	NA	NA	ND
7/28/08	Winchester	M05	8:42								126	NA	0.06	NA	NA	ND
7/28/08	Winchester	M06	9:10								44	NA	0.06	NA	NA	ND
7/28/08	Winchester	M07	9:26								4813	NA	0.08	NA	NA	ND
7/28/08	Winchester	M08	9:40								64	NA	0.07	NA	NA	3.11
7/28/08	Winchester	M09	9:55								6212	NA	0.07	NA	NA	ND
7/28/08	Winchester	M10	10:16								5654	NA	0.06	NA	NA	ND
7/28/08	Winchester	M10a	10:30								162	NA	0.07	NA	NA	ND
7/28/08	Winchester	M11	10:48								241	NA	0.07	NA	NA	ND
7/28/08	Winchester	M11d	10:48								248	NA	0.09	NA	NA	ND
7/28/08	Winchester	M12	11:35								6932	NA	0.05	NA	NA	ND
7/28/08	Winchester	M13	12:31								248	NA	NA	NA	NA	NA
8/4/08	Lawrence	SP01	7:16								458	NA	0.08	NA	NA	ND
8/4/08	Lawrence	SP02	7:40								445	NA	0.08	NA	NA	ND
8/4/08	Lawrence	SP03	8:00								395	NA	0.07	NA	NA	ND
8/4/08	Lawrence	SP04	8:23								12	NA	0.24	NA	NA	ND
8/4/08	Lawrence	SP05	8:35								363	NA	0.07	NA	NA	ND
8/4/08	Methuen	SP06	9:05								342	NA	0.08	NA	NA	ND

8/4/08	Methuen	SP07	9:55								12	NA	0.05	NA	NA	ND
8/4/08	Methuen	Mer1	10:45								293	NA	0.07	NA	NA	ND
8/4/08	Salem, NH	SP08	11:43								464	NA	0.07	NA	NA	0.108
8/4/08	Salem, NH	SP08d	11:43								847	NA	0.07	NA	NA	ND
8/4/08	Salem, NH	Mer2	12:02	open stream	na	stream					302	NA	0.07	NA	NA	ND
8/12/08	Stoneham	2Linden	7:18	open stream	na	stream					8800	NA	0.14	NA	NA	0.37
8/12/08	Stoneham	1West	7:29	stone	2x3						4813	NA	NA	NA	NA	0.18
8/12/08	Woburn	US3	7:53	stone	~16inches	na					>241960	NA	0.18	NA	NA	0.14
8/12/08	Woburn	US4	8:03	CM	~24 inches	na					198630	NA	0.17	NA	NA	0.12
8/12/08	Woburn	Mys01	8:35	open stream	na	stream					3922	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys07	8:46	open stream	na	stream					111990	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys08	8:47	open stream	na	stream					1954	NA	0.06	NA	NA	16.40
8/12/08	Woburn	Mys8d	8:47	open stream	na	stream					1954	NA	0.05	NA	NA	16.90
8/12/08	Woburn	Mys81	9:10	open stream	na	stream					992	NA	0.06	NA	NA	15.10
8/12/08	Woburn	Mys 9	9:15								445	NA	NA	NA	NA	NA
8/12/08	Woburn	Mys72	9:45	open stream	na	stream					32550	NA	0.08	NA	NA	3.30
8/12/08	Woburn	Mys71	9:50	open stream	na	stream					57940	NA	0.16	NA	NA	106.00
8/12/08	Woburn	Mys10	10:00								4480	NA	NA	NA	NA	NA
8/12/08	Woburn	Olym1	10:45	open stream	na	stream					3922	NA	0.12	NA	NA	0.26
8/13/08	Methuen	MSPCA1	9:00								80	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA3	9:30								81	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA4	9:40								54	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA5	9:55								136	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA6	10:30								58	NA	NA	NA	NA	ND
8/13/08	Methuen	MSPCA7	10:40								20	NA	NA	NA	NA	ND
8/21/08	Revere	LinB	7:55								2190	NA	0.07	NA	NA	0.27
8/21/08	Revere	Rt1trib	8:10								351	NA	0.07	NA	NA	0.14
8/21/08	Revere	TLB1	8:25								3266	NA	0.08	NA	NA	0.30
8/21/08	Malden	TLB2	8:47								312	NA	0.10	NA	NA	1.44
8/21/08	Revere	trifone	9:20								14010	NA	0.06	NA	NA	0.11
8/21/08	Chelsea	Mill3	9:55								1844	NA	0.07	NA	NA	0.27
8/21/08	Chelsea	Mill3A	10:04								271	NA	0.06	NA	NA	ND
8/21/08	Chelsea	IsEnd04	10:35								2595	NA	ND	NA	NA	2.68
8/21/08	Everett	IsEnd03A	10:45								11870	NA	0.11	NA	NA	0.82
8/21/08	Everett	IsEnd03B	10:50								3266	NA	0.08	NA	NA	1.17
8/21/08	Everett	Floyd	11:15								48	NA	0.05	NA	NA	0.11
8/21/08	Everett	AF1	11:56								138	NA	0.14	NA	NA	0.41
8/21/08	Medford	Tufts	12:09								91	NA	0.06	NA	NA	0.19
8/25/08	Melrose	Mal1	7:53								774	NA	0.06	NA	NA	0.12
8/25/08	Melrose	OM2	8:15								25	NA	0.16	NA	NA	1.18
8/25/08	Melrose	OM1	8:20								80	NA	0.13	NA	NA	0.14
8/25/08	Melrose	OM3	8:25								12	NA	ND	NA	NA	ND
8/25/08	Melrose	Mal2	9:08								749	NA	0.06	NA	NA	0.10
8/25/08	Melrose	Mal3	10:15								1462	NA	0.06	NA	NA	0.11
8/25/08	Melrose	SP1	10:45								186	NA	ND	NA	NA	0.15
8/25/08	Melrose	Ell1	11:15								1741	NA	0.53	NA	NA	ND
8/25/08	Melrose	Ell1d	11:15								1462	NA	0.21	NA	NA	ND
8/25/08	Melrose	Ell2	11:20								716	NA	0.20	NA	NA	ND
8/25/08	Melrose	Ell3	11:35								23820	NA	0.07	NA	NA	0.09
8/25/08	Melrose	Otis	11:52								96	NA	0.33	NA	NA	ND
8/25/08	Melrose	Roo1	12:12								9678	NA	0.08	NA	NA	0.13
8/25/08	Winchester	M07	12:55								806	NA	0.07	NA	NA	0.24
9/4/08	Medford	WB01	7:08								6212	NA	0.07	NA	NA	0.40
9/4/08	Medford	Ship01	7:42								4	NA	ND	NA	NA	0.49
9/4/08	Medford	Kohl01	8:40								68	NA	0.09	NA	NA	0.50
9/4/08	Everett	IsEnd03A	9:57								86640	NA	0.11	NA	NA	1.03
9/4/08	Everett	IsEnd03B	9:58								9678	NA	0.09	NA	NA	0.56
9/4/08	Chelsea	Mill1A	10:52								406	NA	0.13	NA	NA	0.78
9/4/08	Chelsea	Mill	11:00								7945	NA	0.08	NA	NA	ND
9/4/08	Chelsea	Mill2	11:20	concrete	~30 inches						38	NA	0.24	NA	NA	4.12
9/4/08	Chelsea	Mill2d	11:20								54	NA	0.22	NA	NA	4.01
9/4/08	Winchester	M08A	12:15								408	NA	0.25	NA	NA	0.994
9/11/08	Watertown	Saw1	8:08								395	NA	0.09	NA	NA	ND
9/11/08	Watertown	Saw2	9:04								416	NA	0.09	NA	NA	ND
9/11/08	Watertown	LB1	9:41								2190	NA	0.05	NA	NA	ND
9/11/08	Watertown	Wat5	10:25	concrete	4'						222	NA	0.08	NA	NA	ND
9/11/08	Watertown	Wat6	10:27	concrete	5'						260	NA	0.12	NA	NA	ND
9/11/08	Waltham	Wal23	11:10								4185	NA	0.09	NA	NA	ND
9/11/08	Waltham	Pars	12:01								714	NA	0.07	NA	NA	ND
9/11/08	Waltham	BB1	12:05								2595	NA	0.12	NA	NA	ND
9/11/08	Waltham	CB1	12:59								310	NA	0.09	NA	NA	ND
9/11/08	Waltham	CB1d	12:59								319	NA	0.11	NA	NA	ND
9/11/08	Waltham	1st	13:28								455	NA	0.14	NA	NA	ND
9/15/08	Winchester	MO8	7:35								7945	NA	0.08	NA	NA	0.615
9/15/08	Winchester	MO8main	7:40								5654	NA	0.08	NA	NA	0.876
9/15/08	Winchester	MO5	8:00								373	NA	0.07	NA	NA	ND
9/15/08	Winchester	M12	8:25								7945	NA	0.09	NA	NA	0.63
9/15/08	Woburn	1Merrell	8:40	open stream	na	stream					6212	NA	0.08	NA	NA	0.776
9/15/08	Woburn	1Kraft	8:50								767	NA	0.09	NA	NA	ND
9/15/08	Woburn	McDO1	9:20								5654	NA	0.09	NA	NA	1.02
9/15/08	Stoneham	100A	9:42	open stream	na	stream					1642	NA	0.07	NA	NA	ND
9/15/08	Stoneham	1Linden	9:54								1549	NA	0.06	NA	NA	ND
9/15/08	Stoneham	1Lindend	9:54								1844	NA	0.05	NA	NA	ND
9/15/08	Woburn	US3	10:38	stone	~16inches	na					7945	NA	0.08	NA	NA	ND
9/15/08	Woburn	US4	10:41	CM	~24 inches	na					1164	NA	0.09	NA	NA	ND
9/15/08	Woburn	US5	10:47	open stream	na	stream					2595	NA	0.07	NA	NA	ND

9/15/08	Woburn	Olym2	11:20								568	NA	0.08	NA	NA	ND
9/15/08	Woburn	Olym1	11:31	open stream	na	stream					258	NA	0.08	NA	NA	ND
9/22/08	Woburn	US3	7:14	stone	~16inches	na					1140	NA	0.07	NA	NA	0.132
9/22/08	Woburn	US5	7:24	open stream	na	stream					1102	NA	0.08	NA	NA	0.109
9/22/08	Woburn	Olym2	7:46								1549	NA	0.09	NA	NA	0.196
9/22/08	Woburn	Mys07	8:09	open stream	na	stream					3080	NA	0.06	NA	NA	6.22
9/22/08	Woburn	Mys72	8:51	open stream	na	stream					395	NA	0.07	NA	NA	4.45
9/22/08	Woburn	Mys71	9:00	open stream	na	stream					3466	NA	0.18	NA	NA	124
9/22/08	Stoneham	2dLinden	9:56	open stream	na	stream					3266	NA	0.06	NA	NA	0.098
9/22/08	Stoneham	2Linden	9:56	open stream	na	stream					2747	NA	0.07	NA	NA	0.217
9/22/08	Stoneham	2Lincul	10:10	clay	8"						9678	NA	0.06	NA	NA	0.078
9/22/08	Stoneham	1West	10:45	stone	2x3						54750	NA	0.05	NA	NA	ND
9/22/08	Everett	IsEnd03A	11:40								6932	NA	0.14	NA	NA	0.542
9/22/08	Everett	IsEnd03B	11:42								1164	NA	0.11	NA	NA	0.48
5/13/09	Medford	MHB	8:07	CM			None	None	Clear	None	455	NA	NA	0.10	NA	NA
5/13/09	Medford	MHB2	8:07	CM	24	5-10	None	Yellowish	Light	None	117	NA	NA	ND	NA	NA
5/13/09	Somerville	MysRR	8:39				None	None	Clear	None	39	NA	NA	0.10	NA	NA
5/13/09	Somerville	SOM004	9:29	clay	12	trickle	None	None	Clear	None	39	NA	NA	0.10	NA	NA
5/13/09	Somerville	MWRA205	10:07	CM	4x4 box	me in, some	None	Murky	Light	None	NA	10462	NA	1.80	NA	NA
5/13/09	Winchester	Swan1	11:11	metal	12	50	None	None	Clear	None	98	NA	NA	0.08	NA	NA
5/13/09	Winchester	Swan03	11:19	metal	12		None	None	Clear	None	ND	NA	NA	ND	NA	NA
5/13/09	Stoneham	1West	11:45	stone	2x3		None	None	Clear	None	913	NA	NA	0.10	NA	NA
5/13/09	Stoneham	2Linden	12:05	open stream	na	stream	None	None	Clear	None	2190	NA	NA	0.20	NA	NA
5/13/09	Stoneham	Toms	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	242	NA	NA	0.10	NA	NA
5/13/09	Stoneham	Tomsd	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	186	NA	NA	NA	NA	NA
5/13/09	Stoneham	BearH	12:45	?	6	10-15	None	None	Clear	None	21	NA	NA	0.05	NA	NA
5/19/09	Woburn	Comm1	7:57	open stream	na	stream	none	tea	none	few	82	~20	0.07	0.2	NA	0.174
5/19/09	Woburn	Halls2	8:51	open stream	na	stream	none	light tea	none	None	606	~146	0.06	~0.1	NA	0.161
5/19/09	Woburn	DRR1	9:33	open stream	na	/2 that of halls	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50
5/19/09	Woburn	Mys07	10:01	open stream	na	stream	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/19/09	Woburn	Mys08	10:20	open stream	na	stream	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
5/19/09	Woburn	Mys08d	10:20	open stream	na	stream	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
5/20/09	Woburn	Mys01	7:36	open stream	na	low flow	None	None	Clear	None	~250	NA	NA	0.10	NA	NA
5/20/09	Woburn	Mys01a	8:05	CM	18-24	15-20	None	None	Clear	None	458	NA	NA	0.25	NA	NA
5/20/09	Woburn	DRR1	8:35	open stream	na	stream	None	lightly cloud	Clear	None	126	NA	NA	0.10	NA	NA
5/20/09	Woburn	Halls2	8:35	open stream	na	stream	None	None	Clear	None	406	NA	NA	0.10	NA	NA
5/20/09	Woburn	Mys78	9:06	open stream	na	stream	None	None	Clear	None	160	NA	NA	0.10	NA	NA
5/20/09	Woburn	Comm1	9:30	open stream	na	stream	None	None	Clear	None	68	NA	NA	0.05	NA	NA
5/20/09	Woburn	Comm2	9:30	CM	3x6 box	50-100	ong petrole	None	Clear	None	442	NA	NA	0.10	NA	NA
5/20/09	Reading	WestS	10:15	CM	30	10-15	None	tea	Clear	None	8	NA	NA	NA	NA	NA
5/20/09	Reading	WestW	10:15	CM	5 foot		slight musty	tea	Clear	some suds	52	NA	NA	NA	NA	NA
5/20/09	Reading	Ivale	10:37	open stream	na	stream	None	None	Clear	Some	155	NA	NA	0.15	NA	NA
5/20/09	Reading	Birch	11:06	stone	5x3 ft		None	light tea	Clear	None	1379	NA	NA	0.05	NA	NA
5/20/09	Reading	BirchD	11:06	stone	5x3 ft		None	light tea	Clear	None	1642	NA	NA	0.05	NA	NA
5/20/09	Reading	RHSN	11:32	CM	24		None	None	Clear	None	52	NA	NA	0.20	NA	NA
5/20/09	Reading	RRR1	12:03	CM	4x4 box		None	None	Clear	None	621	NA	NA	NA	NA	NA
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
5/26/09	Chelsea	Mill2	10:06	concrete	~30 inches	5-10gal/min	strong odor	clear	none	some suds	44	20	0.19	1.5	NA	4.31
5/26/09	Chelsea	Mill2B	10:45	CM	~24 inches	1-2gal/min	strong odor	ay/black clou	med	None	100	ND	0.21	1	NA	4.92
5/26/09	Chelsea	Mill2A	11:10	CM	~24 inches	1 gal/min	none	clear	none	None	~4	ND	0.39	1	NA	7.02
5/26/09	Stoneham	SPB0	12:50	open stream	na	stream	none	clear	none	None	21	31	ND	ND	NA	ND
5/26/09	Stoneham	SPB0d	12:50	open stream	na	stream	none	clear	none	None	16	~10	~0.05	ND	NA	ND
5/27/09	Quincy	WollB1	7:58	CM	4x4 box	50-100	sewage odo	None	Clear	Some suds	NA	~12997	NA	1.00	NA	NA
5/27/09	Quincy	WollB2	8:20		18 feet		None	None	Clear	None	NA	~19863	NA	3.00	NA	NA
5/27/09	Quincy	WollB3	8:40	open stream	na	stream	None	None	Clear	None	~2190	NA	NA	0.25	NA	NA
5/27/09	Quincy	WollB4	8:52	open stream	na	stream	None	None	Clear	None	~1045	NA	NA	0.20	NA	NA
5/27/09	Quincy	SAG1	9:15	cement	10x10box		None	tea	cloudy	Yes	~6212	NA	NA	1.00	NA	NA
5/27/09	Boston	Bos090	9:42	CM	10x10box		strong petrole	light tea	very cloudy	None	NA	~1725	NA	1.80	NA	NA
5/27/09	Boston	Bos090d	9:42	CM	10x10box		strong petrole	light tea	very cloudy	None	NA	~10462	NA	NA	NA	NA
5/27/09	Dorcester	Ten1	10:10	Pipe Mat.	24-30		slight petroleu	tan	very muddy	None	NA	~41	NA	1.20	NA	NA
5/27/09	Quincy	Holbel	11:14	CM	30		None	tea	Clear	None	~1741	NA	NA	0.25	NA	NA
5/27/09	Milton	CunPk	11:40	open stream	na	stream	None	light tea	Clear	None	~2908	NA	NA	0.10	NA	NA
5/27/09	Milton	Pine1	12:11	open stream	na	stream	None	tea	Clear	None	~308	NA	NA	0.05	NA	NA
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None	534	78	ND	~0.1	ND	0.2
6/2/09	Medford	MHBup	8:07	open stream	na	stream	none	clear	none	None	48	142	ND	ND	NA	0.086
6/2/09	Belmont	WinB	9:10	open stream	na	stream	none	clear	none	None	6212	2908	ND	0.2	NA	0.21
6/2/09	Belmont	WinBd	9:10	open stream	na	stream	none	clear	none	None	6212	2452	ND	0.2	0.024	0.172
6/2/09	Arlington	91Mys	10:20	open stream	na	stream	musty	cloudy	none	None	>241960	13734	1.3	1.25	0.665	1.53
6/2/09	Arlington	MillB	10:50	CM	10x15ft	na	musty	very cloudy	none	None	550	445	0.06	0.2	0.031	0.206
6/3/09	Methuen	SP06	7:38	open stream	na	stream	None	None	Clear	None	124	NA	NA	0.10	NA	NA
6/3/09	Methuen	SP07	8:10	open stream	na	stream	None	None	Clear	None	86	NA	NA	ND	NA	NA
6/3/09	Methuen	SP071	8:12	Pipe Mat.	12	30	None	None	Clear	None	ND	NA	NA	ND	NA	NA
6/3/09	Methuen	Mer1	8:57	open stream	na	stream	None	tea	very	None	58	NA	NA	0.10	NA	NA
6/3/09	Salem, NH	Mer2	9:22	open stream	na	stream	None	reddish	med	None	48	NA	NA	0.10	NA	NA
6/3/09	Salem, NH	Mer3	9:46	open stream	na	stream	None	tea	Clear	None	75	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer5	10:45	open stream	na	stream	None	tea	Clear	None	465	NA	NA	0.15	NA	NA
6/3/09	Salem, NH	Mer6a	11:13				None	tea	Clear	None	293	NA	NA	0.20	NA	NA
6/3/09	Salem, NH	Mer6b	11:20				None	light tea	Clear	None	142	NA	NA	0.25	NA	NA
6/3/09	Salem, NH	Mer7	11:46	CM	3-4 ft		None	light tea	Clear	None	166	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer7d	11:46	CM	3-4ft		None	light tea	Clear	None	114	NA	NA	NA	NA	NA
6/3/09	Salem, NH	Mer8	12:07	open stream	na	low flow	None	None	Clear	None	126	NA	NA	ND	NA	NA
6/3/09	Salem, NH	Mer8a	12:08	Pipe Mat.	12	5	strong	orange-ish	Clear	None	4	NA	NA	0.05	NA	NA
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
6/9/09	Quincy	WollB5	8:25	CM	16	10-15gal/min	none	clear	none	None	ND	ND	ND	0.2	0.046	0.624
6/9/09	Dorchester	Ten1	9:35	Pipe Mat.	24-30	na	none	tan	very, very	None	96	21	0.08	2	0.048	1.28
6/9/09	Boston	Bos090	9:57	CM	10x10 box	na	musty	tea/tan	some	None	54750	149	0.14	2	0.091	0.823

6/9/09	Dorchester	CantB	11:35	open stream	na	stream	husty/sewag	blue/grayish	some	None	198630	34658	1.6	1.5	1.03	4.66
6/9/09	Dorchester	CantBD	11:35	open stream	na	stream	husty/sewag	blue/grayish	some	None	173290	48392	1.5	1.5	1.05	4.75
6/10/09	Haverhill	Broad	8:30	open stream	na	stream	None	None	Clear	None	250	NA	NA	ND	NA	NA
6/10/09	Haverhill	Coffin	8:48	metal	24	60	None	None	Clear	None	30	NA	NA	ND	NA	NA
6/10/09	Groveland	Main1	9:17	open stream	na	stream	None	tea	Clear	None	112	NA	NA	0.15	NA	NA
6/10/09	Groveland	Main2	9:26	open stream	na	stream	None	None	Clear	None	84	NA	NA	ND	NA	NA
6/10/09	Haverhill	Wash1	10:30	metal	12	5-10gal/min	None	None	some suds	None	154	NA	NA	0.75	NA	NA
6/10/09	Haverhill	LR1	10:48	CM	15ft 1/2 circle		musty	tea/tan	light	None	953	NA	NA	0.20	NA	NA
6/10/09	Haverhill	LR2	11:30	open stream	na	stream	None	None	cloudy	None	318	NA	NA	ND	NA	NA
6/10/09	Haverhill	LR2D	11:30	open stream	na	stream	None	None	Clear	None	445	NA	NA	NA	NA	NA
6/10/09	Lawrence	Shaw1	12:30	open stream	na	stream	musty	tea	yes	None	353	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE1	12:58	open stream	na	stream	None	light tea	Clear	None	251	NA	NA	0.10	NA	NA
6/10/09	Lawrence	SLE2	13:02	open stream	na	stream	None	light tea	Clear	None	328	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE3	13:11	concrete	3'		strong musty o	None	Clear	None	616	NA	NA	0.10	NA	NA
6/16/09	Danvers	Fish004	7:55	open stream	na	stream	none	light tan	none	None	250	468	~0.05	0.2	0.028	ND
6/16/09	Danvers	Fish005	8:35	open stream	na	stream	none	clear	none	None	333	714	ND	~0.1	0.022	ND
6/16/09	Marblehead	Stram01	10:05	open stream	na	stream	none	very light tea	none	None	489	434	~0.05	ND	0.029	0.37
6/16/09	Marblehead	Stram02	10:40	open stream	na	stream	none	very light tea	none	None	494	452	~0.05	ND	0.04	0.193
6/16/09	Lynn	Stacey	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	22398	0.31	0.4	0.216	1.04
6/16/09	Lynn	StaceyD	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	24066	0.29	0.4	0.208	0.949
6/17/09	Peabody	Pro01	8:00	nnelized stream	15-20ft		none	None	Clear	None	80	NA	NA	ND	NA	NA
6/17/09	Peabody	Strong01	8:02	nnelized stream	3-4ft		None	None	Clear	None	242	NA	NA	ND	NA	NA
6/17/09	Peabody	Pro02A	8:20	open stream	na	stream	None	tea	Clear	None	142	NA	NA	0.10	NA	NA
6/17/09	Peabody	Pro02	8:30	nnelized stream	na		none	tea	some suds	None	30	NA	NA	0.10	NA	NA
6/17/09	Peabody	Strong02	8:55	culverted stream	na		NS	light tannin	NS	NS	568	NA	NA	ND	NA	NA
6/17/09	Salem	Der01P	9:35	Pipe	2-2.5ft	5-10	sewage odo	None	Clear	NS	NA	223	NA	1.50	NA	NA
6/17/09	Salem	NorR01P	10:05	Concrete pipe	2-3ft	5-10	ht, musty od	NS	low	NS	NA	4106	NA	1.80	NA	NA
6/17/09	Marblehead	GO01	10:56	cement	36in	50	None	None	Clear	None	471	NA	NA	0.10	NA	NA
6/17/09	Marblehead	GO02	11:03	open stream	na	stream	ht, musty od	None	Clear	None	542	NA	NA	0.20	NA	NA
6/17/09	Marblehead	GO03	11:15	open stream	na	stream	None	ght tea/orang	some suds	None	933	NA	NA	0.20	NA	NA
6/17/09	Lynn	StaceyS	12:11	CM	4'x8'		NS	None	Clear	None	NA	14136	NA	0.70	NA	NA
6/17/09	Swampscot	StaceyN	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	0.50	NA	NA
6/17/09	Swampscot	StaceyND	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	NA	NA	NA
7/14/09	Milton	UNB016	8:36	open stream	na	stream	none	clear	none	None	599	109	ND	~0.1	ND	0.304
7/14/09	Milton	UNB002	9:02	CM bridge	3'x6' box	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37
7/14/09	Quincy	WollB2	9:50	open stream	na	ery strong flo	none	tea	yes	None	265	~8	ND	2	0.029	0.094
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
7/15/09	Winchester	UMLake1	7:50	open stream	na	stream	none	light tea	yes	none	~258	NA	NA	0.10	NA	NA
7/15/09	Winchester	Water1	8:02	open stream	na	stream	none	dark tea	cloudy	None	~410	NA	NA	0.13	NA	NA
7/15/09	Winchester	Swan1a	8:17	open stream	na	stream	none	light tea	Clear	None	~510	NA	NA	0.20	NA	NA
7/15/09	Winchester	Witt1	8:33	open stream	na	stream	none	light tea	Clear	None	~34	NA	NA	0.10	NA	NA
7/15/09	Woburn	1Merrell	8:55	open stream	na	stream	none	light tea	lightly turbi	None	~494	NA	NA	0.10	NA	NA
7/15/09	Woburn	Mys01bb	9:25	open stream	na	stream	None	None	Clear	None	~93	NA	NA	0.20	NA	NA
7/15/09	Woburn	Mys01a	9:35	CM	18-24	20-40	None	None	Clear	None	~12	NA	NA	0.40	NA	NA
7/15/09	Woburn	Halls2	9:50	open stream	na	stream	None	light tea	Clear	None	~448	NA	NA	0.10	NA	NA
7/15/09	Woburn	DRR1	9:52	open stream	na	stream	None	light tea	Clear	None	~268	NA	NA	0.10	NA	NA
7/15/09	Woburn	UR002	9:52	open stream	na	stream	None	light tea	Clear	None	NA	NA	NA	0.10	NA	NA
7/15/09	Reading	ArnoldA	11:00	open stream	na	stream	None	light tea	Clear	None	~1164	NA	NA	0.10	NA	NA
7/15/09	Reading	Birch	11:35	stone	5x3 ft		None	light tea	Clear	None	~125	NA	NA	0.20	NA	NA
7/15/09	Reading	RHSN	11:53	CM	24		None	light tea	Clear	ht scum on	~90	NA	NA	0.20	NA	NA
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
7/21/09	Stoneham	2Linden	9:35	open stream	na	stream	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
7/21/09	Stoneham	Elm1	10:10	open stream	na	40-50	lightly must	med tea	none	None	~51720	~5654	~0.12	0.3	0.083	0.578
7/21/09	Stoneham	Toms	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	UR003	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
7/21/09	Stoneham	Toms	11:30	tal w/asphalt bot	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
7/22/09	Winchester	Russ1	7:55	Stone (instream)	4'X4'		slightly must	None	Clear	some suds*	1954	NA	NA	0.10	NA	NA
7/22/09	Winchester	HPB2	8:00	open stream	na	stream	None	light tea	cloudy	None	30	NA	NA	0.05	NA	NA
7/22/09	Woburn	OF119	8:25	rugated black pla	12"	5-6	sewage odo	None	Clear	None	875	NA	NA	0.20	NA	NA
7/22/09	Woburn	OF118	8:30	concrete	30"	30	musty	None	cloudy	some suds	2452	NA	NA	0.24	NA	NA
7/22/09	Woburn	UR004	8:30	large concrete		30	musty	None	cloudy	some suds	3466	NA	NA	NA	NA	NA
7/22/09	Woburn	OF119a	9:05	rugated black pla	12"	10	ht sewage o	None	Clear	None	146	NA	NA	0.15	NA	NA
7/22/09	Woburn	OF118up	9:28	metal	18"-20"	20	None	None	Clear	None	5199	NA	NA	0.30	NA	NA
7/22/09	Woburn	Cumming1	9:55	open stream	na	stream	None	light tea	Clear	e trash and d	650	NA	NA	0.15	NA	NA
7/22/09	Woburn	Cumming2	10:16	open stream	na	stream	None	med tea	Clear	e trash and d	542	NA	NA	0.10	NA	NA
7/22/09	Woburn	LB1	10:17	Concrete pipe	3'	30	None	None	Clear	None	688	NA	NA	0.10	NA	NA
7/22/09	Woburn	LB2	10:35	stone	2'x3'	60-75	None	light tea	Clear	None	396	NA	NA	0.20	NA	NA
7/22/09	Woburn	SGB1	10:50	cement	7'across		None	light tea	lightly turbi	None	566	NA	NA	0.10	NA	NA
7/22/09	Woburn	SGB2	11:10	stone	2'x2'	20-30	None	None	Clear	None	326	NA	NA	0.20	NA	NA
7/28/09	Chelsea	Mill2	8:05	concrete	~30 inches	15	sharp sewa	clear	none	None	310	12	0.23	0.8	0.126	3.84
7/28/09	Everett	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None	9678	388	0.1	0.8	0.054	0.831
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'		strong petroleum	tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/28/09	Chelsea	IsEnd03	9:26	CM, semi-round	12'		strong petroleum	blue/grayish	cloudy	ome soap su	16740	368	0.09	1.5	0.055	1.76
7/28/09	Chelsea	UR005	9:26	CM, semi-round	12'		strong petroleum	blue/grayish	cloudy	ome soap su	15850	435	0.09	1.5	0.05	1.64
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box		slight sewage o	gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
7/29/09	Chelsea	Mill2	8:30	concrete	~30 inches	10	strong odor	clear	none	none	NA	52	NA	0.70	NA	NA
7/29/09	Chelsea	Mill2A	8:40			3	dor - chemi	None	none	None	NA	10	NA	0.75	NA	NA
7/29/09	Revere	SD08A	9:45	NS	NS	15-20	ht sewage o	NS	NS	None	NA	10	NA	0.60	NA	NA
7/29/09	Revere	SD10A	10:00	plastic	12"	3	ht sewage o	NS	NS	gnificant foa	NA	20	NA	0.25	NA	NA
7/29/09	Revere	WashN01	10:10	concrete	24		none	NS	NS	None	NA	2282	NA	0.75	NA	NA
7/29/09	Revere	SalesN	10:15	NS	NS		none	NS	NS	None	NA	295	NA	0.75	NA	NA
7/29/09	Revere	SalesE	10:25	NS	24"+		none	tan	y turbid; clo	None	NA	95	NA	0.70	NA	NA
7/29/09	Revere	Green01	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	0.70	NA	NA
7/29/09	Revere	UR006	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	NA	NA	NA

7/29/09	Revere	Wonder01	11:50	CM	4'		None	None	none	None	NA	185	NA	0.40	NA	NA
7/29/09	Revere	STRACC1	12:05	NS	NS		None	NS	NS	NS	NA	605	NA	0.40	NA	NA
7/29/09	Everett	IsEnd03B	12:40	NS	NS	20	slight musty	orange	very cloudy	None	NA	ND	NA	0.25	NA	NA
8/4/09	Winchester	Russ1	8:00	Stone (instream)	4'X4'	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
8/4/09	Woburn	US5	9:05	open stream	na	stream	none	light tea	clear	None	542	184	ND	ND	0.032	0.133
8/4/09	Woburn	Olym1	9:55	open stream	na	stream	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
8/5/09	Norwood	HABout01	7:38	CM	36in	30-40gal/min	None	light tannin	Clear	None	714	NA	NA	0.05	NA	NA
8/5/09	Norwood	HAB01	7:40	open stream	na	stream	None	None	Clear	None	92	NA	NA	ND	NA	NA
8/5/09	Norwood	HAB02	8:20	open stream	na	stream	None	heavy tea	Clear	some suds	25	NA	NA	0.05	NA	NA
8/5/09	Norwood	Htrib01	8:22	open stream	na	stream	None	light tea	Clear	None	445	NA	NA	0.10	NA	NA
8/5/09	Norwood	Htribout1	8:35	concrete	4'		None	None	ightly cloud	None	225	NA	NA	ND	NA	NA
8/5/09	Norwood	Htrib03	9:01	open stream	na	stream	None	light tea	Clear	None	818	NA	NA	ND	NA	NA
8/5/09	Norwood	Htrib03a	9:04	Concrete pipe	12"		None	None	ightly cloud	None	21	NA	NA	0.20	NA	NA
8/5/09	Norwood	Htrib04	9:14	open stream	na	stream	None	light tannin	Clear	None	714	NA	NA	0.10	NA	NA
8/5/09	Norwood	MB01	9:45	open stream	na	stream	None	None	Clear	some suds	740	NA	NA	0.25	NA	NA
8/5/09	Norwood	MB02	10:10	cement	4'		slight sewage o	None	ightly cloud	None	15760	NA	NA	0.25	NA	NA
8/5/09	Norwood	UR008	10:10	cement	4'		slight sewage o	None	ightly cloud	None	15650	NA	NA	0.25	NA	NA
8/5/09	Norwood	PB01	11:06	open stream	na	stream	None	light tea	Clear	None	953	NA	NA	0.10	NA	NA
8/5/09	Norwood	PB02	11:24		2-3ft	20	y and natur	None	Clear	None	4185	NA	NA	0.15	NA	NA
8/11/09	Quincy	Canal1	7:55	concrete	6'x8' box	na	slight musty	clear	none	None	1844	417	~0.05	0.15	0.038	0.22
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA
8/11/09	Quincy	WollB1B	9:40	concrete	3-4'	15	musty	clear	none	None	133	12	ND	2.2	ND	ND
8/11/09	Quincy	WollB1A	9:45	CM	3'x3' box	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/12/09	Milton	CunPk	8:05	open stream	na	stream	None	None	Clear	None	2069	NA	NA	0.20	NA	NA
8/12/09	Milton	CunPk02	8:12	cement	2, 2'	30	None	None	Clear	None	3466	NA	NA	0.30	NA	NA
8/12/09	Quincy	FBP02A	8:37	seep below pipe		3	None	None	Clear	None	12	NA	NA	0.20	NA	NA
8/12/09	Quincy	FBP02	8:40	open stream	na	stream	None	None	Clear	None	4813	NA	NA	0.20	NA	NA
8/12/09	Quincy	FBP03	9:10	cement	2, 3'		None	None	Clear	None	2069	NA	NA	0.10	NA	NA
8/12/09	Quincy	FBP04	9:20	block w/ granite	5' x 5 box'		None	None	Clear	None	714	NA	NA	0.05	NA	NA
8/12/09	Quincy	Broad1	9:46	cement	3' x 3' box		Odor*	light brown	ightly cloud	some suds	NA	578	NA	1.50	NA	NA
8/12/09	Quincy	SAG1	10:20	cement	10x10box		petroleum od	very brown	y turbid; clo	some suds	NA	2359	NA	2.00	NA	NA
8/12/09	Quincy	SAG2	10:22	seep	na	3 gal/min	strong sulfu	None	Clear	None	NA	ND	NA	0.60	NA	NA
8/12/09	Quincy	WollB1A	10:50	CM	3'x3' box		musty/sulfur	gray	cloudy	None	NA	2755	NA	2.00	NA	NA
8/12/09	Quincy	WolB1B	10:52	cement	3-4 ft		slight musty/su	None	clear	None	NA	262	NA	2.00	NA	NA
8/12/09	Quincy	WollB1	11:00	CM	4x4 box		sulfur	None	Clear	None	NA	1720	NA	0.75	NA	NA
8/12/09	Quincy	Canal1	11:30	cement	6' x 8' box		None	None	Clear	None	2747	NA	NA	0.15	NA	NA
8/12/09	Quincy	UR010	11:30	cement	6' x 8' box		None	None	Clear	None	4185	NA	NA	0.10	NA	NA
8/18/09	Plymouth	Eel1	9:20	open stream	na	stream	none	light tan	clear	None	30	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel2	9:30	open stream	na	stream	none	light tan	clear	None	70	82	ND	ND	ND	ND
8/18/09	Plymouth	UR011	9:30	open stream	na	stream	none	light tan	clear	None	140	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel3	9:40	open stream	na	stream	none	light tan	clear	None	1741	452	ND	ND	ND	0.092
8/18/09	Plymouth	SandRd1	10:00	clay	16	4	none	light tan	clear	None	265	172	ND	~0.1	0.021	ND
8/18/09	Plymouth	SandRd2	11:40	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088
8/19/09	Lawrence	SPR01	7:55	open stream	na	stream	None	None	Clear	None	96	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR02	8:00	open stream	na	stream	musty	None	Clear	None	96	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR03	8:10	open stream	na	stream	None	None	Clear	some suds*	319	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SPR04	8:15	k from concrete pipe			None	None	Clear	None	ND	NA	NA	ND	NA	NA
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	light sewag	None	Clear	None	1741	NA	NA	0.25	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	157	NA	NA	0.10	NA	NA
8/19/09	Lawrence	UR012	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le	174	NA	NA	NA	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'		strong, musty sewa	None	Clear	None	34	NA	NA	0.20	NA	NA
8/19/09	Andover	Huss01	10:50	stone box	10' x 5'	na	None	light tea	Clear	None	2595	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal01	11:11	concrete	12"		None	orange	Clear	None	ND	NA	NA	0.10	NA	NA
8/19/09	Andover	Bal02	11:15	concrete	12"		None	None	Clear	None	ND	NA	NA	0.20	NA	NA
8/19/09	Andover	York1	11:45	cement	3' x 3' box		None	None	Clear	None	16	NA	NA	ND	NA	NA
8/19/09	Andover	Plaza	12:15	cement	2.5'		None	None	Clear	None	8	NA	NA	0.10	NA	NA
8/25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	husty/sewag	None	ightly cloud	None	33000	3683	0.22	0.4	0.133	0.4
8/25/09	Boston	Blueup	8:00	open stream	na	stream	none	tan	clear	None	226	64	~0.05	~0.1	0.028	ND
8/25/09	Boston	Mother	9:05	open stream	na	stream	none	light tea	clear	None	129	56	0.06	ND	0.046	ND
8/25/09	Boston	NR204	10:00	concrete	3 feet	15	g sewage/la	None	ightly cloud	hite/gray pa	>241960	>48392	8.7	>3	0.975	20.1
8/25/09	Boston	NR162	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	198630	5226	0.89	3	0.6	13.2
8/25/09	Boston	UR013	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	241960	5510	0.92	2.75	0.635	12.4
8/25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	1741	149	~0.05	0.25	0.023	0.598
8/25/09	Boston	Esp01	12:02	open stream	na	stream	none	tea	clear	None	241	58	0.07	~0.1	0.03	0.1
8/26/09	Milton	Milt01	8:10	open stream	na	stream	None	None	Clear	None	689	NA	NA	ND	NA	NA
8/26/09	Milton	Milt02	8:35	open stream	na	stream	None	None	Clear	None	407	NA	NA	ND	NA	NA
8/26/09	Boston	Milt03	8:36	concrete	18"	0.5	lightly must	None	Clear	None	32550	NA	NA	0.50	NA	NA
8/26/09	Boston	UR014	8:36	concrete	18"		slightly must	None	Clear	None	46110	NA	NA	0.50	NA	NA
8/26/09	Milton	Milt04	8:50	open stream	na	stream	None	light tea	Clear	some suds	302	NA	NA	0.05	NA	NA
8/26/09	Milton	Milt05A	9:15	clay tile	12"	5	None	None	Clear	None	132	NA	NA	ND	NA	NA
8/26/09	Milton	Milt05	9:20	open stream	na	stream	None	light tea	Clear	None	232	NA	NA	0.10	NA	NA
8/26/09	Boston	Bos5049	9:50	cement	24"	12	slight Cl2	None	Clear	None	ND	NA	NA	ND	NA	NA
8/26/09	Boston	NR285	10:40	cement	6'x4' semi-circle	30	g sewage/la	None	ightly cloud	Suds	9678	NA	NA	>3	NA	NA
8/26/09	Boston	MB03	12:00	open stream	na	stream	None	red/orange	cloudy	im on surfac	345	NA	NA	1.25	NA	NA
8/26/09	Boston	Mother01	12:05	open stream	na	stream	None	light tannin	Clear	None	80	NA	NA	ND	NA	NA
8/26/09	Boston	NR160	12:35	cement	2'	3	sewage odo	None	Clear	None	518	NA	NA	0.10	NA	NA
8/26/09	Boston	NR160A	12:40	cement	2'	5	None	None	Clear	some suds	113	NA	NA	ND	NA	NA
9/1/09	Woburn	Halls2	7:35	open stream	na	stream	None	light brown	clear	None	2595	602	ND	~0.1	0.029	0.218
9/1/09	Woburn	DRR1	7:45	open stream	na	stream	None	light brown	clear	None	4185	12976	ND	0.25	0.035	8.99
9/1/09	Woburn	Mys08	9:30	open stream	na	stream	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3

9/1/09	Woburn	UR015	9:30	open stream	na	stream	None	light brown	clear	None	422	148	ND	NA	0.021	14
9/1/09	Woburn	Mys78	10:15	open stream	na	stream	light oil sme	None	clear	None	5199	10344	ND	0.25	0.031	10.1
9/1/09	Woburn	Mys09	10:45	open stream	na	stream	None	None	clear	None	205	82	ND	~0.1	ND	16
9/8/09	Watertown	SawB01	8:45	open stream	na	50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage o	None	clear	None	~4	ND	NA	0.25	NA	NA
9/8/09	Newton	Hyde01	9:45	concrete	4x8 box	100	None	None	clear	None	5654	1424	ND	0.2	ND	ND
9/8/09	Newton	Laund01	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1462	492	ND	~0.1	ND	ND
9/8/09	Newton	UR016	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1954	544	~0.05	~0.1	ND	ND
9/8/09	Newton	Chee01	11:11	open stream	na	50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND
9/8/09	Waltham	Beav01	11:35	concrete	3x10 box	na	None	None	ightly cloud	some suds	713	292	~0.05	0.2	0.023	0.162
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None	44	40	~0.05	ND	0.03	0.266
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None	29090	2752	0.08	NA	0.19	1.12
9/15/09	Lowell	Beaver1a	7:37	concrete	4'	15	None	None	clear	None	8	75	ND	0.25	ND	ND
9/15/09	Lowell	Beaver1	7:40	open stream	na	stream	None	light tea	clear	None	117	63	NA	~0.1	NA	NA
9/15/09	Lowell	Suffolk1	8:40	open stream	na	stream	None	light tea	clear	None	208	41	ND	ND	0.024	ND
9/15/09	Lowell	Central1	9:15	open stream	na	stream	None	None	clear	some suds	58	~10	ND	~0.1	0.024	0.088
9/15/09	Lowell	RMB1	10:10	open stream	na	stream	None	light tea	clear	some suds	1844	281	~0.05	0.25	0.022	ND
9/15/09	Lowell	UR017	10:10	open stream	na	stream	None	light tea	clear	some suds	2069	465	~0.05	0.25	0.046	ND
9/15/09	Lowell	NewH1	10:50	open stream	na	stream	None	light tea	clear	some suds	164	275	NA	0.2	NA	NA
9/15/09	Lowell	BlackB1	11:25	open stream	na	stream	None	None	murky	None	154	798	0.07	0.25	0.028	0.443
9/15/09	Lowell	BlackB2	12:00	open stream	na	stream	None	None	clear	None	182	97	NA	0.2	NA	NA
9/22/09	Reading	RRR1	8:10	CM	4x4 box	na	None	None	clear	None	21	20	ND	0.25	0.022	ND
9/22/09	Andover	RogerD	9:00	concrete	5'	na	musty odor	rk tea staini	clear	some suds	442	657	~0.05	~0.1	0.67	0.098
9/22/09	Andover	Rogerup	9:32	open stream	na	stream	no odor	med tea	clear	some suds	44	6488	~0.05	0.2	1.31	ND
9/22/09	Andover	Huss01	10:20	stone box	10' x 5'	na	None	light tea	clear	some suds	2319	987	ND	0.2	0.036	0.079
9/22/09	Andover	Huss02	10:50	open stream	na	stream	None	light tea	clear	None	39	ND	NA	ND	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete	3'	na	slight musty	None	Clear	None	205	445	ND	~0.1	ND	ND
9/22/09	Lawrence	UR018	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	279	249	ND	~0.1	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	slight musty	None	Clear	Yes, paper	29870	19863	~0.05	0.25	0.05	7.02
9/22/09	Lowell	RMB1	13:20	open stream	na	stream	None	light tea	Clear	None	1642	199	ND	~0.1	0.031	0.138
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	d sewage sr	None	Mild	Leave, bubb	1954	6131	0.06	0.18	0.041	0.291
9/29/09	Milton	CunPk03	9:30	open stream	na	stream	None	None	Clear	Foam	1164	2098	0.06	~0.1	0.038	0.206
9/29/09	Norwood	PB02A	10:45		18"	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1
9/29/09	Norwood	PB02B	11:00	open stream	na	stream	None	light brown	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
4/21/10	Arlington	91Mys	8:00	open stream	na	stream	none	heavy tea	cloudy	some suds	152	41	NA	~0.1	NA	NA
4/21/10	Arlington	MillB	8:10	CM	10x15ft	na	strong must	heavy tea	fairly clear	suds	395	52	0.06	~0.1	NA	0.124
4/21/10	Arlington	MBike	8:50	Stone (instream)	10'X8'	stream	moderate	med tea	clear	none	268	233	NA	~0.1	NA	NA
4/21/10	Arlington	AHS	9:05	open stream	na	stream	none	light tea	clear	some	666	213	0.06	ND	NA	ND
4/21/10	Arlington	UR020	9:05	open stream	na	stream	none	light tea	clear	some	1549	173	0.06	ND	NA	ND
4/21/10	Arlington	Grove01	9:40	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	4480	529	0.06	~0.1	NA	0.079
4/21/10	Arlington	GroveS	9:45	concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
4/21/10	Arlington	Quinn2	10:30	concrete	12"	19.0040741	fresh	none	clear	none	ND	ND	0.05	0.3	NA	ND
4/21/10	Arlington	RyMill	11:05	concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
4/21/10	Arlington	RyMill2	11:10	hole in wall	na	2.00407407	none	none	clear	none	ND	ND	NA	0.2	NA	NA
4/21/10	Arlington	RyderE	11:20	concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
4/21/10	Arlington	RyderW	11:30	concrete	36"	20-30	none	none	clear	none	30	20	ND	ND	NA	ND
4/21/10	Arlington	30Park	12:25	open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
4/28/10	Winchester	ABR006	8:30	open stream	na	stream	none	none	fairly clear	leaves/bran	899	199	0.09	0.2	NA	0.528
4/28/10	Winchester	Wfield	8:50	open stream	na	stream	none	none	lightly turbi	some	839	317	NA	0.22	NA	NA
4/28/10	Winchester	Vern01	9:15	open stream	na	stream	none	none	lightly turbi	leaves/bran	643	108	NA	0.22	NA	NA
4/28/10	Winchester	Wedge01	9:32	open stream	na	stream	none	none	lightly turbi	some	58	10	NA	~0.1	NA	NA
4/28/10	Winchester	Skill01	9:50	oncrete (instrean	3'	stream	none	blueish/gray	turbid	some	913	148	0.1	0.25	NA	0.844
4/28/10	Winchester	UR021	9:50	oncrete (instrean	3'	stream	none	blueish/gray	turbid	some	1642	132	0.1	0.25	NA	0.837
4/28/10	Winchester	Skill02	9:55	concrete	12"	5-10	none	none	fairly clear	none	75	30	NA	~0.1	NA	NA
4/28/10	Winchester	Swan1	10:45	open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
4/28/10	Woburn	OF118	11:35	concrete	30"	50	none	none	clear	some suds	154	52	0.07	0.3	NA	0.381
4/28/10	Woburn	OF159A	12:04	Cor.Metal	18"	5-10	none	none	clear	none	268	156	NA	0.3	NA	NA
4/28/10	Woburn	OF159	12:05	Cor.Metal	24-30"	20-30	light sewag	none	clear	none	318	109	0.1	0.25	NA	1.38
4/28/10	Woburn	OF161	12:15	Cor. Metal	5'	stream	slight musty	none	lightly turbi	some	1642	148	ND	0.3	NA	0.153
5/5/10	Arlington	Grove01a	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2747	520	0.07	~0.1	NA	0.101
5/5/10	Arlington	GroveS	8:10	concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Arlington	Robin	8:45	bose joint grey til	24"	10-15	ght natural g	none	clear	none	9678	295	NA	0.4	NA	NA
5/5/10	Arlington	Brattle	9:10	open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	RyMill	9:25	concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	RyderE	9:32	concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
5/5/10	Arlington	Ryder01	9:35	Stone (instream)	6'	stream	none	light tea	fairly clear	some suds	1954	350	0.07	~0.1	NA	0.135
5/5/10	Arlington	30Park	10:10	open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	1395MA	10:30	open stream	na	stream	none	light tea	lightly turbi	none	689	323	0.06	ND	NA	0.133
5/5/10	Arlington	Drake01	10:55	open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/5/10	Arlington	ArlRes	11:05	concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
5/5/10	Lexington	Vine01	11:55	open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/12/10	Woburn	Halls2	8:00	open stream	na	stream	none	light brown	na	none	212	109	NA	~0.1	NA	NA
5/12/10	Woburn	DRR1	8:15	open stream	na	stream	none	light brown	clear	none	182	448	NA	~0.1	NA	NA
5/12/10	Woburn	Mys07	9:05	open stream	na	stream	hulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
5/12/10	Woburn	Mys08	9:10	open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/12/10	Woburn	Torr01	10:00	open stream	na	stream	none	light brown	clear	none	223	120	NA	0.25	NA	NA
5/12/10	Woburn	UR023	10:00	open stream	na	stream	none	light brown	clear	none	182	52	NA	0.25	NA	NA
5/12/10	Woburn	Dart1	10:30	open stream	na	stream	none	dark brown	clear	some suds	64	31	NA	0.2	NA	NA
5/12/10	Woburn	School01	11:05	open stream	na	stream	none	dark brown	clear	none	109	20	NA	0.25	NA	NA
5/19/10	Quincy	FBP02	8:15	open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
5/19/10	Quincy	UR024	8:15	open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA

5/19/10	Quincy	FBP03	8:55	open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/19/10	Quincy	Broad1	9:25	open stream	na	stream	none	none	clear	none	3466	2755	NA	2	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
5/26/10	Belmont	UR025	9:10	open stream	na	stream	g musty/se	med tea	lightly turbi	none	29090	7701	NA	0.2	NA	NA
5/26/10	Belmont	WEB013	9:10	open stream	na	stream	g musty/se	med tea	lightly turbi	none	11620	6488	NA	0.2	NA	NA
5/26/10	Arlington	ARL043	9:58	concrete	18-24	5	none	none	clear	none	79	109	NA	~0.1	NA	NA
5/26/10	Arlington	ARL137	10:25	clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	NA
5/26/10	Arlington	ARL207	11:07	seep	na	1-2	brassica	na	na	na	25	20	NA	~0.1	NA	NA
5/26/10	Arlington	Drake01	11:25	open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
5/26/10	Arlington	ArlRes	11:30	concrete	3'	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/26/10	Lexington	Bow01A	12:00	concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	NA
5/26/10	Lexington	Bow01	12:05	open stream	na	stream	none	med tea	lightly turbi	none	643	809	NA	~0.1	NA	NA
5/26/10	Lexington	Fott01	12:35	open stream	na	stream	none	med tea	lightly turbi	none	124	199	NA	ND	NA	NA
5/26/10	Lexington	GMS01	12:55	open stream	na	stream	none	heavy tea	very murky	thick film	72	52	NA	0.2	NA	NA
6/2/10	Revere	UR026	8:01	concrete	24	NA	none	brown	turbid	none	20640	9606	NA	0.4	NA	NA
6/2/10	Revere	WashN01	8:01	concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/2/10	Revere	Sales01	8:10	open stream	na	stream	none	light brown	fairly clear	trash	4813	2359	NA	0.4	NA	NA
6/2/10	Revere	Green01	8:40	open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
6/2/10	Boston	29M049	9:10	concrete	3ft	30-40	none	none	lightly turbi	none	714	3873	NA	3	NA	NA
6/2/10	Boston	25L058	9:50	concrete	6x6ft box	na	musty	grey	turbid	trash	2069	3448	NA	2	NA	NA
6/2/10	Boston	Bos017	10:20	concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
6/2/10	Boston	29J212	10:22	concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
6/2/10	Chelsea	Mill2A	11:20	concrete	24	<5	usty/chemic	none	clear	trash	58	175	NA	0.8	NA	NA
6/10/10	Lawrence	SLE3	7:25	concrete	3'	NA	strong must	vhite/tan/gra	ightly cloud	ilamentous	1954	2359	NA	1	NA	NA
6/10/10	Lawrence	UR027	7:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	1741	1314	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete	3'	NA	strong must	none	ightly cloud	ilamentous	899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete	3'	NA	strong must	none	ightly cloud	ilamentous	806	2014	NA	0.5	NA	NA
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clear	none	NA	NA	NA	0.5	NA	NA
6/16/10	Concord, M	PRIS01	11:00	concrete	2ft	2	sewage	none	clear	none	16160	10462	NA	0.8	NA	NA
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	NA
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	NA
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	NA
6/30/10	Falmouth	24IN01	9:30								25	ND	NA	0.25	NA	NA
6/30/10	Falmouth	INF01	9:30								461100	290900	NA	1	NA	NA
6/30/10	Falmouth	12INWA	9:40								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	STE01	9:45								547500	186000	NA	0.75	NA	NA
6/30/10	Falmouth	UR099	9:45								686700	119800	NA	0.75	NA	NA
7/7/10	Manchester	Dunbar	8:20	Stone culvert	3x4	150	ng petroleu	oil sheen	turbid	rash & debri	1089	422	NA	ND	NA	NA
7/7/10	Manchester	Granite	9:00	concrete	4ft	35	rong sewag	none	clear	none	125	110	NA	0.5	NA	NA
7/7/10	Manchester	047N	9:40	concrete	4ft	15-20	rong sewag	none	ightly cloud	none	4	ND	NA	0.25	NA	NA
7/7/10	Manchester	047	10:00	concrete	4ft	NA	e, musty (s	med tea	cloudy	some	64	52	NA	~0.1	NA	NA
7/7/10	Concord, NI	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	218	399	NA	1	NA	NA
7/7/10	Concord, NI	Mer4120a	10:45	concrete	36"	10	ilightly mus	none	ightly cloud	e leaves & d	25	ND	NA	0.5	NA	NA
7/7/10	Concord, NI	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	263	448	NA	1	NA	NA
7/7/10	Concord, NI	Clinton	11:55	open stream	na	low	none	none	clear	none	806	341	NA	0.75	NA	NA
7/7/10	Concord, NI	Pleasant	12:15	open stream	na	low	none	none	clear	none	1089	1722	NA	0.25	NA	NA
7/14/10	Boston	29J212	7:17	concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/14/10	Boston	Bos017	7:17	concrete	72"	na	musty	none	ightly cloud	some	129970	2489	NA	2.5	NA	NA
7/14/10	Boston	UR029	7:17	concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra	38730	68670	NA	0.2	NA	NA
7/14/10	Salem	Palmer1	9:05	clay	18-24	15-20	slight musty	none	clear	none	13540	17329	NA	3	NA	NA
7/14/10	Beverly	Lynch1	9:35	concrete	12"	25	none	none	clear	none	689	1178	NA	0.2	NA	NA
7/14/10	Beverly	Brac01	10:04	concrete/stone	4'box	na	Sulfur	none	clear	some suds	2452	1725	NA	2	NA	NA
7/14/10	Beverly	Brac02	10:31	open stream	na	stream	none	med tea	turbid	some	2595	3130	NA	ND	NA	NA
7/14/10	Beverly	Lynch02	10:50	plastic	8"	~4	none	none	clear	none	2069	4352	NA	2	NA	NA
7/21/10	Winchester	Swan01	7:25	open stream	na	stream	None	grey	very cloudy	some suds	452	305	NA	~0.1	NA	NA
7/21/10	Winchester	Wash01	7:50	open stream	na	stream	None	grey	very cloudy	some suds	484	512	NA	~0.1	NA	NA
7/21/10	Winchester	Wash02	7:55	concrete	24"	na	None	grey	very cloudy	some suds	857	318	NA	0.2	NA	NA
7/21/10	Woburn	Mer01up	8:30	open stream	na	stream	None	greyish	very cloudy	none	448	199	NA	0.2	NA	NA
7/21/10	Woburn	Sweet	8:35	open stream	na	stream	none	none	clear	some suds	518	148	NA	0.22	NA	NA
7/21/10	Woburn	Salem	9:25	open stream	na	stream	none	greyish	very cloudy	some	996	301	NA	0.15	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	stream	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/21/10	Woburn	Mys01b	10:00	concrete	16-18"	10-15	none	none	clear	none	4	20	NA	0.3	NA	NA
7/21/10	Woburn	Mys01c	10:10	plastic	4"	1/2	none	none	cloudy	none	ND (4)	ND (10)	NA	ND	NA	NA
7/21/10	Woburn	Halls2	10:55	open stream	na	stream	none	none	clear	none	2190	816	NA	ND	NA	NA
7/21/10	Woburn	DRR1	11:00	open stream	na	stream	none	grey	cloudy	none	1549	288	NA	~0.1	NA	NA
7/21/10	Woburn	UR030	11:00	open stream	na	stream	none	grey	cloudy	none	744	253	NA	~0.1	NA	NA
7/28/10	Boston	29J212	7:15	concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
7/28/10	Boston	Bos017	7:16	concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/28/10	Dorchester	CantB	8:28	open stream	na	stream	na	grey./green	lightly coud	rash & debri	169	86	NA	0.3	NA	NA
7/28/10	Dorchester	UR031	8:28	open stream	na	stream	na	grey./green	lightly coud	rash & debri	146	51	NA	0.3	NA	NA
7/28/10	Boston	15F288	9:02	Brick	5'	~10	sharp musty	none	clear	none	205	109	NA	0.2	NA	NA
7/28/10	Boston	Mudd1	9:55	stone	bridge	NA	none	na	cloudy	none	2318	703	NA	0.15	NA	NA
7/28/10	Brookline	VillB	10:40	stone	5'	NA	musty	green	cloudy	ves &sedim	258	52	NA	~0.1	NA	NA
7/28/10	Boston	OF233	11:00	concrete	20-30"		slightly must	ght oil shee	clear	e trash & de	198630	24196	NA	ND	NA	NA
7/28/10	Boston	Jpond	11:25	ubbling up from ground			none	none	none	none	43	ND	NA	ND	NA	NA
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	clean smell	none	none	none	30	10	NA	0.2	NA	NA
8/4/10	Lawrence	SPRLGH	7:40	open stream	na	stream	none	none	clear	none	1164	1529	NA	~0.1	NA	NA
8/4/10	Lawrence	Jackson	8:25	open stream	na	stream	none	light tea	some	ash and deb	606	512	NA	~0.1	NA	NA
8/4/10	Lawrence	Willow	9:00	open stream	na	stream	none	med tea	none	ash and deb	325	158	NA	~0.1	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact	1230	275	NA	~0.1	NA	NA

8/4/10	Lawrence	Shaw01	9:50	open stream	na	stream	none	il sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA
8/4/10	Andover	Huss01	10:35	stone box	10' x 5'	na	none	none	clear	surface suds	7945	109	NA	ND	NA	NA
8/4/10	Andover	Huss02	11:00	open stream	na	stream	cloudy	ight oil shee	ightly cloud	scum	34	ND (10)	NA	~0.1	NA	NA
8/4/10	Andover	URO32	11:00	open stream	na	stream	cloudy	ight oil shee	ightly cloud	scum	8	20	NA	~0.1	NA	NA
8/11/10	Stoneham	100A	7:42	open stream	na	stream	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
8/11/10	Stoneham	2Linden	8:25	open stream	na	stream	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
8/11/10	Stoneham	Elm2	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	6867	NA	0.2	NA	NA
8/11/10	Stoneham	URO33	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
8/11/10	Stoneham	Toms	9:50	tal w/asphalt bot	3'	~5 -7	hault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA
8/11/10	Woburn	Halls2	10:35	open stream	na	low	none	light tea	nsome trash and		1379	717	NA	~0.1	NA	NA
8/11/10	Woburn	Halls3	10:50	concrete	~12	< 1	or a few mir	none	clear	suds	4	ND (10)	NA	0.6	NA	NA
8/11/10	Stoneham	31Sixth	11:21	concrete	18"		none	none	clear	light film or	183	86	NA	0.3	NA	NA
8/11/10	Stoneham	2ndRd	11:50	open stream	na	stream	none	med tea	clear	none	430	226	NA	~0.1	NA	NA
8/18/10	Warwick, RI	CBW	8:10	Beach	NA	outgoing tide	none	none	clear	none	28 fecal	ND	NA	3	NA	NA
8/18/10	Warwick, RI	UNKBK	8:22	open stream	na	~ 0.3cfs	none	none	ightly cloud	none	504 fecal	4352	NA	2	NA	NA
8/18/10	Warwick, RI	MC01	8:25	open stream	na	stream	none	none	can't see bo	none	484 fecal	311	NA	2	NA	NA
8/18/10	Warwick, RI	BB08	8:50	open stream	na	stream	none	none	cloudy	none	1340 fecal	1014	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB08P	8:57	concrete	~16	~ 1	none	none	clear	none	1610 fecal	135	NA	1	NA	NA
8/18/10	Warwick, RI	LK04	9:20	open stream	na	stream	none	none	clear	and some o	1710 fecal	906	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB07	9:30	open stream	na	stream	none	none	clear	none	2870 fecal	1046	NA	0.2	NA	NA
8/18/10	Warwick, RI	WR02	9:45	double culvert			none	none	clear	he oil on sur	300 fecal	148	NA	0.15	NA	NA
8/18/10	Warwick, RI	LK02	10:55	open stream	na	stream	none	none	clear	some trash	7100 fecal	1374	NA	0.25	NA	NA
8/18/10	Warwick, RI	Emerson	11:11	erforated aluminu	2'	~1 -2	none	none	clear	none	580 fecal	31	NA	ND	NA	NA
8/18/10	Warwick, RI	MB01	11:30	stone	2'x2'box	~50	none	none	clear	none	484 fecal	161	NA	ND	NA	NA
8/18/10	Warwick, RI	SweetF	11:45	concrete	~16	~15 - 20	ong musty o	grey	cloudy	d grayish gro	ND fecal	ND	NA	0.2	NA	NA
8/18/10	Warwick, RI	URO34	11:45	concrete	~16	~15 - 21	ong musty o	grey	cloudy	d grayish gro	ND fecal	62	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none	21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	996-F	8:50	concrete	16	~10	none	none	clear	none	353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none	16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	GovB	10:40	Swale	NA	stagnant	none	light orange	ightly cloud	some scum	192	98	NA	0.2	NA	NA
8/25/10	Laconia, NH	GovB01	11:00	tone w/metal lining		~30	none	none	clear	none	857	1223	NA	0.22	NA	NA
8/25/10	Laconia, NH	996-F	11:11	concrete	16	~20	none	none	clear	some suds	6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	UR035	11:11	concrete	16	~20	none	none	clear	some suds	6978	17329	NA	0.2	NA	NA
8/25/10	Laconia, NH	Swale	11:40	concrete	16-18	~10	none	none	clear	none	17200	26030	NA	0.2	NA	NA
8/25/10	Laconia, NH	CBAdmin	11:50	concrete	18	~50	ght musty o	none	clear	none	621	1553	NA	0.2	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	he suds & de	38730	51720	NA	0.25	NA	NA
9/1/10	Revere	Green01	8:10	open stream	na	stream	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
9/1/10	Chelsea	Mill2A	8:30	concrete	24	<5	usty/chemic	none	clear	trash	8	ND	NA	0.6	NA	NA
9/1/10	Chelsea	Mill2	8:55	concrete	~30 inches	15	sharp sewa	clear	none	None	282	41	NA	0.5	NA	NA
9/1/10	Revere	Amelia	9:30	open stream	na	stream	none	light tea	suspended	some suds	3466	1430	NA	0.6	NA	NA
9/1/10	Revere	Sargent	9:55	concrete	36	NA	slight musty	none	clear	none	875	201	NA	0.2	NA	NA
9/1/10	Marblehead	DLaunch	11:10	concrete	4ft	40	none	none	clear	none	31300	2481	NA	0.75	NA	NA
9/1/10	Marblehead	UR036	11:10	concrete	4ft	40	none	none	clear	none	30760	3076	NA	0.75	NA	NA
9/1/10	Marblehead	Mneck02	11:35	concrete	24	5	none	nt green/yel	clear	ome fine suc	81640	120330	NA	0.2	NA	NA
9/1/10	Marblehead	GO01	12:00	concrete	36in	50	None	None	Clear	None	310	145	NA	0.2	NA	NA
9/1/10	Marblehead	StramB	12:30	Beach	NA	NA	none	none	clear	None	211	ND	NA	2	NA	NA
10/5/10	Watertown	SawB01	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
10/5/10	Watertown	UR037	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
10/5/10	Watertown	ARLEast	8:35	open stream	na	stream	none	none	clear	none	7946	823	NA	0.25	NA	NA
10/5/10	Watertown	ARL01	8:40	concrete	4'x4' box	na	none	none	clear	none	9678	1014	NA	NA	NA	NA
10/5/10	Watertown	ARL02	8:42	concrete	4'x4' box	na	none	none	clear	none	9678	738	NA	NA	NA	NA
10/5/10	Watertown	ARL03	8:45	concrete	5'x4' box	na	none	none	clear	none	3080	173	NA	NA	NA	NA
10/5/10	Watertown	Wat13	9:20	concrete	16"	1	none	none	clear	none	92080	2142	NA	0.25	NA	NA
10/5/10	Watertown	Wat12	9:30	concrete	36"	na	none	none	clear	none	111990	14136	NA	0.6	NA	NA
10/5/10	Watertown	Wat11	9:40	concrete	4'x3' box	na	none	med tea	turbid	none	19350	1723	NA	0.3	NA	NA
10/5/10	Watertown	LB01	10:35	concrete	10'x7'box	100	none	none	clear	none	6212	583	NA	0.2	NA	NA
10/5/10	Watertown	Wat5	11:07	concrete	4'	1	none	none	clear	none	64	20	NA	0.25	NA	NA
10/5/10	Watertown	Wat6	11:11	concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	NA
10/13/10	Marblehead	DLaunch	8:15	concrete	4ft	40	none	none	clear	none	1376	860	NA	2	NA	NA
10/13/10	Marblehead	UR038	8:15	concrete	4ft	40	none	none	clear	none	871	723	NA	2	NA	NA
10/13/10	Marblehead	MH19	8:38	stormdrain	na	~20	ong musty o	none	clear	none	TNTC	24196	NA	0.5	NA	NA
10/13/10	Marblehead	MH32	9:10	stormdrain	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	NA
10/13/10	Marblehead	MH48	9:30	stormdrain	na	~15	lightly must	none	clear	none	8	ND	NA	~0.1	NA	NA
10/13/10	Marblehead	MH29A	9:55	plastic stormdrain	18-24	~10	none	none	clear	none	689	41	NA	~0.1	NA	NA
10/13/10	Marblehead	MH2336	10:30	stormdrain	na	na	none	none	clear	small white	5654	2489	NA	0.25	NA	NA
10/13/10	Marblehead	MH2203	10:55	stormdrain	na	~15	musty	none	clear	none	5654	5475	NA	0.3	NA	NA
10/13/10	Marblehead	MHWinslow	11:11	stormdrain	na	na	musty	lightly yellov	clear	none	2452	118	NA	0.4	NA	NA
10/13/10	Marblehead	MHWinslowA	11:28	stormdrain	18"	~5-10	resh smellin	none	clear	none	43	98	NA	0.2	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
10/27/10	Quincy	WollB1B	8:18	concrete	3-4'	30-40	musty/sulfu	none	ightly cloud	some suds	58	20	NA	2.5	NA	NA
10/27/10	Dorchester	Ten1	8:55	Pipe Mat.	24-30	na	none	Tan/brown	very turbid	none	132	20	NA	1.5	NA	NA
10/27/10	Boston	10L094	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	4813	14136	NA	0.6	NA	NA
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	41060	9208	NA	0.8	NA	NA
10/27/10	Boston	10L094A	9:25	metal	24"	5	musty	grey	cloudy	none	34480	14136	NA	1.5	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	stream	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
10/27/10	Quincy	Sag1C	10:58	metal	30"	na	natural gas	light brown	clear	none	2452	2723	NA	0.6	NA	NA
10/27/10	Quincy	Bay1	11:40	Seep/pool	NA	NA	sewage	rk brown/gr	cloudy	none	173290	365400	NA	NA	NA	NA
10/27/10	Quincy	BayBch	11:45	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	NA
10/27/10	Quincy	WollBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	NA
10/27/10	Quincy	WollBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	NA

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
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NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	NA	NA
1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	0.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	~0	NA	NA	ND (1.0)	11	ND (0.2)	9.1	56	ND (0.2)	ND (2.0)	31	~0.76	ND	ND	0.08	ND	ND
ND	NA	NA	ND	NA	NA	ND (1.0)	34	ND (0.2)	38	2600	ND (0.2)	ND (2.0)	96	2.2	ND	ND	0.05	ND	ND
1.5	NA	NA	1	NA	NA	ND (1.0)	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.14	ND	0.53
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
1.10	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2.00	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
>2.0	NA	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
>2.0	NA	NA	>6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	na	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	NA	NA	3	NA	~135	ND (2.0)	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
ND	NA	NA	ND	NA	11	ND (2.0)	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.23
ND	NA	NA	ND	NA	12	ND (2.0)	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.28
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.35*	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.60	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.60	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
~0.1	NA	NA	~0.10	NA	21	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	15	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	ND	ND	ND
ND	NA	NA	ND	NA	78	~4.2	1700	ND (0.4)	120	200	~1.0	ND (4.0)	2500	12	ND	ND	~0.01	ND	ND
~0.1	NA	0.14	0.25	NA	84	~4.9	1600	~0.34	130	240	~1.6	ND (4.0)	3300	7.5	ND	ND	ND	ND	ND
~0.75	NA	NA	3	NA	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0)	55000	200	ND	ND	NA	ND	ND
ND	NA	0.23	ND	NA	35	~5.9	73	~0.74	87	360	~1.1	ND (4.0)	320	10	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.10	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.71	0.50	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
NA	NA	0.15	0.6	NA	34	ND (1.0)	5.8	~0.29	12	34	ND (0.2)	ND (2.0)	2.5	1.5	ND	ND	0.07	ND	ND
NA	NA	0.41	3	NA	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2.0)	11	1.5	ND	ND	0.04	ND	0.54
NA	NA	0.19	~0.10	NA	174	~27	2600	~2.3	530	1100	8.7	ND (2.0)	600	3.2	NA	NA	ND	ND	0.81

>2	NA	1.08	5.5	NA	586	~150	27000	~13	3500	5000	61	ND (2.0)	17000	5.1	ND	ND	0.04	ND	0.37
NA	NA	1.1	6	NA	491	~140	24000	~12	3300	4500	48	ND(2.0)	14000	4.9	ND	ND	0.07	ND	0.36
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
1.7 nessle	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.4 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
ND	NA	ND	ND	NA	33	ND (1.0)	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2.0)	2	ND (0.2)	ND	ND	~0.02	ND	ND
ND	NA	ND	ND	NA	29	ND (1.0)	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2.0)	ND (2.0)	1.5	ND	ND	ND	ND	ND
~0	NA	ND	~0.10	NA	46	ND (1.0)	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	~0.01	ND	ND
ND	NA	ND	~0.10	NA	43	ND (1.0)	57	ND (0.2)	17	30	ND (0.2)	ND (2.0)	12	ND (0.2)	ND	ND	ND	ND	ND
~1.0	NA	0.24	3	NA	1080	ND (100.0)	6200	ND (20.0)	1600	4300	ND (20.0)	ND (200.0	7710	ND (20.0)	ND	ND	0.04	ND	0.3
~1.0	NA	0.31	2	NA	380	ND (100.0)	5500	ND (20.0)	1400	4200	ND (20.0)	ND (200.0	7200	ND (20.0)	ND	ND	ND	ND	0.29
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	5.00	NA	NA	ND (5.0)	3200	~29	1600	4800	ND (1.0)	ND (10.0)	1600	ND (1.0)	NA	NA	NA	ND	NA
NA	NA	NA	6.00	NA	NA	ND (5.0)	12000	~8.7	1800	890	ND (1.0)	ND (10.0)	5500	ND (1.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.25	NA	NA	0.75	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	~0.08	ND	NA	26	ND (1.0)	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2.0)	250	0.52	ND	ND	0.06	ND	ND
ND	NA	0.22	ND	NA	83	ND (1.0)	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2.0)	270	2.6	ND	ND	0.09	ND	ND
ND	NA	ND	ND	NA	72	ND (1.0)	2.9	ND (0.2)	~4.9	~11	ND (0.2)	ND (2.0)	9.2	0.56	ND	ND	ND	ND	0.75
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
0.5	1	0.24	1.5	NA	84	~62	1100	~3.7	500	980	39	5	2800	7.4	na	na	~0.0	ND	ND
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	ND	ND	NA
0.4	NA	NA	0.20	NA	NA										NA	NA	0.13	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.1	NA	NA	ND	NA	NA										NA	NA	0.08	ND	NA
0.5	NA	NA	2.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	~0.02	ND	NA
0.15	NA	NA	ND	NA	NA										NA	NA	0.03	ND	NA
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
0.5	2	0.51	1	NA	72	~20	280	~1.6	120	360	2.4	ND (4.0)	680	2.9	ND	ND	ND	ND	0.62
0.5	2.5	0.49	0.3	NA	73	~24	310	~2.0	120	320	2.3	ND (4.0)	670	2.6	ND	ND	0.05	ND	0.66
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
1.1	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~1.1	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
2	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	ND (2.0)	ND (2.0)	ND (0.4)	6.4	9.7	ND (0.4)	ND (4.0)	28	3.9	NA	NA	NA	ND	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	4.00	NA	NA	~80	1400	~4.8	280	960	40	24	6500	28	NA	NA	NA	ND	NA
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	17	ND (2.0)	15	~0.46	7.1	56	ND (0.4)	ND (4.0)	100	4.7	ND	ND	0.14	ND	ND
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA
clear	1.35	ND	ND	NA	98	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	7	0.56	ND	ND	0.38	ND	0.75
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.60	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	5.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	0.5	0.09	0.2	NA	110	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	13	1.6	ND	ND	0.19	ND	ND
ND	0.4	ND	ND	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~0.88	ND (4.0)	14	1.4	ND	ND	0.18	ND	ND
ND	0.5	ND	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	15	1.5	ND	ND	NA	ND	ND
ND	0.8	~0.08	0.25	NA	77	ND (2.0)	ND (2.0)	ND (0.4)	4.4	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	1.2	ND	ND	0.11	ND	ND
~0.1	0.6	0.1	0.4	NA	101	ND (2.0)	ND (2.0)	ND (0.4)	53	5200	~0.52	ND (4.0)	ND (4.0)	17	ND	ND	0.10	ND	ND
ND	0.8	ND	0.5	NA	89	ND (2.0)	ND (2.0)	ND (0.4)	6.5	260	ND (0.4)	ND (4.0)	ND (4.0)	19	NA	NA	0.13	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.1	1.1	0.13	0.75	NA	148	~49	280	~4.7	100	230	7.7	ND (8.0)	3800	5.7	ND	ND	0.05	ND	ND
ND	0.3	ND	ND	NA	42	ND (4.0)	10	ND (0.8)	10	96	ND (0.8)	ND (8.0)	39	4.1	ND	ND	0.07	ND	ND
ND	0.4	ND	ND	NA	46	ND (4.0)	ND (4.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8.0)	12	14	ND	ND	0.03	ND	ND
>2	>3	23.1	>6	NA	4420	~1800	65000	~51	11000	66000	280	ND (440.0	340000	140	ND	ND	ND	ND	0.56
>2	>3	15	>6	NA	3630	ND (200.0)	590000	ND (40.0)	7300	4400	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.55
>2	>3	14.7	>6	NA	3390	ND (200.0)	600000	ND (40.0)	7500	4700	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.62
0.25	1.4	0.18	2	NA	201	ND (20.0)	69	~4.0	280	180	ND (4.0)	ND (40.0)	5900	ND (4.0)	ND	ND	0.04	ND	ND
ND	0.3	ND	ND	NA	46	ND (3.8)	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7.7)	12	4.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.31	ND	NA
NA	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.8	ND	ND	NA	45	ND (2.0)	820	4	23	1400	ND (0.4)	ND (4.0)	180	~2.2	ND	ND	ND	ND	ND
>2	>3	9.3	6	NA	31	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	24	~1.2	ND	ND	0.08	ND	0.62
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2

NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
2	>3	9.8	>3	NA	45	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	14	~1.3	ND	ND	~0.0	ND	0.64
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
~0.1	0.4	0.31	ND	NA	27	ND (2.0)	38	ND (0.4)	4.4	16	ND (0.4)	ND (4.0)	440	6	ND	ND	~0.02	ND	ND
ND	0.4	ND	ND	NA	49	ND (2.0)	69	ND (0.4)	26	850	2.7	ND (4.0)	240	3.5	ND	ND	0.10	ND	ND
ND	0.4	ND	ND	NA	47	ND (2.0)	57	ND (0.4)	24	820	2.2	ND (4.0)	270	3.8	ND	ND	0.10	ND	ND
ND	0.4	0.1	ND	NA	20	ND (2.0)	3.1	ND (0.4)	7	30	ND (0.4)	ND (4.0)	61	5	ND	ND	0.06	ND	ND
ND	0.4	ND	ND	NA	39	ND (2.0)	93	ND (0.4)	14	17	ND (0.4)	ND (4.0)	66	2.5	ND	ND	0.07	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
ND	0.2	ND	ND	NA	~243	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.32
ND	0.4	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
ND	0.8	ND	~0.10	NA	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.9	ND	0.50	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.10	ND	ND
ND	0.8	ND	ND	NA	38	na	na	na	na	na	na	na	na	na	ND	ND	~0.02	ND	ND
ND	0.8	ND	ND	NA	36	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA
ND	1.6	0.22	2.00	NA	35	na	na	na	na	na	na	na	na	na	ND	ND	0.03	ND	ND
0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA
ND	0.3	ND	ND	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.7	ND	ND	NA	78	ND (2.0)	19	ND (0.4)	~8	25	ND (0.4)	ND (4.0)	42	1.1	ND	ND	0.03	ND	ND
~0.1	0.6	ND	ND	NA	65	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.4	ND	ND	NA	20	ND (2.0)	240	ND (0.4)	~20	40	ND (0.4)	ND (4.0)	16000	4.9	ND	ND	0.09	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
ND	0.4	ND	ND	NA	22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND
>2	>3	2.26	6	NA	421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22
ND	0.6	ND	~0.10	NA	28	ND (2.1)	10	ND (0.4)	~10	45	~0.28	ND (4.2)	280	3.4	ND	ND	0.06	ND	ND
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
ND	~0.1	ND	~0.30	NA	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND
ND	~0.1	ND	ND	NA	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
ND	ND	ND	ND	NA	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.1	28	4.1	~20	3.1	6	34	0.7	ND (4.0)	490	1.4	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.95	37	4.8	190	4.6	12	70	1.2	ND (4.0)	1400	0.93	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.78	47	12	280	4.7	30	170	2.9	ND (4.0)	2700	ND (0.4)	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	3	9.1	ND (2.0)	ND (2.0)	0.86	ND (2.0)	5.4	ND (0.4)	ND (4.0)	15	1.2	ND	ND	NA	ND	ND
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	ND	1.1	52	ND (2.5)	ND (2.5)	1	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	14	ND (0.5)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	2	1.2	28	2.3	21	21	7.9	170	ND (0.4)	ND (4.0)	360	0.85	ND	ND	0.06	ND	ND
NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	25	ND (2.0)	27	23	6.4	220	1.4	ND (4.0)	370	0.61	ND	ND	ND	ND	ND
NA	NA	NA	3	1.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.5	2	23	ND (2.0)	5.8	6.7	ND (2.0)	37	ND (0.4)	6.5	1300	4.8	ND	ND	0.04	ND	ND
NA	NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1	0.59	36	ND (2.0)	7.9	10	ND (2.0)	35	ND (0.4)	16	1000	1.2	ND	ND	ND	ND	ND
NA	NA	NA	ND	2.7	28	3.2	120	8.1	19	85	ND (0.5)	7.2	1500	8.6	ND	ND	0.06	ND	ND
NA	NA	NA	ND	0.59	58	8.5	53	10	12	130	ND (0.4)	ND (4.0)	750	0.42	ND	ND	0.09	ND	ND
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	0.37	54	9.1	100	7.7	13	73	0.65	ND (4.0)	1200	0.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	0.31	55	8	5.4	5.7	7.3	35	ND (0.4)	ND (4.0)	590	ND (0.4)	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	9.3	8.3	300	ND (0.5)	ND (5.0)	160	1.4	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	29	ND (2.0)	2.3	1.5	ND (2.0)	6.7	ND (0.4)	ND (4.0)	96	0.72	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	38	ND (2.0)	ND (2.0)	7.5	5.9	140	ND (0.4)	ND (4.0)	80	1.4	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	73	ND (2.0)	2.5	17	6.4	61	ND (0.4)	ND (4.0)	230	1.2	NA	NA	0.11	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA

NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	69	ND (2.0)	53	17	7.5	180	ND (0.4)	ND (4.0)	1300	0.84	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	79	45	1200	11	300	1100	4.8	ND (5.0)	12000	4.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	NA	23	ND (2.0)	ND (2.0)	4.3	4.2	39	ND (0.4)	ND (4.0)	37	ND (0.4)	NA	NA	0.71	1/0.3	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	0.25	NA	NA	ND (2.5)	ND (2.5)	2.4	ND (2.5)	11	ND (0.5)	7.4	30	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	84	3.1	19	2.8	5.1	22	0.63	ND (4.0)	440	ND (0.4)	NA	NA	0.08	ND	NA
NA	NA	NA	1	NA	93	ND (2.0)	ND (2.0)	2.2	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	36	ND (2.0)	ND (2.0)	0.45	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	0.7	NA	NA	4.7	210	53	26	180	0.56	ND (4.0)	1200	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	8	6.6	5.9	54	ND (0.4)	ND (4.0)	78	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	3.4	50	63	26	510	1.3	ND (4.0)	90	1.4	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA
NA	NA	NA	0.75	NA	NA	41	81	62	280	940	ND (0.5)	ND (5.0)	1800	5	NA	NA	0.6	ND	NA
NA	NA	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0)	17000	240	NA	NA	0.13	ND	NA
NA	NA	NA	0.75	NA	NA	450	14	19	31	170	1.3	ND (4.0)	870	170	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	NA	850	99	ND (0.5)	6.1	20	1.3	ND (5.0)	17	170	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.4)	ND (4.0)	ND (4.0)	87	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	NA	670	140	ND (0.4)	2.1	5.8	0.89	ND (4.0)	31	240	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	1800	41000	1300	7300	33000	510	ND (20.0)	550000	280	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	410	ND (2.0)	3.7	6.9	24	0.64	ND (4.0)	14	180	NA	NA	0.18	ND	NA
NA	NA	NA	6+	NA	NA	1400	44000	1900	6300	51000	760	ND (20.0)	580000	300	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	36	ND (2.0)	6.1	6.7	ND (2.0)	5.9	ND (0.4)	ND (4.0)	73	ND (0.4)	NA	NA	0.17	ND	NA
NA	NA	NA	0.25	NA	30	ND (2.5)	9.1	47	3.8	150	2.1	ND (5.0)	10	4.5	NA	NA	0.1	ND	NA
NA	NA	NA	ND	NA	34	ND (2.0)	ND (2.0)	0.99	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	28	18	ND (2.0)	1.8	2.8	6.3	2.1	ND (4.0)	49	3.9	NA	NA	0.22	ND	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	152	ND (2.0)	ND (2.0)	2.8	ND (2.0)	7.3	0.43	ND (4.0)	17	ND (0.4)	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	30	ND (2.0)	ND (2.0)	2.4	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	80	ND (0.4)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	ND (2.5)	ND (2.5)	1.4	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	170	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	112	23	87	12	18	200	4.6	ND (4.0)	790	1.3	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	32	ND (2.0)	ND (2.0)	3.3	ND (2.0)	110	ND (0.4)	ND (4.0)	22	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	45	ND (2.5)	ND (2.5)	1.8	ND (2.5)	6.3	ND (0.5)	ND (5.0)	60	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	59	ND (2.0)	ND (2.0)	1.3	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	92	ND (0.4)	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	46	ND (2.0)	ND (2.0)	8.9	ND (2.0)	5.6	ND (0.4)	ND (4.0)	210	1.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	32	ND (2.0)	ND (2.0)	9.9	ND (2.0)	8.6	ND (0.4)	ND (4.0)	35	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	ND	NA
NA	NA	NA	0.4	NA	27	ND (2.0)	ND (2.0)	8.7	ND (2.0)	7.3	ND (0.4)	ND (4.0)	27	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	53	30	5.3	31	18	82	3.9	4.6	270	10	NA	NA	0.15	ND	NA
NA	NA	NA	4	NA	27	ND (2.0)	ND (2.0)	11	ND (2.0)	55	ND (0.4)	ND (4.0)	45	0.42	NA	NA	0.08	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	26	ND (2.5)	11	8.6	13	470	ND (0.5)	ND (5.0)	35	1.2	NA	NA	0.08	ND	NA
NA	NA	NA	5	NA	35	ND (2.5)	ND (2.5)	2.7	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	470	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	5	NA	151	76	1700	71	270	1200	ND (0.4)	ND (4.0)	3800	ND (0.4)	NA	NA	0.37	ND	NA
NA	NA	NA	5	NA	147	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.37	ND	NA
NA	NA	NA	0.75	NA	74	29	11	3.9	53	40	ND (0.4)	ND (4.0)	750	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	5	NA	166	8.7	63	23	41	160	ND (0.4)	ND (4.0)	790	4.5	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	141	4.7	59	17	28	130	ND (0.4)	ND (4.0)	24	3.5	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	234	230	3900	35	430	3400	11	ND (4.0)	38000	15	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	16	ND (2.5)	17	ND (0.5)	ND (5.0)	20	ND (0.5)	NA	NA	0.06	ND	NA
NA	NA	NA	0.2	NA	12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA

NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	51	11	12	7.9	110	410	ND (0.4)	ND (4.0)	11000	0.55	NA	NA	0.2	ND	NA
NA	NA	NA	0.1	NA	40	ND (2.5)	ND (2.5)	3.3	4.7	36	ND (0.5)	ND (5.0)	44	1.8	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	93	320	240	77	700	1300	13	5.9	1100	5.7	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA
NA	NA	NA	ND	NA	33	ND (2.0)	ND (2.0)	3.6	18	470	ND (0.4)	ND (4.0)	ND (4.0)	0.4	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (4.0)	17	35	41	210	ND (0.8)	ND (8.0)	ND (8.0)	ND (0.8)	NA	NA	0.07	ND	NA
NA	NA	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	47	ND (2.5)	ND (2.5)	3.4	ND (2.5)	8.1	ND (0.5)	ND (5.0)	ND (5.0)	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	ND (2.0)	3.8	5.2	18	3.6	ND (4.0)	11	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	7.1	15	73	1.9	ND (4.0)	ND (4.0)	4.3	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	72	ND (2.0)	ND (2.0)	7.8	15	110	ND (0.4)	6	ND (4.0)	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	16	14	10	44	ND (0.4)	6.5	12	18	NA	NA	0.06	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	33	ND (2.5)	ND (2.5)	11	17	100	ND (0.5)	5.4	ND (5.0)	4.8	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	2.3	5.6	24	ND (0.5)	17	ND (5.0)	7.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	21	2.1	29	41	85	240	1.9	ND (4.0)	42	4.9	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	1	NA	40	19	ND (2.0)	1.3	4.8	11	ND (0.4)	130	ND (4.0)	3.7	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.0)	ND (2.0)	ND (0.4)	2.7	ND (4.0)	ND (2.0)	ND (4.0)	ND (4.0)	0.74	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	58	ND (2.0)	ND (2.0)	ND (0.4)	12	12	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.5)	ND (2.5)	ND (0.5)	11	4.5	ND (2.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	66	ND (2.0)	7	4.5	11	33	ND (0.4)	ND (4.0)	4.6	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	65	ND (2.5)	ND (2.5)	0.65	5.2	ND (5.0)	ND (0.5)	ND (5.0)	ND (5.0)	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	90	14	340	8.4	220	3000	ND (0.4)	ND (4.0)	980	6.5	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.75	NA	57	ND (2.0)	ND (2.0)	0.75	4.4	5.6	ND (0.4)	ND (4.0)	7.1	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	89	ND (2.0)	ND (2.0)	3.8	11	46	ND (0.4)	ND (4.0)	ND (4.0)	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	69	ND (2.5)	ND (2.5)	1.9	39	48	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	19	190	13	260	730	ND (0.8)	ND (8.0)	ND (8.0)	6.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	5	NA	NA	150	610	150	1400	940	ND (0.4)	ND (4.0)	120	11	NA	NA	0.08	ND	NA
NA	NA	NA	4	NA	NA	190	1100	43	980	12000	ND (4.0)	ND (40.0)	1200	200	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	NA	ND (10.0)	490	16	160	270	ND (2.0)	ND (20.0)	54	18	NA	NA	0.14	ND	NA
NA	NA	NA	ND	NA	NA	6.3	46	14	42	510	ND (0.5)	ND (4.7)	92	3.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.52	4.8	23	ND (0.4)	ND (4.0)	ND (4.0)	6.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	5.4	37	3.7	19	82	ND (0.4)	ND (4.2)	36	3.2	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	14	1.8	12	44	ND (0.4)	ND (4.0)	8.5	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	120	4500	37	2100	4300	ND (4.0)	ND (40.0)	~1500	82	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.4	8.4	6.6	210	120	ND (0.5)	ND (4.8)	~97	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.84	2.8	ND (4.0)	ND (0.4)	ND (4.0)	~4.3	0.52	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.2	21	1	9.4	50	ND (0.5)	ND (4.8)	~15	0.66	NA	NA	0.03	ND	NA
NA	NA	NA	0.75	NA	NA	13	310	19	1100	~48000	ND (0.4)	ND (4.0)	~29	68	NA	NA	0.03	ND	NA
NA	NA	NA	0.4	NA	NA	46	630	13	470	790	ND (0.8)	ND (8.0)	~81	ND (0.8)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	ND (2.0)	110	16	90	130	ND (0.4)	ND (4.0)	ND (4.0)	1.7	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	ND (10.0)	ND (10.0	2.6	10	ND (20.0)	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	47	16	13	~130	14	ND (20.0)	20	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	1800	190	400	~2700	4.3	ND (20.0)	180	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	270	970	170	~4100	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	NA	ND (10.0)	81	280	100	~3200	38	ND (20.0)	64	ND (2.0)	NA	NA	0.06	ND	NA
NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	ND (1000.0	20000	ND (100.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	1.9	~1.6	~16	ND (0.4)	ND (4.0)	~2.9	0.5	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	2.2	4.7	~11	ND (0.4)	ND (4.0)	4.4	0.46	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	2.2	2.4	7.5	~52	ND (0.4)	16	ND (4.0)	ND (0.4)	NA	NA	0.04	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivity	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch	4 gal/min flow est, Mu	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4733306	71.1187503	unnamed stream in W	No odor	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	No odor	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus	strong strawberry jello	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.477141	71.1176671	Aberjona upstream o	strong strawberry jello	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Slight musty odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Medium sewage odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Duplicate	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slight odor coming fro	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.743207	71.208453	walked in from small	Dry weather during sa	na	na	na		0.43		Wet
NA	NA	NA	42.755268	71.207933	Walked in behind autoparts/glass stor on righ		na	na	na		0.43		Wet
NA	NA	NA	42.762503	71.222746	Parked at Lancelot Court apartments behind		na	na	na		0.43		Wet
NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's storage on left off So.		na	na	na		0.43		Wet
NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's storage on left off So.		na	na	na		0.43		Wet
NA	NA	NA	42.767438	71.223016	Parked behind Kohl's		na	na	na		0.43		Wet
NA	NA	NA	42.774045	71.224331	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.774065	71.224326	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.778121	71.227147	Parked across from n	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	culvert to right not flo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.513504	71.138870	74 Commerce Way (M	No odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.515744	71.136289	Marshall's shipping lo	Marshalls shipping lo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.516016	71.136885	Across Street from las	some geese swimmin	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.517193	71.141968	Turn on Atlantic Ave p	No odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.513758	71.144110	where hulls brook crosses under New Boston		na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	water very turbid sligh	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Very turbid, foul odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Duplicate	Duplicate	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.520981	71.147709	Just upstream from M	were stream exits outf	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.517881	71.150535	Just upstream from M	walked in about 1-2 m	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Musty odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	sampled largest pipe -	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.485896	71.120882	Wash Cir, just off Wa	downstream side	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.491300	71.127027	Operator of AMR gran	Lots of seeds in the w	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.493138	71.124117	Washington street corner of Salem St		na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.491580	71.128834	1921yr culvert	Downstream side	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495445	71.134031	behind United Station	Lots of trash in the ar	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495411	71.133994	closer to culvert than	Very turbid water, bro	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.500145	71.141333	Olympia Ave	On N. side grass clipp	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.501121	71.134909	near 60 Olympia Ave	Pretty clear water	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.501121	71.134909	Duplicate	Duplicate	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Sampled main stream	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.383054	71.030131	Condor Urban Wild, o	Sewage odor, plaque	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.382423	71.027076	Upstream of Condor U	White plaque coverin	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.402480	71.010704	Revere Beach Parkwa	White PVC beside br	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403156	71.018129	Broadway at New Cro	Outfall on opposite st	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	Sewage odor (Gillool	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Plaque covering outfa	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.409914	71.028297	Downstream of Mill04 - walked culvert		na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.410125	71.028722	Head of Millcreek		na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394445	71.049817	End of beachum and	(closest to road) stron	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394436	71.049780	End of beachum and	(midpoint from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	End of beachum and	(farthest from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	Duplicate	Duplicate	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (W	Pretty clear	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.419214	71.117619	Culvert off Meeting H	Strong sewage odor c	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.441521	71.149149	Sandy Beach Location		na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.442878	71.142845	Mystic River pkwy, un	Downstream	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.444363	71.138845	commuter rail station	bacon street bridge M	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.455647	71.137980	Main street bridge bet	between car lot and g	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456789	71.138966	bridge across from W	Wedge Pond inlet	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464865	71.151279	Horn Pond outlet, lake	lake ave, near water	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Near Super Stop & S	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456399	71.136447	small pipe exiting ball	small pipe	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.460935	71.137149	down street from Abe	2 pipes on bridge bot	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464339	71.132424	Tufts school behind s	Next to Amtrack rail	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.464200	71.131111	Tufts school stream near bus circle		na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.468186	71.130921	park near Forest rd, o	on cross culvert unde	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.468186	71.130921	Duplicate	Duplicate	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.469507	71.125285	behind hospital, MyRV	MyRWA baseline site	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.467019	71.120658	outlet to resevoir	Across from Highland	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42 42'31.12"	71 9'1.07"	Channel	No GPS taken at site,	na	na	na		0.12		Wet
NA	NA	NA	42.711980	71.152671	Fulton Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.714655	71.156191	Brook Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42 42'49.21"	71 10'21.11"	Exchange Street outfa	No odor, a little foam	na	na	na		0.12		Wet
NA	NA	NA	42 42'49.31"	71 10'20.89"	Exchange Street	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.724919	71.183033	RT 28 castle park	No noticable odor to s	na	na	na		0.12		Wet

NA	NA	NA	42.727453	71.188366	Outfall downstream e	Possible stream culve	na	na	na		0.12		wet
NA	NA	NA	42.743250	71.208438	walked in from small	Right on MA/NH borde	na	na	na		0.12		Wet
NA	NA	NA	42.751038	71.212086	Spencer Street	Took GPS from street	na	na	na		0.12		Wet
NA	NA	NA	42.751038	71.212086	duplicate		na	na	na		0.12		Wet
NA	NA	NA	42.755035	71.208086	Walked in behind auto	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	NA	42.484033	71.103950	Sweetwater Brook @	(0.1" 48hrs prior to sa	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Unnamed tributary to	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Grey, turbid water	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Lots of green duck we	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Waded 3 ft upstream	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Film on water, low flo	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Suspended solids	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518739	71.146411	Duplicate	Duplicate	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.519578	71.146937	Just upstream from M	were driveway enters	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.520981	71.147709	Upstream of Mys 8 wh	Low flow, light brown	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518433	71.148226	upstream from 7 and	Thick layer of duck w	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518477	71.148139	Stream entering upstr	Thick sediment, oily, t	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.517881	71.150535	Upstream of Mys 7 an	Good flow	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dow	Sandy bottom, beave	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.729569	71.195557	mid-channel sample just past RR bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.731521	71.200097	downstream side of 1st 113 bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734448	71.199880	Just upstream of 2nd 113 bridge		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734293	71.199230	pond Northwest of MS	Pond entirely covered	na	na	na		0.48	0.38	Wet
NA	NA	NA	42.734889	71.200300	~ 50m upsreatm of MSPCA		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.736056	71.201397	~100m upsreatm of MSPCA		na	na	na		0.48	0.38	Wet
NA	NA	NA	42.434553	71.020547	Linden Brook as it day	Heavy silt deposits on	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.434497	71.020322	Tributary to Linden Br	Good flow, high sedim	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.433793	71.021460	Town Line Brook at h	Very silty	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.424881	71.041827	Town Line Brook whe	Orange floc, oil slick,	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.425568	71.026803	Stream at the of Ame	Deer prints, low flow,	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Very little flow, greeni	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407993	71.027011	Small culvert opening	water clea,r gray bact	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	End of beachum and	not quite as black as l	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	orange all over the roc	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	very orange, very turb	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.412663	71.069288	Culvert near Madeline	1/4" growth/deposit of	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407709	71.069853	Down Air force road b	Scum on top, some pe	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.413180	71.076268	Little Creek near Tufts	slight film on top of wa	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.440652	71.070136	Malden River across f	6-8" in depth, slight tu	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441720	71.070899	Old Mill Sample smal	~2 gal/min. entering c	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441688	71.071068	Old Mill at head of str	flow 3x-4x in matter o	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.441687	71.071070	12inch clay pipe next	2 or 3gal/min, clear flo	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.444227	71.069626	Just downstream of N	sampled western char	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.449076	71.069831	Outlet of Malden Rive	Highly turbid - orange	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.455333	71.080747	Corner of Philips Rd &	downstream of spot p	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069376	Across from 50 Tremo	slight flow, clear	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069376	Duplicate		na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461136	71.069370	Across from 50 tremo	flow appeared to char	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461429	71.068840	culvert across from D	flow clear, some algae	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch	Had to move manhole	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.464603	71.070066	Roosevelt School off	Trash gate clogged –S	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.456149	71.136269	ambient stream samp	Murky, some foam on	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42 25'07.64	71 87'40.33	Whittmore Brook off A	Some plaque on rocks	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41539348	71.103014	Small pipe next to cul	Very fresh smelling	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.40717819	71.090874	broken down culvert o	culvert has collapsed	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	very silty, bacteria and	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.40334224	71.017761	Culvert across stream	Lots of orange flock a	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403301	71.017871	Mill Creek sample mid	Clear flow, low flow ro	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	water looks clear. Flo	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	Duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.456365	71.136337	flow from directly und	site has deep deposits	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.361991	-71.147963	Corner of Greenough	Green algae covering	na	na	na		0	0.35	Wet
NA	NA	NA	42.363675	-71.155668	Outfall - So. Sawins B	Good flow strong rush	na	na	na		0	0.35	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook just of	Fairly clear, no odor w	na	na	na		0	0.35	wet
NA	NA	NA	42.367449	-71.198957	Culvert on right, 290 F	light tannish tint to wa	na	na	na		0	0.35	Wet
NA	NA	NA	42.367489	-71.198853	Culvert on left, 290 P	very large snapping tu	na	na	na		0	0.35	Wet
NA	NA	NA	42.367267	-71.218116	Intersection of Pleasa	Water flowing approx.	na	na	na		0	0.35	Wet
NA	NA	NA	42.381394	-71.213800	Edwin Rd and Parson	Walked in along strea	na	na	na		0	0.35	Wet
NA	NA	NA	42.381368	-71.213770	Beaver Brook just ups	water tannish tea colo	na	na	na		0	0.35	Wet
NA	NA	NA	42.381687	-71.233383	DPW outfall flowing in	water fairly clear no o	na	na	na		0	0.35	wet
NA	NA	NA	42.381687	-71.233383	Duplicate		na	na	na		0	0.35	Wet
NA	NA	NA	42.397176	-71.265148	across street from 55c	sampled pond as it flo	na	na	na		0	0.35	Wet
NA	NA	NA	42.456399	71.136447	small pipe exiting ball	Occasional discharge	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.456425	71.136466	Main stream next to M	Lots of leaf litter, mar	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.456789	71.138966	bridge across from W	High flow pretty clear	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.469507	71.125285	behind hospital, MyRV	High flow no distinct c	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	Low TSS, tannish sta	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus	very little odor, may b	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.478598	71.118001		Manhole nearby with	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Clear flow, no obvious	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @	downstream	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4824877	71.1060371	Duplicate	Duplicate	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Med flow tannish colo	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Very little flow, believ	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, san	Clear flow	na	na	na	Bedford	0.33	0.33	Wet

NA	NA	NA	42.497445	71.134658	Off Olym Ave back o	Lots of duck weed. Li	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dow	Sandy bottom, med f	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Clear, good flow, no	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, san	Clear flow	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.497445	71.134658	Off Olym Ave back o	Clear, low flow (less t	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Water grayish/green	na	na	na	Bedford	0.15	0.15	wet
NA	NA	NA	42.518433	71.148226	upstream from 7 and 7	1, downstream of Mys	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.518477	71.148139	Stream entering upstr	most likiliy from lands	na	na	na	Bedford	0.15	0.15	Wet
NA	NA	NA	42.483930	71.1039388	Duplicate	Duplicate	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slightly musty odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	flow about 2-3 gal/mir	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	No distinct odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.399997	71.053984	Where stream exits u	plaque accumulation,	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.41921413	-71.11761932	Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41921413	-71.11761932	Pipe off Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41769678	-71.12871923	algae, possibly grey	bacterial growth	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.41382298	-71.13243822	orange flocc at bottom	GPS reads SOM1	na	na	na	Boston-Logan	0	0	Dry
NA	NA	49.30	42.39401523	-71.07608867	Sample taken out out	flow	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.46084009	-71.13716417	90 degree angle on pipe	downward, very stro	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.46309465	-71.13622116	look like it drains cent	just upstream of Swar	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.4826072	-71.1046187	Unnamed tributary to	Sweetwater Brook opp	na	na	na	Boston-Logan	0	0	Dry
NA	NA	2.65	42.48393	-71.1039388	Sweetwater Brook @	Lindenwood (upstream	na	na	na	Boston-Logan	0	0	Dry
NA	NA	0.40	42.490277	-71.101799	much less than 2linde	Off Toms Way in Stor	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.490277	-71.101799	duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.49784987	-71.09894694	small pipe exiting	Right next to corner o	na	na	na	Boston-Logan	0	0	Dry
NA	4.0	4.30	42.515744	-71.136289	Sample taken shady l	Commerce Way locat	na	na	na	Bedford	0	0.06	Dry
NA	5.4	6.30	42.513171	-71.142649	1 foot deep at samplin	Halls Brook behind 18	na	na	na	Bedford	0	0.06	Dry
NA	6.2	32.10	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broo	na	na	na	Bedford	0	0.06	Dry
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	NA	12.00	42.50317874	-71.13529801	warmer than yesterda	99 restaurant, Aberjor	na	na	na	Bedford	0	0	Dry
NA	NA	8.35	42.5026954	-71.1353458	orange staining at bot	99 restaurant outfall d	na	na	na	Bedford	0	0	Dry
NA	NA	37.40	42.51329075	-71.14253919	sampled near wooden	unnamed stream just	na	na	na	Bedford	0	0	Dry
NA	NA	6.65	42.51317075	-71.14264919	Halls Brook	185 New Boston, (cho	na	na	na	Bedford	0	0	Dry
NA	NA	26.40	42.51858	-71.146281	condition same as 5/1	confluence of Mys7 ar	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.5157443	-71.1362892	Marshall's shipping lo	Same as last years M	na	na	na	Bedford	0	0	Dry
NA	NA	23.30	42.51601573	-71.13688511	Across Street from las	Same as last years m	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.526348	-71.125516	side culvert	West street where sur	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.526348	-71.125516	Main culvert	West street where sur	na	na	na	Bedford	0	0	Dry
NA	NA	4.00	42.53154834	-71.11838639	very, very slow flow w	Near corner of Interva	na	na	na	Bedford	0	0	Dry
NA	NA	4.30	42.53558799	-71.11508232	mowing upsteam; abo	Birchmeadow South o	na	na	na	Bedford	0	0	Dry
NA	NA	2.85	42.53558799	-71.11508232	duplicate		na	na	na	Bedford	0	0	Dry
NA	NA	3.15	42.53679646	-71.10856436	about 12' deep, slight	Reading High School	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.52094043	-71.10497511	about 6 inches deep	shington and High stre	na	na	na	Bedford	0	0	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
NA	160	46.60	42.40397	-71.021087	odor, gray/black cloud	privately owned	na	na	na	Boston-Logan	0	0.42	Wet
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	clean location	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	duplicate	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	NA	>50	42.27867229	-71.01285912	covered w/metal grate	Between yacht clubs	15	12	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.26651286	-70.99713721	3 dam section slight gr	eenish water 6 inch flo	27	14	na	Boston-Logan	0	0	Dry
NA	NA	18.50	42.26101708	-71.00364142		culvert under bridge o	2.3	14	na	Boston-Logan	0	0	Dry
NA	NA	2.20	42.25707901	-71.01144528	sampled mixing zone	corner of Furnace Bro	0.3	12.3	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.27616359	-71.03722522	oil sheen, jelly fish co	Office park off Heritag	8.1	13.4	na	Boston-Logan	0	0	Dry
NA	NA	>50	42.29837295	-71.04637927	NH3 kit clear, very litt	Victory Park off Vistor	20.2	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.29837295	-71.04637927	duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	50.00	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	28.5	14.3	na	Boston-Logan	0	0	Dry
NA	NA	0.55	42.2668462	-71.02928152	needed city to open g	corner of Hobart and E	na	na	na	Boston-Logan	0	0	Dry
NA	NA	6.30	42.25196531	-71.04783967	downstream side of b	running through Cunn	0.3	11.8	na	Boston-Logan	0	0	Dry
NA	NA	1.20	42.25917963	-71.08395335	downstream side of b	MR baseline site?	na	na	na	Boston-Logan	0	0	Dry
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	550/180	Boston-Logan	0	0.03	Dry
NA	ND	1.25	42.425963	-71.114988		Meeting house brook	0.1	14.1	291	Boston-Logan	0	0.03	Dry
NA	4.9	4.75	42.399303	-71.160888	waded in stream to co	Winns Brook of Bright	0.6	14.4	1085	Boston-Logan	0	0.03	Dry
0.14	4.7	5.00	42.399303	-71.160888	duplicate		na	na	na	Boston-Logan	0	0.03	Dry
NA	6.6	4.55	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.8	14.1	1625	Boston-Logan	0	0.03	Dry
0.07	6.1	6.30	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.8	13.7	1623	Boston-Logan	0	0.03	Dry
NA	NA	0.30	42.72491896	-71.18303334	sample collected just	RT 28 castle park	0.2	16.7	384.6	Lawrence	0	0	Dry
NA	NA	NA	42.72745251	-71.18836554	hydroelectric stream,	Osgood Street	na	na	na	Lawrence	0	0	Dry
NA	NA	12.30	42.72745251	-71.18836554	discharge under Osgo	od street bridge, strong	na	na	na	Lawrence	0	0	Dry
NA	NA	2.10	42.74320743	-71.20845291	needed reach	Hampshire Rd on boa	0.2	16.9	365.2	Lawrence	0	0	Dry
NA	NA	1.80	42.75526814	-71.20793271	red rusty color, some	By auto glass place of	0.2	313.5	17.2	Lawrence	0	0	Dry
NA	NA	2.15	42.76250258	-71.22274645	slightly more cloudy th	downstream of road, s	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.76743837	-71.22301615	low flow	behind Kohl's parked	0.4	16.2	757	Lawrence	0	0	Dry
NA	NA	0.50	42.77404525	-71.22433096	thick algae growth, ve	flow from east under F	0.3	19.6	638	Lawrence	0	0	Dry
NA	NA	2.70	42.77406535	-71.22432568	sampled upstream of	confluence with Mer6a	0.3	15.4	684	Lawrence	0	0	Dry
NA	NA	1.80	42.77812136	-71.22714727	flow from under Rockingham park		0.3	15.8	650	Lawrence	0	0	Dry
NA	NA	NA	42.77812136	-71.22714727	duplicate		na	na	na	Lawrence	0	0	Dry
NA	NA	0.20	42.77659345	-71.23104502	sample taken approx	main stream sample	0.3	18.6	665	Lawrence	0	0	Dry
NA	NA	ND	42.77659345	-71.23104502	strong odor, orange s	culvert that conveys b	na	na	na	Lawrence	0	0	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6m	Boston-Logan	0	0	Dry
0.25	12	9.25	42.287572	-71.022259	lots of orange flocc co	across from CVS on C	1	15	1913	Boston-Logan	0	0	Dry
1.34	350	50+	42.289355	-71.041773	Very, very muddy wat	Tenean Beach	24.5	16.3	38.36m	Boston-Logan	0	0	Dry
1.53	330	50+	42.298373	-71.046379	Started sprinkling abo	at dog park off Victory	24.5/24.6	16.3/16.3	.36/38.	Boston-Logan	0	0	Dry

0.31	7.2	3.75	42.288373	-71.092879	bacteria plague cover	Canterbury Brook, Bo	0.6	14.6	1156	Milton-Blue Hi	0.07	0.07	Dry
0.32	7.1	2.30	42.288373	-71.092879	duplicate		na	na	na	Milton-Blue Hi	0.07	0.07	Dry
NA	NA	ND	42.779551	-71.027841	misting, very light rain	sampled downstream	0.2	13.7	331	Lawrence	0.1	0.1	Wet
NA	NA	1.05	42.767101	-71.033431	culverted stream outf	across from 62 coffin	0.2	16.1	263	Lawrence	0.1	0.1	Wet
NA	NA	0.50	42.752001	-71.038431	sampled off bridge w/	off Main Street	0.2	14.1	376.6	Lawrence	0.1	0.1	Wet
NA	NA	1.00	42.74968	-71.041971	2 lamprey's in stream	further south on Main	0.1	14.1	259.4	Lawrence	0.1	0.1	Wet
NA	NA	5.75	42.772341	-71.084161	Coming out of retainir	on right side facing up	0	16.5	92.5	Lawrence	0.1	0.1	Wet
NA	NA	1.80	42.773051	-71.082001	Little River outfall into	Walked downstream a	0.2	17.2	438.2	Lawrence	0.1	0.1	Wet
NA	NA	0.20	42.776051	-71.087001	flow swift, about 1ft de	behind auto parts sup	0.2	17.3	431.7	Lawrence	0.1	0.1	Wet
NA	NA	NA	42.776051	-71.087001	duplicate		na	na	na	Lawrence	0.1	0.1	Wet
NA	NA	1.65	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks	0.3	16.6	700	Lawrence	0.1	0.1	Wet
NA	NA	0.35	42.696201	-71.1459901	Combined sample fro	Behind S. Lawrence e	0.3	16.7	577	Lawrence	0.1	0.1	Wet
NA	NA	2.35	42.696209	-71.1457001	Shawsheen River	main stream sample b	0.3	16.7	679	Lawrence	0.1	0.1	Wet
NA	NA	5.05	42.695971	-71.1455601	strong flow, lots and lo	Concrete outfall meta	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
0.13	2.8	0.30	42.57664155	-70.92825715		Frost Fish Brook, 34 S	0.3	13.3	585	Beverly	0	0.16	Dry
0.1	3	1.85	42.58395698	-70.92904291	Moss growing in pipe	Downstream of bridge	0.2	12.8	375	Beverly	0	0.16	Dry
0.09	3.5	1.00	42.51446323	-70.86578117	Some moss growing o	Sampled where brook	0.2	13.8	329	Beverly	0	0.16	Dry
0.14	4.6	2.70	42.51182185	-70.85955935		Between Rts. 134A ar	0.4	13.1	641	Beverly	0	0.16	Dry
0.34	5.3	1.70	42.466942	-70.92203147	Sample combined fro	Sampled about 15' do	0.5	14.2	826	Beverly	0	0.16	Dry
0.32	5.1	1.40	42.466942	-70.92203147	Ammonia kits - samples	recorded as 1.0 but	na	na	na	Beverly	0	0.16	Dry
NA	NA	NA	42.52474522	-70.92044643	Channelized streamb	Off Howley St, back c	0.5	17.1	930.1	Beverly	0	0	Dry
NA	NA	NA	42.52463018	-70.92029908	Channelized streamb	Strong Brook, off How	0.4	13.6	597	Beverly	0	0	Dry
NA	NA	NA	42.52857218	-70.92980508	Lots of snails and plar	End of Sawyer off RR	0.5	12.2	747	Beverly	0	0	Dry
NA	NA	NA	42.52780518	-70.93030508	Channelized stream b	Off RR Ave near corn	0.6	16.7	1004	Beverly	0	0	Dry
NA	NA	NA	42.52132281	-70.92246961	Culverted stream, mo	Upstream of Pierpont	0.4	13.1	568	Beverly	0	0	Dry
NA	NA	NA	42.52110337	-70.88711899	Duck bill pipe opening	On Derby St off Derby	10.1	16.4	14.41	Beverly	0	0	Dry
NA	NA	NA	42.5245133	-70.90032899	Concrete pipe; bird lif	Commercial St, acros	11	18.2	16.15	Beverly	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Swimming children in	Corner of Crowninshie	0.4	14.5	605	Beverly	0	0	Dry
NA	NA	NA	42.51482047	-70.84827695	Thick orange floc in s	Sampled downstream	0.4	14.2	618	Beverly	0	0	Dry
NA	NA	7.85	42.51312428	-70.8564196	Water irridescent in s	at Marblehead transfe	0.5	13.3	780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the S	0.5	14.2	1780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the N	1.1	14.8	1784	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	duplicate		na	na	na	Beverly	0	0	Dry
0.23	4.3	1.40	42.262068	-71.046682	sampled downstream	Unquity Brook off Chr	0.5	14.5	800	Milton-Blue Hi	0	0	Dry
0.24	4.1	1.85	42.253703	-71.068976	Heard dripping from u	downstream of Rando	0.5	15.4	797	Milton-Blue Hi	0	0	Dry
1.66	660	44.30	42.266485	-70.997104	Flow was very strong	Wollaston Beach upst	28.5	20.5	*40.4m	Milton-Blue Hi	0	0	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12m	Milton-Blue Hi	0	0	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55m	Milton-Blue Hi	0	0	Dry
NA	NA	1.85	42.44287759	71.14284459	used reach, sample c	Upper Mystic Lake sa	0.4	19.2	794	Boston-Logan	0	0	Dry
NA	NA	NA	42.451207	-71.13668	sample collected dow	downstream of downto	0.4	19.5	812	Boston-Logan	0	0	Dry
NA	NA	2.40	42.46084009	-71.13716417	sampled about 50ft up	Off Swanton Street, g	0.5	17.4	888	Boston-Logan	0	0	Dry
NA	NA	NA	42.46084009	-71.13716417	thick algae growth on	Whittmore pond outle	0.4	18.4	745	Boston-Logan	0	0	Dry
NA	NA	0.80	42.4764251	-71.1182001	name on data sheet is	Aberjona mainstem in	0.5	17	935	Bedford	0	0	Dry
NA	NA	6.25	42.5026954	-71.1353458	streambed wide and s	sampled downstream	0.5	17.9	891	Bedford	0	0	Dry
NA	NA	10.10	42.5026954	-71.1353458	orange staining at bot	99 restaurant outfall d	1.9	15.5	2907	Bedford	0	0	Dry
NA	NA	0.40	42.51317075	-71.14264919	sheetrock compound	Halls Brook at 185 Ne	0.5	16.7	813	Bedford	0	0	Dry
NA	NA	27.90	42.51329075	-71.14253919	strip was almost blue	unknown stream near	0.5	15	796	Bedford	0	0	Dry
NA	NA	28.50	42.51317075	-71.14264919	DRR1 duplicate	DRR1 duplicate	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.517998	-71.130612	Sampled just under cu	Walking in off Arnold	0.5	16.1	908	Bedford	0	0	Dry
NA	NA	0.80	42.53558799	-71.11508232	average flow	Birchmeadow South o	0.7	15.1	1195	Bedford	0	0	Dry
NA	NA	0.60	42.53679646	-71.10856436	slight scum on top of	Reading High School	0.8	15.5	1308	Bedford	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
0.12	4.6	1.30	42.48685	-71.0985788	Cl2 exceeded holding	Elm St in Stoneham, t	0.7	15.6	1434	Boston-Logan	0.08/0	0.08/0.	Wet
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.	0.1/0.2	Wet
NA	NA	NA	42.46345477	-71.14925777	very light rain, small w	at end of Sylvester St	0.4	17.4	775	Boston-Logan	0	0.47	Wet
NA	NA	NA	42.46345577	-71.14925707	warm water about 1 a	at end of Sylvester St	0.5	23.4	720	Boston-Logan	0	0.47	Wet
NA	NA	0.55	42.475449	-71.1600123	Jay Corey, city engine	Off Woburn Parkway	0.7	14.1	1353	Bedford	1.39	1.53	Wet
NA	NA	2.30	42.47549599	-71.15991194	rust/orange stain on ro	main stream outfall or	0.6	17.1	1267	Bedford	1.39	1.53	Wet
NA	NA	NA	42.47549599	-71.15991194	duplicate of OF118		na	na	na	Bedford	1.39	1.53	Wet
NA	NA	2.75	42.475349	-71.160112	city engineer requeste	small plastic pipe abo	0.7	13.4	**1.4m	Bedford	1.38	1.53	Wet
NA	NA	NA	42.4809258	-71.15751796	main outfall corrugate	Off Harrison Ave near	0.7	17.6	1445	Bedford	1.38	1.53	Wet
NA	NA	NA	42.47333227	-71.17269149	sampled mid-stream j	downstream of Cumm	0.4	16.7	828	Bedford	1.38	1.53	Wet
NA	NA	NA	42.48054493	-71.17539336	sampled downstream	Midway down So Bed	0.3	16	603	Bedford	1.35	1.53	Wet
NA	NA	NA	42.48093881	-71.17630129	moderate flow, severe	On corner of So. Bedf	0.2	15.3	441	Bedford	1.35	1.53	Wet
NA	NA	NA	42.48008835	-71.18316396	steep sides on bank, r	Near condo complex o	0.1	18	997	Bedford	1.35	1.53	Wet
NA	NA	0.95	42.46880482	-71.17869266	some flow coming ou	Shaker Glen Brook of	0.3	16.5	583	Bedford	1.35	1.53	Wet
NA	NA	2.45	42.46773317	-71.18022662	unknown tributary to S	57 Russel Street	0.4	16.8	988	Bedford	1.34	1.53	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston N	6.5	20.34	11.36	Boston-Logan	0	0	Dry
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
1.17	200	50*	42.394421	-71.049706	Surf., NH3 (EPA) and	other 500mL bottle sar	14.2	21.5	23.49	Boston-Logan	0	0	Dry
1.15	200	50*	42.394421	-71.049706	Duplicate of IsEnd03		na	na	na	Boston-Logan	0	0	Dry
0.81	130	46.10	42.41380356	-71.13242519	can hear running water in pipe; YSI measurm		9.1	17.7	15.1	Boston-Logan	0	0	Dry
NA	NA	NA	42.40333987	71.020587	gray plaque on bottom and below outfall		0.5	15.8	291-246	Boston-Logan	0	0	Dry
NA	NA	NA	42.40376623	-71.02130017	significant gray bacterial plaque; some suds.		1.1/0.1	17.5/17.5	517/142	Boston-Logan	0	0	Dry
NA	NA	NA	42.39960591	-70.99828284	slight gray plaque; lot	downstream - pipe on	1.8	18.1	3447	Boston-Logan	0	0	Dry
NA	NA	NA	42.40075317	-70.99738614	orange floc in pipe an	Site at intersection on	1.1	20.4	1982	Boston-Logan	0	0	Dry
NA	NA	NA	42.399852	-70.99260269	sample taken from ab	NE back corner of Sh	4.3	20.4	7.6	Boston-Logan	0	0	Dry
NA	NA	NA	42.400002	-70.991803	slight flow in channel	Upstream of WashN0	4.5	21.7	8.14	Boston-Logan	0	0	Dry
NA	NA	NA	42.399999	-70.991803	Pipe enters Sales from	East just South of fer	5.4	15.4	9.6	Boston-Logan	0	0	Dry
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled over pedestr	1.7	18.1	3271	Boston-Logan	0	0	Dry
NA	NA	NA	42.40269115	-71.00375656	Duplicate of Green01		na	na	na	Boston-Logan	0	0	Dry

NA	NA	NA	42.41458312	-70.9947105	Lots of film on surface	Very back of corner o	1.1	23	22.38	Boston-Logan	0	0	Dry
NA	NA	NA	42.41699849	-70.99015595	Used reach, lots of fra	End of Agawam St; of	1.4	21.2	2737	Boston-Logan	0	0	Dry
NA	NA	NA	42.4001152	-71.050172	Very cloudy, significa	Upstream of Island En	1	19.5	2014	Boston-Logan	0	0	Dry
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
NA	NA	NA	42.17433828	-71.21340789	2 metal corrugated ou	parked off Washingto	0.3	17.2	414.3	Norwood	0	0	Dry
NA	NA	NA	42.17436284	-71.2133808	mainstream sample fr	parked off Washingto	0.2	23.5	372	Norwood	0	0	Dry
NA	NA	NA	42.17568587	-71.21568311	about 300ft upstream	off Main St, turn into E	0.2	24	347.8	Norwood	0	0	Dry
NA	NA	NA	42.17568487	-71.21569311	tributary to Hawes Bro	Sampled right before	0.3	17.8	685	Norwood	0	0	Dry
NA	NA	NA	42.17460128	-71.21823127	Just upstream of HAB	off Main St, turn into E	0.3	17.8	688	Norwood	0	0	Dry
NA	NA	NA	42.17761815	-71.22424663	entered near no dump	Tributary to Hawes Br	0.4	16.5	713	Norwood	0	0	Dry
NA	NA	NA	42.17761815	-71.22424663	small pipe exiting abo	parked off corner of D	na	na	na	Norwood	0	0	Dry
NA	NA	NA	42.17761779	-71.22765971	2 outfalls @ headwall	parked off corner of D	0.3	15.9	589	Norwood	0	0	Dry
NA	NA	NA	42.17858119	-71.18783858	12' metal corrugated c	260 Dean St parked 2	0.7	19.6	1465	Norwood	0	0	Dry
NA	NA	NA	42.18465657	-71.19415004	some billowy stuff on	On Meadowbrook Rd,	0.8	18.2	1539	Norwood	0	0	Dry
NA	NA	NA	42.18465657	-71.19415004	duplicate of MB02		na	na	na	Norwood	0	0	Dry
NA	NA	NA	42.20501085	-71.18852597	Plantingfield Brook	On Codman Ave acro	0.4	20	766	Norwood	0	0	Dry
NA	NA	NA	42.20459437	-71.19851397	Plantingfield Brook, a	corner of Ash Rd and	0.3	16.9	663	Norwood	0	0	Dry
0.22	5.1	1.50	42.250692	-70.997793	Accessed via parking	Canal opening just off	0.5	19.7	1080	Boston-Logan	0.01	0.01	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3m	Boston-Logan	0.01	0.01	Dry
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry
1.65	530	50*	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	25	18.8	39.10m	Boston-Logan	0.01	0.01	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.25196531	-71.04783967	just upstream of samp	in Cunningham Park d	0.3	18.8	619	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25100306	-71.0519303	Stream 2ft deep. thick	corner of Fullers Roac	0.3	18.1	635	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25774194	-71.00885949	reached up to sample	downstream side of br	0.1	21.5	205	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25774194	-71.00886049	6 feet across	sampled just upstrean	0.3	18	709	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25623392	-71.02049266	2 cement culverts san	off Furnace Brook Par	0.4	17.1	790	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.245665	-71.02734872	Unnamed tributary to	Off Cresent street, wa	0.3	19.8	661	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25581841	-70.99401534	some DPW work migh	End of Broad street of	9.9	19.5	**15.03	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27616359	-71.03722522	sampled on incoming	Office park off Heritag	23.7	20	**37.4	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27616359	-71.03722522	groundwater seep, thi	just downstream of SA	2.3	16.4	3645	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27716403	-71.00777498	sampled after tide had	Wollaston Beach outf	29	19.4	44.56m	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27716413	-71.00777488	sampled inside of out	Wollaston beach outfa	23.3	17.1	**36.79	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.27867229	-71.01285912	sampled inside of out	Wollaston Beach outf	3.2	18	*5.81m	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25069222	-70.99779295	Parked via lot at Bagr	Canal opening near E	0.4	21.2	771	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25069222	-70.99779295	duplicate of Canal1		na	na	na	Boston-Logan	0.05	0.06	Dry
0.07	ND	0.15	41.92559804	-70.61841863	lots of eel grass, used	downstream Eel River	0.1	22.8	142.9	Plymouth	0.01	0.01	Dry
ND	ND	0.20	41.92519001	-70.61918863	River: about 1.5' deep	downstream of bridge	0.1	22.6	145.3	Plymouth	0.01	0.01	Dry
~0.05	ND	ND	41.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0.01	0.01	Dry
0.1	ND	0.35	41.92517001	-70.61942993	some grass was gorw	upstream of Sandwich	0.1	21.5	187.7	Plymouth	0.01	0.01	Dry
0.08	4.2	0.60	41.92538204	-70.61810863	dead mouse floating i	directly behind 132 sa	0.2	17.6	326.3	Plymouth	0.01	0.01	Dry
0.15	NA	ND	41.92480601	-70.61774371	very akward sampling	Clean-out pipe, behin	0.2	20.4	315.3	Plymouth	0.01	0.01	Dry
NA	NA	NA	42.70688	-71.1476552	downstream of waterf	confluence of canal &	0.1	26.5	188	Lawrence	0	0	Dry
NA	NA	NA	42.70703754	-71.14815826	some algae on stream	just down stream of ca	0.1	25.6	192.9	Lawrence	0	0	Dry
NA	NA	NA	42.70747755	-71.14846649	shallow 1' aglae on ro	Upstream (~50') of Sp	0.2	23.2	480	Lawrence	0	0	Dry
NA	NA	NA	42.70725878	-71.14809783	on Merrimack river sid	leaky pipe under Spic	0.1	22.6	230	Lawrence	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	tace hemoglobin off u	pipe off Lawrence Hos	1.2	22.6	2291	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.70516882	-71.14005475	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	23.8	618	Lawrence	0	0	Dry
NA	NA	NA	42.67231773	-71.14949411	left side, facing downs	front of Balmoral cond	1	20.6	1936	Lawrence	0	0	Dry
NA	NA	NA	42.67225719	-71.1493017	flow dropped to a trick	front of Balmoral cond	1.4	20.7	2780	Lawrence	0	0	Dry
NA	NA	NA	42.66847901	-71.14232625	some algae on rocks	little park of York St b	0.4	18.3	878	Lawrence	0	0	Dry
NA	NA	NA	42.66510433	-71.14546547	waded downstream to	park in Shawsheen pla	0.8	21.7	1600	Lawrence	0	0	Dry
0.12	3.4	1.05	42.266756	-71.094794	green algae and greyi	(actually NR104?) Bel	0.5	18.2	910	Boston-Logan	0.77	0.77	Wet
ND	ND	0.50	42.266710	-71.094816	waded into river for sa	just upstream of Dent	0.2	24.6	427.7	Boston-Logan	0.77	0.77	Wet
ND	3.7	1.65	42.251173	-71.128400	lots of trash in stream	parked off Reservatio	0.3	25.9	625	Boston-Logan	0.77	0.77	Wet
0.05	8.7	21.90	42.247956	-71.125339	difficult access, white	parked off Glenwood,	0.2	20.5	476.6	Boston-Logan	0.77	0.77	Wet
0.66	7.4	14.25	42.244799	-71.126989	green algae in outfall,	behind tennis courts o	0.5	18.4	968	Boston-Logan	0.77	0.77	Wet
0.74	7.2	14.80	42.244799	-71.126989	Duplicate of NR162		na	na	na	Boston-Logan	0.77	0.77	Wet
0.14	4.8	1.15	42.242826	-71.127704	some gray bacteria, g	behind Stop & Shop o	1.2	22.4	24.11	Boston-Logan	0.77	0.77	Wet
0.08	ND	1.00	42.242874	-71.127669	Mainstem Neponset R	behind Stop & Shop o	0.2	25	486	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27144045	-71.06754804	sampled majority of fl	Adams Street before I	0.2	23.6	518	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27041352	-71.07319096	Neponset mainstem,	Under Central Street E	0.2	23.8	580	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27049459	-71.07315433	"Bos103" bacterial pla	Outfall under Central	1.7	21.3	3148	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27049459	-71.07315433	Duplicate of Milt03		na	na	na	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27019179	-71.07283064	Pine Tree Brook	Pedestrian bridge nea	0.3	20.3	520	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.2660057	-71.07350454	disjointed clay tile pip	pipe coming out from	0.1	20.6	310.3	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.26591742	-71.07358271	Pine Tree Brook	sampled under bridge	0.3	20.4	518	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.27034626	-71.07934437	Walked in about 50fe	corner of Desmond ar	0.2	19.5	625	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.26714745	-71.0936206	Thick white suds in po	Parked at condo comp	0.7	19.8	1547	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.24761793	-71.13018278	very low flow, lots of d	Upstream of Reservat	17.3	22.7	26.03m	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.250559	-71.129583	Across stream from B	Just downstream of R	0.3	25.9	593	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.24282649	-71.12770352	about 20 ft downstrea	Downstream outfall be	1.2	22.3	2276	Boston-Logan	0.77	0.77	Wet
NA	NA	NA	42.242715	-71.127903	pool below outfall had	Upstream outfall behir	0.1	27.3	228.5	Boston-Logan	0.77	0.77	Wet
0.12	4.6	2.95	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	14.6	780	Bedford	0.01	0.01	Dry
0.74	7.3	26.60	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broc	0.5	14.4	932	Bedford	0.01	0.01	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry

1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
0.73	7.3	28.80	42.51858	-71.146281	after confluence of La	Just south of Landfill E	0.5	14.2	955	Bedford	0.01	0.01	Dry
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrear	0.3	15.3	806	Boston-Logan	0	0	Dry
0.09	3.1	1.05	42.3599847	-71.1809755	"New81" waded to lef	Outfall to Charles off	0.6	14.6	1308	Boston-Logan	0	0	Dry
0.14	ND	0.75	42.3646351	-71.1892039	Used waders	Laundry Brook off Cal	0.4	18	830	Boston-Logan	0	0	Dry
0.14	ND	na	42.3646351	-71.1892039	Duplicate of Laund01		na	na	na	Boston-Logan	0	0	Dry
0.14	3.6	1.35	42.3600600	-71.2169465	taken 6' downstream	Cheessecake Brook n	0.7	16.7	1378	Boston-Logan	0	0	Dry
0.17	4.4	2.20	42.3730420	-71.2283524	shallow stream, colleo	Beaver Brook near co	0.5	16.7	1035	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.41	7.8	7.80	42.659814	-71.318830	large duckbill coverin	Beaver Brook outfall	0.1	18.2	468.5	Lawrence	0	0	Dry
NA	NA	1.45	42.659837	-71.318833	sample taken just ups	Beaver Brook Mainste	0.2	16.9	358.8	Lawrence	0	0	Dry
0.15	ND	0.60	42.650395	-71.314502	west channel sampled	off Suffolk Street, clim	0.1	19.1	170	Lawrence	0	0	Dry
0.16	ND	0.10	42.643823	-71.307889	sampled open channe	downstream from Cen	0.1	19.2	168.7	Lawrence	0	0	Dry
0.11	4.1	2.25	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17.5	714	Lawrence	0	0	Dry
0.15	4	ND	42.633655	-71.302505	Duplicate of RMB1		na	na	na	Lawrence	0	0	Dry
NA	NA	1.10	42.631057	-71.305968	1ft at deepest, used re	sampled downstream	0.3	17.6	711	Lawrence	0	0	Dry
0.17	7.2	7.15	42.638346	-71.343658	Flow from 2 large me	Black Brook off Middle	0.6	17.8	1145	Lawrence	0	0	Dry
NA	NA	8.20	42.634459	-71.349404	rocks covered w/ alga	Black Brook off Baldw	0.5	19.5	1077	Lawrence	0	0	Dry
0.15	8.1	3.40	42.520940	-71.104975	about 6 inches deep (	corner of Washington	0.9	16.7	1682	Lawrence	0.01	0.01	Dry
0.2	6.9	4.35	42.65447823	-71.14660047	hiked down hill sampl	5 Dundee Park near Y	0.4	15.1	806	Lawrence	0.01	0.01	Dry
0.19	4.5	0.60	42.65573487	-71.13334922	some deeper pools	Off Chestnut Street, n	0.3	15.1	530	Lawrence	0.01	0.01	Dry
0.25	4.8	0.35	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	15.9	537	Lawrence	0.01	0.01	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	15.5	539	Lawrence	0.01	0.01	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
0.1	5.8	2.30	42.695971	-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
0.32	28	34.90	42.70991636	-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
0.14	8.5	0.80	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0.01	0.01	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
0.21	8.9	~10.5	42.24781922	-71.05546405	collected close to outfall	in pool	0.5	15.4	933	Boston-Logan	0.51	0.57	Wet
0.1	2.8	~0.85	42.20481659	-71.19661788	sampled right culvert		0.6	16.7	1146	Norwood	0.54	0.63	Wet
0.16	3.3	~1.6	42.20509841	-71.964841	sample collected before	two steams mix	0.2	15.5	515	Norwood	0.54	0.63	Wet
0.07	3.8	ND	42.204594	-71.198514	sample collected near	culvert	0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	1.8	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.5	11.3	910	Bedford	0	0	Dry
NA	4.2	6.35	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.5	11.7	921	Bedford	0	0	Dry
NA	NA	NA	42.41803618	-71.15649782	Start of culvert under	Mill Brook near bike p	0.4	11.6	884	Bedford	0	0	Dry
NA	3.6	1.05	42.41800384	-71.1599327	two 3 foot culverts an	Near Arlington High S	0.4	11.6	859	Bedford	0	0	Dry
NA	3.6	2.45	42.41800384	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry
NA	3.4	2.05	42.42030025	-71.16460763	6ft stone channel, foo	Mill Brook instream	0.4	12.1	755	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	8.3	6	42.42321769	-71.17286099	lots of green algae ins	ide pipe	1.4	11.4	2700	Bedford	0	0	Dry
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	2.65	42.42388575	-71.17372022	hole in wall/seep	East side of culvert wa	0.5	10.0	1394	Bedford	0	0	Dry
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, E	0.7	10.1	1450	Bedford	0	0	Dry
NA	ND	0.65	42.42443302	-71.17464016	waders, culvert just up	Outfall to Mill Brook, V	0.6	9.8	1280	Bedford	0	0	Dry
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	4.9	2	42.44732536	-71.13860428	near gauging station	Sampled above dam	0.4	10.3	821	Bedford	0	0.02	Dry
NA	NA	NA	42.45109149	-71.13689456	waterfall ~250ft upstre	Waterfield St bridge	0.4	10.2	806	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45284032	-71.13542441	used reach and wade	Mt Vernon St bridge b	0.4	10.2	794	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45571045	-71.13669402	used reach	Behind Stop & Shop	0.3	12.6	561	Bedford	0.16	0.18	Wet
NA	5.2	2.25	42.4564901	-71.13647243	outfall on far left looki	Skillings road from un	0.4	9.1	907	Bedford	0.16	0.18	Wet
NA	5.4	1.75	42.4564901	-71.13647243	duplicate of Skill01		na	na	na	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45646101	-71.13649804	very low flow - if any	small pipe exiting nea	0.4	9.1	908	Bedford	0.16	0.18	Wet
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	11	5.7	42.47549599	-71.15991194	rust/orange stain on ro	main stream outfall on	0.8	19.8	1655	Bedford	0.17	0.19	Wet
NA	NA	NA	42.48090577	-71.15755569	slightly crushed small	Off Harrison Ave near	0.5	12.2	1070	Bedford	0.17	0.19	Wet
NA	15	4.75	42.4809258	-71.15751796	Main outfall	Off Harrison Ave near	1.3	7.9	2495	Bedford	0.17	0.19	Wet
NA	9.7	3.35	42.47993991	-71.15617846	very slow flow	opposite side of ballpa	0.8	12.5	1578	Bedford	0.17	0.19	Wet
NA	4.3	0.9	42.42029396	-71.16475294	Just upstream of Grov	Mill Brook instream	0.4	15.9	850	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.422035	-71.170577	needed ladder/waders	At end of Robin Stree	0.8	12.5	1533	Bedford	0.12	0.12	Wet
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, E	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	3.9	1.35	42.424465	-71.174718	neighbor stopped ove	Just upstream of Ryde	0.4	17	729	Bedford	0.12	0.12	Wet
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	3.7	2	42.425348	-71.186230	PPCP bottle broke, re	behind 1395 Mass Av	0.3	18.2	684	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	NA	0.4	42.513171	-71.142649	machinery stored nea	Halls Brook behind 18	0.4	11.1	875	Bedford	0	0	Dry
NA	NA	11.3	42.513291	-71.142539	sampled before timbe	Unnamed stream just	0.4	10.1	839	Bedford	0	0	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	NA	3.85	42.51422481	-71.14551115	flow on downstream s	sampled from left ope	0.4	11.3	878	Bedford	0	0	Dry
NA	NA	3.55	42.51422481	-71.14551115	duplicate of Torr01		0.4	11.3	878	Bedford	0	0	Dry
NA	NA	2.65	42.51048269	-71.15492526	fair amount of litter	upstream of road cros	0.4	12.1	869	Bedford	0	0	Dry
NA	NA	2.7	42.5086557	-71.1583669	construction on bridge	bottom of stone run of	0.5	12.7	987	Bedford	0	0	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before	bridge	0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet

NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	10.8	42.25620978	-70.99314315			8.1	13.3	14.1	Milton-Blue Hi	1.5	0	Wet
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	2.2	42.39528219	-71.17631914	duplicate of WEB013		na	na	na	Bedford	0	0	Dry
NA	NA	1.1	42.39528219	-71.17631914	lots of suspended sed	Wellington Brook	0.7	12.6	1433	Bedford	0	0	Dry
NA	NA	NA	42.4225696	-71.14928822		Mystic Valley Parkway	0.6	13.8	1269	Bedford	0	0	Dry
NA	NA	0.25	42.41770489	-71.1574838	may be multiple pipe	pipe discharging to Mi	0.1	17.8	237	Bedford	0	0	Dry
NA	NA	NA	42.42471486	-71.17533266	collected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	2.45	42.42645629	-71.19436402		pipe discharging unde	1.3	17.6	2482	Bedford	0	0	Dry
NA	NA	ND	42.42648362	-71.19440958	6ft wide, rocky stream	Bow street, just downs	0.3	18.3	537	Bedford	0	0	Dry
NA	NA	1.45	42.42834205	-71.19676456	36" double culvert col	Just downstream of F	0.2	19.3	513	Bedford	0	0	Dry
NA	NA	0.05	42.42901218	-71.1975303	tributary, thick film co	Walked ~100yards up	0.2	20.9	362.9	Bedford	0	0	Dry
NA	NA	5.95	42.39988394	-70.99242127	duplicate of WashN01		na	na	na	Boston-Logan	0.08	0.43	Wet
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	11	42.39990454	-70.99237953	just upstream of Was	Sales Creek	1.3	18.2	2527	Boston-Logan	0.08	0.43	Wet
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	17.7	42.3830573	-71.03016877	40min before low tide	Condor Street outfall,	23.3	16.1	36.7mS	Boston-Logan	0.08	0.43	Wet
NA	NA	50*	42.36126566	-71.05083507	near Christopher Colu	Climbed down betwee	26.7	16.3	44.67mS	Boston-Logan	0.08	0.43	Wet
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	2.35	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/18	Lawrence	0.04	0.04	Dry
NA	NA	12.4	42.465157	-71.392813	pool at base of culver	<1/2 mile from bridge	0.2	27.6	90.3/37	Bedford	0	0	Dry
NA	NA	ND			Effluent of a membrane bioreactor			24	495.8	Falmouth	0.12	0.21	Wet
NA	NA	25.10			6" below surface, 6"sa	tip pans (24/day - 1galeach) sto		22.9	479	Falmouth	0.12	0.21	Wet
NA	NA	38.70			12" below surface	12"sand		21.1	602	Falmouth	0.12	0.21	Wet
NA	NA	ND						21.6	351	Falmouth	0.12	0.21	Wet
NA	NA	ND			24" below surface			20.1	571	Falmouth	0.12	0.21	Wet
NA	NA	2.5			Influent			19.3	479	Falmouth	0.12	0.21	Wet
NA	NA	36.80			12" with air			20.3	579	Falmouth	0.12	0.21	Wet
NA	NA	11.5								Falmouth	0.12	0.21	Wet
NA	NA	ND						20.3	606	Falmouth	0.12	0.21	Wet
NA	NA	NA	42.968332	-71.472794	Oil sheen across all ro	called EPA incident re	0.3	18.1	29/446.	Manchester	0	0	Dry
NA	NA	NA	42.985780	-71.469196	Strong musty odor, ta	sampled flow out of pi	1	17.6	934/165	Manchester	0	0	Dry
NA	NA	NA	42.998669	-71.468348	next to outfall 047, thi	outfall just north (adja	2.1	15.2	992/321	Manchester	0	0	Dry
NA	NA	NA	42.998660	-71.468348	steam coming out of p	just south of 047N, by	2.5	17.5	4750	Manchester	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.21004	-71.530441	grated outfall, flow is	approx. 10 gal/min poo	0.7	14	1070	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.193970	-71.542492	midstream sample ne	Concord District Cour	0.7	22.9	1458	Concord	0	0	Dry
NA	NA	NA	43.199674	-71.548718	Just upstream of Clin	off Pleasant Street	0.5	23.1	1080	Concord	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.51380064	-70.88804384	Palmer Cover, Salem	White bacterial growth	1.5	21.1	4209	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54714736	-70.86166491	Lynch Park, Beverly M	sampled 2hrs after low	0.7	17.6	1339	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55097916	-70.8503408	Down Brackenbury La	Brackenbury Beach	10	18.6	16.91mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55443402	-70.84983196	sampled under bridge	lots of ducks upstream	0.2	20.5	409.2	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54639263	-70.8616749	Lynch Park, Beverly	Small pipe exiting just	1.8	19.3	7.77mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.46084009	-71.13716417	Downstream of Swan	USGS gauge @ 0.9, d	0.5	20.6	1025	Boston-Logan	0	0	Dry
NA	NA	NA	42.469411	-71.1252171	Downstream of Wash	Water almost opaque	0.5	22	1083	Boston-Logan	0	0	Dry
NA	NA	NA	42.4694521	-71.1249571	Outfall upstream of W	OF more than 1/2 full	0.5	21.4	1004	Boston-Logan	0	0	Dry
NA	NA	NA	42.477141	-71.1176671	(previously '1Merrell')	low/slow flow could no	0.5	21.6	1096	Bedford	0.01	0.13	Dry
NA	NA	NA	42.4770646	-71.1175936	(previously '1Kraft')Sw	2 pipes just upstream	0.7	21.5	1366	Bedford	0.01	0.13	Dry
NA	NA	NA	42.491580	-71.128834	(previously 'Sal')1921	USGS field team mea	0.5	20.9	1086	Bedford	0.01	0.13	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026954	-71.1353458	Outfall downstream o	Raccoon prints in pipe	1.3	19.6	2743	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026965	-71.1351128	Stormdrain cover tipp	gray plaque at bottom	na	na	na	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	19.6	873	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	Unnamed stream just	Very low flow	0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	duplicate of DRR1		0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Canterbury Brook, Bo	fine sediments on bot	0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Duplicate of CantB		0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.308203	-71.12058	Arnold Arboretum off	sides of outfall deterio	0.7	13.6	1304	Boston-Logan	0	0	Dry
NA	NA	NA	42.340354	-71.099856	Muddy River in Back	Sampled just downstr	0.5	20.5	1058	Boston-Logan	0	0	Dry
NA	NA	NA	42.330289	-71.114017	Two stone 5' semi-circ	across from 33 Pondv	0.5	25.4	966	Boston-Logan	0	0	Dry
NA	NA	NA	42.326763	-71.114752	Off Riverdale Pkwy in	downstream of outfall	0.9	15.1	1738	Boston-Logan	0	0	Dry
NA	NA	NA	42.321703	-71.119080	Parked on Chestnut S	just downstream from	0.3	27.1	606	Boston-Logan	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
NA	NA	NA	42.70995636	-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
NA	NA	NA	42.713273	-71.158219	upstream of Jackson	heavy sedimentation o	0.3	23.1	530	Lawrence	0	0	Dry
NA	NA	NA	42.713893	-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry

NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen river sample		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.2	24.3	471.5	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	duplicate of Huss02		0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	Walked upstream fron	Large box culvert cov	0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.9	18.1	1701	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	20.6	848	Bedford	0	0.1	Dry
NA	NA	NA	42.51339681	-71.14295383	outfall about 100ft up	stream from Halls2 loca	0	24.8	50.3	Bedford	0	0.1	Dry
NA	NA	NA	42.51079059	-71.14820571	most of flow coming f	lots of frogs in stream	1	23.5	1960	Bedford	0	0.1	Dry
NA	NA	NA	42.51333787	-71.14802303	upstream of small pec	end of 2nd st, asked #	0.4	22.4	825	Bedford	0	0.1	Dry
NA	NA	NA	41.71543572	-71.36069556	sampled on outgoing	sampled between 2 ro	29.6	24.6	45.72mS	Providence TF	0	0	Dry
NA	NA	NA	41.71380905	-71.36475741		walked up 20 ft from b	20.6	22.4	32.83mS	Providence TF	0	0	Dry
NA	NA	NA	41.7135672	-71.36551541	Mill creek, 0.67 ng/L	Sulfamethoxazole was	20.7	23.5	33.13mS	Providence TF	0	0	Dry
NA	NA	NA	41.71213909	-71.37518941	leaky storm drain pipe	under bridge, layer of	1.3	21.1	2447	Providence TF	0	0	Dry
NA	NA	NA	41.71205509	-71.37524941	bacteria and kits only		na	na	na	Providence TF	0	0	Dry
NA	NA	NA	41.71372754	-71.37889632	downstream from roa	lockwood brook near b	0.2	20.2	314.2	Providence TF	0	0	Dry
NA	NA	NA	41.70908196	-71.38289364	racoon prints on bank	off westshore drive up	0.2	21.6	329	Providence TF	0	0	Dry
NA	NA	NA	41.70708421	-71.38031976	double culvert under t	upstream side of bridg	0.2	16.9	435.9	Providence TF	0	0	Dry
NA	NA	NA	41.71964024	-71.38696064	bacteria and kits only	upstream side of bridg	0.1	20.9	270	Providence TF	0	0	Dry
NA	NA	NA	41.71935982	-71.38618735	epipe designed to tak	at the end of emerson	0.1	20.1	225.8	Providence TF	0	0	Dry
NA	NA	NA	41.71461744	-71.38035705	bact and kits only	Meadowbrook road ou	0.1	22.2	173.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	1-2 in of green algae	end of sweetfern drive	0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	duplicate of SweetF		0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556520	-71.500969	Governor Brook	No distinct flow, light d	0.1	16.3	198.8	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556625	-71.499442	Road crossing upstrea	orange/green growth d	0.2	15.9	341.6	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.559021	-71.494120	sampled facility pipe b	sampled during storm	0	18.5	13.5	Laconia	0.21	0.21	Wet
NA	NA	NA	43.266493	-71.483356			0	15.5	14.5	Laconia	0.44	0.44	Wet
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	NA	NA	42.42547262	-71.02662504	walked upstream from	Sampled about 30ft u	2.4	21.5	4509	Boston-Logan	0	0	Dry
NA	NA	NA	42.42105874	-71.02615376	could see light at othe	Corner of Sargent and	0.3	18.3	687	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	near boat launch, sam	outfall across causewa	3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4891136	-70.84335607	green alge at bottom	Ocean Ave off Marble	0.3	19	680	Boston-Logan	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Grace Oliver Beach S	Corner of Crowninshie	0.2	21	632	Boston-Logan	0	0	Dry
NA	NA	NA	42.51447501	-70.86599014	Stamski Beach	sample 20ft from shor	28.3	23.5	43.87mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~10	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364451	-71.154419	downstream side of A	1 ft deep, started sprir	0.7	15.9	1407	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364313	-71.154481	Arlington St culvert - f	~30ft upstream, 8" pip	0.7	16	1414	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364256	-71.154481	Arlington St culvert - c	no inlet pipes can be s	0.7	15.9	1417	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364351	-71.154519	Arlington St culvert - f	sampled far rt of culve	0.7	15.9	1354	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364037	-71.183908	Watertown outfall #13	weather - still sprinklir	0.1	17.8	260.3	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364489	-71.184223	Watertown outfall #12	some small fish, could	0.5	16.8	1012	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364774	-71.184952	Watertown outfall #11	outfall opening under	0.6	16.2	1168	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook	sampled just inside op	0.3	15.5	565	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.367449	-71.198957	culvert on right, not a	lot of flow	0.7	18.1	1348	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.367489	-71.198853	About 1ft of outfall un	can hear running wate	0.7	17.7	1299	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.4922811	-70.85511019	Sampled left culvert,	more flow than last tir	20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492557	-70.859421	Opened drain manhol	Brick sides w/hard bot	0.7	16.3	1483	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.493467	-70.860430	Opened drain manhol	used reach	0.4	16.3	743	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492693	-70.860829	Opened drain manhol	gas odor	0.2	16	491.7	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.494598	-70.859443	Opened drain manhol	Sampled drain pipe en	0.2	16.9	440	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.496982	-70.856396	Opened drain manhol	double 36" pipes com	0.3	16.9	685	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.502967	-70.856873	Opened drain manhol	brick lined, used reach	0.4	16.4	744	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Opened drain manhol	Sampled main flow, 3	0.4	15.2	809	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Pipe flowing into storm	Started flowing after N	0.3	17.5	541	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	24.4	14.7	38.45mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	16.9	14.1	22.24mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.282780	-71.046962	large tide gate ~2? Ho	sampled center of sou	1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282780	-71.046962	duplicate of 10L094		1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282540	-71.046292	1/2 silted up	sampled about 10 fee	1.3	16.3	2514	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275941	-71.031767	green alge at bottom	former drainline that h	0	13.9	91.6	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273990	-71.030634	very dark sediments	Previously named Sag	1.5	16.9	33.20mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299943	-71.006177	seep from sewage line	to main interceptor or	8.4	17.9	834	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299779	-71.005800	Sample collected at b	waded ~ 6 ft	37.1	13.7	43.74mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.277051	-71.009467	Wollaston Beach Sam	waded ~ 6ft between V	31.3	13.2	41.01mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.278670	-71.013452	Wollaston Beach Sam	waded ~ 6ft near Wol	31.3	13.6	47.97mS	Boston-Logan	0.13	0.14	Wet

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
5/19/09	Woburn	Comm1	7:57	open stream	na	na	none	tea	none	few	82	~20	0.07	0.2	NA	0.174
5/19/09	Woburn	Halls2	8:51	open stream	na	na	none	light tea	none	None	606	~146	0.06	~0.1	NA	0.161
5/19/09	Woburn	DRR1	9:33	open stream	na	/2 that of halls	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50
5/19/09	Woburn	Mys07	10:01	open stream	na	na	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/19/09	Woburn	Mys08	10:20	open stream	na	na	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
5/19/09	Woburn	Mys08d	10:20	open stream	na	na	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
5/26/09	Chelsea	Mill2	10:06	CM	~30 inches	5-10gal/min	strong odor	clear	none	some suds	44	20	0.19	1.5	NA	4.31
5/26/09	Chelsea	Mill2b	10:45	CM	~24 inches	1-2gal/min	strong odor	ay/black clou	med	None	100	ND	0.21	1	NA	4.92
5/26/09	Chelsea	Mill2a	11:10	CM	~24 inches	1 gal/min	none	clear	none	None	~4	ND	0.39	1	NA	7.02
5/26/09	Stoneham	SPB0	12:50	open stream	na	na	none	clear	none	None	21	31	ND	ND	NA	ND
5/26/09	Stoneham	SPB0d	12:50	open stream	na	na	none	clear	none	None	16	~10	~0.05	ND	NA	ND
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None	534	78	ND	~0.1	ND	0.2
6/2/09	Medford	MHBup	8:07	open stream	na	na	none	clear	none	None	48	142	ND	ND	NA	0.086
6/2/09	Belmont	WinB	9:10	open stream	na	na	none	clear	none	None	6212	2908	ND	0.2	NA	0.21
6/2/09	Belmont	WinBd	9:10	open stream	na	na	none	clear	none	None	6212	2452	ND	0.2	0.024	0.172
6/2/09	Arlington	91Mys	10:20	open stream	na	na	musty	cloudy	none	None	>241960	13734	1.3	1.25	0.665	1.53
6/2/09	Arlington	MillB	10:50	CM	10x15ft	na	musty	very cloudy	none	None	550	445	0.06	0.2	0.031	0.206
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
6/9/09	Quincy	WollB5	8:25	CM	16	10-15gal/min	none	clear	none	None	ND	ND	ND	0.2	0.046	0.624
6/9/09	Dorchester	Ten1	9:35	Pipe Mat.	24-30	na	none	tan	very, very	None	96	21	0.08	2	0.048	1.28
6/9/09	Boston	Bos090	9:57	CM	10x10 box	na	musty	tea/tan	some	None	54750	149	0.14	2	0.091	0.823
6/9/09	Dorchester	CantB	11:35	open stream	na	na	husty/sewag	blue/grayish	some	None	198630	34658	1.6	1.5	1.03	4.66
6/9/09	Dorchester	CantBD	11:35	open stream	na	na	husty/sewag	blue/grayish	some	None	173290	48392	1.5	1.5	1.05	4.75
6/16/09	Danvers	Fish004	7:55	open stream	na	na	none	light tan	none	None	250	468	~0.05	0.2	0.028	ND
6/16/09	Danvers	Fish005	8:35	open stream	na	na	none	clear	none	None	333	714	ND	~0.1	0.022	ND
6/16/09	Marblehead	Stram01	10:05	open stream	na	na	none	very light tea	none	None	489	434	~0.05	ND	0.029	0.37
6/16/09	Marblehead	Stram02	10:40	open stream	na	na	none	very light tea	none	None	494	452	~0.05	ND	0.04	0.193
6/16/09	Lynn	Stacey	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	22398	0.31	0.4	0.216	1.04
6/16/09	Lynn	StaceyD	11:25	CM	4'x8'	>100	musty	NS	none	None	>241960	24066	0.29	0.4	0.208	0.949
7/14/09	Milton	UNB016	8:36	open stream	na	na	none	clear	none	None	599	109	ND	~0.1	ND	0.304
7/14/09	Milton	UNB002	9:02	CM bridge	3'x6' box	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37
7/14/09	Quincy	WollB2	9:50	open stream	na	ery strong flo	none	tea	yes	None	265	~8	ND	2	0.029	0.094
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
7/21/09	Stoneham	2Linden	9:35	open stream	na	na	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
7/21/09	Stoneham	Elm1	10:10	open stream	na	40-50	lightly must	med tea	none	None	~51720	~5654	~0.12	0.3	0.083	0.578
7/21/09	Stoneham	Toms	10:30	metal w/asphalt	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	UR003	10:30	metal w/asphalt	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
7/21/09	Stoneham	Toms	11:30	metal w/asphalt	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
7/28/09	Chelsea	Mill2	8:05	CM	~30 inches	15	sharp sewa	clear	none	None	310	12	0.23	0.8	0.126	3.84
7/28/09	Chelsea	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None	9678	388	0.1	0.8	0.054	0.831
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'	strong petroleum		tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/28/09	Chelsea	IsEnd03	9:26	CM, semi-round	12'	strong petroleum		blue/grayish	cloudy	ome soap su	16740	368	0.09	1.5	0.055	1.76
7/28/09	Chelsea	UR005	9:26	CM, semi-round	12'	strong petroleum		blue/grayish	cloudy	ome soap su	15850	435	0.09	1.5	0.05	1.64
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box	slight sewage o		gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
8/4/09	Winchester	Russ1	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
8/4/09	Woburn	US5	9:05	open stream		na	none	light tea	clear	None	542	184	ND	ND	0.032	0.133
8/4/09	Woburn	Olym1	9:55	open stream		na	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
8/11/09	Quincy	Canal1	7:55	concrete	6'x8' box	na	slight musty	clear	none	None	1844	417	~0.05	0.15	0.038	0.22
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA

8/11/09	Quincy	WollB1B	9:40	concrete	3-4'	15	musty	clear	none	None	133	12	ND	2.2	ND	ND
8/11/09	Quincy	WollB1A	9:45	concrete	3-4'	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/18/09	Plymouth	Eel1	9:20	open stream		na	none	light tan	clear	None	30	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel2	9:30	open stream		na	none	light tan	clear	None	70	82	ND	ND	ND	ND
8/18/09	Plymouth	UR011	9:30	open stream		na	none	light tan	clear	None	140	82	ND	ND	ND	ND
8/18/09	Plymouth	Eel3	9:40	open stream		na	none	light tan	clear	None	1741	452	ND	ND	ND	0.092
8/18/09	Plymouth	SandRd1	10:00	clay	16	4	none	light tan	clear	None	265	172	ND	~0.1	0.021	ND
8/18/09	Plymouth	SandRd2	11:40	clay	12	2	none	light tan	clear	None	373	61	NA	~0.1	NA	0.088
8/25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	husty/sewag	None	ightly cloud	None	33000	3683	0.22	0.4	0.133	0.4
8/25/09	Boston	Blueup	8:00	open stream		na	none	tan	clear	None	226	64	~0.05	~0.1	0.028	ND
8/25/09	Boston	Mother	9:05	open stream		na	none	light tea	clear	None	129	56	0.06	ND	0.046	ND
8/25/09	Boston	NR204	10:00	concrete	3 feet	15	g sewage/la	None	ightly cloud	hite/gray pa	>241960	>48392	8.7	>3	0.975	20.1
8/25/09	Boston	NR162	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	198630	5226	0.89	3	0.6	13.2
8/25/09	Boston	UR013	11:00	concrete	36 inches	3	ht sewage o	None	clear	None	241960	5510	0.92	2.75	0.635	12.4
8/25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	1741	149	~0.05	0.25	0.023	0.598
8/25/09	Boston	Esp01	12:02	open stream		na	none	tea	clear	None	241	58	0.07	~0.1	0.03	0.1
9/1/09	Woburn	Halls2	7:35	open stream		na	None	light brown	clear	None	2595	602	ND	~0.1	0.029	0.218
9/1/09	Woburn	DRR1	7:45	open stream		na	None	light brown	clear	None	4185	12976	ND	0.25	0.035	8.99
9/1/09	Woburn	Mys08	9:30	open stream		na	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3
9/1/09	Woburn	UR015	9:30	open stream		na	None	light brown	clear	None	422	148	ND	NA	0.021	14
9/1/09	Woburn	Mys78	10:15	open stream		na	light oil sme	None	clear	None	5199	10344	ND	0.25	0.031	10.1
9/1/09	Woburn	Mys09	10:45	open stream		na	None	None	clear	None	205	82	ND	~0.1	ND	16
9/8/09	Watertown	SawB01	8:45	open stream		50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage o	None	clear	None	~4	ND	NA	0.25	NA	NA
9/8/09	Newton	Hyde01	9:45	concrete	4x8 box	100	None	None	clear	None	5654	1424	ND	0.2	ND	ND
9/8/09	Newton	Laund01	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1462	492	ND	~0.1	ND	ND
9/8/09	Newton	UR016	10:25	concrete	6x8 box	na	None	light tea	clear	some suds	1954	544	~0.05	~0.1	ND	ND
9/8/09	Newton	Chee01	11:11	open stream		50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND
9/8/09	Waltham	Beav01	11:35	concrete	3x10 box	na	None	None	ightly cloud	some suds	713	292	~0.05	0.2	0.023	0.162
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None	44	40	~0.05	ND	0.03	0.266
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None	29090	2752	0.08	NA	0.19	1.12
9/15/09	Lowell	Beaver1a	7:37	concrete	4'	15	None	None	clear	None	8	75	ND	0.25	ND	ND
9/15/09	Lowell	Beaver1	7:40	open stream		na	None	light tea	clear	None	117	63	NA	~0.1	NA	NA
9/15/09	Lowell	Suffolk1	8:40	open stream		na	None	light tea	clear	None	208	41	ND	ND	0.024	ND
9/15/09	Lowell	Central1	9:15	open stream		na	None	None	clear	some suds	58	~10	ND	~0.1	0.024	0.088
9/15/09	Lowell	RMB1	10:10	open stream		na	None	light tea	clear	some suds	1844	281	~0.05	0.25	0.022	ND
9/15/09	Lowell	UR017	10:10	open stream		na	None	light tea	clear	some suds	2069	465	~0.05	0.25	0.046	ND
9/15/09	Lowell	NewH1	10:50	open stream		na	None	light tea	clear	some suds	164	275	NA	0.2	NA	NA
9/15/09	Lowell	BlackB1	11:25	open stream		na	None	None	murky	None	154	798	0.07	0.25	0.028	0.443
9/15/09	Lowell	BlackB2	12:00	open stream		na	None	None	clear	None	182	97	NA	0.2	NA	NA
9/22/09	Reading	RRR1	8:10	CM	4x4 box	na	None	None	clear	None	21	20	ND	0.25	0.022	ND
9/22/09	Andover	RogerD	9:00	concrete	5'	na	musty odor	rk tea staini	clear	some suds	442	657	~0.05	~0.1	0.67	0.098
9/22/09	Andover	Rogerup	9:32	open stream		na	no odor	med tea	clear	some suds	44	6488	~0.05	0.2	1.31	ND
9/22/09	Andover	Huss01	10:20	concrete	10' x 5'	na	None	light tea	clear	some suds	2319	987	ND	0.2	0.036	0.079
9/22/09	Andover	Huss02	10:50	open stream		na	None	light tea	clear	None	39	ND	NA	ND	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	205	445	ND	~0.1	ND	ND
9/22/09	Lawrence	UR018	11:30	concrete outfall	3'	na	slight musty	None	Clear	None	279	249	ND	~0.1	ND	ND
9/22/09	Lawrence	SPR05	12:30	concrete	18"	10	slight musty	None	Clear	Yes, paper	29870	19863	~0.05	0.25	0.05	7.02
9/22/09	Lowell	RMB1	13:20	open stream		na	None	light tea	Clear	None	1642	199	ND	~0.1	0.031	0.138
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	mild sewag	None	Mild	Leave, bubb	1954	6131	0.06	0.18	0.041	0.291
9/29/09	Milton	CunPk03	9:30	open stream		na	None	None	Clear	Foam	1164	2098	0.06	~0.1	0.038	0.206
9/29/09	Norwood	PB02A	10:45		18"	5	None	None	Clear	None	68	98	ND	0.15	ND	0.1
9/29/09	Norwood	PB02B	11:00	open stream		na	None	light brown	Clear	None	1379	1396	~0.05	~0.1	0.875	0.139
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
4/21/10	Arlington	91Mys	8:00	Open stream	na	na	none	heavy tea	cloudy	some suds	152	41	NA	~0.1	NA	NA
4/21/10	Arlington	MillB	8:10	Open stream	na	na	strong must	heavy tea	fairly clear	suds	395	52	0.06	~0.1	NA	0.124
4/21/10	Arlington	MBike	8:50	Stone (instream)	10'X8'	stream	moderate	med tea	clear	none	268	233	NA	~0.1	NA	NA
4/21/10	Arlington	AHS	9:05	Open stream	na	stream	none	light tea	clear	some	666	213	0.06	ND	NA	ND

4/21/10	Arlington	UR020	9:05	Open stream	na	stream	none	light tea	clear	some	1549	173	0.06	ND	NA	ND
4/21/10	Arlington	Grove01	9:40	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	4480	529	0.06	~0.1	NA	0.079
4/21/10	Arlington	GroveS	9:45	Concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
4/21/10	Arlington	Quinn2	10:30	Concrete	12"	19.0040741	fresh	none	clear	none	ND	ND	0.05	0.3	NA	ND
4/21/10	Arlington	RyMill	11:05	Concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
4/21/10	Arlington	RyMill2	11:10	hole in wall	na	2.00407407	none	none	clear	none	ND	ND	NA	0.2	NA	NA
4/21/10	Arlington	RyderE	11:20	Concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
4/21/10	Arlington	RyderW	11:30	Concrete	36"	20-30	none	none	clear	none	30	20	ND	ND	NA	ND
4/21/10	Arlington	30Park	12:25	Open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
4/28/10	Winchester	ABR006	8:30	Open stream	na	stream	none	none	fairly clear	leaves/bran	899	199	0.09	0.2	NA	0.528
4/28/10	Winchester	Wfield	8:50	Open stream	na	stream	none	none	lightly turbi	some	839	317	NA	0.22	NA	NA
4/28/10	Winchester	Vern01	9:15	Open stream	na	stream	none	none	lightly turbi	leaves/bran	643	108	NA	0.22	NA	NA
4/28/10	Winchester	Wedge01	9:32	Open stream	na	stream	none	none	lightly turbi	some	58	10	NA	~0.1	NA	NA
4/28/10	Winchester	Skill01	9:50	Concrete (instrea	3'	stream	none	blueish/gray	turbid	some	913	148	0.1	0.25	NA	0.844
4/28/10	Winchester	UR021	9:50	Concrete (instrea	3'	stream	none	blueish/gray	turbid	some	1642	132	0.1	0.25	NA	0.837
4/28/10	Winchester	Skill02	9:55	Concrete	12"	5-10	none	none	fairly clear	none	75	30	NA	~0.1	NA	NA
4/28/10	Winchester	Swan1	10:45	Open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
4/28/10	Woburn	OF118	11:35	Concrete	30"	50	none	none	clear	some suds	154	52	0.07	0.3	NA	0.381
4/28/10	Woburn	OF159A	12:04	Cor.Metal	18"	5-10	none	none	clear	none	268	156	NA	0.3	NA	NA
4/28/10	Woburn	OF159	12:05	Cor.Metal	24-30"	20-30	light sewag	none	clear	none	318	109	0.1	0.25	NA	1.38
4/28/10	Woburn	OF161	12:15	Cor. Metal	5'	stream	slight musty	none	lightly turbi	some	1642	148	ND	0.3	NA	0.153
5/5/10	Arlington	Grove01a	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2747	520	0.07	~0.1	NA	0.101
5/5/10	Arlington	GroveS	8:10	Concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Arlington	Robin	8:45	loose joint grey t	24"	10-15	ght natural g	none	clear	none	9678	295	NA	0.4	NA	NA
5/5/10	Arlington	Brattle	9:10	Open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	RyMill	9:25	Concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	RyderE	9:32	Concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
5/5/10	Arlington	Ryder01	9:35	Stone (instream)	6'	stream	none	light tea	fairly clear	some suds	1954	350	0.07	~0.1	NA	0.135
5/5/10	Arlington	30Park	10:10	Open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	1395MA	10:30	Open stream	na	stream	none	light tea	lightly turbi	none	689	323	0.06	ND	NA	0.133
5/5/10	Arlington	Drake01	10:55	Open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/5/10	Arlington	ArlRes	11:05	Concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
5/5/10	Lexington	Vine01	11:55	Open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/12/10	Woburn	Halls2	8:00	Open stream	na	stream	none	light brown	na	none	212	109	NA	~0.1	NA	NA
5/12/10	Woburn	DRR1	8:15	Open stream	na	stream	none	light brown	clear	none	182	448	NA	~0.1	NA	NA
5/12/10	Woburn	Mys07	9:05	Open stream	na	stream	nulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
5/12/10	Woburn	Mys08	9:10	Open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/12/10	Woburn	Torr01	10:00	Open stream	na	stream	none	light brown	clear	none	223	120	NA	0.25	NA	NA
5/12/10	Woburn	UR023	10:00	Open stream	na	stream	none	light brown	clear	none	182	52	NA	0.25	NA	NA
5/12/10	Woburn	Dart1	10:30	Open stream	na	stream	none	dark brown	clear	some suds	64	31	NA	0.2	NA	NA
5/12/10	Woburn	School01	11:05	Open stream	na	stream	none	dark brown	clear	none	109	20	NA	0.25	NA	NA
5/19/10	Quincy	FBP02	8:15	Open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
5/19/10	Quincy	UR024	8:15	Open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA
5/19/10	Quincy	FBP03	8:55	Open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/19/10	Quincy	Broad1	9:25			stream	none	none	clear	none	3466	2755	NA	2	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
5/26/10	Belmont	UR025	9:10	Open stream	na	stream	g musty/se	med tea	lightly turbi	none	29090	7701	NA	0.2	NA	NA
5/26/10	Belmont	WEB013	9:10	Open stream	na	stream	g musty/se	med tea	lightly turbi	none	11620	6488	NA	0.2	NA	NA
5/26/10	Arlington	ARL043	9:58	Concrete	18-24	5	none	none	clear	none	79	109	NA	~0.1	NA	NA

5/26/10	Arlington	ARL137	10:25	Clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	NA
5/26/10	Arlington	ARL207	11:07	Seep	na	1-2	brassica	na	na	na	25	20	NA	~0.1	NA	NA
5/26/10	Arlington	Drake01	11:25	Open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
5/26/10	Arlington	ArlRes	11:30	Open stream	na	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/26/10	Lexington	Bow01A	12:00	Concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	NA
5/26/10	Lexington	Bow01	12:05	Open stream	na	stream	none	med tea	lightly turbi	none	643	809	NA	~0.1	NA	NA
5/26/10	Lexington	Fott01	12:35	Open stream	na	stream	none	med tea	lightly turbi	none	124	199	NA	ND	NA	NA
5/26/10	Lexington	GMS01	12:55	Open stream	na	stream	none	heavy tea	very murky	thick film	72	52	NA	0.2	NA	NA
6/2/10	Revere	UR026	8:01	Concrete	24	NA	none	brown	turbid	none	20640	9606	NA	0.4	NA	NA
6/2/10	Revere	WashN01	8:01	Concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/2/10	Revere	Sales01	8:10	Open stream	na	stream	none	light brown	fairly clear	trash	4813	2359	NA	0.4	NA	NA
6/2/10	Revere	Green01	8:40	Open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
6/2/10	Boston	29M049	9:10	Concrete	3ft	30-40	none	none	lightly turbi	none	714	3873	NA	3	NA	NA
6/2/10	Boston	25L058	9:50	Concrete	6x6ft box	na	musty	grey	turbid	trash	2069	3448	NA	2	NA	NA
6/2/10	Boston	Bos017	10:20	Concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
6/2/10	Boston	29J212	10:22	Concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
6/2/10	Chelsea	Mill2A	11:20	Concrete	24	<5	usty/chemic	none	clear	trash	58	175	NA	0.8	NA	NA
6/10/10	Lawrence	SLE3	7:25	concrete outfall	3'	NA	strong must	white/tan/gra	ightly cloud	ilamentous	1954	2359	NA	1	NA	NA
6/10/10	Lawrence	UR027	7:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	1741	1314	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete outfall	3'	NA	strong must	none	ightly cloud	ilamentous	806	2014	NA	0.5	NA	NA
6/10/10	Lawrence	SPR05	9:35	concrete	18"	10	none	none	very clear	none	NA	NA	NA	0.5	NA	NA
6/16/10	Concord, M	PRIS01	11:00	Concrete	2ft	2	sewage	none	clear	none	16160	10462	NA	0.8	NA	NA
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	NA
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	NA
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	NA
6/30/10	Falmouth	24IN01	9:30								25	ND	NA	0.25	NA	NA
6/30/10	Falmouth	INF01	9:30								461100	290900	NA	1	NA	NA
6/30/10	Falmouth	12INWA	9:40								ND	ND	NA	0.75	NA	NA
6/30/10	Falmouth	STE01	9:45								547500	186000	NA	0.75	NA	NA
6/30/10	Falmouth	UR099	9:45								686700	119800	NA	0.75	NA	NA
7/7/10	Manchester	Dunbar	8:20	Stone culvert	3x4	150	ng petroleu	oil sheen	turbid	rash & debri	1089	422	NA	ND	NA	NA
7/7/10	Manchester	Granite	9:00	concrete	4ft	35	rong sewag	none	clear	none	125	110	NA	0.5	NA	NA
7/7/10	Manchester	047N	9:40	concrete	4ft	15-20	rong sewag	none	ightly cloud	none	4	ND	NA	0.25	NA	NA
7/7/10	Manchester	047	10:00	concrete	4ft	NA	e, musty (s	med tea	cloudy	some	64	52	NA	~0.1	NA	NA
7/7/10	Concord, NH	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	218	399	NA	1	NA	NA
7/7/10	Concord, NH	Mer4120a	10:45	concrete	36"	10	ilightly mus	none	ightly cloud	e leaves & d	25	ND	NA	0.5	NA	NA
7/7/10	Concord, NH	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri	263	448	NA	1	NA	NA
7/7/10	Concord, NH	Clinton	11:55	Open stream	NA	low	none	none	clear	none	806	341	NA	0.75	NA	NA
7/7/10	Concord, NH	Pleasant	12:15	Open stream	NA	low	none	none	clear	none	1089	1722	NA	0.25	NA	NA
7/14/10	Boston	29J212	7:17	Concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/14/10	Boston	Bos017	7:17	Concrete	72"	na	musty	none	ightly cloud	some	129970	2489	NA	2.5	NA	NA
7/14/10	Boston	UR029	7:17	Concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra	38730	68670	NA	0.2	NA	NA
7/14/10	Salem	Palmer1	9:05	clay	18-24	15-20	slight musty	none	clear	none	13540	17329	NA	3	NA	NA
7/14/10	Beverly	Lynch1	9:35	concrete	12"	25	none	none	clear	none	689	1178	NA	0.2	NA	NA
7/14/10	Beverly	Brac01	10:04	concrete/stone	4'box	na	Sulfur	none	clear	some suds	2452	1725	NA	2	NA	NA
7/14/10	Beverly	Brac02	10:31	Open stream	na	na	none	med tea	turbid	some	2595	3130	NA	ND	NA	NA
7/14/10	Beverly	Lynch02	10:50	plastic	8"	~4	none	none	clear	none	2069	4352	NA	2	NA	NA
7/21/10	Winchester	Swan01	7:25	Open stream	na	na	None	grey	very cloudy	some suds	452	305	NA	~0.1	NA	NA
7/21/10	Winchester	Wash01	7:50	Open stream	na	na	None	grey	very cloudy	some suds	484	512	NA	~0.1	NA	NA
7/21/10	Winchester	Wash02	7:55	Concrete	24"	na	None	grey	very cloudy	some suds	857	318	NA	0.2	NA	NA
7/21/10	Woburn	Mer01up	8:30	Open stream	na	na	None	greyish	very cloudy	none	448	199	NA	0.2	NA	NA

7/21/10	Woburn	Sweet	8:35	Open stream	na	na	none	none	clear	some suds	518	148	NA	0.22	NA	NA
7/21/10	Woburn	Salem	9:25	Open stream	na	na	none	greyish	very cloudy	some	996	301	NA	0.15	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	na	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/21/10	Woburn	Mys01b	10:00	Concrete	16-18"	10-15	none	none	clear	none	4	20	NA	0.3	NA	NA
7/21/10	Woburn	Mys01c	10:10	plastic	4"	1/2	none	none	cloudy	none	ND (4)	ND (10)	NA	ND	NA	NA
7/21/10	Woburn	Halls2	10:55	open stream	na	na	none	none	clear	none	2190	816	NA	ND	NA	NA
7/21/10	Woburn	DRR1	11:00	Open stream	na	na	none	grey	cloudy	none	1549	288	NA	~0.1	NA	NA
7/21/10	Woburn	UR030	11:00	Open stream	na	na	none	grey	cloudy	none	744	253	NA	~0.1	NA	NA
7/28/10	Boston	29J212	7:15	Concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
7/28/10	Boston	Bos017	7:16	Concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/28/10	Dorchester	CantB	8:28	Open stream	na	na	na	grey./green	lightly coud	rash & debri	169	86	NA	0.3	NA	NA
7/28/10	Dorchester	UR031	8:28	Open stream	na	na	na	grey./green	lightly coud	rash & debri	146	51	NA	0.3	NA	NA
7/28/10	Boston	15F288	9:02	Brick	5'	~10	sharp musty	none	clear	none	205	109	NA	0.2	NA	NA
7/28/10	Boston	Mudd1	9:55	stone	bridge	NA	none	na	cloudy	none	2318	703	NA	0.15	NA	NA
7/28/10	Brookline	VillB	10:40	Stone	5'	NA	musty	green	cloudy	ves &sedim	258	52	NA	~0.1	NA	NA
7/28/10	Boston	OF233	11:00	Concrete	20-30"		slightly must	ght oil shee	clear	e trash & de	198630	24196	NA	ND	NA	NA
7/28/10	Boston	Jpond	11:25	spring bubbling up from ground			none	none	none	none	43	ND	NA	ND	NA	NA
8/4/10	Lawrence	SPR05	7:35	concrete	18"	~5 - 10	clean smell	none	none	none	30	10	NA	0.2	NA	NA
8/4/10	Lawrence	SPRLGH	7:40	Open stream	NA	NA	none	none	clear	none	1164	1529	NA	~0.1	NA	NA
8/4/10	Lawrence	Jackson	8:25	Open stream	NA	NA	none	light tea	some	ash and deb	606	512	NA	~0.1	NA	NA
8/4/10	Lawrence	Willow	9:00	Open stream	NA	NA	none	med tea	none	ash and deb	325	158	NA	~0.1	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact	1230	275	NA	~0.1	NA	NA
8/4/10	Lawrence	Shaw01	9:50	Open stream	NA	NA	none	il sheen, slight tea		leaves	208	86	NA	~0.1	NA	NA
8/4/10	Andover	Huss01	10:35	stone box	8-10ft		none	none	clear	surface suds	7945	109	NA	ND	NA	NA
8/4/10	Andover	Huss02	11:00	Open stream	NA	NA	cloudy	ight oil shee	ightly cloud	scum	34	ND (10)	NA	~0.1	NA	NA
8/4/10	Andover	URO32	11:00	Open stream	NA	NA	cloudy	ight oil shee	ightly cloud	scum	8	20	NA	~0.1	NA	NA
8/11/10	Stoneham	100A	7:42	Open stream	NA	NA	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
8/11/10	Stoneham	2Linden	8:25	open stream	na	na	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
8/11/10	Stoneham	Elm2	9:00	stone culvert wit	2' x 4'	~30 - 40	musty	none	clear	none	41060	6867	NA	0.2	NA	NA
8/11/10	Stoneham	URO33	9:00	stone culvert wit	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
8/11/10	Stoneham	Toms	9:50	metal w/asphalt	3'	~5 -7	hault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA
8/11/10	Woburn	Halls2	10:35	Open stream	NA	low	none	light tea		nsome trash and	1379	717	NA	~0.1	NA	NA
8/11/10	Woburn	Halls3	10:50	concrete	~12	< 1	or a few mir	none	clear	suds	4	ND (10)	NA	0.6	NA	NA
8/11/10	Stoneham	31Sixth	11:21	Concrete	18"		none	none	clear	light film or	183	86	NA	0.3	NA	NA
8/11/10	Stoneham	2ndRd	11:50	Open stream	NA	NA	none	med tea	clear	none	430	226	NA	~0.1	NA	NA
8/18/10	Warwick, RI	CBW	8:10	Beach	NA	outgoing tide	none	none	clear	none	28 fecal	ND	NA	3	NA	NA
8/18/10	Warwick, RI	UNKBK	8:22	Open stream	NA	~ 0.3cfs	none	none	ightly cloud	none	504 fecal	4352	NA	2	NA	NA
8/18/10	Warwick, RI	MC01	8:25	Open stream	NA		none	none	can't see bo	none	484 fecal	311	NA	2	NA	NA
8/18/10	Warwick, RI	BB08	8:50	Open stream	NA		none	none	cloudy	none	1340 fecal	1014	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB08P	8:57	concrete	~16	~ 1	none	none	clear	none	1610 fecal	135	NA	1	NA	NA
8/18/10	Warwick, RI	LK04	9:20	Open stream	NA		none	none	clear	and some o	1710 fecal	906	NA	~0.1	NA	NA
8/18/10	Warwick, RI	BB07	9:30	Open stream	NA		none	none	clear	none	2870 fecal	1046	NA	0.2	NA	NA
8/18/10	Warwick, RI	WR02	9:45	double culvert			none	none	clear	e oil on sur	300 fecal	148	NA	0.15	NA	NA
8/18/10	Warwick, RI	LK02	10:55	Open stream	NA	NA	none	none	clear	some trash	7100 fecal	1374	NA	0.25	NA	NA
8/18/10	Warwick, RI	Emerson	11:11	perforated alumi	2'	~1 -2	none	none	clear	none	580 fecal	31	NA	ND	NA	NA
8/18/10	Warwick, RI	MB01	11:30	Stone	2'x2'box	~50	none	none	clear	none	484 fecal	161	NA	ND	NA	NA
8/18/10	Warwick, RI	SweetF	11:45	Concrete	~16	~15 - 20	ong musty o	grey	cloudy	d grayish gro	ND fecal	ND	NA	0.2	NA	NA
8/18/10	Warwick, RI	URO34	11:45	Concrete	~16	~15 - 21	ong musty o	grey	cloudy	d grayish gro	ND fecal	62	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none	21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	996-F	8:50	Concrete	16	~10	none	none	clear	none	353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none	16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	GovB	10:40	Swale	NA	stagnant	none	light orange	ightly cloud	some scum	192	98	NA	0.2	NA	NA
8/25/10	Laconia, NH	GovB01	11:00	Stone w/metal lining		~30	none	none	clear	none	857	1223	NA	0.22	NA	NA

8/25/10	Laconia, NH	996-F	11:11	Concrete	16	~20	none	none	clear	some suds	6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	UR035	11:11	Concrete	16	~20	none	none	clear	some suds	6978	17329	NA	0.2	NA	NA
8/25/10	Laconia, NH	Swale	11:40	Concrete	16-18	~10	none	none	clear	none	17200	26030	NA	0.2	NA	NA
8/25/10	Laconia, NH	CBAdmin	11:50	Concrete	18	~50	ght musty o	none	clear	none	621	1553	NA	0.2	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	he suds & de	38730	51720	NA	0.25	NA	NA
9/1/10	Revere	Green01	8:10	Open stream	NA	NA	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
9/1/10	Chelsea	Mill2A	8:30	Concrete	24	<5	usty/chemic	none	clear	trash	8	ND	NA	0.6	NA	NA
9/1/10	Chelsea	Mill2	8:55	Concrete	~30 inches	15	sharp sewa	clear	none	None	282	41	NA	0.5	NA	NA
9/1/10	Revere	Amelia	9:30	Open stream	NA	NA	none	light tea	suspended	some suds	3466	1430	NA	0.6	NA	NA
9/1/10	Revere	Sargent	9:55	Concrete	36	NA	slight musty	none	clear	none	875	201	NA	0.2	NA	NA
9/1/10	Marblehead	DLaunch	11:10	Concrete	4ft	40	none	none	clear	none	31300	2481	NA	0.75	NA	NA
9/1/10	Marblehead	UR036	11:10	Concrete	4ft	40	none	none	clear	none	30760	3076	NA	0.75	NA	NA
9/1/10	Marblehead	Mneck02	11:35	Concrete	24	5	none	ht green/yel	clear	ome fine suc	81640	120330	NA	0.2	NA	NA
9/1/10	Marblehead	GO01	12:00	Concrete	36in	50	None	None	Clear	None	310	145	NA	0.2	NA	NA
9/1/10	Marblehead	StramB	12:30	Open water	NA	NA	none	none	clear	None	211	ND	NA	2	NA	NA
10/5/10	Watertown	SawB01	8:15	Open stream	na	na	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
10/5/10	Watertown	UR037	8:15	Open stream	na	na	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
10/5/10	Watertown	ARLEast	8:35	Open stream	na	na	none	none	clear	none	7946	823	NA	0.25	NA	NA
10/5/10	Watertown	ARL01	8:40	Concrete	4'x4' box	na	none	none	clear	none	9678	1014	NA	NA	NA	NA
10/5/10	Watertown	ARL02	8:42	Concrete	4'x4' box	na	none	none	clear	none	9678	738	NA	NA	NA	NA
10/5/10	Watertown	ARL03	8:45	Concrete	5'x4' box	na	none	none	clear	none	3080	173	NA	NA	NA	NA
10/5/10	Watertown	Wat13	9:20	Concrete	16"	1	none	none	clear	none	92080	2142	NA	0.25	NA	NA
10/5/10	Watertown	Wat12	9:30	Concrete	36"	na	none	none	clear	none	111990	14136	NA	0.6	NA	NA
10/5/10	Watertown	Wat11	9:40	Concrete	4'x3' box	na	none	med tea	turbid	none	19350	1723	NA	0.3	NA	NA
10/5/10	Watertown	LB01	10:35	Concrete	10'x7'box	100	none	none	clear	none	6212	583	NA	0.2	NA	NA
10/5/10	Watertown	Wat5	11:07	Concrete	4'	1	none	none	clear	none	64	20	NA	0.25	NA	NA
10/5/10	Watertown	Wat6	11:11	Concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	NA
10/13/10	Marblehead	DLaunch	8:15	Concrete	4ft	40	none	none	clear	none	1376	860	NA	2	NA	NA
10/13/10	Marblehead	UR038	8:15	Concrete	4ft	40	none	none	clear	none	871	723	NA	2	NA	NA
10/13/10	Marblehead	MH19	8:38	stormdrain	na	~20	ong musty o	none	clear	none	TNTC	24196	NA	0.5	NA	NA
10/13/10	Marblehead	MH32	9:10	stormdrain	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	NA
10/13/10	Marblehead	MH48	9:30	stormdrain	na	~15	lightly must	none	clear	none	8	ND	NA	~0.1	NA	NA
10/13/10	Marblehead	MH29A	9:55	plastic stormdrai	18-24	~10	none	none	clear	none	689	41	NA	~0.1	NA	NA
10/13/10	Marblehead	MH2336	10:30	stormdrain	na	na	none	none	clear	e small white	5654	2489	NA	0.25	NA	NA
10/13/10	Marblehead	MH2203	10:55	stormdrain	na	~15	musty	none	clear	none	5654	5475	NA	0.3	NA	NA
10/13/10	Marblehead	MHWinslow	11:11	stormdrain	na	na	musty	lightly yello	clear	none	2452	118	NA	0.4	NA	NA
10/13/10	Marblehead	MHWinslowA	11:28	stormdrain	18"	~5-10	resh smellin	none	clear	none	43	98	NA	0.2	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
10/27/10	Quincy	WollB1B	8:18	concrete	3-4'	30-40	musty/sulfu	none	ightly cloud	some suds	58	20	NA	2.5	NA	NA
10/27/10	Dorchester	Ten1	8:55	Pipe Mat.	24-30	na	none	Tan/brown	very turbid	none	132	20	NA	1.5	NA	NA
10/27/10	Boston	10L094	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	4813	14136	NA	0.6	NA	NA
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x6'	na	sewage	grey	cloudy	none	41060	9208	NA	0.8	NA	NA
10/27/10	Boston	10L094A	9:25	metal	24"	5	musty	grey	cloudy	none	34480	14136	NA	1.5	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	na	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
10/27/10	Quincy	Sag1C	10:58	metal	30"	na	natural gas	light brown	clear	none	2452	2723	NA	0.6	NA	NA
10/27/10	Quincy	Bay1	11:40	Seep/pool	NA	NA	sewage	rk brown/gr	cloudy	none	173290	365400	NA	NA	NA	NA
10/27/10	Quincy	BayBch	11:45	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	NA
10/27/10	Quincy	WollBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	NA
10/27/10	Quincy	WollBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	NA

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH3 - color key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L *** may give false positive at salinity greater than 1 ppt
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPORTING LIMITS

E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Alpha = 0.05 mg/L (Except where otherwise noted)
Surfactants Field = 0.1 mg/L
Surfactant DR-850 = 0.02 mg/L
Ammonia (Alpha) = 0.075 mg/L
Ammonia Field = 0.1 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia DR-850 = 0.08 mg/L
Ammonia Test Strip = 0.1 mg/L
Total Phosphorus = 5 ug/L
CL2 (Total Residual) = 0.02 mg/L
CL2 (Residual Free) = 0.05 mg/L
CL2 Field = 0.02 mg/L
CL2 Test Strip =
Flouride Alpha= 0.20 mg/L
Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Potassium = 2.5 mg/L
Potassium Field = 0.2 mg/L
Nitrogen, Nitrate/Nitrite = 0.10 mg/l

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
ND	NA	NA	~0	NA	NA	ND (1.0)	11	ND (0.2)	9.1	56	ND (0.2)	ND (2.0)	31	~0.76	ND	ND	0.08	ND	ND
ND	NA	NA	ND	NA	NA	ND (1.0)	34	ND (0.2)	38	2600	ND (0.2)	ND (2.0)	96	2.2	ND	ND	0.05	ND	ND
1.5	NA	NA	1	NA	NA	ND (1.0)	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.14	ND	0.53
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	NA	NA	3	NA	~135	ND (2.0)	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
ND	NA	NA	ND	NA	11	ND (2.0)	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.23
ND	NA	NA	ND	NA	12	ND (2.0)	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	ND	ND	0.28
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
~0.1	NA	NA	~0.10	NA	21	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	15	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	ND	ND	ND
ND	NA	NA	ND	NA	78	~4.2	1700	ND (0.4)	120	200	~1.0	ND (4.0)	2500	12	ND	ND	~0.01	ND	ND
~0.1	NA	0.14	0.25	NA	84	~4.9	1600	~0.34	130	240	~1.6	ND (4.0)	3300	7.5	ND	ND	ND	ND	ND
~0.75	NA	NA	3	NA	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0)	55000	200	ND	ND	NA	ND	ND
ND	NA	0.23	ND	NA	35	~5.9	73	~0.74	87	360	~1.1	ND (4.0)	320	10	ND	ND	NA	ND	ND
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
NA	NA	0.15	0.6	NA	34	ND (1.0)	5.8	~0.29	12	34	ND (0.2)	ND (2.0)	2.5	1.5	ND	ND	0.07	ND	ND
NA	NA	0.41	3	NA	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2.0)	11	1.5	ND	ND	0.04	ND	0.54
NA	NA	0.19	~0.10	NA	174	~27	2600	~2.3	530	1100	8.7	ND (2.0)	600	3.2	NA	NA	ND	ND	0.81
>2	NA	1.08	5.5	NA	586	~150	27000	~13	3500	5000	61	ND (2.0)	17000	5.1	ND	ND	0.04	ND	0.37
NA	NA	1.1	6	NA	491	~140	24000	~12	3300	4500	48	ND(2.0)	14000	4.9	ND	ND	0.07	ND	0.36
ND	NA	ND	ND	NA	33	ND (1.0)	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2.0)	2	ND (0.2)	ND	ND	~0.02	ND	ND
ND	NA	ND	ND	NA	29	ND (1.0)	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2.0)	ND (2.0)	1.5	ND	ND	ND	ND	ND
~0	NA	ND	~0.10	NA	46	ND (1.0)	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2.0)	ND (2.0)	ND (0.2)	ND	ND	~0.01	ND	ND
ND	NA	ND	~0.10	NA	43	ND (1.0)	57	ND (0.2)	17	30	ND (0.2)	ND (2.0)	12	ND (0.2)	ND	ND	ND	ND	ND
~1.0	NA	0.24	3	NA	1080	ND (100.0)	6200	ND (20.0)	1600	4300	ND (20.0)	ND (200.0	7710	ND (20.0)	ND	ND	0.04	ND	0.3
~1.0	NA	0.31	2	NA	380	ND (100.0)	5500	ND (20.0)	1400	4200	ND (20.0)	ND (200.0	7200	ND (20.0)	ND	ND	ND	ND	0.29
ND	NA	~0.08	ND	NA	26	ND (1.0)	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2.0)	250	0.52	ND	ND	0.06	ND	ND
ND	NA	0.22	ND	NA	83	ND (1.0)	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2.0)	270	2.6	ND	ND	0.09	ND	ND
ND	NA	ND	ND	NA	72	ND (1.0)	2.9	ND (0.2)	~4.9	~11	ND (0.2)	ND (2.0)	9.2	0.56	ND	ND	ND	ND	0.75
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
0.5	1	0.24	1.5	NA	84	~62	1100	~3.7	500	980	39	5	2800	7.4	na	na	~0.0	ND	ND
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0)	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
0.5	2	0.51	1	NA	72	~20	280	~1.6	120	360	2.4	ND (4.0)	680	2.9	ND	ND	ND	ND	0.62
0.5	2.5	0.49	0.3	NA	73	~24	310	~2.0	120	320	2.3	ND (4.0)	670	2.6	ND	ND	0.05	ND	0.66
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
ND	0.2	ND	ND	NA	17	ND (2.0)	15	~0.46	7.1	56	ND (0.4)	ND (4.0)	100	4.7	ND	ND	0.14	ND	ND
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA

clear	1.35	ND	ND	NA	98	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	7	0.56	ND	ND	0.38	ND	0.75
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
~0.1	0.5	0.09	0.2	NA	110	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	13	1.6	ND	ND	0.19	ND	ND
ND	0.4	ND	ND	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~0.88	ND (4.0)	14	1.4	ND	ND	0.18	ND	ND
ND	0.5	ND	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	~1.2	ND (4.0)	15	1.5	ND	ND	NA	ND	ND
ND	0.8	~0.08	0.25	NA	77	ND (2.0)	ND (2.0)	ND (0.4)	4.4	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	1.2	ND	ND	0.11	ND	ND
~0.1	0.6	0.1	0.4	NA	101	ND (2.0)	ND (2.0)	ND (0.4)	53	5200	~0.52	ND (4.0)	ND (4.0)	17	ND	ND	0.10	ND	ND
ND	0.8	ND	0.5	NA	89	ND (2.0)	ND (2.0)	ND (0.4)	6.5	260	ND (0.4)	ND (4.0)	ND (4.0)	19	NA	NA	0.13	ND	NA
~0.1	1.1	0.13	0.75	NA	148	~49	280	~4.7	100	230	7.7	ND (8.0)	3800	5.7	ND	ND	0.05	ND	ND
ND	0.3	ND	ND	NA	42	ND (4.0)	10	ND (0.8)	10	96	ND (0.8)	ND (8.0)	39	4.1	ND	ND	0.07	ND	ND
ND	0.4	ND	ND	NA	46	ND (4.0)	ND (4.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8.0)	12	14	ND	ND	0.03	ND	ND
>2	>3	23.1	>6	NA	4420	~1800	65000	~51	11000	66000	280	ND (440.0	340000	140	ND	ND	ND	ND	0.56
>2	>3	15	>6	NA	3630	ND (200.0)	590000	ND (40.0)	7300	4400	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.55
>2	>3	14.7	>6	NA	3390	ND (200.0)	600000	ND (40.0)	7500	4700	ND (40.0)	ND (400.0	110000	ND (40.0)	ND	ND	ND	ND	0.62
0.25	1.4	0.18	2	NA	201	ND (20.0)	69	~4.0	280	180	ND (4.0)	ND (40.0)	5900	ND (4.0)	ND	ND	0.04	ND	ND
ND	0.3	ND	ND	NA	46	ND (3.8)	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7.7)	12	4.6	ND	ND	0.05	ND	ND
ND	0.8	ND	ND	NA	45	ND (2.0)	820	4	23	1400	ND (0.4)	ND (4.0)	180	~2.2	ND	ND	ND	ND	ND
>2	>3	9.3	6	NA	31	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	24	~1.2	ND	ND	0.08	ND	0.62
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2
NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
2	>3	9.8	>3	NA	45	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	14	~1.3	ND	ND	~0.0	ND	0.64
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
~0.1	0.4	0.31	ND	NA	27	ND (2.0)	38	ND (0.4)	4.4	16	ND (0.4)	ND (4.0)	440	6	ND	ND	~0.02	ND	ND
ND	0.4	ND	ND	NA	49	ND (2.0)	69	ND (0.4)	26	850	2.7	ND (4.0)	240	3.5	ND	ND	0.10	ND	ND
ND	0.4	ND	ND	NA	47	ND (2.0)	57	ND (0.4)	24	820	2.2	ND (4.0)	270	3.8	ND	ND	0.10	ND	ND
ND	0.4	0.1	ND	NA	20	ND (2.0)	3.1	ND (0.4)	7	30	ND (0.4)	ND (4.0)	61	5	ND	ND	0.06	ND	ND
ND	0.4	ND	ND	NA	39	ND (2.0)	93	ND (0.4)	14	17	ND (0.4)	ND (4.0)	66	2.5	ND	ND	0.07	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
ND	0.2	ND	ND	NA	~243	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	0.32
ND	0.4	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
ND	0.8	ND	~0.10	NA	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.9	ND	0.50	NA	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.10	ND	ND
ND	0.8	ND	ND	NA	38	na	na	na	na	na	na	na	na	na	ND	ND	~0.02	ND	ND
ND	0.8	ND	ND	NA	36	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA
ND	1.6	0.22	2.00	NA	35	na	na	na	na	na	na	na	na	na	ND	ND	0.03	ND	ND
0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA
ND	0.3	ND	ND	NA	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	~0.01	ND	ND
ND	0.7	ND	ND	NA	78	ND (2.0)	19	ND (0.4)	~8	25	ND (0.4)	ND (4.0)	42	1.1	ND	ND	0.03	ND	ND
~0.1	0.6	ND	ND	NA	65	na	na	na	na	na	na	na	na	na	ND	ND	0.08	ND	ND
ND	0.4	ND	ND	NA	20	ND (2.0)	240	ND (0.4)	~20	40	ND (0.4)	ND (4.0)	16000	4.9	ND	ND	0.09	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
ND	0.4	ND	ND	NA	22	ND (2.0)	11	ND (0.4)	~2.5	20	ND (0.4)	ND (4.0)	64	6.1	ND	ND	0.09	ND	ND
>2	>3	2.26	6	NA	421	~310	6900	~1.6	~5600	5500	6.3	ND (4.0)	28000	2.4	ND	ND	0.04	ND	0.22
ND	0.6	ND	~0.10	NA	28	ND (2.1)	10	ND (0.4)	~10	45	~0.28	ND (4.2)	280	3.4	ND	ND	0.06	ND	ND
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
ND	~0.1	ND	~0.30	NA	25	na	na	na	na	na	na	na	na	na	ND	ND	0.05	ND	ND
ND	~0.1	ND	ND	NA	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
ND	ND	ND	ND	NA	39	na	na	na	na	na	na	na	na	na	ND	ND	0.13	ND	ND
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.1	28	4.1	~20	3.1	6	34	0.7	ND (4.0)	490	1.4	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.95	37	4.8	190	4.6	12	70	1.2	ND (4.0)	1400	0.93	ND	ND	NA	ND	ND

NA	NA	NA	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.78	47	12	280	4.7	30	170	2.9	ND (4.0)	2700	ND (0.4)	ND	ND	NA	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	3	9.1	ND (2.0)	ND (2.0)	0.86	ND (2.0)	5.4	ND (0.4)	ND (4.0)	15	1.2	ND	ND	NA	ND	ND
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	ND	1.1	52	ND (2.5)	ND (2.5)	1	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	14	ND (0.5)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	2	1.2	28	2.3	21	21	7.9	170	ND (0.4)	ND (4.0)	360	0.85	ND	ND	0.06	ND	ND
NA	NA	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	25	ND (2.0)	27	23	6.4	220	1.4	ND (4.0)	370	0.61	ND	ND	ND	ND	ND
NA	NA	NA	3	1.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.5	2	23	ND (2.0)	5.8	6.7	ND (2.0)	37	ND (0.4)	6.5	1300	4.8	ND	ND	0.04	ND	ND
NA	NA	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	1	0.59	36	ND (2.0)	7.9	10	ND (2.0)	35	ND (0.4)	16	1000	1.2	ND	ND	ND	ND	ND
NA	NA	NA	ND	2.7	28	3.2	120	8.1	19	85	ND (0.5)	7.2	1500	8.6	ND	ND	0.06	ND	ND
NA	NA	NA	ND	0.59	58	8.5	53	10	12	130	ND (0.4)	ND (4.0)	750	0.42	ND	ND	0.09	ND	ND
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25	0.37	54	9.1	100	7.7	13	73	0.65	ND (4.0)	1200	0.6	ND	ND	0.05	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	0.31	55	8	5.4	5.7	7.3	35	ND (0.4)	ND (4.0)	590	ND (0.4)	ND	ND	0.04	ND	ND
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	9.3	8.3	300	ND (0.5)	ND (5.0)	160	1.4	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	29	ND (2.0)	2.3	1.5	ND (2.0)	6.7	ND (0.4)	ND (4.0)	96	0.72	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	38	ND (2.0)	ND (2.0)	7.5	5.9	140	ND (0.4)	ND (4.0)	80	1.4	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	73	ND (2.0)	2.5	17	6.4	61	ND (0.4)	ND (4.0)	230	1.2	NA	NA	0.11	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	69	ND (2.0)	53	17	7.5	180	ND (0.4)	ND (4.0)	1300	0.84	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	79	45	1200	11	300	1100	4.8	ND (5.0)	12000	4.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

NA	NA	NA	0.25	NA	23	ND (2.0)	ND (2.0)	4.3	4.2	39	ND (0.4)	ND (4.0)	37	ND (0.4)	NA	NA	0.71	1/0.3	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	0.25	NA	NA	ND (2.5)	ND (2.5)	2.4	ND (2.5)	11	ND (0.5)	7.4	30	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	84	3.1	19	2.8	5.1	22	0.63	ND (4.0)	440	ND (0.4)	NA	NA	0.08	ND	NA
NA	NA	NA	1	NA	93	ND (2.0)	ND (2.0)	2.2	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	36	ND (2.0)	ND (2.0)	0.45	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	0.7	NA	NA	4.7	210	53	26	180	0.56	ND (4.0)	1200	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	8	6.6	5.9	54	ND (0.4)	ND (4.0)	78	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	3.4	50	63	26	510	1.3	ND (4.0)	90	1.4	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.5)	ND (2.5)	35	6	130	3.3	ND (5.0)	38	4.8	NA	NA	0.15	ND	NA
NA	NA	NA	0.75	NA	NA	41	81	62	280	940	ND (0.5)	ND (5.0)	1800	5	NA	NA	0.6	ND	NA
NA	NA	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0)	17000	240	NA	NA	0.13	ND	NA
NA	NA	NA	0.75	NA	NA	450	14	19	31	170	1.3	ND (4.0)	870	170	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	NA	850	99	ND (0.5)	6.1	20	1.3	ND (5.0)	17	170	NA	NA	0.06	ND	NA
NA	NA	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.4)	ND (4.0)	ND (4.0)	87	NA	NA	0.07	ND	NA
NA	NA	NA	1	NA	NA	670	140	ND (0.4)	2.1	5.8	0.89	ND (4.0)	31	240	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	1800	41000	1300	7300	33000	510	ND (20.0)	550000	280	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	410	ND (2.0)	3.7	6.9	24	0.64	ND (4.0)	14	180	NA	NA	0.18	ND	NA
NA	NA	NA	6+	NA	NA	1400	44000	1900	6300	51000	760	ND (20.0)	580000	300	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	36	ND (2.0)	6.1	6.7	ND (2.0)	5.9	ND (0.4)	ND (4.0)	73	ND (0.4)	NA	NA	0.17	ND	NA
NA	NA	NA	0.25	NA	30	ND (2.5)	9.1	47	3.8	150	2.1	ND (5.0)	10	4.5	NA	NA	0.1	ND	NA
NA	NA	NA	ND	NA	34	ND (2.0)	ND (2.0)	0.99	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	28	18	ND (2.0)	1.8	2.8	6.3	2.1	ND (4.0)	49	3.9	NA	NA	0.22	ND	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	6+	NA	152	ND (2.0)	ND (2.0)	2.8	ND (2.0)	7.3	0.43	ND (4.0)	17	ND (0.4)	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	30	ND (2.0)	ND (2.0)	2.4	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	80	ND (0.4)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	ND (2.5)	ND (2.5)	1.4	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	170	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	112	23	87	12	18	200	4.6	ND (4.0)	790	1.3	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	32	ND (2.0)	ND (2.0)	3.3	ND (2.0)	110	ND (0.4)	ND (4.0)	22	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	45	ND (2.5)	ND (2.5)	1.8	ND (2.5)	6.3	ND (0.5)	ND (5.0)	60	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	59	ND (2.0)	ND (2.0)	1.3	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	92	ND (0.4)	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	46	ND (2.0)	ND (2.0)	8.9	ND (2.0)	5.6	ND (0.4)	ND (4.0)	210	1.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	32	ND (2.0)	ND (2.0)	9.9	ND (2.0)	8.6	ND (0.4)	ND (4.0)	35	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.2	ND	NA
NA	NA	NA	0.4	NA	27	ND (2.0)	ND (2.0)	8.7	ND (2.0)	7.3	ND (0.4)	ND (4.0)	27	ND (0.4)	NA	NA	ND	ND	NA

NA	NA	NA	ND	NA	53	30	5.3	31	18	82	3.9	4.6	270	10	NA	NA	0.15	ND	NA
NA	NA	NA	4	NA	27	ND (2.0)	ND (2.0)	11	ND (2.0)	55	ND (0.4)	ND (4.0)	45	0.42	NA	NA	0.08	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	26	ND (2.5)	11	8.6	13	470	ND (0.5)	ND (5.0)	35	1.2	NA	NA	0.08	ND	NA
NA	NA	NA	5	NA	35	ND (2.5)	ND (2.5)	2.7	ND (2.5)	ND (5.0)	ND (0.5)	ND (5.0)	470	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	6	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	5	NA	151	76	1700	71	270	1200	ND (0.4)	ND (4.0)	3800	ND (0.4)	NA	NA	0.37	ND	NA
NA	NA	NA	5	NA	147	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.37	ND	NA
NA	NA	NA	0.75	NA	74	29	11	3.9	53	40	ND (0.4)	ND (4.0)	750	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	5	NA	166	8.7	63	23	41	160	ND (0.4)	ND (4.0)	790	4.5	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	141	4.7	59	17	28	130	ND (0.4)	ND (4.0)	24	3.5	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	234	230	3900	35	430	3400	11	ND (4.0)	38000	15	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	16	ND (2.5)	17	ND (0.5)	ND (5.0)	20	ND (0.5)	NA	NA	0.06	ND	NA
NA	NA	NA	0.2	NA	12	ND (2.5)	ND (2.5)	3.7	ND (2.5)	54	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	21	ND (2.0)	3	12	17	65	ND (0.4)	ND (4.0)	32	1.7	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	6.3	ND (2.0)	ND (2.0)	10	6.6	26	ND (0.4)	ND (4.0)	ND (4.0)	1.5	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	24	ND (2.0)	ND (2.0)	9.3	4.7	32	ND (0.4)	ND (4.0)	ND (4.0)	1.2	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
NA	NA	NA	0.3	NA	51	11	12	7.9	110	410	ND (0.4)	ND (4.0)	11000	0.55	NA	NA	0.2	ND	NA
NA	NA	NA	0.1	NA	40	ND (2.5)	ND (2.5)	3.3	4.7	36	ND (0.5)	ND (5.0)	44	1.8	NA	NA	0.09	ND	NA
NA	NA	NA	ND	NA	45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	93	320	240	77	700	1300	13	5.9	1100	5.7	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA
NA	NA	NA	ND	NA	33	ND (2.0)	ND (2.0)	3.6	18	470	ND (0.4)	ND (4.0)	ND (4.0)	0.4	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (4.0)	17	35	41	210	ND (0.8)	ND (8.0)	ND (8.0)	ND (0.8)	NA	NA	0.07	ND	NA
NA	NA	NA	0.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	47	ND (2.5)	ND (2.5)	3.4	ND (2.5)	8.1	ND (0.5)	ND (5.0)	ND (5.0)	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	ND (2.0)	3.8	5.2	18	3.6	ND (4.0)	11	1.8	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	7.1	15	73	1.9	ND (4.0)	ND (4.0)	4.3	NA	NA	0.05	ND	NA
NA	NA	NA	ND	NA	72	ND (2.0)	ND (2.0)	7.8	15	110	ND (0.4)	6	ND (4.0)	6.6	NA	NA	0.11	ND	NA
NA	NA	NA	4	NA	NA	ND (2.0)	16	14	10	44	ND (0.4)	6.5	12	18	NA	NA	0.06	ND	NA
NA	NA	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	33	ND (2.5)	ND (2.5)	11	17	100	ND (0.5)	5.4	ND (5.0)	4.8	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	25	ND (2.5)	ND (2.5)	2.3	5.6	24	ND (0.5)	17	ND (5.0)	7.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	21	2.1	29	41	85	240	1.9	ND (4.0)	42	4.9	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.15	ND	NA
NA	NA	NA	1	NA	40	19	ND (2.0)	1.3	4.8	11	ND (0.4)	130	ND (4.0)	3.7	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.0)	ND (2.0)	ND (0.4)	2.7	ND (4.0)	ND (2.0)	ND (4.0)	ND (4.0)	0.74	NA	NA	ND	ND	NA

NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	58	ND (2.0)	ND (2.0)	ND (0.4)	12	12	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	55	ND (2.5)	ND (2.5)	ND (0.5)	11	4.5	ND (2.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	66	ND (2.0)	7	4.5	11	33	ND (0.4)	ND (4.0)	4.6	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	65	ND (2.5)	ND (2.5)	0.65	5.2	ND (5.0)	ND (0.5)	ND (5.0)	ND (5.0)	13	NA	NA	0.03	ND	NA
NA	NA	NA	0.25	NA	90	14	340	8.4	220	3000	ND (0.4)	ND (4.0)	980	6.5	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	88	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.75	NA	57	ND (2.0)	ND (2.0)	0.75	4.4	5.6	ND (0.4)	ND (4.0)	7.1	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	89	ND (2.0)	ND (2.0)	3.8	11	46	ND (0.4)	ND (4.0)	ND (4.0)	1.3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	69	ND (2.5)	ND (2.5)	1.9	39	48	ND (0.5)	ND (5.0)	ND (5.0)	ND (0.5)	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0)	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	19	190	13	260	730	ND (0.8)	ND (8.0)	ND (8.0)	6.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	5	NA	NA	150	610	150	1400	940	ND (0.4)	ND (4.0)	120	11	NA	NA	0.08	ND	NA
NA	NA	NA	4	NA	NA	190	1100	43	980	12000	ND (4.0)	ND (40.0)	1200	200	NA	NA	ND	ND	NA
NA	NA	NA	0.1	NA	NA	ND (10.0)	490	16	160	270	ND (2.0)	ND (20.0)	54	18	NA	NA	0.14	ND	NA
NA	NA	NA	ND	NA	NA	6.3	46	14	42	510	ND (0.5)	ND (4.7)	92	3.6	NA	NA	0.11	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.52	4.8	23	ND (0.4)	ND (4.0)	ND (4.0)	6.6	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	5.4	37	3.7	19	82	ND (0.4)	ND (4.2)	36	3.2	NA	NA	0.08	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	14	1.8	12	44	ND (0.4)	ND (4.0)	8.5	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	4	NA	NA	120	4500	37	2100	4300	ND (4.0)	ND (40.0)	~1500	82	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.4	8.4	6.6	210	120	ND (0.5)	ND (4.8)	~97	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	0.84	2.8	ND (4.0)	ND (0.4)	ND (4.0)	~4.3	0.52	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	2.2	21	1	9.4	50	ND (0.5)	ND (4.8)	~15	0.66	NA	NA	0.03	ND	NA
NA	NA	NA	0.75	NA	NA	13	310	19	1100	~48000	ND (0.4)	ND (4.0)	~29	68	NA	NA	0.03	ND	NA
NA	NA	NA	0.4	NA	NA	46	630	13	470	790	ND (0.8)	ND (8.0)	~81	ND (0.8)	NA	NA	ND	ND	NA
NA	NA	NA	0.3	NA	NA	ND (2.0)	110	16	90	130	ND (0.4)	ND (4.0)	ND (4.0)	1.7	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	ND (10.0)	ND (10.0	2.6	10	ND (20.0)	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	47	16	13	~130	14	ND (20.0)	20	ND (2.0)	NA	NA	0.04	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	1800	190	400	~2700	4.3	ND (20.0)	180	ND (2.0)	NA	NA	ND	ND	NA
NA	NA	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	3	NA	NA	ND (10.0)	270	970	170	~4100	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	NA	ND (10.0)	81	280	100	~3200	38	ND (20.0)	64	ND (2.0)	NA	NA	0.06	ND	NA
NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	ND (1000.0	20000	ND (100.0)	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	1.9	~1.6	~16	ND (0.4)	ND (4.0)	~2.9	0.5	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	ND (2.0)	2.2	4.7	~11	ND (0.4)	ND (4.0)	4.4	0.46	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (2.0)	2.2	2.4	7.5	~52	ND (0.4)	16	ND (4.0)	ND (0.4)	NA	NA	0.04	ND	NA

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	4.0	4.30	42.515744	-71.136289	Sample taken shady l	Commerce Way locat	na	na	na	Bedford	0	0.06	Dry
NA	5.4	6.30	42.513171	-71.142649	1 foot deep at samplir	Halls Brook behind 18	na	na	na	Bedford	0	0.06	Dry
NA	6.2	32.10	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broc	na	na	na	Bedford	0	0.06	Dry
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
NA	160	46.60	42.40397	-71.021087	odor, gray/black cloud	privately owned	na	na	na	Boston-Logan	0	0.42	Wet
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	clean location	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
NA	ND	NA	42.455741	-71.0840671	duplicate	Spot Pond Brook	na	na	na	Boston-Logan	0	0.42	Wet
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	50/180	Boston-Logan	0	0.03	Dry
NA	ND	1.25	42.425963	-71.114988		Meeting house brook	0.1	14.1	291	Boston-Logan	0	0.03	Dry
NA	4.9	4.75	42.399303	-71.160888	waded in stream to co	Winns Brook of Bright	0.6	14.4	1085	Boston-Logan	0	0.03	Dry
0.14	4.7	5.00	42.399303	-71.160888	duplicate		na	na	na	Boston-Logan	0	0.03	Dry
NA	6.6	4.55	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.8	14.1	1625	Boston-Logan	0	0.03	Dry
0.07	6.1	6.30	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.8	13.7	1623	Boston-Logan	0	0.03	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6mS	Boston-Logan	0	0	Dry
0.25	12	9.25	42.287572	-71.022259	lots of orange flocc co	across from CVS on C	1	15	1913	Boston-Logan	0	0	Dry
1.34	350	50+	42.289355	-71.041773	Very, very muddy wat	Tenean Beach	24.5	16.3	38.36m	Boston-Logan	0	0	Dry
1.53	330	50+	42.298373	-71.046379	Started sprinkling abo	at dog park off Victory	24.5/24.6	16.3/16.3	.36/38.	Boston-Logan	0	0	Dry
0.31	7.2	3.75	42.288373	-71.092879	bacteria plague cover	Canterbury Brook, Bo	0.6	14.6	1156	Milton-Blue Hi	0.07	0.07	Dry
0.32	7.1	2.30	42.288373	-71.092879	duplicate		na	na	na	Milton-Blue Hi	0.07	0.07	Dry
0.13	2.8	0.30	42.57664155	-70.92825715		Frost Fish Brook, 34 S	0.3	13.3	585	Beverly	0	0.16	Dry
0.1	3	1.85	42.58395698	-70.92904291	Moss growing in pipe	Downstream of bridge	0.2	12.8	375	Beverly	0	0.16	Dry
0.09	3.5	1.00	42.51446323	-70.86578117	Some moss growing o	Sampled where brook	0.2	13.8	329	Beverly	0	0.16	Dry
0.14	4.6	2.70	42.51182185	-70.85955935		Between Rts. 134A ar	0.4	13.1	641	Beverly	0	0.16	Dry
0.34	5.3	1.70	42.466942	-70.92203147	Sample combined fro	Sampled about 15' do	0.5	14.2	826	Beverly	0	0.16	Dry
0.32	5.1	1.40	42.466942	-70.92203147	Ammonia kits - samples	recorded as 1.0 but	na	na	na	Beverly	0	0.16	Dry
0.23	4.3	1.40	42.262068	-71.046682	sampled downstream	Unquity Brook off Chr	0.5	14.5	800	Milton-Blue Hi	0	0	Dry
0.24	4.1	1.85	42.253703	-71.068976	Heard dripping from u	downstream of Rando	0.5	15.4	797	Milton-Blue Hi	0	0	Dry
1.66	660	44.30	42.266485	-70.997104	Flow was very strong	Wollaston Beach upst	28.5	20.5	*40.4mS	Milton-Blue Hi	0	0	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12mS	Milton-Blue Hi	0	0	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55mS	Milton-Blue Hi	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
0.12	4.6	1.30	42.48685	-71.0985788	Cl2 exceeded holding	Elm St in Stoneham, r	0.7	15.6	1434	Boston-Logan	0.08/0	0.08/0.	Wet
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.1	0.1/0.2	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston M	6.5	20.34	11.36	Boston-Logan	0	0	Dry
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
1.17	200	50*	42.394421	-71.049706	Surf., NH3 (EPA) and	other 500mL bottle sar	14.2	21.5	23.49	Boston-Logan	0	0	Dry
1.15	200	50*	42.394421	-71.049706	Duplicate of IsEnd03		na	na	na	Boston-Logan	0	0	Dry
0.81	130	46.10	42.41380356	-71.13242519	can hear running water	in pipe; YSI measurm	9.1	17.7	15.1	Boston-Logan	0	0	Dry
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
0.22	5.1	1.50	42.250692	-70.997793	Accessed via parking	Canal opening just off	0.5	19.7	1080	Boston-Logan	0.01	0.01	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3mS	Boston-Logan	0.01	0.01	Dry
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry

1.65	530	50*	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	25	18.8	39.10m	Boston-Logan	0.01	0.01	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
0.07	ND	0.15	41.92559804	-70.61841863	lots of eel grass, used	downstream Eel River	0.1	22.8	142.9	Plymouth	0.01	0.01	Dry
ND	ND	0.20	41.92519001	-70.61918863	River: about 1.5' deep	downstream of bridge	0.1	22.6	145.3	Plymouth	0.01	0.01	Dry
~0.05	ND	ND	41.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0.01	0.01	Dry
0.1	ND	0.35	41.92517001	-70.61942993	some grass was gorw	upstream of Sandwich	0.1	21.5	187.7	Plymouth	0.01	0.01	Dry
0.08	4.2	0.60	41.92538204	-70.61810863	dead mouse floating i	directly behind 132 sa	0.2	17.6	326.3	Plymouth	0.01	0.01	Dry
0.15	NA	ND	41.92480601	-70.61774371	very akward sampling	Clean-out pipe, behind	0.2	20.4	315.3	Plymouth	0.01	0.01	Dry
0.12	3.4	1.05	42.266756	-71.094794	green algae and greyi	(actually NR104?) Bel	0.5	18.2	910	Boston-Logan	0.77	0.77	Wet
ND	ND	0.50	42.266710	-71.094816	waded into river for sa	just upstream of Dent	0.2	24.6	427.7	Boston-Logan	0.77	0.77	Wet
ND	3.7	1.65	42.251173	-71.128400	lots of trash in stream	parked off Reservatio	0.3	25.9	625	Boston-Logan	0.77	0.77	Wet
0.05	8.7	21.90	42.247956	-71.125339	difficult access, white	parked off Glenwood,	0.2	20.5	476.6	Boston-Logan	0.77	0.77	Wet
0.66	7.4	14.25	42.244799	-71.126989	green algae in outfall,	behind tennis courts o	0.5	18.4	968	Boston-Logan	0.77	0.77	Wet
0.74	7.2	14.80	42.244799	-71.126989	Duplicate of NR162		na	na	na	Boston-Logan	0.77	0.77	Wet
0.14	4.8	1.15	42.242826	-71.127704	some gray bacteria, g	behind Stop & Shop o	1.2	22.4	24.11	Boston-Logan	0.77	0.77	Wet
0.08	ND	1.00	42.242874	-71.127669	Mainstem Neponset R	behind Stop & Shop o	0.2	25	486	Boston-Logan	0.77	0.77	Wet
0.12	4.6	2.95	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	14.6	780	Bedford	0.01	0.01	Dry
0.74	7.3	26.60	42.513291	-71.142539	Unnamed stream just	upstream of Halls Broo	0.5	14.4	932	Bedford	0.01	0.01	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry
1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
0.73	7.3	28.80	42.51858	-71.146281	after confluence of La	Just south of Landfill E	0.5	14.2	955	Bedford	0.01	0.01	Dry
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrear	0.3	15.3	806	Boston-Logan	0	0	Dry
0.09	3.1	1.05	42.3599847	-71.1809755	"New81" waded to lef	Outfall to Charles off	0.6	14.6	1308	Boston-Logan	0	0	Dry
0.14	ND	0.75	42.3646351	-71.1892039	Used waders	Laundry Brook off Cal	0.4	18	830	Boston-Logan	0	0	Dry
0.14	ND	na	42.3646351	-71.1892039	Duplicate of Laund01		na	na	na	Boston-Logan	0	0	Dry
0.14	3.6	1.35	42.3600600	-71.2169465	taken 6' downstream	Cheessecake Brook n	0.7	16.7	1378	Boston-Logan	0	0	Dry
0.17	4.4	2.20	42.3730420	-71.2283524	shallow stream, collec	Beaver Brook near co	0.5	16.7	1035	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.41	7.8	7.80	42.659814	-71.318830	large duckbill coverin	Beaver Brook outfall	0.1	18.2	468.5	Lawrence	0	0	Dry
NA	NA	1.45	42.659837	-71.318833	sample taken just ups	Beaver Brook Mainste	0.2	16.9	358.8	Lawrence	0	0	Dry
0.15	ND	0.60	42.650395	-71.314502	west channel sampled	off Suffolk Street, clim	0.1	19.1	170	Lawrence	0	0	Dry
0.16	ND	0.10	42.643823	-71.307889	sampled open channe	downstream from Cen	0.1	19.2	168.7	Lawrence	0	0	Dry
0.11	4.1	2.25	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17.5	714	Lawrence	0	0	Dry
0.15	4	ND	42.633655	-71.302505	Duplicate of RMB1		na	na	na	Lawrence	0	0	Dry
NA	NA	1.10	42.631057	-71.305968	1ft at deepest, used re	sampled downstream	0.3	17.6	711	Lawrence	0	0	Dry
0.17	7.2	7.15	42.638346	-71.343658	Flow from 2 large me	Black Brook off Middle	0.6	17.8	1145	Lawrence	0	0	Dry
NA	NA	8.20	42.634459	-71.349404	rocks covered w/ alga	Black Brook off Baldw	0.5	19.5	1077	Lawrence	0	0	Dry
0.15	8.1	3.40	42.520940	-71.104975	about 6 inches deep (	corner of Washington	0.9	16.7	1682	Lawrence	0.01	0.01	Dry
0.2	6.9	4.35	42.65447823	-71.14660047	hiked down hill sampl	5 Dundee Park near Y	0.4	15.1	806	Lawrence	0.01	0.01	Dry
0.19	4.5	0.60	42.65573487	-71.13334922	some deeper pools	Off Chestnut Street, n	0.3	15.1	530	Lawrence	0.01	0.01	Dry
0.25	4.8	0.35	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.3	15.9	537	Lawrence	0.01	0.01	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	15.5	539	Lawrence	0.01	0.01	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
0.1	5.8	2.30	42.695971	-71.1455601	duplicate of SLE3		na	na	na	Lawrence	0.01	0.01	Dry
0.32	28	34.90	42.70991636	-71.15129912	video taken of what lo	pipe off Lawrence Hos	0.4	19.1	888	Lawrence	0.01	0.01	Dry
0.14	8.5	0.80	42.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0.01	0.01	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
0.21	8.9	~10.5	42.24781922	-71.05546405	collected close to outfall in pool		0.5	15.4	933	Boston-Logan	0.51	0.57	Wet
0.1	2.8	~0.85	42.20481659	-71.19661788	sampled right culvert		0.6	16.7	1146	Norwood	0.54	0.63	Wet
0.16	3.3	~1.6	42.20509841	-71.964841	sample collected before two steams mix		0.2	15.5	515	Norwood	0.54	0.63	Wet
0.07	3.8	ND	42.204594	-71.198514	sample collected near culvert		0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	1.8	42.418716	-71.151379	just downstream of br	Mill Brook @ Mystic S	0.5	11.3	910	Bedford	0	0	Dry
NA	4.2	6.35	42.418597	-71.152247	Sample taken from flo	Mill Brook @ opening	0.5	11.7	921	Bedford	0	0	Dry
NA	NA	NA	42.41803618	-71.15649782	Start of culvert under	Mill Brook near bike p	0.4	11.6	884	Bedford	0	0	Dry
NA	3.6	1.05	42.41800384	-71.1599327	two 3 foot culverts an	Near Arlington High S	0.4	11.6	859	Bedford	0	0	Dry

NA	3.6	2.45	42.41800384	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry
NA	3.4	2.05	42.42030025	-71.16460763	6ft stone channel, foo	Mill Brook instream	0.4	12.1	755	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	8.3	6	42.42321769	-71.17286099	lots of green algae inside pipe		1.4	11.4	2700	Bedford	0	0	Dry
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	2.65	42.42388575	-71.17372022	hole in wall/seep	East side of culvert wa	0.5	10.0	1394	Bedford	0	0	Dry
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	10.1	1450	Bedford	0	0	Dry
NA	ND	0.65	42.42443302	-71.17464016	waders, culvert just up	Outfall to Mill Brook, V	0.6	9.8	1280	Bedford	0	0	Dry
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	4.9	2	42.44732536	-71.13860428	near gauging station	Sampled above dam	0.4	10.3	821	Bedford	0	0.02	Dry
NA	NA	NA	42.45109149	-71.13689456	waterfall ~250ft upstre	Waterfield St bridge	0.4	10.2	806	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45284032	-71.13542441	used reach and wade	Mt Vernon St bridge b	0.4	10.2	794	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45571045	-71.13669402	used reach	Behind Stop & Shop	0.3	12.6	561	Bedford	0.16	0.18	Wet
NA	5.2	2.25	42.4564901	-71.13647243	outfall on far left looki	Skillings road from un	0.4	9.1	907	Bedford	0.16	0.18	Wet
NA	5.4	1.75	42.4564901	-71.13647243	duplicate of Skill01		na	na	na	Bedford	0.16	0.18	Wet
NA	NA	NA	42.45646101	-71.13649804	very low flow - if any	small pipe exiting nea	0.4	9.1	908	Bedford	0.16	0.18	Wet
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	11	5.7	42.47549599	-71.15991194	rust/orange stain on r	main stream outfall on	0.8	19.8	1655	Bedford	0.17	0.19	Wet
NA	NA	NA	42.48090577	-71.15755569	slightly crushed small	Off Harrison Ave near	0.5	12.2	1070	Bedford	0.17	0.19	Wet
NA	15	4.75	42.4809258	-71.15751796	Main outfall	Off Harrison Ave near	1.3	7.9	2495	Bedford	0.17	0.19	Wet
NA	9.7	3.35	42.47993991	-71.15617846	very slow flow	opposite side of ballpa	0.8	12.5	1578	Bedford	0.17	0.19	Wet
NA	4.3	0.9	42.42029396	-71.16475294	Just upstream of Grov	Mill Brook instream	0.4	15.9	850	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.422035	-71.170577	needed ladder/waders	At end of Robin Stree	0.8	12.5	1533	Bedford	0.12	0.12	Wet
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	3.9	1.35	42.424465	-71.174718	neighbor stopped ove	Just upstream of Ryde	0.4	17	729	Bedford	0.12	0.12	Wet
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	3.7	2	42.425348	-71.186230	PPCP bottle broke, re	behind 1395 Mass Av	0.3	18.2	684	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	NA	0.4	42.513171	-71.142649	machinery stored nea	Halls Brook behind 18	0.4	11.1	875	Bedford	0	0	Dry
NA	NA	11.3	42.513291	-71.142539	sampled before timbe	Unnamed stream just	0.4	10.1	839	Bedford	0	0	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	NA	3.85	42.51422481	-71.14551115	flow on downstream s	sampled from left ope	0.4	11.3	878	Bedford	0	0	Dry
NA	NA	3.55	42.51422481	-71.14551115	duplicate of Torr01		0.4	11.3	878	Bedford	0	0	Dry
NA	NA	2.65	42.51048269	-71.15492526	fair amount of litter	upstream of road cros	0.4	12.1	869	Bedford	0	0	Dry
NA	NA	2.7	42.5086557	-71.1583669	construction on bridge	bottom of stone run of	0.5	12.7	987	Bedford	0	0	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before bridge		0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet
NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	10.8	42.25620978	-70.99314315			8.1	13.3	14.1	Milton-Blue Hi	1.5	0	Wet
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	2.2	42.39528219	-71.17631914	duplicate of WEB013		na	na	na	Bedford	0	0	Dry
NA	NA	1.1	42.39528219	-71.17631914	lots of suspended sed	Wellington Brook	0.7	12.6	1433	Bedford	0	0	Dry
NA	NA	NA	42.4225696	-71.14928822		Mystic Valley Parkway	0.6	13.8	1269	Bedford	0	0	Dry

NA	NA	0.25	42.41770489	-71.1574838	may be multiple pipe	pipe discharging to Mi	0.1	17.8	237	Bedford	0	0	Dry
NA	NA	NA	42.42471486	-71.17533266	collected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	2.45	42.42645629	-71.19436402		pipe discharging unde	1.3	17.6	2482	Bedford	0	0	Dry
NA	NA	ND	42.42648362	-71.19440958	6ft wide, rocky stream	Bow street, just downs	0.3	18.3	537	Bedford	0	0	Dry
NA	NA	1.45	42.42834205	-71.19676456	36" double culvert col	Just downstream of F	0.2	19.3	513	Bedford	0	0	Dry
NA	NA	0.05	42.42901218	-71.1975303	tributary, thick film co	Walked ~100yards up	0.2	20.9	362.9	Bedford	0	0	Dry
NA	NA	5.95	42.39988394	-70.99242127	duplicate of WashN01		na	na	na	Boston-Logan	0.08	0.43	Wet
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	11	42.39990454	-70.99237953	just upstream of Was	Sales Creek	1.3	18.2	2527	Boston-Logan	0.08	0.43	Wet
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	17.7	42.3830573	-71.03016877	40min before low tide	Condor Street outfall,	23.3	16.1	36.7mS	Boston-Logan	0.08	0.43	Wet
NA	NA	50*	42.36126566	-71.05083507	near Christopher Colu	Climbed down betwee	26.7	16.3	44.67mS	Boston-Logan	0.08	0.43	Wet
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	2.35	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	na	na	na	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	0.1	18.8	12.18/18	Lawrence	0.04	0.04	Dry
NA	NA	12.4	42.465157	-71.392813	pool at base of culver	<1/2 mile from bridge	0.2	27.6	90.3/37	Bedford	0	0	Dry
NA	NA	ND			Effluent of a membrane bioreactor			24	495.8	Falmouth	0.12	0.21	Wet
NA	NA	25.10			6" below surface, 6"sa	tip pans (24/day - 1galeach) sto		22.9	479	Falmouth	0.12	0.21	Wet
NA	NA	38.70			12" below surface	12"sand		21.1	602	Falmouth	0.12	0.21	Wet
NA	NA	ND						21.6	351	Falmouth	0.12	0.21	Wet
NA	NA	ND			24" below surface			20.1	571	Falmouth	0.12	0.21	Wet
NA	NA	2.5			Influent			19.3	479	Falmouth	0.12	0.21	Wet
NA	NA	36.80			12" with air			20.3	579	Falmouth	0.12	0.21	Wet
NA	NA	11.5								Falmouth	0.12	0.21	Wet
NA	NA	ND						20.3	606	Falmouth	0.12	0.21	Wet
NA	NA	NA	42.968332	-71.472794	Oil sheen across all ro	called EPA incident re	0.3	18.1	29/446.	Manchester	0	0	Dry
NA	NA	NA	42.985780	-71.469196	Strong musty odor, ta	sampled flow out of pi	1	17.6	934/165	Manchester	0	0	Dry
NA	NA	NA	42.998669	-71.468348	next to outfall 047, thi	outfall just north (adja	2.1	15.2	992/321	Manchester	0	0	Dry
NA	NA	NA	42.998660	-71.468348	steam coming out of p	just south of 047N, by	2.5	17.5	4750	Manchester	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.21004	-71.530441	grated outfall, flow is approx. 10 gal/min poo		0.7	14	1070	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.193970	-71.542492	midstream sample ne	Concord District Cour	0.7	22.9	1458	Concord	0	0	Dry
NA	NA	NA	43.199674	-71.548718	Just upstream of Clin	off Pleasant Street	0.5	23.1	1080	Concord	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.51380064	-70.88804384	Palmer Cover, Salem	White bacterial growth	1.5	21.1	4209	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54714736	-70.86166491	Lynch Park, Beverly N	sampled 2hrs after low	0.7	17.6	1339	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55097916	-70.8503408	Down Brackenbury La	Brackenbury Beach	10	18.6	16.91mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.55443402	-70.84983196	sampled under bridge	lots of ducks upstream	0.2	20.5	409.2	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.54639263	-70.8616749	Lynch Park, Beverly	Small pipe exiting just	1.8	19.3	7.77mS	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.46084009	-71.13716417	Downstream of Swan	USGS gauge @ 0.9, g	0.5	20.6	1025	Boston-Logan	0	0	Dry
NA	NA	NA	42.469411	-71.1252171	Downstream of Wash	Water almost opaque	0.5	22	1083	Boston-Logan	0	0	Dry
NA	NA	NA	42.4694521	-71.1249571	Outfall upstream of W	OF more than 1/2 full	0.5	21.4	1004	Boston-Logan	0	0	Dry
NA	NA	NA	42.477141	-71.1176671	(previously '1Merrell')	low/slow flow could no	0.5	21.6	1096	Bedford	0.01	0.13	Dry

NA	NA	NA	42.4770646	-71.1175936	(previously '1Kraft')Sw	2 pipes just upstream	0.7	21.5	1366	Bedford	0.01	0.13	Dry
NA	NA	NA	42.491580	-71.128834	(previously 'Sal')1921	USGS field team mea	0.5	20.9	1086	Bedford	0.01	0.13	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026954	-71.1353458	Outfall downstream o	Raccoon prints in pipe	1.3	19.6	2743	Bedford	0.01	0.13	Dry
NA	NA	NA	42.5026965	-71.1351128	Stormdrain cover tipp	gray plaque at bottom	na	na	na	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	19.6	873	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	Unnamed stream just	Very low flow	0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.513291	-71.142539	duplicate of DRR1		0.4	23.4	897	Bedford	0.01	0.13	Dry
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82m	Boston-Logan	0	0	Dry
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67m	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Canterbury Brook, Bo	fine sediments on bot	0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.288373	-71.092879	Duplicate of CantB		0.2	20	344.4	Boston-Logan	0	0	Dry
NA	NA	NA	42.308203	-71.12058	Arnold Arboretum off	sides of outfall deteric	0.7	13.6	1304	Boston-Logan	0	0	Dry
NA	NA	NA	42.340354	-71.099856	Muddy River in Back	Sampled just downstr	0.5	20.5	1058	Boston-Logan	0	0	Dry
NA	NA	NA	42.330289	-71.114017	Two stone 5' semi-circ	across from 33 Pondv	0.5	25.4	966	Boston-Logan	0	0	Dry
NA	NA	NA	42.326763	-71.114752	Off Riverdale Pkwy in	downstream of outfall	0.9	15.1	1738	Boston-Logan	0	0	Dry
NA	NA	NA	42.321703	-71.119080	Parked on Chestnut S	just downstream from	0.3	27.1	606	Boston-Logan	0	0	Dry
NA	NA	NA	42.70991636	-71.15129912	samples sent for PCR	pipe off Lawrence Hos	1.4	20.1	2644	Lawrence	0	0	Dry
NA	NA	NA	42.70995636	-71.15139912	mainstem Spickett riv	lots of growth on botto	0.3	22.6	535	Lawrence	0	0	Dry
NA	NA	NA	42.713273	-71.158219	upstream of Jackson	heavy sedimentation	0.3	23.1	530	Lawrence	0	0	Dry
NA	NA	NA	42.713893	-71.172624	mainstem Spickett riv	sampled at the end of	0.3	23.2	529	Lawrence	0	0	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen	river sample	na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.67330118	-71.14974812	2-3 feet deep	Across from Shawshe	0.2	24.3	471.5	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	lots of bacterial growt	Hussy Brook - sample	0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.67247656	-71.15143865	duplicate of Huss02		0.3	24.7	676	Lawrence	0	0	Dry
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	Walked upstream fron	Large box culvert cov	0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Ston	0.9	18.1	1701	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.513171	-71.142649	1 ft deep at sampling	Halls Brook behind 18	0.4	20.6	848	Bedford	0	0.1	Dry
NA	NA	NA	42.51339681	-71.14295383	outfall about 100ft upstream from Halls2 loca		0	24.8	50.3	Bedford	0	0.1	Dry
NA	NA	NA	42.51079059	-71.14820571	most of flow coming f	lots of frogs in stream	1	23.5	1960	Bedford	0	0.1	Dry
NA	NA	NA	42.51333787	-71.14802303	upstream of small pec	end of 2nd st, asked #	0.4	22.4	825	Bedford	0	0.1	Dry
NA	NA	NA	41.71543572	-71.36069556	sampled on outgoing	sampled between 2 ro	29.6	24.6	45.72m	Providence TF	0	0	Dry
NA	NA	NA	41.71380905	-71.36475741		walked up 20 ft from b	20.6	22.4	32.83m	Providence TF	0	0	Dry
NA	NA	NA	41.7135672	-71.36551541	Mill creek, 0.67 ng/L	Sulfamethoxazole was	20.7	23.5	33.13m	Providence TF	0	0	Dry
NA	NA	NA	41.71213909	-71.37518941	leaky storm drain pipe	under bridge, layer of	1.3	21.1	2447	Providence TF	0	0	Dry
NA	NA	NA	41.71205509	-71.37524941	bacteria and kits only		na	na	na	Providence TF	0	0	Dry
NA	NA	NA	41.71372754	-71.37889632	downstream from roa	lockwood brook near b	0.2	20.2	314.2	Providence TF	0	0	Dry
NA	NA	NA	41.70908196	-71.38289364	racoon prints on bank	off westshore drive up	0.2	21.6	329	Providence TF	0	0	Dry
NA	NA	NA	41.70708421	-71.38031976	double culvert under t	upstream side of bridg	0.2	16.9	435.9	Providence TF	0	0	Dry
NA	NA	NA	41.71964024	-71.38696064	bacteria and kits only	upstream side of bridg	0.1	20.9	270	Providence TF	0	0	Dry
NA	NA	NA	41.71935982	-71.38618735	epipe designed to tak	at the end of emerson	0.1	20.1	225.8	Providence TF	0	0	Dry
NA	NA	NA	41.71461744	-71.38035705	bact and kits only	Meadowbrook road ou	0.1	22.2	173.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	1-2 in of green algae	end of sweetfern drive	0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	41.73964713	-71.39538267	duplicate of SweetF		0.1	18.4	220.9	Providence TF	0	0	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556520	-71.500969	Governor Brook	No distinct flow, light	0.1	16.3	198.8	Laconia	0.13	0.13	Wet
NA	NA	NA	43.556625	-71.499442	Road crossing upstrea	orange/green growth	0.2	15.9	341.6	Laconia	0.21	0.21	Wet

NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.559021	-71.494120	sampled facility pipe b	sampled during storm	0	18.5	13.5	Laconia	0.21	0.21	Wet
NA	NA	NA	43.266493	-71.483356			0	15.5	14.5	Laconia	0.44	0.44	Wet
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	NA	NA	42.42547262	-71.02662504	walked upstream from	Sampled about 30ft u	2.4	21.5	4509	Boston-Logan	0	0	Dry
NA	NA	NA	42.42105874	-71.02615376	could see light at othe	Corner of Sargent and	0.3	18.3	687	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	near boat launch, sam	outfall across causewa	3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		3.8	19.6	6.92mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.4891136	-70.84335607	green alge at bottom	Ocean Ave off Marble	0.3	19	680	Boston-Logan	0	0	Dry
NA	NA	NA	42.51462618	-70.8462946	Grace Oliver Beach S	Corner of Crowninshie	0.2	21	632	Boston-Logan	0	0	Dry
NA	NA	NA	42.51447501	-70.86599014	Stamski Beach	sample 20ft from shor	28.3	23.5	43.87mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~100	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364451	-71.154419	downstream side of A	1 ft deep, started sprin	0.7	15.9	1407	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364313	-71.154481	Arlington St culvert - f	~30ft upstream, 8" pip	0.7	16	1414	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364256	-71.154481	Arlington St culvert - d	no inlet pipes can be s	0.7	15.9	1417	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364351	-71.154519	Arlington St culvert - f	sampled far rt of culve	0.7	15.9	1354	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.364037	-71.183908	Watertown outfall #13	weather - still sprinklir	0.1	17.8	260.3	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364489	-71.184223	Watertown outfall #12	some small fish, could	0.5	16.8	1012	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364774	-71.184952	Watertown outfall #11	outfall opening under	0.6	16.2	1168	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.364733	-71.189067	Laundry Brook	sampled just inside op	0.3	15.5	565	Boston-Logan	0.03	0.52	Wet
NA	NA	NA	42.367449	-71.198957	culvert on right, not a	lot of flow	0.7	18.1	1348	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.367489	-71.198853	About 1ft of outfall un	can hear running wate	0.7	17.7	1299	Boston-Logan	0.04	0.53	Wet
NA	NA	NA	42.4922811	-70.85511019	Sampled left culvert,	more flow than last tin	20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.4922811	-70.85511019	duplicate of Dlaunch		20.7	11.9	33.13mS	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492557	-70.859421	Opened drain manhol	Brick sides w/hard bot	0.7	16.3	1483	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.493467	-70.860430	Opened drain manhol	used reach	0.4	16.3	743	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.492693	-70.860829	Opened drain manhol	gas odor	0.2	16	491.7	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.494598	-70.859443	Opened drain manhol	Sampled drain pipe en	0.2	16.9	440	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.496982	-70.856396	Opened drain manhol	double 36" pipes com	0.3	16.9	685	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.502967	-70.856873	Opened drain manhol	brick lined, used reach	0.4	16.4	744	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Opened drain manhol	Sampled main flow, 3	0.4	15.2	809	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.506562	-70.856223	Pipe flowing into storm	Started flowing after M	0.3	17.5	541	Boston-Logan	0	0.05	Dry
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.277357	-71.008933	barnacle encrusted ou	outfall south of two ya	24.4	14.7	38.45mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.28935547	-71.04177324	Took Beach sample h	Tenean Beach, off Te	16.9	14.1	22.24mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.282780	-71.046962	large tide gate ~2? Ho	sampled center of sou	1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282780	-71.046962	duplicate of 10L094		1.8	14.8	33.68mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.282540	-71.046292	1/2 silted up	sampled about 10 fee	1.3	16.3	2514	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.275941	-71.031767	green alge at bottom	former drainline that h	0	13.9	91.6	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.273990	-71.030634	very dark sediments	Previously named Sag	1.5	16.9	33.20mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299943	-71.006177	seep from sewage line	to main interceptor on	8.4	17.9	834	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.299779	-71.005800	Sample collected at b	waded ~ 6 ft	37.1	13.7	43.74mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.277051	-71.009467	Wollaston Beach Sam	waded ~ 6ft between W	31.3	13.2	41.01mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.278670	-71.013452	Wollaston Beach Sam	waded ~ 6ft near Wol	31.3	13.6	47.97mS	Boston-Logan	0.13	0.14	Wet

RARE Stormwater Outfall Inspection & Samp ing Summary

Location				Outfall		Inspection					Sampling																								Coordinates		Comments	Additional Location Information	YSI Meter				Weather			Photo
													Surfact (mg/l)		NH3 (mg/l)		Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flouride	Potassium (mg/L)													
Date	own	Site Name	ime	Pipe Mat	Dia (in)	Est Flow (gpm)	Odor	Color	urbi dity	Float ables	E coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	Alpha	est St	A pha	EPA (µg/L)	Aten olol	Acetamin ophen	Cotini ne	D methy xant h ne	Caffei ne	Azithro mycin	Primid one	Urobil in	Carbama zepine	Alpha Free	Alpha otal	Field	est St	Alpha	Alpha	Field	GPS North( )	GPS West ( )			Salinity ppt	emp C	Conduc tivity uS	Rain Gau Location	24hrs inche	48hrs inches	Wet/ Dry?	aken Y or N
/21/10	Arlington	91Mys	8:00	Open stre	na	na	none	eavy te	cloudy	me su	152	1	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	1.8	2. 18716	-71.151379	just downstream of bridge	Mill Brook @ Mystic Stree, next to 91	0.5	11 3	910	Bedford	0	0	Dry	Y
/21/10	Arlington	Mil B	8:10	Open stre	na	na	ong m	eavy te	irly cle	suds	395	52	0 06	~0.1	0.12	ND	1.1	28	.1	~20	3.1	6	3	0.7	ND (.0	90	1.	ND	ND	NA	ND	ND	.2	6.35	2. 18597	-71.1522 7	Sample taken from flow just below	Mill Brook @ opening in Cookes Hollo	0.5	11 7	921	Bedford	0	0	Dry	Y
/21/10	Arlington	MBike	8:50	Stone (ins	10'X8	stream	odera	med te	clear	none	268	233	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 1803618	-71.156 9782	Start of culvert under park at Cooke	Mill Brook near bike path off Mill Stree	0.	11 6	88	Bedford	0	0	Dry	Y
/21/10	Arlington	AHS	9:05	Open stre	na	stream	none	l ght te	clear	some	666	213	0 06	ND	ND	ND	0.95	37	.8	190	.6	12	70	1.2	ND (.0	1 00	0.93	ND	ND	NA	ND	ND	3.6	1.05	2. 180038	-71.1599327	two 3 foot culverts and one small <	Near Arlington High School o f Mi l Brc	0.	11 6	859	Bedford	0	0	Dry	Y
/21/10	Arlington	UR020	9:05	Open stre	na	stream	none	l ght te	clear	some	15 9	173	0 06	ND	ND	ND	0.96	36	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	ND	ND	3.6	2. 5	2. 180038	-71.1599327	duplicate of AHS		na	na	na	Bedford	0	0	Dry	Y
/21/10	Arlington	Grove01	9: 0	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	80	529	0 06	~0.1	0 079	ND	0.78	7	12	280	.7	30	170	2.9	ND (.0	2700	ND (0.)	ND	ND	NA	ND	ND	3.	2.05	2. 2030025	-71.16 60763	6ft stone channel, foot deep	Mill Brook instream	0.	12.1	755	Bedford	0	0	Dry	Y
/21/10	Arlington	GroveS	9: 5	Concrete	0	10-15	none	none	clear	none	7	7701	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2032 96	-71.16 7329	moss/algae growing on inside and	Outfa l to Mill Creek	0.6	10.	1200	Bedford	0	0	Dry	Y
/21/10	Arlington	Quinn2	10:30	Concrete	12	19	fresh	none	clear	none	ND	ND	0 05	0.3	ND	ND	3	9.1	ND (2.0	ND (2.0)	0.86	ND (2.0)	5.	ND (0.)	ND (.0	15	1.2	ND	ND	NA	ND	ND	8.3	6	2. 2321769	-71.17286099	lots of green algae inside pipe		1.	11.	2700	Bedford	0	0	Dry	Y
/21/10	Arlington	RyMill	11:05	Concrete	2'X3'	.00	fresh	none	clear	none	1302	0	0.16	0.3	0 677	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0	15000	ND (0.5)	ND	ND	0.08	ND	ND	6.	.15	2. 2389075	-71.1737 022	fresh smel ing	Off Ryder Street lot	1.1	12 8	2188	Bedford	0	0	Dry	Y
/21/10	Arlington	RyMil 2	11:10	hole in wa	na	2.00	none	none	clear	none	ND	ND	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	2.65	2. 2388575	-71.17372022	hole in wall/seep	East s de of culvert wa l	0.5	10 0	139	Bedford	0	0	Dry	Y
/21/10	Arlington	RyderE	11:20	Concrete	30	29	none	none	clear	none	271	336	0.16	0.25	0.13	ND	1.6	21	ND (2.0	ND (2.0)	1.1	5.8	11	0. 3	5.	230	1.3	ND	0.18	0.26	ND	ND	3.8	1.25	2. 2 0075	-71.17 58522	near Out of the Woods contracting	Outfa l to Mill Brook, East side of strea	0.7	10.1	1 50	Bedford	0	0	Dry	Y
/21/10	Arlington	RyderW	11:30	Concrete	36	20-30	none	none	clear	none	30	20	ND	ND	ND	ND	1.1	52	ND (2.5	ND (2.5)	1	ND (2.5)	ND (5.0	ND (0 5)	ND (5.0	1	ND (0.5)	ND	ND	0.05	ND	ND	ND	0.65	2. 2 3302	-71.17 6 016	waders, culvert just upstream s dry	Outfa l to Mill Brook, West s de of stre	0.6	9.8	1280	Bedford	0	0	Dry	Y
/21/10	Arlington	30Park	12:25	Open stre	na	stream	none	l ght te	clear	none	17 1	816	0 08	ND	ND	ND	0.57	56	1	76	.3	1	120	1.6	ND (.0	1900	0. 3	ND	ND	NA	ND	ND	3.3	0.75	2. 2 750 9	-71.181323 9	Park St behind Penzys	Mill Brook main stem, by Golds Gym	0.3	1 .1	612	Bedford	0	0	Dry	Y
/28/10	Winches	ABR006	8:30	Open stre	na	stream	none	none	irly cle	aves/b	899	199	0 09	0.2	0 528	2	1.2	28	2.3	21	21	7.9	170	ND (0.)	ND (.0	360	0.85	ND	ND	0.06	ND	ND	.9	2	2. 732536	-71.13860 28	near gauging station	Sampled above dam	0.	10 3	821	Bedford	0	0 02	Dry	Y
/28/10	Winches	Wf eld	8:50	Open stre	na	stream	none	none	htly tu	some	839	317	NA	0.22	NA	1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 51091 9	-71.13689 56	waterfall ~250ft upstream, one goo	Waterfie d St br dge	0.	10 2	806	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Vern01	9:15	Open stre	na	stream	none	none	htly tu	aves/b	6 3	108	NA	0.22	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 528 032	-71.135 2 1	used reach and waders	Mt Vernon St bridge by fire stat on	0.	10 2	79	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Wedge01	9:32	Open stre	na	stream	none	none	htly tu	some	58	10	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 55710 5	-71.13669 02	used reach	Behind Stop & Shop	0.3	12 6	561	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Skill01	9:50	Concrete	3'	stream	none	eish/g	turb d	some	913	1 8	0.1	0.25	0 8	3	1.	25	ND (2.0	27	23	6.	220	1.	ND (.0	370	0.61	ND	ND	ND	ND	ND	5.2	2.25	2. 56 901	-71.136 72 3	outfa l on far left ooking upstream	Skillings road from under ball ield	0.	9.1	907	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	UR021	9:50	Concrete	3'	stream	none	eish/g	turb d	some	16 2	132	0.1	0.25	0 837	3	1.	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	ND	5.	1.75	2. 56 901	-71.136 72 3	duplicate of Skil 01		na	na	na	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Skill02	9:55	Concrete	12	5-10	none	none	irly cle	none	75	30	NA	~0.1	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 56 6101	-71.136 980	very low flow - f any	sma l pipe exiting near Sk ll01	0.	9.1	908	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Swan1	10: 5	Open stre	na	stream	none	l ght te	htly tu	me su	7 0	171	0 08	0.25	0 887	3	1.	23	ND (2.0	29	19	6.5	250	0.63	ND (.0	330	0.65	ND	ND	0.0	ND	ND	5.1	1.	2. 608915	-71.13718955	just downstream near gauging stat	Swanton Street bridge	0.	9.1	905	Bedford	0.16	0.18	Wet	Y
/28/10	Winches	Russ1	11:05	Stone (ins	'X '	stream	none	l ght te	clear	me su	38	359	0 07	0.25	0 083	ND	1.	22	ND (2.5	2.8	8.2	ND (2.5)		ND (0 5)	ND (5.0	75	1.8	ND	ND	ND	ND	ND	5.6	2.6	2. 63 55	-71.1 9258	samp ed far right of culvert opening	Russel Brook at the end of Sylvester S	0.5	9.7	965	Bedford	0.16	0.18	Wet	Y
/28/10	Woburn	OF118	11:35	Concrete	30	50	none	none	clear	me su	15	52	0 07	0.3	0 381	0.5	2	23	ND (2.0	5.8	6.7	ND (2.0)	37	ND (0.)	6.5	1300	.8	ND	ND	0.0	ND	ND	11	5.7	2. 75 9599	-71.1599119	rust/orange stain on rocks	main stream out all on corner of Ellis a	0.8	19 8	1655	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF159A	12:0	Cor.Metal	18	5-10	none	none	clear	none	268	156	NA	0.3	NA	0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 8090577	-71.15755569	sl ghtly crushed small outfa l pipe	Off Harrison Ave near ballpark, downs	0.5	12 2	1070	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF159	12:05	Cor.Metal	2 -30	20-30	ht sew	none	clear	none	318	109	0.1	0.25	1.38	1	0.59	36	ND (2.0	7.9	10	ND (2.0)	35	ND (0.)	16	1000	1.2	ND	ND	ND	ND	ND	15	.75	2. 809258	-71.15751796	Main outfall	Off Harrison Ave near ballpark, downs	1.3	7.9	2 95	Bedford	0.17	0.19	Wet	Y
/28/10	Woburn	OF161	12:15	Cor. Meta	5'	stream	ht mu	none	htly tu	some	16 2	1 8	ND	0.3	0.153	ND	2.7	28	3.2	120	8.1	19	85	ND (0 5)	7.2	1500	8.6	ND	ND	0.06	ND	ND	9.7	3.35	2. 7993991	-71.156178 6	very slow f ow	oppos te s de of ballpark on Harrison A	0.8	12 5	1578	Bedford	0.17	0.19	Wet	Y
5/5/10	Arlington	Grove01a	8:10	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	27 7	520	0 07	~0.1	0.101	ND	0.59	58	8.5	53	10	12	130	ND (0.)	ND (.0	750	0. 2	ND	ND	0.09	ND	ND	.3	0.9	2. 2029396	-71.16 7529	Just upstream of Grove01, be ore t	Mill Brook instream	0.	15 9	850	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	GroveS	8:10	Concrete	0	10-15	ight g	none	clear	none	202	15531	NA	0.22	NA	2	NA	NA	ND (2.0	2900	5.8	70	190	13	ND (.0	810	1.9	NA	NA	NA	ND	NA	NA	NA	2. 2032 96	-71.16 7329	moss/algae growing on inside and	Outfa l to Mill Creek	0.7	12.	1307	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	UR022	8:10	Stone (ins	6'	stream	tural g	l ght te	irly cle	me su	2069	583	0 07	~0.1	0 218	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.0	ND	ND	.2	1.8	2. 2029396	-71.16 7529	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Robin	8: 5	oose join	2	10-15	natur	none	clear	none	9678	295	NA	0.	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 22035	-71.170577	needed ladder/waders dark slimy c	At end of Robin Street, accessed thro	0.8	12 5	1533	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Bratt e	9:10	Open stre	na	stream	none	tea	ry turb	some	1 62	776	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 20 17	-71.168133	lots of suspended sediments, cons	Mill Brook instream near condo's off B	0.	16.1	8 7	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	RyMill	9:25	Concrete	2'X3'	3	mical/m	none	irly cle	none	2190	301	NA	~0.1	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2389075	-71.1737 022	1/2 the f ow from last sample da e,	Off Ryder Street lot	1.1	13 6	2257	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	RyderE	9:32	Concrete	30	29	none	none	clear	none	9	30	NA	0.2	NA	0.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2 0075	-71.17 58522	near Out of the Woods contracting	Outfa l to Mill Brook, East side of strea	0.7	11 7	1 07	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Ryder01	9:35	Stone (ins	6'	stream	none	l ght te	irly cle	me su	195	350	0 07	~0.1	0.135	0.25	0.37	5	9.1	100	7.7	13	73	0.65	ND (.0	1200	0.6	ND	ND	0.05	ND	ND	3.9	1.35	2. 2 65	-71.17 718	neighbor stopped over to say that h	Just upstream of Ryder St bridge and	0.	17	729	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	30Park	10:10	Open stre	na	stream	none	l ght te	clear	none	1302	350	0 07	ND	0.16	ND	0.35	5	10	1	6.7	9	72	0.6	ND (.0	920	0.5	ND	ND	ND	ND	ND	3.8	1.95	2. 2 750 9	-71.181323 9	Park St behind Penzys	Mill Brook main stem, by Golds Gym	0.3	17 6	71	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	1395MA	10:30	Open stre	na	stream	none	l ght te	htly tu	none	689	323	0 06	ND	0.133	ND	0.31	55	8	5.	5.7	7.3	35	ND (0.)	ND (.0	590	ND (0.)	ND	ND	0.0	ND	ND	3.7	2	2. 253 8	-71.186230	PPCP bottle broke, resampled at 1	behind 1395 Mass Ave, Sunrise assis	0.3	18 2	68	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	Drake01	10:55	Open stre	na	stream	none	med te	htly tu	none	2318	960	0.1	ND	0 257	0.75	0.52	129	32	23	12	19	98	0.8	ND (.0	2700	1.9	ND	ND	ND	ND	ND	.1	2.3	2. 2689	-71.189660	Drake' slow flow, just upstream or r	Between condo comp ex s off Drake	0.	15 8	726	Bedford	0.12	0.12	Wet	Y
5/5/10	Arlington	ArlRes	11:05	Concrete	3'	stream	none	l ght te	clear	me su	183	7	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 26882	-71.18958	just before confluence with Mill Bro	just downstream of Ar ington reservoir	0.3	20 2	660	Bedford	0.12	0.13	Wet	Y
5/5/10	Lexingto	WF01	11:25	Stone (ins	'X '	stream	none	none	cloudy	me sc	16	52	0 07	ND	ND	ND	1.	93	ND (2.5	2.6	1.5	ND (2.5)	5.8	ND (0 5)	ND (5.0	390	ND (0.5)	ND	ND	ND	ND	ND	6.3	1.2	2. 277872	-71.2050922	lots of duck weed on surface	Mass ave across from Wi son Farms	0.5	18	9 6	Bedford	0.12	0.13	Wet	Y
5/5/10	Lexingto	Vine01	11:55	Open stre	na	stream	none	eavy te	htly tu	me ea	1302	393	NA	~0.1	NA	3	NA	NA	.3	3	2.1	1	93	1.	ND (5.0	1700	2.9	NA	NA	NA	ND	NA	NA	NA	2. 503760	-71.2202638		Near corner Grant St & Hayes Ln	0.	12 3	7 1	Bedford	0.12	0.13	Wet	Y
5/12/10	Woburn	Ha ls2	8:00	Open stre	na	stream	none	ht bro	na	none	212	109	NA	~0.1	NA	ND	NA	NA	ND (2.5	ND (2.5)	9.3	8.3	300	ND (0 5)	ND (5.0	160	1.	NA	NA	ND	ND	NA	NA	0.	2.513171	-71.1 26 9	machinery stored nearby	Ha ls Brook behind 185 New Boston,	0.	11.1	875	Bedford	0	0	Dry	Y
5/12/10	Woburn	DRR1	8:15	Open stre	na	stream	none	ht bro	clear	none	182	8	NA	~0.1	NA		NA	29	ND (2.0	2.3	1.5	ND (2.0)	6.7	ND (0.)	ND (.0	96	0.72	NA	NA	ND	ND	NA	NA	11.3	2.513291	-71.1 2539	samp ed before timber in stream,	Unnamed stream just upstream of Ha	0.	10.1	839	Bedford	0	0	Dry	Y
5/12/10	Woburn	Mys07	9:05	Open stre	na	stream	ch/sew	rk bro	ry mu	algae	131	1 5	NA	~0.1	NA		NA	22	ND (2.5	ND (2.5)	1.3	ND (2.5)	5.6	ND (0 5)	ND (5.0	100	0.77	NA	NA	0.06	ND	NA	NA	19.5	2.518563	-71.1 6526	A gae and oil on surface. Dumpste	New Boston St where culvert enters, d	0.	9..9	815	Bedford	0	0	Dry	Y
5/12/10	Woburn	Mys08	9:10	Open stre	na	stream	ulch/s	ht bro	clear	none	92	ND	NA	ND	NA		NA	19	ND (2.0	3.3	1.7	ND (2.0)	ND (.0	ND (0.)	ND (.0	29	0.63	NA	NA	ND	ND	NA	NA	20	2.518739	-71.1 6 11	not as strong smelling as Mys07	Opposite stream from Mys7	0.	10 2	896	Bedford	0	0	Dry	Y
5/12/10	Woburn	Torr01	10:00	Open stre	na	stream	none	ht bro	clear	none	223	120	NA	0.25	NA	ND	NA	38	ND (2.0	ND (2.0)	7.5	5.9	1 0	ND (0.)	ND (.0	80	1.	NA	NA	ND	ND	NA	NA	3.85	2.51 22 81	-71.1 551115	flow on downstream side of road	samp ed from eft opening	0.	11 3	878	Bedford	0	0	Dry	
5/12/10	Woburn	UR023	10:00	Open stre	na	stream	none	ht bro	clear	none	182	52	NA	0.25	NA	0.1	NA	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	3.55	2.51 22 81	-71.1 551115	duplicate of Torr01		0.	11 3	878	Bedford	0	0	Dry	
5/12/10	Woburn	Dart1	10:30	Open stre	na	stream	none	rk bro	clear	me su	6	31	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	2.65	2.510 8269	-71.15 92526	fair amount of itter	upstream of road crossing	0.	12.1	869	Bedford	0	0	Dry	
5/12/10	Woburn	School01	11:05	Open stre	na	stream	none	rk bro	clear	none	109	20	NA	0.25	NA	0.25	NA	73	ND (2.0	2.5	17	6.	61	ND (0.)	ND (.0	230	1.2	NA	NA	0.11	ND	NA	NA	2.7	2.5086557	-71.1583669	construction on bridge above, lots o	bottom of stone run off channel	0.5	12 7	987	Bedford	0	0	Dry	
5/19/10	Quincy	FBP02	8:15	Open stre	na	stream	none	none	clear	none	813	3873	NA	0.25	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0	560	0.67	NA	NA	ND	ND	NA	NA	NA	2.25766282	-71.008968 9	samp ed stream before bridge		0.2	12 2	360.6	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	UR02	8:15	Open stre	na	stream	none	none	clear	none	3922	365	NA	0.3	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	0.05	2.25766282	-71.008968 9	duplicate of FBP02		na	na	na	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	FBP03	8:55	Open stre	na	stream	pt c sm	ht bro	nild	none	565	5172	NA	0.	NA	ND	NA	9	5	6	18	11	160	ND (0 5)	ND (5.0	600	0.68	NA	NA	ND	ND	NA	NA	ND	2.25627321	-71.02067588	onle t side of culvert		0.2	12 3	28.5	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Broad1	9:25			stream	none	none	clear	none	3 66	2755	NA	2	NA	ND	NA	69	ND (2.0	53	17	7.5	180	ND (0.)	ND (.0	1300	0.8	NA	NA	0.03	ND	NA	NA	10.8	2.25620978	-70.9931 315			8.1	13 3	1 .1	Milton-Blu	1.5	0	Wet	Y
5/19/10	Quincy	Sag1A	10:15		ft		s ight septic	ht bro	clear	none	133 0	2098	NA	1.7	NA	ND	NA	70	7.1	210	19	1	380	1.7	ND (.0	2700	3.6	NA	NA	0.15	ND	NA	NA	35.80	2.27602123	-71.0320993	samp ed inf ow from culvert		.3	12 6	7.78	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Wo lB1A	10: 0	CM	'x3' bo	.5L/mi	sewag	none	clear	none	80	3282	NA	0.5	NA	0.1	NA	108	21	56	16	5	190	9.3	ND (.0	3900	1.	NA	NA	ND	ND	NA	NA	11.3	2.277357	-71.008933	outfa l across from clam shack	just south of Wo lB1 on Wollaston Be	0.3	12.	675	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Wo lB1	11:00	CM	x bo	1	sewag	none	clear	none	27 7	6131	NA	0.75	NA	ND	NA	70	6.2	130	13	60	720	ND (0.)	ND (.0	15000	ND (0.)	NA	NA	0.07	ND	NA	NA	8.65	2.278672	-71.012859		outfa l between yacht clubs on Quincy	3.5	12 8	.87	Milton-Blu	1.5	0	Wet	
5/19/10	Quincy	Sag1B	11: 5		5x6 t	slowly	sewag	ht bro	mi d	none	20980	365	NA	0.5	NA	1	NA	118	6	350	22	1 0	530	17	ND (.0	6100	3	NA	NA	0.05	ND	NA	NA	NA	2.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blu	1.5	0	Wet	
5/26/10	Belmont	UR025	9:10	Open stre	na	stream	musty	med te	htly tu	none	29090	7701	NA	0.2	NA	0.25	NA	80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	2.2	2.39528219	-71.1763191	duplicate of WEB013		na	na	na	Bedford	0	0	Dry	
5/26/10	Belmont	WEB013	9:10	Open stre	na	stream	musty	med te	htly tu	none	11620	6 88	NA	0.2	NA	0.25	NA	79	5	1200	11	300	1100	.8	ND (5.0	12000	.3	NA	NA	0.0	ND	NA	NA	1.1	2.39528219	-71.1763191	lots of suspended sediments, wate	We lington Brook	0.7	12 6	1 33	Bedford	0	0	Dry	
5/26/10	Arlington	ARL0 3	9:58	Concrete	18-2	5	none	none	clear	none	79	109	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 225696	-71.1 928822		Mystic Val ey Parkway	0.6	13 8	1269	Bedford	0	0	Dry	
5/26/10	Arlington	ARL137	10:25	Clay	16	20-30	none	none	clear	none	12	10	NA	ND	NA	0.25	NA	23	ND (2.0	ND (2.0)	.3	.2	39	ND (0.)	ND (.0	37	ND (0.)	NA	NA	0.71	1/0.3	NA	NA	0.25	2. 1770 89	-71.157 838	may be multiple pipe coming togeth	pipe d scharging to Mill Brook, Under	0.1	17 8	237	Bedford	0	0	Dry	
5/26/10	Arlington	ARL207	11:07	Seep	na	1-2	brassic	na	na	na	25	20	NA	~0.1	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	2. 2 71 86	-71.17533266	col ected from seep under pipe opening		1	18.1	1869	Bedford	0	0	Dry	
5/26/10	Arlington	Drake01	11:25	Open stre	na	stream	none	med te	htly tu	none	1230	663	NA	~0.1	NA	2	NA	205	3	99	1	67	230	1.3	ND (.0	3000	3.3	NA	NA	0.06	ND	NA	NA	1.05	2. 2689	-71.189660	slow f ow, just upstream or reservoi	Between condo comp ex s off Drake	0.5	21 5	665	Bedford	0	0	Dry	
5/26/10	Arlington	ArlRes	11:30	Open stre	na	stream	none	med te	htly tu	none	79	5 8	NA	~0.1	NA	2	NA	180	33	100	11	7	190	1	ND (.0	2000	2.8	NA	NA	~0.02	ND	NA	NA	0.18	2. 26882	-71.18958	before confluence with Mill Brook, f	just downstream of Ar ington reservoir	0.3	21 2	667	Bedford	0	0	Dry	
5/26/10	Lexingto	Bow01A	12:00	Concrete	12	<1	none	none	clear	none	12	ND	NA	0.2	NA	0.25	NA	NA	ND (2.5	ND (2.5)	2.	ND (2.5)	11	ND (0 5)	7.	30	6.6	NA	NA	0.11	ND	NA	NA	2. 5	2. 26 5629	-71.19 36 02		pipe d scharging under bow street br d	1.3	17 6	2 82	Bedford	0	0	Dry	
5/26/10	Lexingto	Bow01	12:05	Open stre	na	stream	none	med te	htly tu	none	6 3	809	NA	~0.1	NA	ND	NA	8	3.1	19	2.8	5.1	22	0.63	ND (.0	0	ND (0.)	NA	NA	0.08	ND	NA	NA	ND	2. 26 8362	-71.19 0958	6ft wide, rocky streambed flow <6in	Bow street, just downstream of bridge	0.3	18 3	537	Bedford	0	0	Dry	
5/26/10	Lexingto	Fott01	12:35	Open stre	na	stream	none	med te	htly tu	none	12	199	NA	ND	NA	1	NA	93	ND (2.0	ND (2.0)	2.2	ND (2.0)	ND (.0	ND (0.)	ND (.0	ND (.0	ND (0.)	NA	NA	0.06	ND	NA	NA	1. 5	2. 283 205	-71.19676 56	36 double culvert co lected compo	Just downstream of Fottler ave Bridge	0.2	19 3	513	Bedford	0	0	Dry	
5/26/10	Lexingto	GMS01	12:55	Open stre	na	stream	none	eavy te	ry mu	ick fil	72	52	NA	0.2	NA	0.25	NA	36	ND (2.0	ND (2.0)	0. 5	ND (2.0)	ND (.0	ND (0.)	ND (.0	ND (.0	ND (0.)	NA	NA	ND	ND	NA	NA	0.05	2. 2901218	-71.1975303	tributary, thick film covering surface	Walked ~100yards upstream from Fo	0.2	20 9	362.9	Bedford	0	0	Dry	
6/2/10	Revere	UR026	8:01	Concrete	2	NA	none	brown	turb d	none	206 0	9606	NA	0.	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	5.95	2.3998839	-70.992 2127	duplicate of WashN01		na	na	na	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	WashN01	8:01	Concrete	2	NA	none	brown	turb d	none	17250	16070	NA	0.3	NA	6	NA	NA	1	900	80	00	1900	13	ND (.0	2 000	1.8	NA	NA	0.0	ND	NA	NA	6.90	2.3998839	-70.992 2127	outfa l about 1ft under water, no no	Behind Shaw's back corner of parking	0.5	16 9	993	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	Sa es01	8:10	Open stre	na	stream	none	ht bro	irly cle	trash	813	2359	NA	0.	NA	0.7	NA	NA	.7	210	53	26	180	0.56	ND (.0	1200	1.8	NA	NA	0.03	ND	NA	NA	11	2.39990 5	-70.99237953	just upstream of WashN01 outfall	Sales Creek	1.3	18 2	2527	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Revere	Green01	8: 0	Open stre	na	stream	musty	grey	turb d	trash	>2 1960	31300	NA	0.75	NA	2	NA	NA	1 0	3900	100	850	1800	3.5	ND (.0	2 000	13	NA	NA	0.06	ND	NA	NA	ND	2. 0260397	-71.003 6085	off 1A by esquire club	Green Street in Revere	0.5	17 8	9 3	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	29M0 9	9:10	Concrete	3ft	30- 0	none	none	htly tu	none	71	3873	NA	3	NA	ND	NA	NA	ND (2.0	8	6.6	5.9	5	ND (0.)	ND (.0	78	1.3	NA	NA	0.03	ND	NA	NA	17.7	2.3830573	-71.03016877	0min before low t de	Condor Street outfall, near park	23.3	16.1	36.7mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	25L058	9:50	Concrete	x6ft bo	na	musty	grey	turb d	trash	2069	3 8	NA	2	NA	ND	NA	NA	3.	50	63	26	510	1.3	ND (.0	90	1.	NA	NA	0.03	ND	NA	NA	50*	2.36126566	-71.05083507	near Christopher Columbus Park	Climbed down between Joe's Amer ca	26.7	16 3	67mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	Bos017	10:20	Concrete	72	na	none	none	cloudy	rticula	612	203	NA	2	NA	ND	NA	NA	.3	33	1	17	180	ND (0 5)	ND (5.0	120	1.3	NA	NA	0.03	ND	NA	NA	35.50	2.385 766	-71.06883007	Appeared to be mixed tidal flow, Ea	Behidnd Schra t's building down from	18.7	18 7	30 85mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Boston	29J212	10:22	Concrete	60	na	none	none	cloudy	rticula	568	52	NA	2	NA	ND	NA	NA	5.	68	1	26	200	0.7	ND (5.0	510	3.2	NA	NA	0.05	ND	NA	NA	33.90	2.385 9883	-71.06886597	Outf ow w/some tidal mix, sampled	Behidnd Schra t's building down from	17.2	19 5	28.5mS	Boston-Lo	0.08	0. 3	Wet	
6/2/10	Chelsea	Mil 2A	11:20	Concrete	2	<5	ty/che	none	clear	trash	58	175	NA	0.8	NA	6	NA	NA	ND (2.0	8.7	33	9.7	220	ND (0.)	ND (.0	7	ND (0.)	NA	NA	ND	ND	NA	NA	15.9	2. 0367	-71.020987	sign ficant gray bacter a growth	privately owned, drains Parks de Com	0.5	16 2	1688	Boston-Lo	0.08	0. 3	Wet	
6/10/10	Lawrence	SLE3	7:25	crete out	3'	NA	ong m	te/tan/	htly c	omentou	195	2359	NA	1	NA	ND	NA	NA	ND (.0	7.5	16	5.3	51	ND (0 8)	ND (8.0	ND (8.0	3.3	NA	NA	ND	ND	NA	NA	3	2.70688	-71.1 76552	SLE3a' significant white/tan/gray ba	South Lawrence E ementary, behind t	0.5	1 6	10 5/835	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	UR027	7:25	crete out	3'	NA	ong m	none	htly c	omentou	17 1	131	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	2.35	2.70688	-71.1 76552	sign ficant white/tan gray bacteria g	South Lawrence E ementary, behind t	na	na	na	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SLE3	8:25	crete out	3'	NA	ong m	none	htly c	omentou	899	88	NA	0.2	NA	ND	NA	NA	ND (.0	28	78	2	00	ND (0 8)	ND (8.0	130	3.5	NA	NA	0.0	ND	NA	NA	1.25	2.70688	-71.1 76552	SLE3b' N trate: 2. Nitrite: 0.3. Phos	South Lawrence E ementary, behind t	0.5	1 8	98 /790	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SLE3	9:00	crete out	3'	NA	ong m	none	htly c	omentou	806	201	NA	0.5	NA	ND	NA	NA	ND (5.0	2	9	18	310	ND (1 0)	ND (10.0	130	3	NA	NA	0.0	ND	NA	NA	1.65	2.70688	-71.1 76552	SLEc' Lawrence DPW stopped (did	South Lawrence E ementary, behind t	0.5	1 7	957/7 7	Lawrence	0.0	0 0	Dry	
6/10/10	Lawrence	SPR05	9:35	concrete	18	10	none	none	ery c e	none	NA	NA	NA	0.5	NA	ND	NA	NA	ND (2.5	ND (2.5)	35	6	130	3.3	ND (5.0	38	.8	NA	NA	0.15	ND	NA	NA	NA	2.70991636	-71.15129912	samp es sent for PCR	pipe o f Lawrence Hospital	0.1	18 8	12.18/18	Lawrence	0.0	0 0	Dry	
6/16/10	Concord	PRIS01	11:00	Concrete	2ft	2	sewag	none	clear	none	16160	10 62	NA	0.8	NA	0.75	NA	NA	1	81	62	280	9 0	ND (0 5)	ND (5.0	1800	5	NA	NA	0.6	ND	NA	NA	12.	2. 65157	-71.392813	pool at base of culvert (~3 t down) v	<1/2 mi e from br dge on rte 2E towar	0.2	27 6	390.3/37	Bedford	0	0	Dry	
6/30/10	Falmouth	MBR001	8:52								25	ND	NA	0.5	NA	6	NA	NA	610	1300	1100	2000	27000	320	ND (10.0	17000	2 0	NA	NA	0.13	ND	NA	NA	ND			E fluent of a membrane bioreactor			2	95.8	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	6IN001	9:00								152	669	NA	0.75	NA	0.75	NA	NA	50	1	19	31	170	1.3	ND (.0	870	170	NA	NA	ND	ND	NA	NA	25.10			6 below sur ace, 6 sand btw so l in	tip pans (2 /day - 1galeach) stone trench wsar		22 9	79	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	12IN01	9:05								ND	ND	NA	0.75	NA	1	NA	NA	850	99	ND (0.5	6.1	20	1.3	ND (5.0	17	170	NA	NA	0.06	ND	NA	NA	38.70			12 below sur ace	12 sand		21.1	602	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	COIL01	9:20								ND	10	NA	0.2	NA	0.25	NA	NA	15	ND (2.0)	2.9	5.5	17	ND (0.)	ND (.0	ND (.0	87	NA	NA	0.07	ND	NA	NA	ND						21 6	351	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	2 IN01	9:30								25	ND	NA	0.25	NA	1	NA	NA	670	1 0	ND (0.	2.1	5.8	0.89	ND (.0	31	2 0	NA	NA	ND	ND	NA	NA	ND			2 below sur ace			20.1	571	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	NF01	9:30								61100	290900	NA	1	NA	ND	NA	NA	1800	1000	1300	7300	33000	510	ND (20.0	#####	280	NA	NA	ND	ND	NA	NA	2.5			Influent			19 3	79	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	12INWA	9: 0								ND	ND	NA	0.75	NA	ND	NA	NA	10	ND (2.0)	3.7	6.9	2	0.6	ND (.0	1	180	NA	NA	0.18	ND	NA	NA	36.80			12 w th air			20 3	579	Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	STE01	9: 5								5 7500	186000	NA	0.75	NA	6	NA	NA	1 00	000	1900	6300	51000	760	ND (20.0	#####	300	NA	NA	ND	ND	NA	NA	11.5								Falmouth	0.12	0 21	Wet	N
6/30/10	Falmouth	UR099	9: 5								686700	119800	NA	0.75	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND						20 3	606	Falmouth	0.12	0 21	Wet	N
7/7/10	Manches	Dunbar	8:20	Stone cul	3x	150	petrol	o l shee	turb d	h & de	1089	22	NA	ND	NA	ND	NA	36	ND (2.0	6.1	6.7	ND (2.0)	5.9	ND (0.)	ND (.0	73	ND (0.)	NA	NA	0.17	ND	NA	NA	NA	2.968332	-71. 7279	Oil sheen across all rocks, trash an	cal ed EPA incident response to repor	0.3	18.1	529/ 6.2	Mancheste	0	0	Dry	Y

10/5/10	Watertov	Wat12	9:30	Concrete	36	na	none	none	clear	none	111990	1 136	NA	0.6	NA		NA	NA	190	1100	3	980	12000	ND (0)	ND (0.0	1200	200	NA	NA	ND	ND	NA	NA	NA	2.36 89	-71.18 223	Wa ertown outfa l #12	some small fish, cou dn't determine f o	0.5	16 8	1012	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	Wat11	9: 0	Concrete	'x3' bo	na	none	med te	turb d	none	19350	1723	NA	0.3	NA	0.1	NA	NA	D (10.	90	16	160	270	ND (2.0)	ND (20.0	5	18	NA	NA	0.1	ND	NA	NA	NA	2.36 77	-71.18 952	Wa ertown outfa l #11	outfa l opening under water sampled a	0.6	16 2	1168	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	LB01	10:35	Concrete	0'x7'bo	100	none	none	clear	none	6212	583	NA	0.2	NA	ND	NA	NA	6.3	6	1	2	510	ND (0 5)	ND (.7	92	3.6	NA	NA	0.11	ND	NA	NA	NA	2.36 733	-71.189067	Laundry Brook	samp ed just ins de opening	0.3	15 5	565	Boston-Lo	0.03	0 52	Wet	Y
10/5/10	Watertov	Wat5	11:07	Concrete	'	1	none	none	clear	none	6	20	NA	0.25	NA	ND	NA	NA	ND (2.0	ND (2.0)	0.52	.8	23	ND (0.)	ND (.0	ND (.0	6.6	NA	NA	ND	ND	NA	NA	NA	2.367 9	-71.198957	culvert on right, not a ot of f ow		0.7	18.1	13 8	Boston-Lo	0.0	0 53	Wet	Y
10/5/10	Watertov	Wat6	11:11	Concrete	5'	na	none	none	clear	none	510	122	NA	0.25	NA	ND	NA	NA	5.	37	3.7	19	82	ND (0.)	ND (.2	36	3.2	NA	NA	0.08	ND	NA	NA	NA	2.367 89	-71.198853	About 1ft of outfall underwater, som	can hear running water upstream	0.7	17 7	1299	Boston-Lo	0.0	0 53	Wet	Y
10/13/10	Marb ehe	DLaunch	8:15	Concrete	ft	0	none	none	clear	none	1376	860	NA	2	NA	ND	NA	NA	ND (2.0	1	1.8	12		ND (0.)	ND (.0	8.5	ND (0.)	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	Sampled eft culvert, ooking upstre	more f ow than last time DPW & DPH	20.7	11 9	33.13mS	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	UR038	8:15	Concrete	ft	0	none	none	clear	none	871	723	NA	2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	NA	2. 922811	-70.85511019	duplicate of D aunch		20.7	11 9	33.13mS	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH19	8:38	stormdrai	na	~20	mus	none	clear	none	TNTC	2 196	NA	0.5	NA		NA	NA	120	500	37	2100	300	ND (0)	ND (0.0	~1500	82	NA	NA	ND	ND	NA	NA	NA	2. 92557	-70.859 21	Opened drain manhole at #62 Bea	Br ck sides w/hard bottom, Wide slow	0.7	16 3	1 83	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH32	9:10	stormdrai	na	~15	none	none	clear	none	118	10	NA	~0.1	NA	ND	NA	NA	2.	8.	6.6	210	120	ND (0 5)	ND (.8	~97	ND (0.5)	NA	NA	ND	ND	NA	NA	NA	2. 93 67	-70.860 30	Opened drain manhole at #78 E. C	used reach	0.	16 3	7 3	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH 8	9:30	stormdrai	na	~15	htly m	none	clear	none	8	ND	NA	~0.1	NA	ND	NA	NA	ND (2.0	ND (2.0)	0.8	2.8	ND (.0	ND (0.)	ND (.0	~ .3	0.52	NA	NA	ND	ND	NA	NA	NA	2. 92693	-70.860829	Opened drain manhole at corner of	gas odor	0.2	16	91.7	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH29A	9:55	p ast c sto	18-2	~10	none	none	clear	none	689	1	NA	~0.1	NA	ND	NA	NA	2.2	21	1	9.	50	ND (0 5)	ND (.8	~15	0.66	NA	NA	0.03	ND	NA	NA	NA	2. 9 598	-70.859 3	Opened drain manhole at #37 Bub	Sampled drain pipe entering system	0.2	16 9	0	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH2336	10:30	stormdrai	na	na	none	none	clear	nall wh	565	2 89	NA	0.25	NA	0.75	NA	NA	13	310	19	1100	~ 8000	ND (0.)	ND (.0	~29	68	NA	NA	0.03	ND	NA	NA	NA	2. 96982	-70.856396	Opened drain manhole on Chestnu	double 36 pipes coming into 3 deep	0.3	16 9	685	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MH2203	10:55	stormdrai	na	~15	musty	none	clear	none	565	5 75	NA	0.3	NA	0.	NA	NA	6	630	13	70	790	ND (0 8)	ND (8.0	~81	ND (0.8)	NA	NA	ND	ND	NA	NA	NA	2.502967	-70.856873	Opened drain manhole on Sewall S	brick lined, used reach	0.	16.	7	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MHWinslo	11:11	stormdrai	na	na	musty	htly ye	clear	none	2 52	118	NA	0.	NA	0.3	NA	NA	ND (2.0	110	16	90	130	ND (0.)	ND (.0	ND (.0	1.7	NA	NA	ND	ND	NA	NA	NA	2.506562	-70.856223	Opened drain manhole at corner of	Sampled main flow, 3'deep	0.	15 2	809	Boston-Lo	0	0 05	Dry	Y
10/13/10	Marb ehe	MHWinslo	11:28	stormdrai	18	~5-10	h sme	none	clear	none	3	98	NA	0.2	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.506562	-70.856223	Pipe flowing into stormdrain system	Star ed flowing after MHWins ow sam	0.3	17 5	5 1	Boston-Lo	0	0 05	Dry	Y
10/27/10	Quincy	Wo lB1	8:05	CM	x bo	50	musty	none	clear	none	1 7	197	NA	1.25	NA	ND	NA	NA	D (10.	120	8.1	6	~130	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	0.0	ND	NA	NA	NA	2.278672	-71.012859	Pungent 'corpse-y' odor, thick seaw	outfa l between yacht clubs on Quincy	17.3	13 8	28.18mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Quincy	Wo lB1A	8:10	CM	'x3' bo	30- 0	sty/su	none	htly c o	oily film	192	121	NA	2	NA	ND	NA	NA	D (10.	~6.7	2.	12	~22	ND (2.0)	ND (20.0	20	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.277357	-71.008933	trash in water and p astered on gra	just south of Wo lB1 on Wollaston Be	13.2	1 3	2 89mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Quincy	Wo lB1B	8:18	concrete	3- '	30- 0	sty/su	none	htly c o	me su	58	20	NA	2.5	NA	0.25	NA	NA	D (10.	ND (10.0)	2.6	10	D (20.	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.277357	-71.008933	barnac e encrusted outfall, must be	outfa l south of two yacht clubs, about	2 .	1 7	38. 5mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Dorchest	Ten1	8:55	Pipe Mat.	2 -30	na	none	an/brow	ry turb	none	132	20	NA	1.5	NA	3	NA	NA	D (10.	7	16	13	~130	1	ND (20.0	20	ND (2.0)	NA	NA	0.0	ND	NA	NA	NA	2.289355 7	-71.0 17732	Took Beach sample here as well (s	Tenean Beach, off Tenean Street and	16.9	1 .1	22 2 mS	Boston-Lo	0.09	0.1	Dry	Y
10/27/10	Boston	10L09	9:20	concrete	(2) 6'x	na	sewag	grey	cloudy	none	813	1 136	NA	0.6	NA	3	NA	NA	D (10.	1800	190	00	~2700	.3	ND (20.0	180	ND (2.0)	NA	NA	ND	ND	NA	NA	NA	2.282780	-71.0 6962	large t de gate ~2? Holding back w	samp ed center of southern tide gate	1.8	1 8	33 68mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Boston	UR039	9:20	concrete	(2) 6'x	na	sewag	grey	cloudy	none	1060	9208	NA	0.8	NA	3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.282780	-71.0 6962	duplicate of 10L09		1.8	1 8	33 68mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Boston	10L09 A	9:25	metal	2	5	musty	grey	cloudy	none	3 80	1 136	NA	1.5	NA	3	NA	NA	D (10.	270	970	170	~ 100	ND (2.0)	ND (20.0	D (20.	ND (2.0)	NA	NA	0.03	ND	NA	NA	NA	2.2825 0	-71.0 6292	1/2 si ted up	samp ed about 10 feet from outfall	1.3	16 3	251	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1A	10:15	open stre	na	na	ht mu	/med b	ry turb	me su	5630	2909	NA	0.75	NA	6	NA	NA	D (10.	330	260	130	~ 100	8	3	910	ND (2.0)	NA	NA	0.03	ND	NA	NA	NA	2.275935	-71.031798	main chane l under her tage Drive	prev ously named SagA	3.	15 8	6.23mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	SagA2	10:20	seep	12	1	none	none	clear	none	ND	ND	NA	ND	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA	NA	NA	2.2759 1	-71.031767	green a ge at bottom of outfall	former drainline that had been plugge	0	13 9	91.6	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	lty/turb	none	80	2851	NA	0.5	NA	1	NA	NA	D (10.	320	99	110	~2000	ND (2.0)	ND (20.0	10	3.8	NA	NA	ND	ND	NA	NA	NA	2.273601	-71.03 010	large wooden tide gate ~5ft into ou	Previously named SagB	0.8	15.	1590	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Sag1C	10:58	metal	30	na	tural g	ht bro	clear	none	2 52	2723	NA	0.6	NA	0.5	NA	NA	D (10.	81	280	100	~3200	38	ND (20.0	6	ND (2.0)	NA	NA	0.06	ND	NA	NA	NA	2.273990	-71.03063	very dark sediments 1/2 s lted, t de	Previously named SagC	1.5	16 9	33 20mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Bay1	11: 0	Seep/poo	NA	NA	sewag	brown	cloudy	none	173290	365 00	NA	NA	NA	>6	NA	NA	2200	29000	360	12000	~69000	200	D (1000	20000	ND (100.0	NA	NA	NA	ND	NA	NA	NA	2.2999 3	-71.006177	seep from sewage line to main interceptor on Bayside drive		8.	17 9	83	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	BayBch	11: 5	Beach	NA	NA	none	none	cloudy	none	25	ND	NA	3	NA	ND	NA	NA	ND (2.0	ND (2.0)	1.9	~1.6	~16	ND (0.)	ND (.0	~2.9	0.5	NA	NA	ND	ND	NA	NA	NA	2.299779	-71.005800	Sample collected at beach off Bays	waded ~ 6 ft	37.1	13 7	3 7 mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Wo lBch2	12:30	Beach	NA	NA	none	none	cloudy	none	21	ND	NA	2	NA	ND	NA	NA	ND (2.0	ND (2.0)	2.2	.7	~11	ND (0.)	ND (.0	.	0. 6	NA	NA	ND	ND	NA	NA	NA	2.277051	-71.009 67	Wo laston Beach Sample	waded ~ 6ft between WollB1A & Wo l	31.3	13 2	1 01mS	Boston-Lo	0.13	0.1	Wet	Y
10/27/10	Quincy	Wo lBch1	12:35	Beach	NA	NA	none	none	cloudy	none	113	ND	NA	3	NA	ND	NA	NA	ND (2.0	2.2	2.	7.5	~52	ND (0.)	16	ND (.0	ND (0.)	NA	NA	0.0	ND	NA	NA	NA	2.278670	-71.013 52	Wo laston Beach Sample	waded ~ 6ft near WollB1	31.3	13 6	7 97mS	Boston-Lo	0.13	0.1	Wet	Y

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col 100ml

Entero - co or key: Red ≥ 1000 col/100ml, Orange ≥ 350 Ye low ≥ 61 col/100ml, Black < 61 col/100ml

NH3 - co or key: Red ≥ 6 mg/L, Orange ≥ 3 mg/L, Ye low ≥ 0.5 mg/L, B ack < 0.5 mg/L

Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Ye low ≥ 0.25 mg/L, B ack < 0.25 mg/L *** may give alse positive at sa inity greater than 1 ppt

Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yel ow ≥ 0.02 mg L, B ack < 0.02 mg/L

Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yel ow ≥ 0.5 mg/L, B ack < 0.5 mg/L

Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPOR ING LIMI S

E. coli = MPN/100mL	Total Phosphorus = 5 ug/L
Enterococcus = 10 MPN/100mL	CL2 (Total Res dual) = 0.02 mg/L
Surfactants Alpha = 0.05 mg/L (Except where otherwise	CL2 (Residual Free) = 0.05 mg/L
Surfactants Field = 0.1 mg/L	CL2 Field = 0.02 mg/L
Surfactant DR-850 = 0.02 mg/L	CL2 Test Strip =
Ammonia (Alpha) = 0.075 mg/L	Flouride Alpha= 0.20 mg/L
Ammonia F eld = 0.1 mg/L	Flouride DR-850 = 0.05 mg/L (Except where otherwise noted)
Ammonia Nessler = 0.2 mg/L	Potassium = 2.5 mg/L
Ammonia DR-850 = 0.08 mg/L	Potassium Field = 0.2 mg L
Ammonia Test Strip = 0.1 mg/L	N trogen, Nitrate/Nitr te = 0.10 mg/l

ND – not detected above the associated detection limit

NA – not applicable (analyte not tested for at that site at this time)

( ) data reported as estimate

RARE Stormwater Outfall Inspection & Sampl ng Summary

Location				Outfa l		Inspection							Surfact (mg/l)			NH3 (mg/l)					P	PPCP ng/L									Cl2 (mg l)				Flouride		Potass um (mg/L)		Coordinates				YSI Meter			Weather			
Date	own	Site Name	ime	Pipe Mat	D a (in)	Est Flow (gpm)	Odor	Color	urbidi ty	Floatabl es	E co i (MPN/100 m)	Entero (MPN/100 ml)	Alpha	Fie d	DR 850	Alpha	F eld	Nessle r	DR 850	est St	EPA (µg/L)	A enol ol	Aceta minop hen	Cotinin e	7- me xa e	Caffei ne	Azithrom ycin	Primid one	Urobi in	Carbamaz epine	Alpha Free	Alpha otal	F eld	est St	Alpha	DR 850	Alpha	Field	GPS North( )	GPS West ( )	Comments	Additional Location Information	Sal ni ty ppt	emp C	Cond uctivit uS	Rain Gauge Location	24hr s inche	48hr s inches	Wet Dry?
5 19/09	Woburn	Comm1	7:57	pen strea	na	na	none	ea	none	ew	82	~20	0.07	0.2	NA	0.17	ND	NA	NA	~0	NA	ND (1 0	11	ND (0.2)	9.1	56	ND (0.2)	ND (2 0	31	~0.76	ND	ND	0.08	ND	ND	NA	.0	.30	2.5157	-71.136289	Sample aken shady	Commerce Way loca	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Ha ls2	8:51	pen strea	na	na	none	light tea	none	None	606	~1 6	0.06	~0.1	NA	0.161	ND	NA	NA	ND	NA	ND (1 0	3	ND (0.2)	38	2600	ND (0.2)	ND (2 0	96	2.2	ND	ND	0.05	ND	ND	NA	5.	6.30	2.513171	-71.1 26 9	1 foot deep at sampl	Hal s Brook behind 1	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	DRR1	9:33	pen strea	na	that of ha	none	light tea	cloudy	None	626	~171	~0.05	~0.1	NA	8.50	1.5	NA	NA	1	NA	ND (1 0	7.7	ND (0.2)	9.3	36	ND (0.2)	8	150	~1.5	ND	ND	0.1	ND	0.53	NA	6.2	32.10	2.513291	-71.1 2539	Unnamed stream just	upstream of Hal s Br	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Mys07	10:01	pen strea	na	na	none	ea	heavy	None	518	~63	0.06	~0.1	NA	.88	1.5	NA	NA	NA	NA	ND (1 0	.7	ND (0.2)	~ .8	18	~0.	10	150	1.8	ND	ND	0.03	ND	ND	NA	7.3	20.90	2.518563	-71.1 6526	Landfi l Brook, very s	Just south of Landf ll	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Mys08	10:20	pen strea	na	na	none	med tea	none	None	~	~10	~0.05	~0.1	NA	15.80	0.75	NA	NA	NA	NA	ND (1.1	7.6	ND (0.2)	~6.2	13	1.	ND (2 2	7	1.5	ND	ND	ND	ND	1.1	NA	.8	3 .60	2.518739	-71.1 6 11	some (very l ttle) sud	Southeast of Land ill	na	na	na	Bedford	0	0.06	Dry
5 19/09	Woburn	Mys08d	10:20	pen strea	na	na	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50	0.5	NA	NA	NA	NA	ND (1 0	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2 0	86	1.5	ND	ND	0.0	ND	1.1	NA	.8	50.00	2.518739	-71.1 6 11	duplicate		na	na	na	Bedford	0	0.06	Dry
5 26/09	Somervil e	MWRA205	7:57	CM	x bo	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93	0.5	NA	NA	0.25	315	~30	1500	~2.9	650	2800	1	ND (2 0	13000	26	ND	ND	0.0	ND	0.67	NA	280	50	2. 1380356	-71.132 2519	some surface inf ow	Near Ame ia Earhart	12	12 5	**20mS	Boston-Log	0	0. 2	Wet
5 26/09	Chelsea	Mill2	10:06	CM	30 inch	~10gal/m	rong od	clear	none	some sud		20	0.19	1.5	NA	.31	0.25	NA	NA	3	155	ND (2 0	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	D (20.	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50	NA	150	50	2. 033 0	-71.020587	gray bacteria plaque	(Gil ooly) Cabot St be	7.5	11 5	na	Boston-Log	0	0. 2	Wet
5 26/09	Chelsea	Mill2b	10: 5	CM	inch	-2gal/mi	rong od	/black cl	med	None	100	ND	0.21	1	NA	.92	1.5	NA	NA	3	~135	ND (2 0	3.7	ND (0.2)	72	110	ND (2.0)	3.2	52	ND (0.2)	ND	ND	ND	ND	0.52	NA	160	6.60	2. 0397	-71.021087	odor, gray/black clou	privately owned	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	Chelsea	Mill2a	11:10	CM	inch	1 gal/min	none	clear	none	None	~	ND	0.39	1	NA	7.02	>2	NA	NA	6	170	~1.8	21	~ 6	~67	1600	ND (2.0)	ND (2 0	1100	9.8	ND	ND	0.05	ND	0.22	NA	2	50	2. 0367	-71.020987	signi icant gray bacte	privately owned, drai	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	Stoneham	SPB0	12:50	pen strea	na	na	none	clear	none	None	21	31	ND	ND	NA	ND	ND	NA	NA	ND	11	ND (2 0	ND (1.0)	ND (0.2)	~7	9.9	ND (2.0)	ND (2 0	ND (2 0	ND (0.2)	ND	ND	ND	ND	0.23	NA	ND	NA	2. 557 1	-71.08 0671	clean location	Spot Pond Brook	na	na	na	Boston-Log	0	0. 2	Wet
5 26/09	Stoneham	SPB0d	12:50	pen strea	na	na	none	clear	none	None	16	~10	~0.05	ND	NA	ND	ND	NA	NA	ND	12	ND (2 0	ND (1.0)	ND (0.2)	~3.8	11	ND (2.0)	ND (2 0	ND (2 0	ND (0.2)	ND	ND	ND	ND	0.28	NA	ND	NA	2. 557 1	-71.08 0671	duplicate	Spot Pond Brook	na	na	na	Boston-Log	0	0. 2	Wet
6/2/09	Medford	MHB	7:25	CM	0	low	gas	gh ly clou	none	None	53	78	ND	~0.1	ND	0.2	0.2	NA	0.2	ND	23.0	~6.9	170.0	ND (0.)	21.0	33.0	~2.1	ND (0	230 0	6.0	ND	ND	~0.02	ND	ND	0.3	ND	0.85	2. 1921	-71.117619	clouder than normal	Meeting house brook	0.3/1	1.7/11.	550/180	Boston-Log	0	0.03	Dry
6/2/09	Medford	MHBup	8:07	pen strea	na	na	none	clear	none	None	8	1 2	ND	ND	NA	0.086	~0.1	NA	NA	~0.10	21	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	15	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	ND	ND	ND	ND	ND	1.25	2. 25963	-71.11 988		Meeting house brook	0.1	1 .1	291	Boston-Log	0	0.03	Dry
6/2/09	Belmont	WinB	9:10	pen strea	na	na	none	clear	none	None	6212	2908	ND	0.2	NA	0.21	ND	NA	NA	ND	78	~ .2	1700	ND (0.)	120	200	~1.0	ND (0	2500	12	ND	ND	~0.01	ND	ND	NA	.9	.75	2.399303	-71.160888	waded in stream o c	Winns Brook of Br gh	0.6	1 .	1085	Boston-Log	0	0.03	Dry
6/2/09	Belmont	WinBd	9:10	pen strea	na	na	none	clear	none	None	6212	2 52	ND	0.2	0.02	0.172	~0.1	NA	0.1	0.25	8	~ .9	1600	~0.3	130	2 0	~1.6	ND (0	3300	7.5	ND	ND	ND	ND	ND	0.1	.7	5.00	2.399303	-71.160888	duplicate		na	na	na	Boston-Log	0	0.03	Dry
6/2/09	Arlington	91Mys	10:20	pen strea	na	na	musty	cloudy	none	None	>2 1960	1373	1.3	1.25	0.665	1.53	~0.75	NA	NA	3	328	~150	13000	ND (8.0)	2600	22000	12	ND (80.0	55000	200	ND	ND	NA	ND	ND	NA	6.6	.55	2. 18716	-71.151379	just downstream of b	M ll Brook @ Myst c	0.8	1 .1	1625	Boston-Log	0	0.03	Dry
6/2/09	Arlington	MillB	10:50	CM	10x15f	na	musty	ery cloud	none	None	550	5	0.06	0.2	0.031	0.206	ND	NA	0.23	ND	35	~5.9	73	~0.7	87	360	~1.1	ND (0	320	10	ND	ND	NA	ND	ND	0.07	6.1	6.30	2. 18597	-71.1522 7	Sample aken from f	M ll Brook @ openin	0.8	13 7	1623	Boston-Log	0	0.03	Dry
6/9/09	Quincy	Wo lB1	7:35	CM	x bo	50-100	ick mus	clear	none	some sud	20	17 1	ND	1.5	ND	0.187	NA	NA	ND	ND	87	~1.9	55	~0.63	7	71	ND (0.2)	ND (2 0	78	0.58	ND	ND	ND	ND	0. 6	1.01	200	50	2.278672	-71.012859	Pungent 'corpse-y' o	outfa l between yach	.7	15 2	*10.6m	Boston-Log	0	0	Dry
6/9/09	Quincy	Wo lB5	8:25	CM	16	-15gal/m	none	clear	none	None	ND	ND	ND	0.2	0.0 6	0.62	NA	NA	0.15	0.6	3	ND (1 0	5.8	~0.29	12	3	ND (0.2)	ND (2 0	2.5	1.5	ND	ND	0.07	ND	ND	0.25	12	9.25	2.287572	-71.022259	lots of orange flocc c	across from CVS on	1	15	1913	Boston-Log	0	0	Dry
6/9/09	Dorcheste	Ten1	9:35	Pipe Mat	2 -30	na	none	an	ve y, ver	None	96	21	0.08	2	0.0 8	1.28	NA	NA	0. 1	3	90	~1.0	33	~1.3	19	110	ND (0.2)	ND (2 0	11	1.5	ND	ND	0.0	ND	0.5	1.3	350	50	2.289355	-71.0 1773	Very, very muddy wa	Tenean Beach	2 .5	16 3	38 36m	Boston-Log	0	0	Dry
6/9/09	Boston	Bos090	9:57	CM	x10 b	na	musty	tea/tan	some	None	5 750	1 9	0.1	2	0.091	0.823	NA	NA	0.19	~0.10	17	~27	2600	~2.3	530	1100	8.7	ND (2 0	600	3.2	NA	NA	ND	ND	0.81	1.53	330	50	2.298373	-71.0 6379	Started sprinkling ab	at dog park off Vic or	.5/2	6.3/16.	36/38	Boston-Log	0	0	Dry
6/9/09	Dorcheste	CantB	11:35	pen strea	na	na	sty sew	lue/grayi	some	None	198630	3 658	1.6	1.5	1.03	.66	>2	NA	1.08	5.5	586	~150	27000	~13	3500	5000	61	ND (2 0	17000	5.1	ND	ND	0.0	ND	0.37	0.31	7.2	3.75	2.288373	-71.092879	bacter a p ague cove	Can erbury Brook, Bo	0.6	1 6	1156	Milton-Blue	0 07	0.07	Dry
6/9/09	Dorcheste	CantBD	11:35	pen strea	na	na	sty sew	lue/grayi	some	None	173290	8392	1.5	1.5	1.05	.75	NA	NA	1.1	6	91	~1 0	2 000	~12	3300	500	8	ND 2.0	1 000	.9	ND	ND	0.07	ND	0.36	0.32	7.1	2.30	2.288373	-71.092879	duplicate		na	na	na	Milton-Blue	0 07	0.07	Dry
6 16/09	Danvers	F sh00	7:55	pen strea	na	na	none	light tan	none	None	250	68	~0.05	0.2	0.028	ND	ND	NA	ND	ND	33	ND (1 0	ND (1.0)	ND (0.2)	~5	16	ND (0.2)	ND (2 0	2	ND (0.2)	ND	ND	~0.02	ND	ND	0.13	2.8	0.30	2.5766 155	-70.92825715		Frost F sh Brook, 3	0.3	13 3	585	Beverly	0	0.16	Dry
6 16/09	Danvers	F sh005	8:35	pen strea	na	na	none	clear	none	None	333	71	ND	~0.1	0.022	ND	ND	NA	ND	ND	29	ND (1 0	ND (1.0)	ND (0.2)	~2.8	9.9	ND (0.2)	ND (2 0	ND (2 0	1.5	ND	ND	ND	ND	ND	0.1	3	1.85	2.58395698	-70.9290 291	Moss growing in pipe	Downstream of bridg	0.2	12 8	375	Beverly	0	0.16	Dry
6 16/09	Marblehe	Stram01	10:05	pen strea	na	na	none	ery ight t	none	None	89	3	~0.05	ND	0.029	0.37	~0	NA	ND	~0.10	6	ND (1 0	ND (1.0)	ND (0.2)	ND (1.0)	5.2	ND (0.2)	ND (2 0	ND (2 0	ND (0.2)	ND	ND	~0.01	ND	ND	0.09	3.5	1.00	2.51 6323	-70.86578117	Some moss growing	Sampled where broo	0.2	13 8	329	Beverly	0	0.16	Dry
6 16/09	Marblehe	Stram02	10: 0	pen strea	na	na	none	ery ight t	none	None	9	52	~0.05	ND	0.0	0.193	ND	NA	ND	~0.10	3	ND (1 0	57	ND (0.2)	17	30	ND (0.2)	ND (2 0	12	ND (0.2)	ND	ND	ND	ND	ND	0.1	.6	2.70	2.51182185	-70.85955935		Between Rts. 13 A a	0.	13.1	6 1	Beverly	0	0.16	Dry
6 16/09	Lynn	Stacey	11:25	CM	'x8'	>100	musty	NS	none	None	>2 1960	22398	0.31	0.	0.216	1.0	~1.0	NA	0.2	3	1080	D (100.	6200	ND (20.0	1600	300	ND (20.0)	D (200.	7710	ND (20.0)	ND	ND	0.0	ND	0.3	0.3	5.3	1.70	2. 669 2	-70.922031 7	Sample combined fr	Sampled about 15' d	0.5	1 2	826	Beverly	0	0.16	Dry
6 16/09	Lynn	StaceyD	11:25	CM	'x8'	>100	musty	NS	none	None	>2 1960	2 066	0.29	0.	0.208	0.9 9	~1.0	NA	0.31	2	380	D (100.	5500	ND (20.0	1 00	200	ND (20.0)	D (200.	7200	ND (20.0)	ND	ND	ND	ND	0.29	0.32	5.1	1. 0	2. 669 2	-70.922031 7	Ammonia k ts - samp	les recorded as 1.0 bu	na	na	na	Beverly	0	0.16	Dry
7 1 /09	Milton	UNB016	8:36	pen strea	na	na	none	clear	none	None	599	109	ND	~0.1	ND	0.30	ND	NA	~0.08	ND	26	ND (1 0	9.7	ND (0.2)	~9.9	~9.5	ND (0.2)	ND (2 0	250	0.52	ND	ND	0.06	ND	ND	0.23	.3	1. 0	2.262068	-71.0 6682	sampled downstream	Unquity Brook o f Ch	0.5	1 5	800	Milton-Blue	0	0	Dry
7 1 /09	Milton	UNB002	9:02	CM br dg	3'x6' bo	na	none	clear	none	None	152	69	ND	~0.1	0.077	0.37	ND	NA	0.22	ND	83	ND (1 0	10	ND (0.2)	~7.3	~9.9	ND (0.2)	ND (2 0	270	2.6	ND	ND	0.09	ND	ND	0.2	.1	1.85	2.253703	-71.068976	Heard dripping from	downstream of Rand	0.5	15.	797	Milton-Blue	0	0	Dry
7 1 /09	Quincy	Wo lB2	9:50	pen strea	na	y strong	none	ea	yes	None	265	~8	ND	2	0.029	0.09	ND	NA	ND	ND	72	ND (1 0	2.9	ND (0.2)	~ .9	~11	ND (0.2)	ND (2 0	9.2	0.56	ND	ND	ND	ND	0.75	1.66	660	30	2.266 85	-70.99710	Flow was very strong	Wol as on Beach ups	28.5	20 5	* 0. m	Milton-Blue	0	0	Dry
7 1 /09	Quincy	Wo lB1A	11:08	CM	3'x3' bo	-15gal/m	ong mu	clear	none	e trash in	3080	18	ND	0.75	0.023	0.19	~0.1	NA	ND	ND	15	3.1	26	0. 3	~22	58	ND (0.2)	ND (2 0	290		ND	ND	0.53	ND	0.39	0.77	200	1.20	2.277357	-71.008933	trash in water and pl	just south of WollB1	2.7	17.1	**12mS	Milton-Blue	0	0	Dry
7 1 /09	Quincy	UR001	11:27	CM	x bo	50-100	ulfur od	clear	none	None	17 1	565	ND	NA	0.033	0.196	NA	NA	ND	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2 0	1900	0. 6	ND	ND	NA	ND	0.36	0.63	5	NA	2.278672	-71.012859	duplicate of Wo lB1	duplicate of WollB1	na	na	na	Milton-Blue	0	0	Dry
7 1 /09	Quincy	Wo lB1	11:27	CM	x bo	50-100	ulfur od	clear	none	None	2190	6932	~0.05	0.25	0.0	0.125	ND	NA	ND	ND	66	6.3	15	0.93	55	58	ND (0.2)	ND (2 0	2500	0. 8	ND	ND	0.10	ND	0.38	0.61	55	29.30	2.278672	-71.012859	water lowing out of b	outfa l between yach	3	16.1	*5.55m	Milton-Blue	0	0	Dry
7 21/09	Stoneham	1West	9:20	stone	2x3	50-100	htly mu	clear	none	None	~6 880	~2318	~0.28	0.6	0.1 8	0.117	~0.1	NA	ND	ND	8	ND (5 0	120	2	110	710	ND (1.0)	ND (10.0	680	ND (1.0)	na	na	~0.0	ND	ND	0.15	.8	0.25	2. 826072	-71.10 6187	Cl2 exceeded holdin	Unnamed tributary to	0.	1 5	798	Boston-Log	0.0	0.0	Wet
7 21/09	Stoneham	2Linden	9:35	pen strea	na	na	none	light tea	none	None	~79 5	~1302	~0.32	0.75	0.1 2	0.206	~0.1	0.9	ND	ND	56	~27	350	~3.1	9	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND	0.15	3.	0.90	2. 83930	-71.1039388	Cl2 exceeded holdin	Sweetwa er Brook @	0.	17	821	Boston-Log	0.0	0.0	Wet
7 21/09	Stoneham	Elm1	10:10	open stre	na	0-50	htly mu	med tea	none	None	~51720	~565	~0.12	0.3	0.083	0.578	0.5	1	0.2	1.5	8	~62	1100	~3.7	500	980	39	5	2800	7.	na	na	~0.0	ND	ND	0.12	.6	1.30	2. 8685	-71.0985788	Cl2 exceeded holdin	Elm St in Stoneham,	0.7	15 6	1 3	Boston-Log	0.08	0.08	Wet
7 21/09	Stoneham	Toms	10:30	metal w/	3'	50	htly mu	clear	none	None	~16070	~5818	~0. 3	0.75	0.176	0.20	ND	0.7	0.2	ND	7	ND (5 0	95	~2.	60	790	ND (1.0)	ND (10.0	D (10.	ND (1.0)	na	na	~0.02	ND	ND	0.11	3.2	0. 0	2. 90277	-71.101799	Cl2 exceeded holdin	Off Toms Way in S o	0.5	19.1	977	Boston-Log	0.08	0.08	Wet
7 21/09	Stoneham	UR003	10:30	metal w/	3'	50	htly mu	clear	none	None	~2069	~92	~0. 3	0.75	0.189	0.198	ND	0.8	ND	ND	9	ND (5 0	96	~3.0	69	900	ND (1.0)	ND (10.0	D (10.	ND (1.0)	NA	NA	ND	ND	ND	0.16	3.1	1.05	2. 90277	-71.101799	Cl2 exceeded holdin	duplicate of Toms	na	na	na	Boston-Log	0.08	0.08	Wet
7 21/09	Stoneham	Toms	11:30	metal w/	3'	250-500	ong mu	gray	cloudy	. sticks, p	~3080	~690	~0.08	0.6	0.169	0.193	0.3	0.6	0.22	0.3	203	ND (5 0	77	~2.3	67	5 0	ND (1.0)	ND (10.0	D (10.	ND (1.0)	NA	NA	ND	ND	ND	ND (0.1)	ND	ND	2. 90277	-71.101799	Cl2 exceeded holdin	same location as Tor	0.1	21	2 5	Boston-Log	0.1/0.	0.1/0.	Wet
7 28/09	Chelsea	Mill2	8:05	CM	30 inch	15	arp sew	clear	none	None	310	12	0.23	0.8	0.126	3.8	1.5	>3.0	1.11	6	1	ND (10.0	ND (10 0	ND (2.0)	ND (10.0)	ND (20.0	ND (2.0)	ND (20.0	0	ND (2.0)	ND	ND	~0.01	ND	0.	0.62	77	9.20	2. 033 0	-71.020587	grey bacterial plaque	Corner of Cabot and	0.7	16 7	3631	Boston-Log	0	0	Dry
7 28/09	Chelsea	IsEnd03A	9:05	open stre		na	or; sl gh	ish/yel o	none	None	9678	388	0.1	0.8	0.05	0.831	0.3	2.3	0.19	3	80	~11	70	~2.5	150	30	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6	0.96	1 0	50*	2.399997	-71.05398	thick bacteria/algae o	top corner of Boston	6.5	20.3	11.36	Boston-Log	0	0	Dry
7 28/09	Chelsea	IsEnd02	9:25	CM, sem	7'		strong petroleu	tea/tan	cloudy	None	565	122	0.16	0.6	0.068	0.252	1	1.6	ND	0.2	52	~3.0	200	~0.89	37	110	0 69	ND (0	250	1.	ND	ND	0.08	ND	0. 5	0.97	1 0	35.30	2.39 36	-71.0 9780	lots of trash; ground	Just a few feet West	8	20 2	12.28	Boston-Log	0	0	Dry
7 28/09	Chelsea	IsEnd03	9:26	CM, sem	12'		strong petroleu	lue/grayi	cloudy	me soap s	167 0	368	0.09	1.5	0.055	1.76	0.5	2	0.51	1	72	~20	280	~1.6	120	360	2.	ND (0	680	2.9	ND	ND	ND	ND	0.62	1.17	200	50*	2.39 21	-71.0 9706	Surf., NH3 (EPA) and	other 500mL bottle s	1 .2	21 5	23. 9	Boston-Log	0	0	Dry
7 28/09	Chelsea	UR005	9:26	CM, sem	12'		strong petroleu	lue/grayi	cloudy	me soap s	15850	35	0.09	1.5	0.05	1.6	0.5	2.5	0. 9	0.3	73	~2	310	~2.0	120	320	2.3	ND (0	670	2.6	ND	ND	0.05	ND	0.66	1.15	200	50*	2.39 21	-71.0 9706	Dupl cate of IsEnd03		na	na	na	Boston-Log	0	0	Dry
7 28/09	Somervil e	MWRA205	11:08	CM	x box		sl ght sewage	gray/gree	suspend	None	9678	1211	0.2	1.2	0.15	2.65	0.5	>3.0	0.96	1	300	~9	100	~18	970	5000	31	ND (0	20000	3 0	ND	ND	0.16	ND	0. 8	0.81	130	6.10	2. 1380356	-71.132 2519	can hear running wate	r in pipe; YSI measu	9.1	17 7	15.1	Boston-Log	0	0	Dry
8/ /09	Winchest	Russ1	8:00	s one	3'x ' bo	na	musty	gray sh	h ly clou	None	1 7	196	~0.05	0.2	0.025	0.108	ND	0.2	ND	ND	18	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	15	~2.9	ND	ND	~0.01	ND	ND	0.13	5.8	.25	2. 63 55	-71.1 9258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0 01	0.02	Dry
8/ /09	Winchest	UR007	8:00	s one	3'x ' bo	na	musty	gray sh	h ly clou	None	176	118	ND	0.2	0.028	ND	ND	0.2	ND	ND	19	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	12	~2.2	ND	ND	0.09	ND	ND	0.16	6	1.30	2. 63 55	-71.1 9258	Dupl cate of Russ1		na	na	na	Bedford	0 01	0.02	Dry
8/ /09	Woburn	US3	8:50	s one	6inch	na	none	light tea	h ly clou	None	587	1 0	~0.05	ND	0.029	0.1	~0.1	0.6	ND	0.75	5	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	1	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	0.08	ND	ND	0.09	3.7	0*	2. 95550	-71.133700	flow out of small ston	plue panel covering t	0.3	22.1	660	Bedford	0 01	0.02	Dry
8/ /09	Woburn	US	8:55	CM	inch	na	none	light tan	h ly clou	None	806	222	~0.05	ND	0.026	0.167	0.2	0.7	~0.08	0.6	6	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	11	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	0.08	ND	ND	0.09	3.	0.90	2. 95 00	-71.133700	sampled on other sid	about 10 eet from U	0.3	21.	6 3	Bedford	0 01	0.02	Dry
8/ /09	Woburn	US5	9:05	open stream		na	none	light tea	clear	None	5 2	18	ND	ND	0.032	0.133	ND	0.6	ND	0.5		ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	1	ND (0.)	ND (0	ND (0	ND (0.)	ND	ND	0.06	ND	ND	0.11	3.7	0.70	2. 95 12	-71.13 111	about 6 inches deep	back corner of Uni ec	0	22 3	671	Bedford	0 01	0.02	Dry
8/ /09	Woburn	Olym1	9:55	open stream		na	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076	~0.1	0.65	ND	ND	50	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	7.8	ND (0.)	ND (0	ND (0	~0.71	ND	ND	0.0	ND	ND	0.11	5.6	2.35	2. 98925	-71.137 0	duck instream~ 0 aw	Off Olymp a Ave r gh	0.7	18	1 16	Bedford	0 01	0.02	Dry
8 11/09	Quincy	Canal1	7:55	concrete	5'x8' bo	na	ght mus	clear	none	None	18	17	~0.05	0.15	0.038	0.22	ND	0.2	ND	ND	17	ND (2 0	15	~0. 6	7.1	56	ND (0.)	ND (0	100	.7	ND	ND	0.1	ND	ND	0.22	5.1	1.50	2.250692	-70.997793	Accessed v a parking	Canal opening just o	0.5	19 7	1080	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	SAG1	8:25	concrete	x10 b	na	ght mus	brown	ery turbi	None	3922	1230	ND	2	0.025	0.	~0.25	1.6	ND	0.75	92	~3.3	81	ND (0.)	1	100	0 55	ND (0	700	2.9	ND	ND	0.11	ND	0.58	1.15	270	50*	2.27616	-71.037225	occasional ine soap	Sagamore Creek out	13	18 5	*23.3m	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	SAG2	8:50	ground seep		3-5	ong su	clear	none	None	ND	ND	NA	0.7	NA	NA	1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA	NA	NA	50*	2.27617	-71.037325	groundwa er seep, w	about 50ft downstrea	na	na	na	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	Wo lB1B	9: 0	concrete	3- '	15	musty	clear	none	None	133	12	ND	2.2	ND	ND	clear	1.35	ND	ND	98	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	7	0.56	ND	ND	0.38	ND	0.75	1.65	530	50*	2.277357	-71.008933	barnac e encrusted o	outfa l south of two y	25	18 8	39.10m	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	Wo lB1A	9: 5	concrete	3- '	na	usty/sul	clear	none	None	37	161	ND	1.5	0.026	0.136	~0.1	0.9	ND	ND	73	ND (2 0	3.8	ND (0.)	ND (2.0)	20	ND (0.)	ND (0	23	3.2	ND	ND	0.15	ND	0.	0.8	210	50*	2.277357	-71.008933	as tide comes in it ar	outfa l between Woll	12	19.	*30.7m	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	UR009	10:25	concrete	x bo	30- 0	ong su	hostly cle	none	None	89	363	ND	0.6	0.028	0.076	0.2	0.6	ND	~0.10	68	ND (2 0	0	~0.78	6.6	28	1.6	ND (0	260	0.5	ND	ND	~0.02	ND	0. 7	0.8	110	50*	2.278672	-71.012859	duplicate of Wo lB1		na	na	na	Boston-Log	0 01	0.01	Dry
8 11/09	Quincy	Wo lB1	10:25	concrete	x bo	30- 0	ong su	hostly cle	none	None	626	518	ND	0.7	0.02	ND	0.2	0.7	ND	~0.10	69	ND (2 0	1	~0.82	7	31	1.6	ND (0	250	0.6	ND	ND	~0.02	ND	0. 7	0.76	100	50*	2.278672	-71.012859	water drops into sma	outfa l between yach	1.9	19	172	Boston-Log	0 01	0.01	Dry
8 18/09	Plymouth	Eel1	9:20	pen stream		na	none	light tan	clear	None	30	82	ND	ND	ND	ND	~0.1	0.5	0.09	0.2	110	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~1.2	ND (0	13	1.6	ND	ND	0.19	ND	ND	0.07	ND	0.15	1.9255980	-70.618 1863	lots of eel grass, use	downstream Eel Rive	0.1	22 8	1 2.9	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	Ee 2	9:30	pen stream		na	none	light tan	clear	None	70	82	ND	ND	ND	ND	ND	0.	ND	ND	6	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~0 88	ND (0	1	1.	ND	ND	0.18	ND	ND	ND	ND	0.20	1.92519001	-70.61918863	River: about 1.5' dee	downstream of br dg	0.1	22 6	1 5.3	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	UR011	9:30	pen stream		na	none	light tan	clear	None	1 0	82	ND	ND	ND	ND	ND	0.5	ND	ND	68	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	~1.2	ND (0	15	1.5	ND	ND	NA	ND	ND	~0.05	ND	ND	1.92519001	-70.61918863	duplicate of Eel2		na	na	na	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	Ee 3	9: 0	pen stream		na	none	light tan	clear	None	17 1	52	ND	ND	ND	0.092	ND	0.8	~0.08	0.25	77	ND (2 0	ND (2.0)	ND (0.)	.	ND (0	ND (0.)	ND (0	ND (0	1.2	ND	ND	0.11	ND	ND	0.1	ND	0.35	1.92517001	-70.619 2993	some grass was gor	upstream of Sandwic	0.1	21 5	187.7	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	SandRd1	10:00	clay	16		none	light tan	clear	None	265	172	ND	~0.1	0.021	ND	~0.1	0.6	0.1	0.	101	ND (2 0	ND (2.0)	ND (0.)	53	5200	~0 52	ND (0	ND (0	17	ND	ND	0.10	ND	ND	0.08	.2	0.60	1.9253820	-70.61810863	dead mouse f oating	direc ly behind 132 s	0.2	17 6	326.3	Plymouth	0 01	0.01	Dry
8 18/09	Plymouth	SandRd2	11: 0	clay	12	2	none	light tea	clear	None	373	61	NA	~0.1	NA	0.088	ND	0.8	ND	0.5	89	ND (2 0	ND (2.0)	ND (0.)	6.5	260	ND (0.)	ND (0	ND (0	19	NA	NA	0.13	ND	NA	0.15	NA	ND	1.92 80601	-70.6177 371	very akward samp in	Clean-out pipe, behir	0.2	20.	315.3	Plymouth	0 01	0.01	Dry
8 25/09	Boston	Dent285	7:50	concrete	6 feet	50-75	sty sew	None	h ly clou	None	33000	3683	0.22	0.	0.133	0.	~0.1	1.1	0.13	0.75	1 8	~ 9	280	~ .7	100	230	7.7	ND (8 0	3800	5.7	ND	ND	0.05	ND	ND	0.12	3.	1.05	2.266756	-71.09 79	green algae and grey	(actually NR10) Be	0.5	18 2	910	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	Blueup	8:00	open stream		na	none	an	clear	None	226	6	~0.05	~0.1	0.028	ND	ND	0.3	ND	ND	2	ND (0	10	ND (0.8)	10	96	ND (0.8)	ND (8 0	39	.1	ND	ND	0.07	ND	ND	ND	ND	0.50	2.266710	-71.09 816	waded in o river for s	just upstream of Den	0.2	2 6	27.7	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	Mother	9:05	open stream		na	none	light tea	clear	None	129	56	0.06	ND	0.0 6	ND	ND	0.	ND	ND	6	ND (0	ND (.0)	ND (0.8)	5.5	56	ND (0.8)	ND (8 0	12	1	ND	ND	0.03	ND	ND	ND	3.7	1.65	2.251173	-71.128 00	lots of trash in stream	parked off Reservatio	0.3	25 9	625	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	NR20	10:00	concrete	3 feet	15	ewage	None	h ly clou	te/gray p	>2 1960	> 8392	8.7	>3	0.975	20.1	>2	>3	23.1	>6	20	~1800	65000	~51	11000	66000	280	D (0.	#####	1 0	ND	ND	ND	ND	0.56	0.05	8.7	21.90	2.2 7956	-71.125339	dif icult access, whit	parked off G enwood	0.2	20 5	76.6	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	NR162	11:00	concrete	36 inch	3	sewage	None	clear	None	198630	5226	0.89	3	0.6	13.2	>2	>3	15	>6	3630	D (200.	590000	ND (0.0	7300	00	ND (0.0)	D (00.	#####	ND (0.0)	ND	ND	ND	ND	0.55	0.66	7.	1 .25	2.2 799	-71.126989	green algae in out al	behind tennis courts	0.5	18.	968	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	UR013	11:00	concrete	36 inch	3	sewage	None	clear	None	2 1960	5510	0.92	2.75	0.635	12	>2	>3	1 7	>6	3390	D (200.	600000	ND (0.0	7500	700	ND (0.0)	D (00.	#####	ND (0.0)	ND	ND	ND	ND	0.62	0.7	7.2	1 .80	2.2 799	-71.126989	Dupl cate of NR162		na	na	na	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	NR160	12:00	concrete	2'	3	musty	None	clear	None	17 1	1 9	~0.05	0.25	0.023	0.598	0.25	1.	0.18	2	201	ND (20.0	69	~ .0	280	180	ND (.0)	ND (0.0	5900	ND (.0)	ND	ND	0.0	ND	ND	0.1	.8	1.15	2.2 2826	-71.12770	some gray bacter a,	behind Stop & Shop	1.2	22.	2 .11	Boston-Log	0 77	0.77	Wet
8 25/09	Boston	Esp01	12:02	open stream		na	none	ea	clear	None	2 1	58	0.07	~0.1	0.03	0.1	ND	0.3	ND	ND	6	ND (3 8	9.9	ND (0.8)	8.2	39	ND (0.8)	ND (7 7	12	.6	ND	ND	0.05	ND	ND	0.08	ND	1.00	2.2 287	-71.127669	Mainstem Neponset	behind Stop & Shop	0.2	25	86	Boston-Log	0 77	0.77	Wet
9/1/09	Woburn	Ha ls2	7:35	open stream		na	None	ight b ow	clear	None	2595	602	ND	~0.1	0.029	0.218	ND	0.8	ND	ND	5	ND (2 0	820		23	1 00	ND (0.)	ND (0	180	~2.2	ND	ND	ND	ND	ND	0.12	.6	2.95	2.513171	-71.1 26 9	1 ft deep at sampling	Hal s Brook behind 1	0.	1 6	780	Bedford	0 01	0.01	Dry
9/1/09	Woburn	DRR1	7: 5	open stream		na	None	ight b ow	clear	None	185	12976	ND	0.25	0.035	8.99	>2	>3	9.3	6	31	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	2	~1.2	ND	ND	0.08	ND	0.62	0.7	7.3	26.60	2.513291	-71.1 2539	Unnamed stream just	upstream of Hal s Br	0.5	1 .	932	Bedford	0 01	0.01	Dry
9/1/09	Woburn	Mys08	9:30	open stream		na	None	ight b ow	clear	None	363	150	ND	0.25	0.027	1 .3	2	>3	1 .7	>3	18	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	10	~1.1	ND	ND	0.08	ND	1.2	1.26	.6	31.50	2.518739	-71.1 6 11	Halls Brook across fr	Southeast of Land ill	0.5	1	9.17	Bedford	0 01	0.01	Dry
9/1/09	Woburn	UR015	9:30	open stream		na	None	ight b ow	clear	None	22	1 8	ND	NA	0.021	1	NA	NA	13.8	NA	23	ND (2 0	ND (2.0)	ND (0.)	ND (2.0)	ND (0	ND (0.)	ND (0	15	~0.55	ND	ND	NA	ND	1.2	1.2		NA	2.518739	-71.1 6 11	duplicate of Mys08		na	na	na	Bedford	0 01	0.01	Dry
9/1/09	Woburn	Mys78	10:15	open stream		na	ht oil sr	None	clear	None	5199	103	ND	0.25	0.031	10.1	2	>3	9.8	>3	5	ND (2 2	ND (2.2)	ND (0.)	ND (2.2)	ND (.	ND (0.)	ND (.	1	~1.3	ND	ND	~0.0	ND	0.6	0.73	7.3	28.80	2.51858	-71.1 6281	after confluence of L	Just south of Landf ll	0.5	1 2	955	Bedford	0 01	0.01	Dry
9/1/09	Woburn	Mys09	10: 5	open stream		na	None	None	clear	None	205	82	ND	~0.1	ND	16	2	>3	16.7	>3	25	ND (2 2	ND (2.2)	ND (0.)	ND (2.2)	ND (.	ND (0.)	ND (.	7.5	~1.1	ND	ND	0.07	ND	1.2	1.28		27.80	2.520981	-71.1 7709	Upst eam of Mys08 w	Low flow, ight brow	0.5	16.1	935	Bedford	0 01	0.01	Dry
9/8/09	Watertow	SawB01	8: 5	open stream		50-100	petroleu	Orange	cloudy	some sud	16 2	10	~0.05	0.2	0.032	0.308	ND	0.8	0.11	0.35	2	~ .	250	~0.79	62	170	1.	ND (0	80	5.5	ND	ND	0.08	ND	0.29	0.31	5.2	3.00	2.3628777	-71.1509558	Sawins Brook, samp	Near lot off Arsenal S	0.8	16 2	1521	Boston-Log	0	0	Dry
9/8/09	Watertow	SawB01b	9:05	cast iron	12	5	sewage	None	clear	None	~	ND	NA	0.25	NA	NA	~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	NA	16.70	2.3636533	-71.1511559	pipe d scharging to S	about 30 eet upstrea	0.3	15 3	806	Boston-Log	0	0	Dry
9/8/09	Newton	Hyde01	9: 5	concrete	x8 bo	100	None	None	clear	None	565	1 2	ND	0.2	ND	ND	~0.1	0.	0.31	ND	27	ND (2 0	38	ND (0.)	.	16	ND (0.)	ND (0	0	6	ND	ND	~0.02	ND	ND	0.09	3.1	1.05	2.35998 7	-71.1809755	New81 waded o le	Outfall o Cha les off	0.6	1 6	1308	Boston-Log	0	0	Dry
9/8/09	Newton	Laund01	10:25	concrete	6x8 bo	na	None	light tea	clear	some sud	1 62	92	ND	~0.1	ND	ND	ND	0.	ND	ND	9	ND (2 0	69	ND (0.)	26	850	2.7	ND (0	2 0	3.5	ND	ND	0.10	ND	ND	0.1	ND	0.75	2.36 6351	-71.1892039	Used wade s	Laundry Brook off Ca	0.	18	830	Boston-Log	0	0	Dry
9/8/09	Newton	UR016	10:25	concrete	6x8 bo	na	None	light tea	clear	some sud	195	5	~0.05	~0.1	ND	ND	ND	0.	ND	ND	7	ND (2 0	57	ND (0.)	2	820	2.2	ND (0	270	3.8	ND	ND	0.10	ND	ND	0.1	ND	na	2.36 6351	-71.1892039	Dupl cate of Laund01		na	na	na	Boston-Log	0	0	Dry
9/8/09	Newton	Chee01	11:11	open stream		50-70	None	None	clear	None	992	~38	ND	0.22	ND	ND	ND	0.	0.1	ND	20	ND (2 0	3.1	ND (0.)	7	30	ND (0.)	ND (0	61	5	ND	ND	0.06	ND	ND	0.1	3.6	1.35	2.3600600	-71.2169 65	taken 6' downstream	Cheesecake Brook	0.7	16 7	1378	Boston-Log	0	0	Dry
9/8/09	Wa tham	Beav01	11:35	concrete	3x10 b	na	None	None	h ly clou	some sud	713	292	~0.05	0.2	0.023	0.162	ND	0.	ND	ND	39	ND (2 0	93	ND (0.)	1	17	ND (0.)	ND (0	66	2.5	ND	ND	0.07	ND	ND	0.17	.	2.20	2.3730 20	-71.228352	shallow stream, co le	Beaver Brook near c	0.5	16 7	1035	Boston-Log	0	0	Dry
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	ght mus	None	clear	None		0	~0.05	ND	0.03	0.266	~0.1	1.1	ND	0.50	211	ND (2 2	ND (2.2)	ND (0.)	3.8	27	ND (0.)	ND (3	76	ND (0.)	ND	ND	0.06	ND	ND	0.11	7.9	6.90	2. 277872	-71.2050922	Lo s of duck weed on	Off Mass Ave	0.	17.1	819	Boston-Log	0	0	Dry
9/8/09	Lexington	Vine01	13:00	concrete	3x3 bo	na	Musty	rust/brow	cloudy	None	29090	2752	0.08	NA	0.19	1.12	2	2.2	ND	2.00	121	~ .7	600	ND (0.5)	100	750	2.9	ND (6	1300	.6	ND	ND	0.03	ND	ND	0.19	6.1	.55	2. 503760	-71.2202638		Near corner Grant St	0.	15 8	859	Boston-Log	0	0	Dry
9 15/09	Lowell	Beaver1a	7:37	concrete	'	15	None	None	clear	None	8	75	ND	0.25	ND	ND	ND	0.2	ND	ND	~2 3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.32	0. 1	7.8	7.80	2.65981	-71.318830	large duckbi l coverin	Beaver Brook outfa l	0.1	18 2	68.5	Lawrence	0	0	Dry
9 15/09	Lowell	Beaver1	7: 0	open stream		na	None	light tea	clear	None	117	63	NA	~0.1	NA	NA	ND	0.	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA	NA	NA	1. 5	2.659837	-71.318833	sample taken just up	Beaver Brook Mainst	0.2	16 9	358.8	Lawrence	0	0	Dry
9 15/09	Lowell	Su folk1	8: 0	open stream		na	None	light tea	clear	None	208	1	ND	ND	0.02	ND	ND	0.8	ND	~0.10	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.01	ND	ND	0.15	ND	0.60	2.650395	-71.31 502	west channel samp e	off Suffolk Street, c in	0.1	19.1	170	Lawrence	0	0	Dry
9 15/09	Lowell	Central1	9:15	open stream		na	None	None	clear	some sud	58	~10	ND	~0.1	0.02	0.088	ND	0.9	ND	0.50	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	ND	ND	0.16	ND	0.10	2.6 3823	-71.307889	sampled open chann	downstream from Ce	0.1	19 2	168.7	Lawrence	0	0	Dry
9 15/09	Lowell	RMB1	10:10	open stream		na	None	light tea	clear	some sud	18	281	~0.05	0.25	0.022	ND	ND	0.8	ND	ND	38	na	na	na	na	na	na	na	na	na	na	na	~0.02	ND	ND	0.11	.1	2.25	2.633655	-71.302505	overturned barrel and	River Meadow Brook	0.3	17 5	71	Lawrence	0	0	Dry
9 15/09	Lowell	UR017	10:10	open stream		na	None	light tea	clear	some sud	2069	65	~0.05	0.25	0.0 6	ND	ND	0.8	ND	ND	36	na	na	na	na	na	na	na	na	na	na	na	0.08	ND	ND	0.15		ND	2.633655	-71.302505	Dupl cate of RMB1		na	na	na	Lawrence	0	0	Dry
9 15/09	Lowell	NewH1	10:50	open stream		na	None	light tea	clear	some sud	16	275	NA	0.2	NA	NA	ND	0.8	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	ND	NA	NA	NA	1.10	2.631057	-71.305968	1ft at deepest, used	samp ed downstrean	0.3	17 6	711	Lawrence	0	0	Dry
9 15/09	Lowell	BlackB1	11:25	open stream		na	None	None	murky	None	15	798	0.07	0.25	0.028	0. 3	ND	1.6	0.22	2.00	35	na	na	na	na	na	na	na	na	na	na	na	0.03	ND	ND	0.17	7.2	7.15	2.6383 6	-71.3 3658	Flow from 2 large me	Black Brook off Midd	0.6	17 8	11 5	Lawrence	0	0	Dry
9 15/09	Lowell	BlackB2	12:00	open stream		na	None	None	clear	None	182	97	NA	0.2	NA	NA	0.8	2.6	NA	5.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.25	ND	NA	NA	NA	8.20	2.63 59	-71.3 9 0	rocks covered w/ alg	Black Brook off Bald	0.5	19 5	1077	Lawrence	0	0	Dry
9 22/09	Reading	RRR1	8:10	CM	x bo	na	None	None	clear	None	21	20	ND	0.25	0.022	ND	ND	0.3	ND	ND	19	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.01	ND	ND	0.15	8.1	3. 0	2.5209 0	-71.10 975	about 6 inches deep	corner of Washingtor	0.9	16 7	1682	Lawrence	0 01	0.01	Dry
9 22/09	Andover	RogerD	9:00	concrete	5'	na	usty od	k tea stai	clear	some sud	2	657	~0.05	~0.1	0.67	0.098	ND	0.7	ND	ND	78	ND (2 0	19	ND (0.)	~8	25	ND (0.)	ND (0	2	1.1	ND	ND	0.03	ND	ND	0.2	6.9	.35	2.65 7823	-71.1 6600 7	hiked down hill samp	5 Dundee Park near	0.	15.1	806	Lawrence	0 01	0.01	Dry
9 22/09	Andover	Rogerup	9:32	pen stream		na	no odor	med tea	clear	some sud		6 88	~0.05	0.2	1.31	ND	~0.1	0.6	ND	ND	65	na	na	na	na	na	na	na	na	na	na	na	0.08	ND	ND	0.19	.5	0.60	2.65573 87	-71.1333 922	some deeper pools	Off Chestnut Street,	0.3	15.1	530	Lawrence	0 01	0.01	Dry
9 22/09	Andover	Huss01	10:20	concrete	10' x 5	na	None	light tea	clear	some sud	2319	987	ND	0.2	0.036	0.079	ND	0.	ND	ND	20	ND (2 0	2 0	ND (0.)	~20	0	ND (0.)	ND (0	16000	.9	ND	ND	0.09	ND	ND	0.25	.8	0.35	2.67330118	-71.1 97 812	2-3 feet deep	Across from Shawsh	0.3	15 9	537	Lawrence	0 01	0.01	Dry

9 22/09	Andover	Huss02	10:50	pen stream		na	None	light tea	clear	None	39	ND
9 22/09	Lawrence	SLE3	11:30	crete ou	3'	na	ght mus	None	Clear	None	205	5
9 22/09	Lawrence	UR018	11:30	crete ou	3'	na	ght mus	None	Clear	None	279	2 9
9 22/09	Lawrence	SPR05	12:30	concrete	18	10	ght mus	None	Clear	Yes, pape	29870	19863
9 22/09	Lowell	RMB1	13:20	open stream		na	None	light tea	Clear	None	16 2	199
9 29/09	Milton	CunPk02	8:30	concrete	18	2	mild se	None	M ld	Leave, bu	195	6131
9 29/09	Milton	CunPk03	9:30	open stream		na	None	None	Clear	Foam	116	2098
9 29/09	Norwood	PB02A	10: 5		18	5	None	None	Clear	None	68	98
9 29/09	Norwood	PB02B	11:00	open stream		na	None	light brow	Clear	None	1379	1396
9 29/09	Norwood	PB02	12:00		18	3	Septic	C oudy	very turb	None	68670	6131
9 29/09	Norwood	UR019	12:00		18	3	Septic	C oudy	very turb	None	88 0	5 75

Huss02	NA	ND	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SLE3	ND	~0.1	ND	ND	ND	0.	ND	ND	9	ND (2.1	11	ND (0.)	ND (2.1)	17	ND (0.)	ND (2	82	6.3
UR018	ND	~0.1	ND	ND	ND	0.	ND	ND	22	ND (2 0	11	ND (0.)	~2.5	20	ND (0.)	ND (0	6	6.1
SPR05	~0.05	0.25	0.05	7.02	>2	>3	2.26	6	21	~310	6900	~1.6	~5600	5500	6.3	ND (0	28000	2.
RMB1	ND	~0.1	0.031	0.138	ND	0.6	ND	~0.10	28	ND (2.1	10	ND (0.)	~10	5	~0 28	ND (2	280	3.
CunPk02	0.06	0.18	0.0 1	0.291	ND	0.2	ND	~0.1	8	ND (1 0	3.8	ND (0.2)	2.	15	ND (0.2)	11	~210	ND (0.2)
CunPk03	0.06	~0.1	0.038	0.206	ND	~0.1	ND	~0.30	25	na	na	na	na	na	na	na	na	na
PB02A	ND	0.15	ND	0.1	ND	~0.1	ND	ND	39	NA	NA	NA	NA	NA	NA	NA	NA	NA
PB02B	~0.05	~0.1	0.875	0.139	ND	ND	ND	ND	39	na	na	na	na	na	na	na	na	na
PB02	0.07	0.25	0.05	0.695	ND	1	0.15	0.50	109	~27	500	~0.95	80	710	6.	89	~8700	ND (0.2)
UR019	0.09	0.25	0.061	0.556	ND	1.6	0.17	0.70	103	~30	550	~0.92	560	770	6.	100	~9 00	ND (0.2)

Huss02	NA	NA	NA	ND	NA	NA	NA	NA	2.672 7656	-71.151 3865	lots of bacter al grow	Hussy Brook - sampl	0.3	15 5	539	Lawrence	0 01	0.01	Dry
SLE3	ND	ND	0.11	ND	ND	0.1	5.5	2.35	2.695971	-71.1 55601	stream scoured, lots	South Lawrence Eler	0.6	15.1	1158	Lawrence	0 01	0.01	Dry
UR018	ND	ND	0.09	ND	ND	0.1	5.8	2.30	2.695971	-71.1 55601	duplicate of SLE3		na	na	na	Lawrence	0 01	0.01	Dry
SPR05	ND	ND	0.0	ND	0.22	0.32	28	3 .90	2.70991636	-71.15129912	v deo taken of what l	pipe off Lawrence Ho	0.	19.1	888	Lawrence	0 01	0.01	Dry
RMB1	ND	ND	0.06	ND	ND	0.1	8.5	0.80	2.633655	-71.302505	overturned barrel and	River Meadow Brook	0.5	16	1018	Lawrence	0 01	0.01	Dry
CunPk02	ND	ND	0.0	ND	ND	0.18	6.9	~7.5	2.251003	-71.051930	sample collected wh	about 1yard from out	0.	1 9	712	Boston-Log	0 51	0.57	Wet
CunPk03	ND	ND	0.05	ND	ND	0.21	8.9	~10.5	2.2 781922	-71.055 6 05	co lected close to outfall in pool		0.5	15.	933	Boston-Log	0 51	0.57	Wet
PB02A	ND	ND	ND	ND	ND	0.1	2.8	~0.85	2.20 81659	-71.19661788	sampled r ght culvert		0.6	16 7	11 6	Norwood	0 5	0.63	Wet
PB02B	ND	ND	0.13	ND	ND	0.16	3.3	~1.6	2.205098 1	-71.96 8 1	sample collected before two s eams mix		0.2	15 5	515	Norwood	0 5	0.63	Wet
PB02	ND	ND	0.17	ND	ND	0.07	3.8	ND	2.20 59	-71.19851	sample collected near culvert		0.3	17.	712	Norwood	0 5	0.63	Wet
UR019	ND	ND	0.05	ND	ND	0.08	3.8	~1.7	2.20 59	-71.19851	duplicate of PB02		0.3	17.	712	Norwood	0 5	0.63	Wet

E. coli - co or key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml

Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Ye low ≥ 61 col 100ml, B ack < 61 col/100ml

NH3 - color key: Red ≥ 6 mg L, Orange ≥ 3 mg/L, Ye low ≥ 0.5 mg/L, Black < 0.5 mg/L

Surfactants - co or key: Red ≥ 1.0 mg/L, Orange ≥ 0 5 mg/L, Yellow ≥ 0 25 mg/L, Black < 0.25 mg/L *** may give false posi ive at sa in ty grea er than 1 ppt

C 2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0 02 mg/L, Black < 0.02 mg/L

Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Ye low ≥ 0.5 mg/L, Black < 0.5 mg/L

Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

REPOR ING LIMI S

E. coli = MPN 100mL	To al Phosphorus = 5 ug/L
Enterococcus = 10 MPN/100mL	CL2 (Total Residual) = 0.02 mg/L
Surfactants Alpha = 0 05 mg/L (Except where otherwise n	CL2 (Residual Free) = 0.05 mg/L
Surfactants Field = 0.1 mg/L	CL2 Field = 0.02 mg/L
Surfactant DR-850 = 0.02 mg/L	CL2 Test Strip =
Ammonia (Alpha) = 0.075 mg/L	Flouride Alpha= 0.20 mg/L
Ammonia Fie d = 0.1 mg/L	Flouride DR-850 = 0.05 mg/L (Except where otherwise no ed)
Ammonia Nessler = 0.2 mg/L	Potassium = 2.5 mg/L
Ammonia DR-850 = 0.08 mg/L	Potassium Fie d = 0.2 mg/L
Ammonia Test Strip = 0.1 mg/L	Nitrogen, Nitrate/Nitr te = 0.10 mg/l

ND – not detected above the associated detection l mit

NA – not applicable (analyte not tested for at that site at this time)

( ) data reported as estimate

Urban Rivers Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection					Sampling										Coordinates				YSI Meter			Weather			
														Field Kits					Test Strips												
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow gpm	Odor	Color	Turbidity	Floatables	Sampler	E.coli (cfu / 100ml)	Entero (cfu / 100ml)	Lab PPCP	Surfact. mg/L	NH3 mg/L	Cl2 mg/L	K mg/L	NH3 mg/L	Cl2 mg/L	GPS North(+)	GPS West (-)	Comments	ditional Location Informa	Salinity	Temp	Condu	Rain G	24hrs	48hrs	et/Dry
																								ppt	C	uS	Locatio	inches	inches	
6/10/09	Lawrence	Shaw1	12:30	pen strea	na		musty	tea	yes	None	TB	353	NA	NA	0.05	.5 ness	NA	1.65	ND	ND	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks off Sutto	0.3	16.6	700	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE1	12:58	pen strea	na		None	light tea	Clear	None	LB	251	NA	NA	0.10	.4 ness	NA	0.35	ND	ND	42.696201	-71.1459901	Combined sample from SLE2 and	Behind S. Lawrence elementa	0.3	16.7	577	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE2	13:02	pen strea	na		None	light tea	Clear	None	LB	328	NA	NA	0.05	.5 ness	NA	2.35	ND	ND	42.696209	-71.1457001	Shawsheen River	main stream sample before co	0.3	16.7	679	Lawrence	0.1	0.1	Wet
6/10/09	Lawrence	SLE3	13:11	CM	36	strong musty		None	Clear	None	TB	616	NA		0.10	.6 ness	NA	5.05	ND	ND	42.695971	-71.1455601	strong flow, lots and lots of gray s	Concrete outfall metal grate co	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
8/19/09	Lawrence	SPR01	7:55	open stream			None	None	Clear	None	LB	96	NA	NA	ND	ND	NA	NA	ND	ND	42.70688	-71.1476552	downstream of waterfall and Spik	confluence of canal & Spikett	0.1	26.5	188	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR02	8:00	open stream			musty	None	Clear	None	LB	96	NA	NA	0.10	ND	NA	NA	0.10	ND	42.7070375	-71.1481583	some algae on streambed, water	just down stream of canal wat	0.1	25.6	192.9	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR03	8:10	pen stream			None	None	Clear	ome suds	TB	319	NA	NA	0.10	ND	NA	NA	ND	ND	42.7074775	-71.1484665	shallow 1' aglae on rocks, some s	Upstream (~50') of Spickett R	0.2	23.2	480	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR04	8:15	m concrete pipe			None	None	Clear	None	LB	ND	NA	NA	ND	NA	NA	NA	ND	ND	42.7072588	-71.1480978	on Merrimack river side	leaky pipe under Spickett Rive	0.1	22.6	230	Lawrence	0	0	Dry
8/19/09	Lawrence	SPR05	8:55	concrete	18"	10	ght sewa	None	Clear	None	LB	1741	NA	NA	0.25	0.6	na	NA	4.00	ND	42.7099164	-71.1512991	tace hemoglobin off urine test stri	pipe off Lawrence Hospital	1.2	22.6	2291	Lawrence	0	0	Dry
8/19/09	Lawrence	Shaw01	9:40	cement	) 15' x 15'		None	med tea	cloudy	suds and	LB	157	NA	NA	0.10	NA	NA	NA	0.10	ND	42.7051688	-71.1400548	waded in, about 400' long channe	mouth of Shawsheen river, sa	0.3	24.6	633	Lawrence	0	0	Dry
8/19/09	Lawrence	UR012	9:40	cement	) 15' x 15'		None	med tea	cloudy	suds and	LB	174	NA	NA	NA	NA	NA	NA	NA	NA	42.7051688	-71.1400548	duplicate of Shaw01		na	na	na	Lawrence	0	0	Dry
8/19/09	Lawrence	SLE3	10:20	ment ou	3'	trong, musty sew		None	Clear	None	TB	34	NA	NA	0.20	NA	NA	NA	ND	ND	42.695971	-71.1455601	took additional photos	South Lawrence Elementary, l	0.5	15.5	1072	Lawrence	0	0	Dry

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
NH_3 - color key: Red ≥ 10 mg/L, Orange ≥ 3 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L
Fluoride - color key: Red ≥ 2.0 mg/L, Orange ≥ 1.0 mg/L, Yellow ≥ 0.5 mg/L, Black < 0.5 mg/L
Potassium - Red ≥ 20.0 mg/L, Orange ≥ 10 mg/L, Yellow ≥ 6 mg/L, Black < 6 mg/L

Surfactant reading given as estimates (actual steps 0, 0.25, 0.5, 0.75, 1, 1.5, 2, 3)
Ammonia test strip reading given as estimates (actual steps 0, 0.25, 0.5, 1, 3, 6)

REPORTING LIMITS
E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Field = 0.05 mg/L
Ammonia Field = 0.05 mg/L
Ammonia Nessler = 0.2 mg/L
Ammonia Test Strip = 0.1 mg/L
CL2 Test Strip =
Potassium Field = 0.2 mg/L

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Urban Rivers Stormwater Outfall Inspection & Sampling Summary

Location				Sampling										Coordinates		
Date	Town	Site Name	Time	E.coli (cfu / 100ml)	Coliform (cfu / 100ml)	NH3 mg/L Alpha	NH3 mg/L Hach	Surfact. mg/L	OB	TSS	BOD	Cl2 mg/L	TP mg/L	GPS North(+)	GPS West (-)	Comments
7/21/08	Chelsea	IsEnd01	11:20	2595	NA	ND	NA	0.08	87.5	NA	NA	NA	NA	42.394445	71.049817	End of beachum and
7/21/08	Chelsea	IsEnd02	11:25	3080	NA	ND	NA	0.19	213	NA	NA	NA	NA	42.394436	71.049780	End of beachum and
7/21/08	Chelsea	IsEnd04	11:30	>241960	NA	13.0	NA	0.14	20.0	NA	NA	NA	NA	42.394405	71.049676	End of beachum and
8/21/08	Chelsea	IsEnd04	10:35	2595	NA	2.68	NA	ND	178	NA	NA	NA	NA	42.394405	71.049676	End of beachum and
7/21/08	Chelsea	IsEnd04d	11:30	>241960	NA	13.5	NA	0.15	20.0	NA	NA	NA	NA	42.394405	71.049676	Duplicate
9/4/08	Chelsea	Mill	11:00	7945	NA	ND	NA	0.08	61.1	NA	NA	NA	NA	42.403301	71.017871	Mill Creek sample mid
7/21/08	Chelsea	Mill1	9:35	9330	NA	ND	NA	0.18	246	NA	NA	NA	NA	42.403156	71.018129	Broadway at New Cro
9/4/08	Chelsea	Mill1A	10:52	406	NA	0.78	NA	0.13	342	NA	NA	NA	NA	42.40334224	71.017761	Culvert across stream
7/21/08	Chelsea	Mill2	9:55	9678	NA	1.33	NA	0.18	308	NA	NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be
9/4/08	Chelsea	Mill2	11:20	38	NA	4.12	NA	0.24	324	NA	NA	ND	NA	42.403340	71.020587	(Gillooly) Cabot St be
9/4/08	Chelsea	Mill2d	11:20	54	NA	4.01	NA	0.22	309.0	NA	NA	ND	NA	42.403340	71.020587	Duplicate
7/21/08	Chelsea	Mill3	10:10	15530	NA	ND	NA	0.09	170	NA	NA	NA	NA	42.407977	71.027112	Downstream of Rev06
8/21/08	Chelsea	Mill3	9:55	1844	NA	0.27	NA	0.07	66.6	NA	NA	NA	NA	42.407977	71.027112	Downstream of Rev06
8/21/08	Chelsea	Mill3A	10:04	271	NA	ND	NA	0.06	29.2	NA	NA	NA	NA	42.407993	71.027011	Small culvert opening
7/21/08	Chelsea	Mill4	10:35	3266	NA	ND	NA	0.11	266	NA	NA	NA	NA	42.410125	71.028722	Head of Millcreek
7/21/08	Chelsea	Rev06	10:30	7945	NA	ND	NA	0.08	185	NA	NA	NA	NA	42.409914	71.028297	Downstream of Mill04
7/21/08	Boston	Bos014	8:10	3266	NA	ND	NA	0.08	103	NA	NA	NA	NA	42.382423	71.027076	Upstream of Condor U
7/21/08	Boston	Con	7:55	54750	NA	ND	NA	0.09	101	NA	NA	NA	NA	42.383054	71.030131	Condor Urban Wild, o
8/21/08	Everett	AF1	11:56	138	NA	0.41	NA	0.14	213	NA	NA	NA	NA	42.407709	71.069853	Down Air force road b
8/21/08	Everett	Floyd	11:15	48	NA	0.11	NA	0.05	35.7	NA	NA	NA	NA	42.412663	71.069288	Culvert near Madeline
8/21/08	Everett	IsEnd03A	10:45	11870	NA	0.82	NA	0.11	138	NA	NA	NA	NA	42.399997	71.053984	Where stream exits ur
9/4/08	Everett	IsEnd03A	9:57	86640	NA	1.03	NA	0.11	88.4	NA	NA	NA	NA	42.399997	71.053984	Where stream exits ur
9/22/08	Everett	IsEnd03A	11:40	6932	NA	0.542	1.70	0.14	96.6	NA	NA	0.06	NA	42.399997	71.053984	Where stream exits ur
8/21/08	Everett	IsEnd03B	10:50	3266	NA	1.17	NA	0.08	NA	NA	NA	0.10	NA	42.400115	71.050172	small pipe near IsEnd
9/4/08	Everett	IsEnd03B	9:58	9678	NA	0.56	NA	0.09	63.4	NA	NA	NA	NA	42.400115	71.050172	small pipe near IsEnd
9/22/08	Everett	IsEnd03B	11:42	1164	NA	0.48	NA	0.11	55.8	NA	NA	NA	NA	42.400115	71.050172	small pipe near IsEnd
8/4/08	Lawrence	SP01	7:16	458	NA	ND	NA	0.08	165	NA	NA	NA	NA	42 42'31.12"	71 9'1.07"	Channel
8/4/08	Lawrence	SP02	7:40	445	NA	ND	NA	0.08	165	NA	NA	NA	NA	42.711980	71.152671	Fulton Street
8/4/08	Lawrence	SP03	8:00	395	NA	ND	NA	0.07	161	NA	NA	NA	NA	42.714655	71.156191	Brook Street
8/4/08	Lawrence	SP04	8:23	12	NA	ND	NA	0.24	233	NA	NA	ND	NA	42 42'49.21"	71 10'21.11"	Exchange Street outfa
8/4/08	Lawrence	SP05	8:35	363	NA	ND	NA	0.07	160	NA	NA	NA	NA	42 42'49.31"	71 10'20.89"	Exchange Street
8/21/08	Malden	TLB2	8:47	312	NA	1.44	NA	0.10	154	NA	NA	NA	NA	42.424881	71.041827	Town Line Brook whe
9/4/08	Medford	Kohl01	8:40	68	NA	0.50	NA	0.09	382	NA	NA	NA	NA	42.40717819	71.090874	broken down culvert o
7/21/08	Medford	Mhb	12:30	7945	NA	ND	NA	0.06	98.2	NA	NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (M
7/21/08	Medford	Mhb2	12:40	9678	NA	NA	NA	NA	203	NA	NA	NA	NA	42.419214	71.117619	Culvert off Meeting He
9/4/08	Medford	Ship01	7:42	4	NA	0.49	NA	ND	11.1	NA	NA	0.63	NA	42.41539348	71.103014	Small pipe next to cul
8/21/08	Medford	Tufts	12:09	91	NA	0.19	NA	0.06	79.1	NA	NA	NA	NA	42.413180	71.076268	Little Creek near Tufts
9/4/08	Medford	WB01	7:08	6212	NA	0.40	NA	0.07	79.7	NA	NA	NA	NA	42 25'07.64	71 87'40.33	Whittmore Brook off A
8/25/08	Melrose	Ell1	11:15	1741	NA	ND	NA	0.53	63	NA	NA	NA	NA	42.461136	71.069376	Across from 50 Tremo
8/25/08	Melrose	Ell1d	11:15	1462	NA	ND	NA	0.21	62.5	NA	NA	NA	NA	42.461136	71.069376	Duplicate
8/25/08	Melrose	Ell2	11:20	716	NA	ND	NA	0.20	68.4	NA	NA	NA	NA	42.461136	71.069370	Across from 50 tremo
8/25/08	Melrose	Ell3	11:35	23820	NA	0.09	NA	0.07	162	NA	NA	NA	NA	42.461429	71.068840	culvert across from D
8/25/08	Melrose	Mal1	7:53	774	NA	0.12	NA	0.06	103	NA	NA	NA	NA	42.440652	71.070136	Malden River across f
8/25/08	Melrose	Mal2	9:08	749	NA	0.10	NA	0.06	97.5	NA	NA	NA	NA	42.444227	71.069626	Just downstream of N
8/25/08	Melrose	Mal3	10:15	1462	NA	0.11	NA	0.06	83.2	NA	NA	NA	NA	42.449076	71.069831	Outlet of Malden Rive
8/25/08	Melrose	OM1	8:20	80	NA	0.14	NA	0.13	76.2	NA	NA	NA	NA	42.441688	71.071068	Old Mill at head of str
8/25/08	Melrose	OM2	8:15	25	NA	1.18	NA	0.16	162	NA	NA	NA	NA	42.441720	71.070899	Old Mill Sample small
8/25/08	Melrose	OM3	8:25	12	NA	ND	NA	ND	54.8	NA	NA	ND	NA	42.441687	71.071070	12inch clay pipe next
6/23/08	Melrose	Otis	8:50	3266	NA	0.77	NA	0.09	95.2	NA	NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch
8/25/08	Melrose	Otis	11:52	96	NA	ND	NA	0.33	29.1	NA	NA	NA	NA	42.461342	71.075691	Corner of Otis and Ch
8/25/08	Melrose	Roo1	12:12	9678	NA	0.13	NA	0.08	153	NA	NA	NA	NA	42.464603	71.070066	Roosevelt School off E
8/25/08	Melrose	SP1	10:45	186	NA	0.15	NA	ND	33.5	NA	NA	NA	NA	42.455333	71.080747	Corner of Philips Rd &
6/30/08	Methuen	Mer1	8:43	1162	1495	ND	NA	0.05	224	NA	NA	NA	NA	42.743207	71.208453	walked in from small r
8/4/08	Methuen	Mer1	10:45	293	NA	ND	NA	0.07	137	NA	NA	NA	NA	42.743250	71.208438	walked in from small r
8/13/08	Methuen	MSPCA1	9:00	80	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.729569	71.195557	mid-channel sample ju
8/13/08	Methuen	MSPCA3	9:30	81	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.731521	71.200097	downstream side of 1s
8/13/08	Methuen	MSPCA4	9:40	54	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734448	71.199880	Just upstream of 2nd 1
8/13/08	Methuen	MSPCA5	9:55	136	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734293	71.199230	pond Northwest of MS
8/13/08	Methuen	MSPCA6	10:30	58	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.734889	71.200300	~ 50m upsreatm of MS
8/13/08	Methuen	MSPCA7	10:40	20	NA	ND	NA	NA	NA	NA	NA	NA	NA	42.736056	71.201397	~100m upsreatm of MS
8/4/08	Methuen	SP06	9:05	342	NA	ND	NA	0.08	153	NA	NA	NA	NA	42.724919	71.183033	RT 28 castle park
8/4/08	Methuen	SP07	9:55	12	NA	ND	NA	0.05	49.2	NA	NA	~0.02	NA	42.727453	71.188366	Outfall downstream el
7/21/08	Revere	Hadd	9:00	612	NA	ND	NA	0.15	257	NA	NA	NA	NA	42.402480	71.010704	Revere Beach Parkwa
8/21/08	Revere	LinB	7:55	2190	NA	0.27	NA	0.07	79	NA	NA	NA	NA	42.434553	71.020547	Linden Brook as it day
8/21/08	Revere	Rt1trib	8:10	351	NA	0.14	NA	0.07	83.7	NA	NA	NA	NA	42.434497	71.020322	Tributary to Linden Br
8/21/08	Revere	TLB1	8:25	3266	NA	0.30	NA	0.08	153	NA	NA	NA	NA	42.433793	71.021460	Town Line Brook at ho
8/21/08	Revere	trifone	9:20	14010	NA	0.11	NA	0.06	96.8	NA	NA	NA	NA	42.425568	71.026803	Stream at the of Amel
6/30/08	Salem, NH	Mer2	9:06	288	694	ND	NA	0.05	195	NA	NA	NA	NA	42.755268	71.207933	Walked in behind auto
8/4/08	Salem, NH	Mer2	12:02	302	NA	ND	NA	0.07	127	NA	NA	NA	NA	42.755035	71.208086	Walked in behind auto
6/30/08	Salem, NH	Mer3	9:35	590	590	ND	NA	0.07	303	NA	NA	NA	NA	42.762503	71.222746	Parked at Lancelot Co
6/30/08	Salem, NH	Mer4	10:00	580	590	ND	NA	0.06	298	NA	NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's
6/30/08	Salem, NH	Mer4d	10:00	631	811	ND	NA	0.07	306	NA	NA	NA	NA	42.763121	71.232673	Parked at Uncle Bob's
6/30/08	Salem, NH	Mer5	10:27	883	739	ND	NA	0.06	340	NA	NA	NA	NA	42.767438	71.223016	Parked behind Kohl's
6/30/08	Salem, NH	Mer6	11:05	775	955	ND	NA	0.07	355	ND	NA	NA	NA	42.774065	71.224326	Parked at Salem Mar
6/30/08	Salem, NH	Mer6A	10:55	802	847	ND	NA	0.07	385	ND	NA	NA	NA	42.774045	71.224331	Parked at Salem Mar

6/30/08	Salem, NH	Mer7	11:30	775	955	ND	NA	0.05	267	ND	NA	NA	NA	42.778121	71.227147	Parked across from nc
6/30/08	Salem, NH	Mer8	11:51	568	649	ND	NA	0.05	257	ND	NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh
8/4/08	Salem, NH	SP08	11:43	464	NA	0.108	NA	0.07	127	NA	NA	NA	NA	42.751038	71.212086	Spencer Street
8/4/08	Salem, NH	SP08d	11:43	847	NA	ND	NA	0.07	128	NA	NA	NA	NA	42.751038	71.212086	duplicate
6/23/08	Stoneham	100A	11:00	14400	NA	ND	NA	0.19	246	NA	NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook wes
9/15/08	Stoneham	100A	9:42	1642	NA	ND	NA	0.07	135	NA	NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook wes
6/23/08	Stoneham	1Linden	11:16	6932	NA	ND	NA	0.20	243	NA	NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @
9/15/08	Stoneham	1Linden	9:54	1549	NA	ND	NA	0.06	122	NA	NA	NA	NA	42.4824877	71.1060371	Sweetwater Brook @
9/15/08	Stoneham	1Lindend	9:54	1844	NA	ND	NA	0.05	122	NA	NA	NA	NA	42.4824877	71.1060371	Duplicate
6/23/08	Stoneham	1West	11:42	14100	NA	0.410	NA	0.29	305	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
7/15/08	Stoneham	1West	7:57	3266	NA	ND	0.00	0.05	36.2	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
8/12/08	Stoneham	1West	7:29	4813	NA	0.18	NA	NA	147	NA	NA	~0.02	NA	42.4826072	71.1046187	Unnamed tributary to
9/22/08	Stoneham	1West	10:45	54750	NA	ND	0.30	0.05	24	NA	NA	0.09	NA	42.4826072	71.1046187	Unnamed tributary to
6/23/08	Stoneham	2dLinden	12:02	13700	NA	ND	NA	0.30	336	NA	NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @
9/22/08	Stoneham	2dLinden	9:56	3266	NA	0.098	0.40	0.06	56.7	NA	NA	0.10	NA	42.483930	71.1039388	Duplicate
7/15/08	Stoneham	2Lincul	8:20	430	NA	ND	NA	0.06	40.7	NA	NA	NA	NA	42.484141	71.103935	Inside culvert upstrea
9/22/08	Stoneham	2Lincul	10:10	9678	NA	0.078	0.55	0.06	23.4	NA	NA	0.03	NA	42.484141	71.103935	Inside culvert upstrea
6/23/08	Stoneham	2Linden	12:02	9600	NA	ND	NA	0.32	361	NA	NA	ND	NA	42.483930	71.1039388	Sweetwater Brook @
7/15/08	Stoneham	2Linden	8:15	689	NA	ND	0.00	0.05	83.5	NA	NA	ND	NA	42.483930	71.1039388	Sweetwater Brook @
8/12/08	Stoneham	2Linden	7:18	8800	NA	0.37	NA	0.14	108	NA	NA	ND	132	42.484033	71.103950	Sweetwater Brook @
9/22/08	Stoneham	2Linden	9:56	2747	NA	0.217	0.40	0.07	55.4	NA	NA	0.10	NA	42.483930	71.1039388	Sweetwater Brook @
9/11/08	Waltham	1st	13:28	455	NA	ND	NA	0.14	130	NA	NA	NA	NA	42.397176	-71.265148	across street from 55
9/11/08	Waltham	BB1	12:05	2595	NA	ND	NA	0.12	354	NA	NA	NA	NA	42.381368	-71.213770	Beaver Brook just ups
9/11/08	Waltham	CB1	12:59	310	NA	ND	NA	0.09	274	NA	NA	0.03	NA	42.381687	-71.233383	DPW outfall flowing in
9/11/08	Waltham	CB1d	12:59	319	NA	ND	NA	0.11	278	NA	NA	0.03	NA	42.381687	-71.233383	Duplicate
9/11/08	Waltham	Pars	12:01	714	NA	ND	NA	0.07	36.9	NA	NA	NA	NA	42.381394	-71.213800	Edwin Rd and Parson
9/11/08	Waltham	Wal23	11:10	4185	NA	ND	NA	0.09	71.8	NA	NA	ND	NA	42.367267	-71.218116	Intersection of Pleasa
9/11/08	Watertown	LB1	9:41	2190	NA	ND	NA	0.05	211	NA	NA	0.10	NA	42.364733	-71.189067	Laundry Brook just off
9/11/08	Watertown	Saw1	8:08	395	NA	ND	NA	0.09	162	NA	NA	NA	NA	42.361991	-71.147963	Corner of Greenough
9/11/08	Watertown	Saw2	9:04	416	NA	ND	NA	0.09	111	NA	NA	NA	NA	42.363675	-71.155668	Outfall - So. Sawins B
9/11/08	Watertown	Wat5	10:25	222	NA	ND	NA	0.08	212	NA	NA	NA	NA	42.367449	-71.198957	Culvert on right, 290 F
9/11/08	Watertown	Wat6	10:27	260	NA	ND	NA	0.12	225	NA	NA	NA	NA	42.367489	-71.198853	Culvert on left, 290 Pl
6/23/08	Winchester	62Sun	9:30	533	NA	ND	NA	ND	179	NA	NA	NA	NA	42.4733306	71.1187503	unnamed stream in W
7/28/08	Winchester	M01	7:35	2452	NA	ND	NA	0.09	124	NA	NA	NA	NA	42.441521	71.149149	Sandy Beach Location
7/28/08	Winchester	M02	7:58	4813	NA	ND	NA	0.09	133	NA	NA	NA	NA	42.442878	71.142845	Mystic River pkwy, un
7/28/08	Winchester	M03	8:14	3683	NA	ND	NA	0.09	132	NA	NA	NA	NA	42.444363	71.138845	commuter rail station
7/28/08	Winchester	M04	8:31	156	NA	ND	NA	0.07	84.6	NA	NA	NA	NA	42.455647	71.137980	Main street bridge bet
7/28/08	Winchester	M05	8:42	126	NA	ND	NA	0.06	88.6	NA	NA	NA	NA	42.456789	71.138966	bridge across from W
7/28/08	Winchester	M06	9:10	44	NA	ND	NA	0.06	82.6	NA	NA	NA	NA	42.464865	71.151279	Horn Pond outlet, lake
7/28/08	Winchester	M07	9:26	4813	NA	ND	NA	0.08	155	NA	NA	NA	NA	42.456149	71.136269	ambient stream samp
8/25/08	Winchester	M07	12:55	806	NA	0.24	NA	0.07	122	NA	NA	NA	NA	42.456149	71.136269	ambient stream samp
7/28/08	Winchester	M08	9:40	64	NA	3.11	NA	0.07	145	NA	NA	ND	NA	42.456399	71.136447	small pipe exiting ball
9/4/08	Winchester	M08A	12:15	408	NA	0.994	NA	0.25	99.3	NA	NA	NA	NA	42.456365	71.136337	flow from directly und
7/28/08	Winchester	M09	9:55	6212	NA	ND	NA	0.07	157	NA	NA	NA	NA	42.460935	71.137149	down street from Abe
7/28/08	Winchester	M10	10:16	5654	NA	ND	NA	0.06	157	NA	NA	NA	NA	42.464339	71.132424	Tufts school behind st
7/28/08	Winchester	M10a	10:30	162	NA	ND	NA	0.07	81.4	NA	NA	NA	NA	42.464200	71.131111	Tufts school stream ne
7/28/08	Winchester	M11	10:48	241	NA	ND	NA	0.07	122	NA	NA	NA	NA	42.468186	71.130921	park near Forest rd, o
7/28/08	Winchester	M11d	10:48	248	NA	ND	NA	0.09	120	NA	NA	NA	NA	42.468186	71.130921	Duplicate
7/28/08	Winchester	M12	11:35	6932	NA	ND	NA	0.05	165	NA	NA	NA	NA	42.469507	71.125285	behind hospital, MyRV
9/15/08	Winchester	M12	8:25	7945	NA	0.63	NA	0.09	268	NA	NA	NA	NA	42.469507	71.125285	behind hospital, MyRV
7/28/08	Winchester	M13	12:31	248	NA	NA	NA	NA	56.8	NA	NA	NA	NA	42.467019	71.120658	outlet to resevoir
9/15/08	Winchester	MO5	8:00	373	NA	ND	NA	0.07	148	NA	NA	NA	NA	42.456789	71.138966	bridge across from W
9/15/08	Winchester	MO8	7:35	7945	NA	0.615	NA	0.08	250	NA	NA	NA	NA	42.456399	71.136447	small pipe exiting ball
9/15/08	Winchester	MO8main	7:40	5654	NA	0.876	NA	0.08	259	NA	NA	NA	NA	42.456425	71.136466	Main stream next to M
6/23/08	Woburn	1Kraft	10:17	5654	NA	ND	NA	0.27	346	NA	NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus
9/15/08	Woburn	1Kraft	8:50	767	NA	ND	NA	0.09	131	NA	NA	NA	NA	42.4770646	71.1175936	Sweetwater Brook jus
6/23/08	Woburn	1Merrell	10:00	2069	NA	0.76	NA	0.10	244	NA	NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in
9/15/08	Woburn	1Merrell	8:40	6212	NA	0.776	NA	0.08	274	NA	NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in
6/23/08	Woburn	2Merrell	10:23	2190	NA	0.41	NA	0.08	236	NA	NA	NA	NA	42.477141	71.1176671	Aberjona upstream o
7/15/08	Woburn	Aber	9:20	408	NA	ND	NA	0.06	194.3	NA	NA	NA	NA	42.493138	71.124117	Washington street corr
7/15/08	Woburn	Burb	9:08	599	NA	ND	0.00	0.06	197.0	NA	NA	NA	NA	42.491300	71.127027	Operator of AMR gran
7/15/08	Woburn	Fit	10:55	152	NA	3.91	>3	0.09	226.0	NA	NA	NA	NA	42.501121	71.134909	near 60 Olympia Ave
7/15/08	Woburn	Fitd	10:55	152	NA	3.94	>3	0.08	228.7	NA	NA	NA	NA	42.501121	71.134909	Duplicate
9/15/08	Woburn	McDO1	9:20	5654	NA	1.02	NA	0.09	278	NA	NA	NA	NA	42.478598	71.118001	
8/12/08	Woburn	Mys 9	9:15	445	NA	NA	NA	NA	89.3	NA	NA	NA	59	42.520981	71.147709	Upstream of Mys 8 wi
7/10/08	Woburn	Mys1	8:15	7945	NA	2.37	NA	0.09	334	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
7/15/08	Woburn	Mys1	11:15	164	NA	3.46	>3	0.08	237.0	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
8/12/08	Woburn	Mys1	8:35	3922	NA	NA	NA	NA	185	NA	NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis
7/10/08	Woburn	Mys10	11:13	2452	NA	1.25	NA	0.06	339	ND	2.50	NA	NA	42.517881	71.150535	Just upstream from M
8/12/08	Woburn	Mys10	10:00	4480	NA	NA	NA	NA	175	NA	NA	NA	18	42.517881	71.150535	Upstream of Mys 7 an
7/10/08	Woburn	Mys2	8:45	1230	NA	3.70	NA	0.08	116	NA	NA	NA	NA	42.513504	71.138870	74 Commerce Way (M
7/10/08	Woburn	Mys3	9:11	6932	NA	ND	NA	0.08	307	NA	NA	NA	NA	42.515744	71.136289	Marshall's shipping lot
7/10/08	Woburn	Mys4	9:20	5199	NA	0.50	NA	0.10	289	NA	NA	NA	NA	42.516016	71.136885	Across Street from las
7/10/08	Woburn	Mys5	9:38	239	NA	ND	NA	ND	175	NA	NA	NA	NA	42.517193	71.141968	Turn on Atlantic Ave p
7/10/08	Woburn	Mys6	9:56	2452	NA	0.73	NA	0.08	296	NA	NA	NA	NA	42.513758	71.144110	where hulls brook cros
7/10/08	Woburn	Mys7	10:18	27230	NA	4.29	NA	0.07	396	ND	6.30	NA	NA	42.518563	71.146526	New Boston St where
8/12/08	Woburn	Mys7	8:46	111990	NA	NA	NA	NA	236	NA	NA	NA	181	42.518563	71.146526	New Boston St where
9/22/08	Woburn	Mys7	8:09	3080	NA	6.22	>3	0.06	121	NA	NA	ND	NA	42.518563	71.146526	New Boston St where
8/12/08	Woburn	Mys71	9:50	57940	NA	106.00	NA	0.16	329	NA	NA	NA	196	42.518477	71.148139	Stream entering upstr
9/22/08	Woburn	Mys71	9:00	3466	NA	124	NA	0.18	582	NA	NA	NA	NA	42.518477	71.148139	Stream entering upstr
8/12/08	Woburn	Mys72	9:45	32550	NA	3.30	NA	0.08	176	NA	NA	NA	27	42.518433	71.148226	upstream from 7 and

9/22/08	Woburn	Mys72	8:51	395	NA	4.45	NA	0.07	112	NA	NA	NA	NA	42.518433	71.148226	upstream from 7 and 7
7/10/08	Woburn	Mys8	10:30	41060	NA	4.57	NA	0.06	192	10.0	4.90	NA	NA	42.518739	71.146411	Opposite stream from
8/12/08	Woburn	Mys8	8:47	1954	NA	16.40	NA	0.06	92.5	NA	NA	NA	34	42.518739	71.146411	Opposite stream from
8/12/08	Woburn	Mys81	9:10	992	NA	15.10	NA	0.06	88.7	NA	NA	NA	41	42.519578	71.146937	Just upstream from M
7/10/08	Woburn	Mys8d	10:30	41060	NA	4.52	NA	0.06	178	12.0	3.20	NA	NA	42.518739	71.146411	Duplicate
8/12/08	Woburn	Mys8d	8:47	1954	NA	16.90	NA	0.05	88.5	NA	NA	NA	35	42.518739	71.146411	Duplicate
7/10/08	Woburn	Mys9	10:45	1549	NA	4.93	NA	0.06	190	ND	ND	NA	NA	42.520981	71.147709	Just upstream from M
7/15/08	Woburn	Olym	10:35	606	NA	ND	0.50	0.09	123.9	NA	NA	NA	NA	42.500145	71.141333	Olympia Ave
8/12/08	Woburn	Olym1	10:45	3922	NA	0.26	NA	0.12	188	NA	NA	NA	51	42.498925	71.137440	Olympia Ave, just dov
9/15/08	Woburn	Olym1	11:31	258	NA	ND	NA	0.08	272	NA	NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov
9/15/08	Woburn	Olym2	11:20	568	NA	ND	NA	0.08	266	NA	NA	NA	NA	42.497445	71.134658	Off Olym Ave back o
9/22/08	Woburn	Olym2	7:46	1549	NA	0.196	NA	0.09	104	NA	NA	NA	NA	42.497445	71.134658	Off Olym Ave back o
7/15/08	Woburn	Sal	9:40	430	NA	1.84	NA	0.09	231.5	NA	NA	NA	NA	42.491580	71.128834	1921yr culvert
7/15/08	Woburn	US1	9:55	125	NA	ND	0.30	0.07	108.3	NA	NA	NA	NA	42.495445	71.134031	behind United Station
7/15/08	Woburn	US2	10:05	740	NA	ND	0.60	1.60	117.8	NA	NA	NA	NA	42.495411	71.133994	closer to culvert than
8/12/08	Woburn	US3	7:53	>241960	NA	0.14	NA	0.18	120	NA	NA	NA	NA	42.495550	71.133700	Blue culvert across R
9/15/08	Woburn	US3	10:38	7945	NA	ND	NA	0.08	128	NA	NA	NA	NA	42.495550	71.133700	Blue culvert across R
9/22/08	Woburn	US3	7:14	1140	NA	0.132	0.45	0.07	55.7	NA	NA	0.05	NA	42.495550	71.133700	Blue culvert across R
8/12/08	Woburn	US4	8:03	198630	NA	0.12	NA	0.17	117	NA	NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south
9/15/08	Woburn	US4	10:41	1164	NA	ND	NA	0.09	162	NA	NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south
9/15/08	Woburn	US5	10:47	2595	NA	ND	NA	0.07	129	NA	NA	NA	NA	42.495412	71.134111	Upstream of US3, san
9/22/08	Woburn	US5	7:24	1102	NA	0.109	NA	0.08	55.4	NA	NA	NA	NA	42.495412	71.134111	Upstream of US3, san
7/15/08	Woburn	WashC	8:55	316	NA	1.32	2.20	0.07	220.5	NA	NA	NA	NA	42.485896	71.120882	Wash Cir, just off Wa

Additional Location Information	Weather			
	Rain Gauge	24hrs	48hrs	/et/Dry?
	Location	inches	inches	
(closest to road) stron	Boston-Logan	1.28	1.28	Wet
(midpoint from road) s	Boston-Logan	1.28	1.28	Wet
(farthest from road) s	Boston-Logan	1.28	1.28	Wet
not quite as black as l	Boston-Logan	0	0	Dry
Duplicate	Boston-Logan	1.28	1.28	Wet
Clear flow, low flow ro	Boston-Logan	0	0	Dry
Outfall on opposite st	Boston-Logan	1.28	1.28	Wet
Lots of orange flock a	Boston-Logan	0	0	Dry
Sewage odor (Gillool	Boston-Logan	1.28	1.28	Wet
water looks clear. Flo	Boston-Logan	0	0	Dry
	Boston-Logan	0	0	Dry
Plaque covering outfa	Boston-Logan	1.28	1.28	Wet
Very little flow, greeni	Boston-Logan	0	0	Dry
water clea,r gray bact	Boston-Logan	0	0	Dry
	Boston-Logan	1.28	1.28	Wet
- walked culvert	Boston-Logan	1.28	1.28	Wet
White plaque coverin	Boston-Logan	1.28	1.28	Wet
Sewage odor, plaque	Boston-Logan	1.28	1.28	Wet
Scum on top, some pe	Boston-Logan	0	0	Dry
1/4" growth/deposit of	Boston-Logan	0	0	Dry
orange all over the ro	Boston-Logan	0	0	Dry
very silty, bacteria and	Boston-Logan	0	0	Dry
plaque accumulation,	Boston-Logan	0.31	0.31	Wet
very orange, very turb	Boston-Logan	0	0	Dry
orange, slimy, and ve	Boston-Logan	0	0	Dry
orange, slimy, and ve	Boston-Logan	0.31	0.31	Wet
No GPS taken at site, no satellites avail		0.12		Wet
No noticable odor to stream.		0.12		Wet
No noticable odor to stream.		0.12		Wet
No odor, a little foam though		0.12		Wet
No noticable odor to stream.		0.12		Wet
Orange floc, oil slick,	Boston-Logan	0	0	Dry
culvert has collapsed	Boston-Logan	0	0	Dry
Pretty clear	Boston-Logan	1.28	1.28	Wet
Strong sewage odor c	Boston-Logan	1.28	1.28	Wet
Very fresh smelling	Boston-Logan	0	0	Dry
slight film on top of wa	Boston-Logan	0	0	Dry
Some plaque on rocks	Boston-Logan	0	0	Dry
slight flow, clear	Bedford	0.01	0.02	Dry
	Bedford	0.01	0.02	Dry
flow appeared to chan	Bedford	0.01	0.02	Dry
flow clear, some algae	Bedford	0.01	0.02	Dry
6-8" in depth, slight tu	Bedford	0.01	0.02	Dry
sampled western char	Bedford	0.01	0.02	Dry
Highly turbid - orange	Bedford	0.01	0.02	Dry
flow 3x-4x in matter o	Bedford	0.01	0.02	Dry
~2 gal/min. entering c	Bedford	0.01	0.02	Dry
2 or 3gal/min, clear flo	Bedford	0.01	0.02	Dry
4 gal/min flow est, Mu	Boston-Logan	0	0	Dry
Had to move manhole	Bedford	0.01	0.02	Dry
Trash gate clogged ~S	Bedford	0.01	0.02	Dry
downstream of spot p	Bedford	0.01	0.02	Dry
Dry weather during sampling		0.43		Wet
Right on MA/NH border		0.12		Wet
ıst past RR bridge		0.48	0.38	Wet
ːt 113 bridge		0.48	0.38	Wet
l13 bridge		0.48	0.38	Wet
Pond entirely covered in duck weed		0.48	0.38	Wet
SPCA		0.48	0.38	Wet
SPCA		0.48	0.38	Wet
No noticable odor to stream.		0.12		Wet
Possible stream culvert, lots of algae th		0.12		wet
White PVC beside br	Boston-Logan	1.28	1.28	Wet
Heavy silt deposits on	Boston-Logan	0	0	Dry
Good flow, high sedim	Boston-Logan	0	0	Dry
Very silty	Boston-Logan	0	0	Dry
Deer prints, low flow,	Boston-Logan	0	0	Dry
parts/glass stor on right after bridge beh		0.43		Wet
No noticable odor to stream.		0.12		Wet
urt apartments behind 1st bu8ilding on le		0.43		Wet
storage on left off So. Policy. Sampled		0.43		Wet
storage on left off So. Policy. Sampled		0.43		Wet
		0.43		Wet
No noticable odor to stream. Dark to m		0.43		Wet
No noticable odor to stream. Very dark		0.43		Wet

No noticable odor to stream. Low turbid		0.43		Wet
No noticable odor to stream. Low turbid		0.43		Wet
Took GPS from street, no satellites at s		0.12		Wet
		0.12		Wet
Slight musty odor	Boston-Logan	0.38	0.38	Wet
Clear flow, no obvious	Bedford	0.33	0.33	Wet
No odor	Boston-Logan	0.38	0.38	Wet
downstream	Bedford	0.33	0.33	Wet
Duplicate	Bedford	0.33	0.33	Wet
Medium sewage odor	Boston-Logan	0.38	0.38	Wet
Musty odor	Boston-Logan	0.07	0.07	Dry
Unnamed tributary to	Bedford	0.24	0.51	Wet
No distinct odor	Boston-Logan	0.31	0.31	Wet
Duplicate	Boston-Logan	0.38	0.38	Wet
Duplicate	Boston-Logan	0.31	0.31	Wet
sampled largest pipe -	Boston-Logan	0.07	0.07	Dry
flow about 2-3 gal/min	Boston-Logan	0.31	0.31	Wet
Slight odor coming fro	Boston-Logan	0.38	0.38	Wet
No odor	Boston-Logan	0.07	0.07	Dry
(0.1" 48hrs prior to sa	Bedford	0.24	0.51	Wet
Slightly musty odor	Boston-Logan	0.31	0.31	Wet
sampled pond as it flowed out into culve		0	0.35	Wet
water tannish tea color pretty clear, high		0	0.35	Wet
water fairly clear no odor		0	0.35	wet
		0	0.35	Wet
Walked in along stream, water was poss		0	0.35	Wet
Water flowing approx. 5 gal/min. Looks		0	0.35	Wet
Fairly clear, no odor waded to just outsid		0	0.35	wet
Green algae covering rocks, grayish tint		0	0.35	Wet
Good flow strong rushing water sound h		0	0.35	Wet
light tannish tint to water, medium suspe		0	0.35	Wet
very large snapping turtle half inside/ha		0	0.35	Wet
No odor	Boston-Logan	0	0	Dry
	Bedford	0.31	0.64	Wet
Downstream	Bedford	0.31	0.64	Wet
bacon street bridge M	Bedford	0.31	0.64	Wet
between car lot and g	Bedford	0.31	0.64	Wet
Wedge Pond inlet	Bedford	0.31	0.64	Wet
lake ave, near water	Bedford	0.31	0.64	Wet
Near Super Stop & S	Bedford	0.31	0.64	Wet
Murky, some foam on	Bedford	0.01	0.02	Dry
small pipe	Bedford	0.31	0.64	Wet
site has deep deposits	Boston-Logan	0	0	Dry
2 pipes on bridge bot	Bedford	0.31	0.64	Wet
Next to Amtrack rail	Bedford	0.31	0.64	Wet
ear bus circle	Bedford	0.31	0.64	Wet
on cross culvert unde	Bedford	0.31	0.64	Wet
Duplicate	Bedford	0.31	0.64	Wet
MyRWA baseline site	Bedford	0.31	0.64	Wet
High flow no distinct o	Bedford	0.33	0.33	Wet
Across from Highland	Bedford	0.31	0.64	Wet
High flow pretty clear	Bedford	0.33	0.33	Wet
Occasional discharge	Bedford	0.33	0.33	Wet
Lots of leaf litter, mar	Bedford	0.33	0.33	Wet
strong strawberry jello	Bedford	0.18	0.18	Wet
very little odor, may b	Bedford	0.33	0.33	Wet
No odor	Bedford	0.18	0.18	Wet
Low TSS, tannish sta	Bedford	0.33	0.33	Wet
strong strawberry jello	Bedford	0.18	0.18	Wet
ner of Salem St	Bedford	0.01	0.01	Dry
Lots of seeds in the w	Bedford	0.01	0.01	Dry
Pretty clear water	Bedford	0.01	0.01	Dry
Duplicate	Bedford	0.01	0.01	Dry
Manhole nearby with	Bedford	0.33	0.33	Wet
Low flow, light brown	Bedford	0.24	0.51	Wet
culvert to right not flow	Bedford	0.89	0.89	Wet
Sampled main stream	Bedford	0.01	0.01	Dry
Waded 3 ft upstream	Bedford	0.24	0.51	Wet
walked in about 1-2 m	Bedford	0.89	0.89	Wet
Good flow	Bedford	0.24	0.51	Wet
No odor	Bedford	0.89	0.89	Wet
Marshalls shipping lo	Bedford	0.89	0.89	Wet
some geese swimmin	Bedford	0.89	0.89	Wet
No odor	Bedford	0.89	0.89	Wet
ses under New Boston	Bedford	0.89	0.89	Wet
water very turbid sligh	Bedford	0.89	0.89	Wet
Film on water, low flo	Bedford	0.24	0.51	Wet
Water grayish/green	Bedford	0.15	0.15	wet
Thick sediment, oily, t	Bedford	0.24	0.51	Wet
most likiliy from lands	Bedford	0.15	0.15	Wet
Thick layer of duck w	Bedford	0.24	0.51	Wet

'1, downstream of Mys	Bedford	0.15	0.15	Wet
Very turbid, foul odor	Bedford	0.89	0.89	Wet
Suspended solids	Bedford	0.24	0.51	Wet
were driveway enters	Bedford	0.24	0.51	Wet
Duplicate	Bedford	0.89	0.89	Wet
Duplicate	Bedford	0.24	0.51	Wet
were stream exits outf	Bedford	0.89	0.89	Wet
On N. side grass clipp	Bedford	0.01	0.01	Dry
Sandy bottom, beave	Bedford	0.24	0.51	Wet
Sandy bottom, med f	Bedford	0.33	0.33	Wet
Lots of duck weed. Li	Bedford	0.33	0.33	Wet
Clear, low flow (less t	Bedford	0.15	0.15	Wet
Downstream side	Bedford	0.01	0.01	Dry
Lots of trash in the ar	Bedford	0.01	0.01	Dry
Very turbid water, bro	Bedford	0.01	0.01	Dry
Grey, turbid water	Bedford	0.24	0.51	Wet
Med flow tannish colo	Bedford	0.33	0.33	Wet
Clear, good flow, no o	Bedford	0.15	0.15	Wet
Lots of green duck we	Bedford	0.24	0.51	Wet
Very little flow, believ	Bedford	0.33	0.33	Wet
Clear flow	Bedford	0.33	0.33	Wet
Clear flow	Bedford	0.15	0.15	Wet
downstream side	Bedford	0.01	0.01	Dry

RARE 2009						RARE 2010					Urban Rivers (2009)			
Town	Sites	Events	Lab	Field	YSI	Sites	Events	Lab	Field	YSI	**Sites	Events	Lab	Field
Andover	4	4	39	27	4	2	3	27	12	2	4	5	5	15
Arlington	2	2	24	10	0	26	32	363	142	32	0	0	0	0
Belmont	1	2	23	12	0	1	2	15	10	2	0	0	0	0
Beverly	0	0	0	0	0	4	4	28	20	4	0	0	0	0
Boston	8	9	115	71	5	12	19	290	80	19	6	9	10	30
Brookline	0	0	0	0	0	1	1	12	4	1	0	0	0	0
Chelsea	6	8	95	68	5	2	3	25	13	3	0	2	2	8
Concord, MA	0	0	0	0	0	1	1	11	5	1	0	0	0	0
Concord, NH	0	0	0	0	0	4	6	72	24	6	0	0	0	0
Danvers	2	2	26	12	3	0	0	0	0	0	0	0	0	0
Dorchester	2	3	39	14	2	0	0	0	0	0	0	2	1	5
Everett	0	0	0	0	0	0	0	0	0	0	1	1	1	4
Falmouth	0	0	0	0	0	8	9	99	45	8	0	0	0	0
Groveland	0	0	0	0	0	0	0	0	0	0	2	2	2	8
Haverhill	0	0	0	0	0	0	0	0	0	0	5	6	7	23
Laconia, NH	0	0	0	0	0	6	9	69	35	9	0	0	0	0
Lawrence	2	3	39	24	2	6	11	116	48	10	8	12	13	45
Lexington	2	2	26	13	2	4	4	47	20	4	0	0	0	0
Lowell	8	10	91	79	9	0	0	0	0	0	0	0	0	0
Lynn	1	2	23	12	1	1	1	12	4	1	1	1	1	3
Malden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manchester, NH	0	0	0	0	0	4	4	48	16	4	0	0	0	0
Marblehead	2	2	26	12	2	12	15	161	60	15	3	3	4	12
Medford	2	2	23	12	2	0	0	0	0	0	1	2	2	4
Melrose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Methuen	0	0	0	0	0	0	0	0	0	0	4	4	4	18
Milton	4	4	49	30	4	0	0	0	0	0	7	9	10	30
Newton	3	4	52	31	3	0	0	0	0	0	0	0	0	0
Norwood	3	4	50	32	4	0	0	0	0	0	11	13	15	39
Peabody	0	0	0	0	0	0	0	0	0	0	5	5	5	15
Plymouth	5	6	71	41	5	0	0	0	0	0	0	0	0	0
Quincy	8	13	159	78	10	14	19	208	72	19	8	18	20	66
Reading	1	1	13	8	1	0	0	0	0	0	7	10	10	31
Revere	0	0	0	0	0	5	7	71	32	7	8	9	9	32
Salem	0	0	0	0	0	1	1	12	4	1	2	2	4	6
Salem, NH	0	0	0	0	0	0	0	0	0	0	8	9	9	38
Somerville	1	2	20	14	2	0	0	0	0	0	2	3	3	9
Stoneham	5	8	86	51	5	8	9	102	44	11	1	5	5	13
Swampscott	0	0	0	0	0	1	1	12	4	1	1	2	2	3
Waltham	1	1	13	7	1	0	0	0	0	0	0	0	0	0
Warwick, RI	0	0	0	0	0	12	13	106	52	12	0	0	0	0
Watertown	2	2	15	14	2	11	12	96	36	12	0	0	0	0
Winchester	1	2	25	16	1	11	12	109	45	12	7	8	9	26
Woburn	11	16	184	115	10	19	23	214	94	20	15	24	30	104
Total	**87**	**114**	**1326**	**803**	**85**	**176**	**221**	**2325**	**921**	**216**	**117**	**166**	**183**	**587**
TOTAL RARE	**263**	**335**	**3651**	**1724**	**301**									
TOTAL (All)	**511**	**680**	**4335**	**2525**	**417**									

Upper Mystic														
Melrose	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reading	1	1	13	8	1	0	0	0	0	0	7	10	10	31
Stoneham	5	8	86	51	5	8	9	102	44	11	1	5	5	13
Winchester	1	2	25	16	1	11	12	109	45	12	7	8	9	26
Woburn	11	16	184	115	10	19	23	214	94	20	15	24	30	104
Total	**18**	**27**	**308**	**190**	**17**	**38**	**44**	**425**	**183**	**43**	**30**	**47**	**54**	**174**
TOTAL	**154**	**221**	**1057**	**679**	**78**									

Lower Mystic														
Arlington	2	2	24	10	0	26	32	363	142	32	0	0	0	0
Belmont	1	2	23	12	0	1	2	15	10	2	0	0	0	0
Chelsea	6	8	95	68	5	2	3	25	13	3	0	2	2	8
Everett	0	0	0	0	0	0	0	0	0	0	1	1	1	4
Lexington	2	2	26	13	2	4	4	47	20	4	0	0	0	0
Malden	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Medford	2	2	23	12	2	0	0	0	0	0	1	2	2	4
Somerville	1	2	20	14	2	0	0	0	0	0	2	3	3	9
Total	**14**	**18**	**211**	**129**	**11**	**33**	**41**	**450**	**185**	**41**	**4**	**8**	**8**	**25**
TOTAL	**73**	**98**	**764**	**376**	**55**									

South Shore														
Dorchester	2	3	39	14	2	0	0	0	0	0	0	2	1	5
Milton	4	4	49	30	4	0	0	0	0	0	7	9	10	30
Quincy	8	13	159	78	10	14	19	208	72	19	8	18	20	66
Total	**14**	**20**	**247**	**122**	**16**	**14**	**19**	**208**	**72**	**19**	**15**	**29**	**31**	**101**
TOTAL	**43**	**68**	**486**	**295**	**60**									

North Shore														
Beverly	0	0	0	0	0	4	4	28	20	4	0	0	0	0
Danvers	2	2	26	12	3	0	0	0	0	0	0	0	0	0
Lynn	1	2	23	12	1	1	1	12	4	1	1	1	1	3
Marblehead	2	2	26	12	2	12	15	161	60	15	3	3	4	12
Peabody	0	0	0	0	0	0	0	0	0	0	5	5	5	15
Revere	0	0	0	0	0	5	7	71	32	7	8	9	9	32
Salem	0	0	0	0	0	1	1	12	4	1	2	2	4	6
Swampscott	0	0	0	0	0	1	1	12	4	1	1	2	2	3
Total	**5**	**6**	**75**	**36**	**6**	**24**	**29**	**296**	**124**	**29**	**20**	**22**	**25**	**71**
TOTAL	**54**	**62**	**411**	**236**	**55**									

Merrimack														
Andover	4	4	39	27	4	2	3	27	12	2	4	5	5	15
Concord, NH	0	0	0	0	0	4	6	72	24	6	0	0	0	0
Groveland	0	0	0	0	0	0	0	0	0	0	2	2	2	8
Haverhill	0	0	0	0	0	0	0	0	0	0	5	6	7	23
Laconia, NH	0	0	0	0	0	6	9	69	35	9	0	0	0	0
Lawrence	2	3	39	24	2	6	11	116	48	10	8	12	13	45
Lowell	8	10	91	79	9	0	0	0	0	0	0	0	0	0
Machester, NH	0	0	0	0	0	4	4	48	16	4	0	0	0	0
Methuen	0	0	0	0	0	0	0	0	0	0	4	4	4	18
Salem, NH	0	0	0	0	0	0	0	0	0	0	8	9	9	38
Total	**14**	**17**	**169**	**130**	**15**	**22**	**33**	**332**	**135**	**31**	**31**	**38**	**40**	**147**
TOTAL	**90**	**115**	**629**	**435**	**77**									

Plymouth														
Plymouth	5	6	71	41	5	0	0	0	0	0	0	0	0	0
Total	**5**	**6**	**71**	**41**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
TOTAL	**5**	**6**	**71**	**41**	**5**									

Norwood														
Norwood	3	4	50	32	4	0	0	0	0	0	11	13	15	39
Total	**3**	**4**	**50**	**32**	**4**	**0**	**0**	**0**	**0**	**0**	**11**	**13**	**15**	**39**
TOTAL	**25**	**30**	**80**	**110**	**26**									

Charles														
Boston	8	9	115	71	5	12	19	290	80	19	6	9	10	30
Brookline	0	0	0	0	0	1	1	12	4	1	0	0	0	0
Newton	3	4	52	31	3	0	0	0	0	0	0	0	0	0

Waltham	1	1	13	7	1	0	0	0	0	0	0	0	0	0	
Watertown	2	2	15	14	2	11	12	96	36	12	0	0	0	0	
Total	**14**	**16**	**195**	**123**	**11**	**24**	**32**	**398**	**120**	**32**	**6**	**9**	**10**	**30**	
TOTAL	**51**	**64**	**624**	**281**	**51**										
Concord, MA															
Concord, MA	0	0	0	0	0	1	1	11	5	1	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**11**	**5**	**1**	**0**	**0**	**0**	**0**	
TOTAL	**1**	**1**	**11**	**5**	**1**										
Falmouth, MA															
Falmouth, MA	0	0	0	0	0	8	9	99	45	8	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**8**	**9**	**99**	**45**	**8**	**0**	**0**	**0**	**0**	
TOTAL	**8**	**9**	**99**	**45**	**8**										
Warwick, RI															
Warwick, RI	0	0	0	0	0	12	13	106	52	12	0	0	0	0	
Total	**0**	**0**	**0**	**0**	**0**	**12**	**13**	**106**	**52**	**12**	**0**	**0**	**0**	**0**	
TOTAL	**12**	**13**	**106**	**52**	**12**										

Urban Rivers (2008)						Incomplete Sample Sets	
YSI	**Sites	Events	Lab	Field	YSI	Lab	Field
5	0	0	0	0	0		
0	0	0	0	0	0	3	15
0	0	0	0	0	0		
0	0	0	0	0	0		
8	2	2	6	2	0		
0	0	0	0	0	0		
2	11	16	48	18	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
1	4	8	24	10	0		8
0	0	0	0	0	0		
2	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
11	5	5	15	6	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
0	1	1	6	2	0		
0	0	0	0	0	0		
3	0	0	0	0	0		
0	6	6	17	7	0		
0	12	14	42	15	0		
2	9	10	24	5	0		
8	0	0	0	0	0		
0	0	0	0	0	0		
11	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
16	0	0	0	0	0		
3	0	0	0	0	0		
8	5	5	15	5	0		
2	0	0	0	0	0		
6	9	12	49	12	0		10
0	0	0	0	0	0		
0	5	17	52	33	0		15
1	0	0	0	0	0		
0	6	6	12	9	0		
0	0	0	0	0	0		
0	5	5	15	6	0		
6	20	22	65	23	0		1
9	31	50	111	61	0		
116	**131**	**179**	**501**	**214**	**0**	**3**	**49**

0	12	14	42	15	0		
3	0	0	0	0	0		
0	5	17	52	33	0		15
6	20	22	65	23	0		1
9	31	50	111	61	0		
18	**68**	**103**	**270**	**132**	**0**		**16**

0	0	0	0	0	0	3	15
0	0	0	0	0	0		
2	11	16	48	18	0		
1	4	8	24	10	0		8
0	0	0	0	0	0		
0	1	1	6	2	0		
0	6	6	17	7	0		
0	0	0	0	0	0		
3	**22**	**31**	**95**	**37**	**0**	**3**	**23**

1	0	0	0	0	0		
8	0	0	0	0	0		
16	0	0	0	0	0		
25	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	0	0	0	0	0		
1	0	0	0	0	0		
3	0	0	0	0	0		
5	0	0	0	0	0		
8	5	5	15	5	0		
2	0	0	0	0	0		
1	0	0	0	0	0		
20	**5**	**5**	**15**	**5**	**0**	**0**	**0**

5	0	0	0	0	0		
0	0	0	0	0	0		
2	0	0	0	0	0		
5	0	0	0	0	0		
0	0	0	0	0	0		
11	5	5	15	6	0		
0	0	0	0	0	0		
0	0	0	0	0	0		
2	9	10	24	5	0		
6	9	12	49	12	0		10
31	**23**	**27**	**88**	**23**	**0**	**0**	**10**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

11	11	13	15	39	11		
11	**11**	**13**	**15**	**39**	**11**		**0**

8	2	2	6	2	0		
0	0	0	0	0	0		
0	0	0	0	0	0		

0	0	0	0	0	0		
0	5	5	15	6	0		
8	**7**	**7**	**21**	**8**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

0	0	0	0	0	0		
0	**0**	**0**	**0**	**0**	**0**		**0**

RARE Stormwater Outfall Inspection & Sampling Summary

Location				Outfall		Inspection										
													Surfact. (mg/l)			
Date	Town	Site Name	Time	Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	E.coli (MPN/100ml)	Entero (MPN/100ml)	Alpha	Field	DR-850	Alpha
4/21/10	Arlington	30Park	12:25	open stream	na	stream	none	light tea	clear	none	1741	8164	0.08	ND	NA	ND
5/5/10	Arlington	30Park	10:10	open stream	na	stream	none	light tea	clear	none	1302	350	0.07	ND	NA	0.164
5/5/10	Arlington	ArlRes	11:05	concrete	3'	stream	none	light tea	clear	some suds	183	74	NA	ND	NA	NA
5/26/10	Arlington	ArlRes	11:30	concrete	3'	stream	none	med tea	lightly turbi	none	479	548	NA	~0.1	NA	NA
5/5/10	Arlington	Brattle	9:10	open stream	na	stream	none	tea	very turbid	some	1462	776	NA	~0.1	NA	NA
5/5/10	Arlington	Drake01	10:55	open stream	na	stream	none	med tea	lightly turbi	none	2318	960	0.1	ND	NA	0.257
5/26/10	Arlington	Drake01	11:25	open stream	na	stream	none	med tea	lightly turbi	none	1230	663	NA	~0.1	NA	NA
4/21/10	Arlington	GroveS	9:45	concrete	40"	10-15	none	none	clear	none	744	7701	NA	0.2	NA	NA
5/5/10	Arlington	GroveS	8:10	concrete	40"	10-15	slight gas	none	clear	none	202	15531	NA	0.22	NA	NA
4/21/10	Arlington	RyderE	11:20	concrete	30"	29.0040741	none	none	clear	none	271	336	0.16	0.25	NA	0.13
5/5/10	Arlington	RyderE	9:32	concrete	30"	29.0040741	none	none	clear	none	49	30	NA	0.2	NA	NA
4/21/10	Arlington	RyMill	11:05	concrete	2'X3'	4.00407407	fresh	none	clear	none	1302	404	0.16	0.3	NA	0.677
5/5/10	Arlington	RyMill	9:25	concrete	2'X3'	3	emical/mus	none	fairly clear	none	2190	301	NA	~0.1	NA	NA
5/5/10	Arlington	UR022	8:10	Stone (instream)	6'	stream	natural gas	light tea	fairly clear	some suds	2069	583	0.07	~0.1	NA	0.218
5/5/10	Lexington	Vine01	11:55	open stream	na	stream	none	heavy tea	lightly turbi	some leaves	1302	393	NA	~0.1	NA	NA
5/5/10	Lexington	WF01	11:25	Stone (instream)	4'X4'	stream	none	none	cloudy	some scum	16	52	0.07	ND	NA	ND
6/2/10	Boston	29J212	10:22	concrete	60"	na	none	none	cloudy	particulates	568	52	NA	2	NA	NA
7/14/10	Boston	29J212	7:17	concrete	60"	na	none	none	clear	none	3683	199	NA	3	NA	NA
7/28/10	Boston	29J212	7:15	concrete	60"	na	lightly must	none	clear	none	890	ND	NA	3	NA	NA
6/2/10	Boston	Bos017	10:20	concrete	72"	na	none	none	cloudy	particulates	612	203	NA	2	NA	NA
7/14/10	Boston	Bos017	7:17	concrete	72"	na	musty	none	lightly cloud	some	129970	2489	NA	2.5	NA	NA
7/28/10	Boston	Bos017	7:16	concrete	72"	na	lightly must	none	clear	some	120330	2613	NA	3	NA	NA
7/14/10	Boston	UR029	7:17	concrete	60"	na	none	none	clear	none	3922	256	NA	3	NA	NA
7/21/08	Chelsea	IsEnd02	11:25	CM, semi-round	7'						3080	NA	0.19	NA	NA	ND
7/28/09	Chelsea	IsEnd02	9:25	CM, semi-round	7'		strong petroleum		tea/tan	cloudy	None	5654	122	0.16	0.6	0.068	0.252
7/21/08	Chelsea	IsEnd04	11:30									>241960	NA	0.14	NA	NA	13.0
8/21/08	Chelsea	IsEnd04	10:35									2595	NA	ND	NA	NA	2.68
7/21/08	Chelsea	IsEnd04d	11:30									>241960	NA	0.15	NA	NA	13.5
7/21/08	Chelsea	Mill2	9:55	concrete	~30 inches							9678	NA	0.18	NA	NA	1.33
9/4/08	Chelsea	Mill2	11:20	concrete	~30 inches							38	NA	0.24	NA	NA	4.12
5/26/09	Chelsea	Mill2	10:06	concrete	~30 inches	5-10gal/min	strong odor	clear	none	some suds		44	20	0.19	1.5	NA	4.31
7/28/09	Chelsea	Mill2	8:05	concrete	~30 inches	15	sharp sewa	clear	none	None		310	12	0.23	0.8	0.126	3.84
7/29/09	Chelsea	Mill2	8:30	concrete	~30 inches	10	strong odor	clear	none	none		NA	52	NA	0.70	NA	NA
9/1/10	Chelsea	Mill2	8:55	concrete	~30 inches	15	sharp sewa	clear	none	None		282	41	NA	0.5	NA	NA
5/26/09	Chelsea	Mill2A	11:10	CM	~24 inches	1 gal/min	none	clear	none	None		~4	ND	0.39	1	NA	7.02
7/29/09	Chelsea	Mill2A	8:40			3	dor - chemi	None	none	None		NA	10	NA	0.75	NA	NA
6/2/10	Chelsea	Mill2A	11:20	concrete	24	<5	usty/chemic	none	clear	trash		58	175	NA	0.8	NA	NA
9/1/10	Chelsea	Mill2A	8:30	concrete	24	<5	usty/chemic	none	clear	trash		8	ND	NA	0.6	NA	NA
9/4/08	Chelsea	Mill2d	11:20									54	NA	0.22	NA	NA	4.01
7/21/08	Chelsea	Mill3	10:10									15530	NA	0.09	NA	NA	ND
8/21/08	Chelsea	Mill3	9:55									1844	NA	0.07	NA	NA	0.27
7/7/10	Concord, NH	Mer4120	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri		218	399	NA	1	NA	NA
8/25/10	Concord, NH	Mer4120	12:45	brick	48" semi-circle	NA	musty	grey	cloudy	e suds & de		38730	51720	NA	0.25	NA	NA
7/7/10	Concord, NH	UR028	10:45	brick	48" semi-circle	NA	none	none	ightly cloud	rash & debri		263	448	NA	1	NA	NA
8/21/08	Everett	IsEnd03A	10:45									11870	NA	0.11	NA	NA	0.82
9/4/08	Everett	IsEnd03A	9:57									86640	NA	0.11	NA	NA	1.03
9/22/08	Everett	IsEnd03A	11:40									6932	NA	0.14	NA	NA	0.542
7/28/09	Everett	IsEnd03A	9:05		open stream	na	odor; slight	ayish/yellow	none	None		9678	388	0.1	0.8	0.054	0.831
8/21/08	Everett	IsEnd03B	10:50									3266	NA	0.08	NA	NA	1.17
9/4/08	Everett	IsEnd03B	9:58									9678	NA	0.09	NA	NA	0.56
9/22/08	Everett	IsEnd03B	11:42									1164	NA	0.11	NA	NA	0.48
7/29/09	Everett	IsEnd03B	12:40	NS	NS	20	slight musty	orange	very cloudy	None		NA	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	996-F	8:50	concrete	16	~10	none	none	clear	none		353	52	NA	0.4	NA	NA
8/25/10	Laconia, NH	996-F	11:11	concrete	16	~20	none	none	clear	some suds		6932	19863	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	8:30	Beach	NA	NA	none	none	clear	none		21	ND	NA	0.2	NA	NA
8/25/10	Laconia, NH	Beach RT	10:30	Beach	NA	NA	none	none	clear	none		16	ND	NA	0.25	NA	NA
8/25/10	Laconia, NH	UR035	11:11	concrete	16	~20	none	none	clear	some suds		6978	17329	NA	0.2	NA	NA
8/19/09	Lawrence	Shaw01	9:40	cement	(3) 15' x 15'		None	med tea	cloudy	e suds and le		157	NA	NA	0.10	NA	NA
8/4/10	Lawrence	Shaw01	9:50	open stream	na	stream	none	oil sheen, slight tea		leaves		208	86	NA	~0.1	NA	NA
6/10/09	Lawrence	Shaw1	12:30	open stream	na	stream	musty	tea	yes	None		353	NA	NA	0.05	NA	NA
6/10/09	Lawrence	SLE3	13:11	concrete	3'		strong musty o	None	Clear	None		616	NA	NA	0.10	NA	NA
8/19/09	Lawrence	SLE3	10:20	concrete	3'		strong, musty sewa	None	Clear	None		34	NA	NA	0.20	NA	NA
9/22/09	Lawrence	SLE3	11:30	concrete	3'	na	slight musty	None	Clear	None		205	445	ND	~0.1	ND	ND
6/10/10	Lawrence	SLE3	7:25	concrete	3'	NA	strong must	white/tan/gra	ightly cloud	ilamentous		1954	2359	NA	1	NA	NA
6/10/10	Lawrence	SLE3	8:25	concrete	3'	NA	strong must	none	ightly cloud	ilamentous		899	4884	NA	0.2	NA	NA
6/10/10	Lawrence	SLE3	9:00	concrete	3'	NA	strong must	none	ightly cloud	ilamentous		806	2014	NA	0.5	NA	NA
8/4/10	Lawrence	SLE3	9:30	concrete	3'		sharp punge	none	clear	nks of bact		1230	275	NA	~0.1	NA	NA
9/8/09	Lexington	Vine01	13:00	concrete	3x3 box	na	Musty	rust/brown	cloudy	None		29090	2752	0.08	NA	0.19	1.12
9/8/09	Lexington	WF01	12:26	concrete	3'	20-30	slight musty	None	clear	None		44	40	~0.05	ND	0.03	0.266
6/17/09	Lynn	StaceyS	12:11	CM	4'x8'		NS	None	Clear	None		NA	14136	NA	0.70	NA	NA
7/14/10	Lynn	StaceyS	8:20	CM	4'x8'	300-400	musty	none	cloudy	me suds/tra		38730	68670	NA	0.2	NA	NA
7/21/08	Medford	Mhb	12:30									7945	NA	0.06	NA	NA	ND
5/13/09	Medford	MHB	8:07	CM			None	None	Clear	None		455	NA	NA	0.10	NA	NA
6/2/09	Medford	MHB	7:25	CM	40	low	gas	lightly cloud	none	None		534	78	ND	~0.1	ND	0.2
7/21/08	Medford	Mhb2	12:40									9678	NA	NA	NA	NA	NA
5/13/09	Medford	MHB2	8:07	CM	24	5-10	None	Yellowish	Light	None		117	NA	NA	ND	NA	NA
6/30/08	Methuen	Mer1	8:43									1162	1495 Fecal	0.05	NA	NA	ND
8/4/08	Methuen	Mer1	10:45									293	NA	0.07	NA	NA	ND
6/3/09	Methuen	Mer1	8:57	open stream	na	stream	None	tea	very	None		58	NA	NA	0.10	NA	NA

8/4/08	Methuen	SP06	9:05								342	NA	0.08	NA	NA	ND
6/3/09	Methuen	SP06	7:38	open stream	na	stream	None	None	Clear	None	124	NA	NA	0.10	NA	NA
8/4/08	Methuen	SP07	9:55								12	NA	0.05	NA	NA	ND
6/3/09	Methuen	SP07	8:10	open stream	na	stream	None	None	Clear	None	86	NA	NA	ND	NA	NA
8/12/09	Milton	CunPk02	8:12	cement	2, 2'	30	None	None	Clear	None	3466	NA	NA	0.30	NA	NA
9/29/09	Milton	CunPk02	8:30	concrete	18"	2	d sewage sr	None	Mild	Leave, bubt	1954	6131	0.06	0.18	0.041	0.291
8/5/09	Norwood	PB02	11:24		2-3ft	20	y and natur	None	Clear	None	4185	NA	NA	0.15	NA	NA
9/29/09	Norwood	PB02	12:00		18"	3	Septic	Cloudy	very turbid	None	68670	6131	0.07	0.25	0.05	0.695
9/29/09	Norwood	UR019	12:00		18"	3	Septic	Cloudy	very turbid	None	48840	5475	0.09	0.25	0.061	0.556
8/12/09	Quincy	FBP02	8:40	open stream	na	stream	None	None	Clear	None	4813	NA	NA	0.20	NA	NA
5/19/10	Quincy	FBP02	8:15	open stream	na	stream	none	none	clear	none	4813	3873	NA	0.25	NA	NA
8/12/09	Quincy	FBP03	9:10	cement	2, 3'		None	None	Clear	None	2069	NA	NA	0.10	NA	NA
5/19/10	Quincy	FBP03	8:55	open stream	na	stream	septic smel	light brown	nild	none	5654	5172	NA	0.4	NA	NA
5/27/09	Quincy	SAG1	9:15	cement	10x10box		None	tea	cloudy	Yes	~6212	NA	NA	1.00	NA	NA
8/11/09	Quincy	SAG1	8:25	concrete	10x10 box	na	slight musty	brown	very turbid	None	3922	1230	ND	2	0.025	0.4
8/12/09	Quincy	SAG1	10:20	cement	10x10box		petroleum od	very brown	y turbid; clo	some suds	NA	2359	NA	2.00	NA	NA
5/19/10	Quincy	Sag1A	10:15		4ft		slight septic sn	light brown	clear	none	13340	2098	NA	1.7	NA	NA
10/27/10	Quincy	Sag1A	10:15	open stream	na	stream	slight musty	rk/med brov	very turbid	some suds	5630	2909	NA	0.75	NA	NA
5/19/10	Quincy	Sag1B	11:45		5x6ft	slowly	sewage	light brown	mild	none	20980	3654	NA	0.5	NA	NA
10/27/10	Quincy	Sag1B	10:30	concrete	6'x6'	na	none	brown	silty/turbid	none	4480	2851	NA	0.5	NA	NA
8/11/09	Quincy	SAG2	8:50	ground seep		3-5	Strong sulfu	clear	none	None	ND	ND	NA	0.7	NA	NA
8/12/09	Quincy	SAG2	10:22	seep	na	3 gal/min	strong sulfu	None	Clear	None	NA	ND	NA	0.60	NA	NA
7/14/09	Quincy	UR001	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	1741	5654	ND	NA	0.033	0.196
8/11/09	Quincy	UR009	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	489	363	ND	0.6	0.028	0.076
8/12/09	Quincy	UR010	11:30	cement	6' x 8' box		None	None	Clear	None	4185	NA	NA	0.10	NA	NA
5/19/10	Quincy	UR024	8:15	open stream	na	stream	none	none	clear	none	3922	3654	NA	0.3	NA	NA
5/27/09	Quincy	WollB1	7:58	CM	4x4 box	50-100	sewage odo	None	Clear	Some suds	NA	~12997	NA	1.00	NA	NA
6/9/09	Quincy	WollB1	7:35	CM	4x4 box	50-100	thick musty	clear	none	some suds	420	1741	ND	1.5	ND	0.187
7/14/09	Quincy	WollB1	11:27	CM	4x4 box	50-100	sulfur odor	clear	none	None	2190	6932	~0.05	0.25	0.04	0.125
8/11/09	Quincy	WollB1	10:25	concrete	4x4 box	30-40	Strong sulfu	mostly clear	none	None	626	518	ND	0.7	0.024	ND
8/12/09	Quincy	WollB1	11:00	CM	4x4 box		sulfur	None	Clear	None	NA	1720	NA	0.75	NA	NA
5/19/10	Quincy	WollB1	11:00	CM	4x4 box	1	sewage	none	clear	none	2747	6131	NA	0.75	NA	NA
10/27/10	Quincy	WollB1	8:05	CM	4x4 box	50	musty	none	clear	none	147	197	NA	1.25	NA	NA
7/14/09	Quincy	WollB1A	11:08	CM	3'x3' box	10-15gal/min	strong must	clear	none	he trash in w	3080	1844	ND	0.75	0.023	0.19
8/11/09	Quincy	WollB1A	9:45	CM	3'x3' box	na	musty/sulfu	clear	none	None	437	161	ND	1.5	0.026	0.136
8/12/09	Quincy	WollB1A	10:50	CM	3'x3' box		musty/sulfur	gray	cloudy	None	NA	2755	NA	2.00	NA	NA
5/19/10	Quincy	WollB1A	10:40	CM	3'x3' box	0.5L/min	sewage	none	clear	none	4480	3282	NA	0.5	NA	NA
10/27/10	Quincy	WollB1A	8:10	CM	3'x3' box	30-40	musty/sulfu	none	ightly cloud	oily film	192	121	NA	2	NA	NA
7/29/09	Revere	Green01	11:11	NS	NS		slight musty	None	cloudy	None	NA	14136	NA	0.70	NA	NA
6/2/10	Revere	Green01	8:40	open stream	na	stream	musty	grey	turbid	trash	>241960	31300	NA	0.75	NA	NA
9/1/10	Revere	Green01	8:10	open stream	na	stream	musty	none	clear	none	27550	6867	NA	0.25	NA	NA
7/29/09	Revere	WashN01	10:10	concrete	24		none	NS	NS	None	NA	2282	NA	0.75	NA	NA
6/2/10	Revere	WashN01	8:01	concrete	24	NA	none	brown	turbid	none	17250	16070	NA	0.3	NA	NA
6/30/08	Salem, NH	Mer2	9:06	open stream	na	stream					288	694 Fecal	0.05	NA	NA	ND
8/4/08	Salem, NH	Mer2	12:02	open stream	na	stream					302	NA	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer2	9:22	open stream	na	stream	None	reddish	med	None	48	NA	NA	0.10	NA	NA
6/30/08	Salem, NH	Mer3	9:35	open stream	na	stream					590	590 Fecal	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer3	9:46	open stream	na	stream	None	tea	Clear	None	75	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer5	10:45	open stream	na	stream	None	tea	Clear	None	465	NA	NA	0.15	NA	NA
6/30/08	Salem, NH	Mer5	10:27	open stream	na	stream					883	739 Fecal	0.06	NA	NA	ND
6/30/08	Salem, NH	Mer6A	10:55								802	847 Fecal	0.07	NA	NA	ND
6/3/09	Salem, NH	Mer6a	11:13				None	tea	Clear	None	293	NA	NA	0.20	NA	NA
6/30/08	Salem, NH	Mer7	11:30	CM	3-4 ft						775	955 Fecal	0.05	NA	NA	ND
6/3/09	Salem, NH	Mer7	11:46	CM	3-4 ft		None	light tea	Clear	None	166	NA	NA	0.05	NA	NA
6/3/09	Salem, NH	Mer7d	11:46	CM	3-4ft		None	light tea	Clear	None	114	NA	NA	NA	NA	NA
6/30/08	Salem, NH	Mer8	11:51	open stream	na	stream					568	649 Fecal	0.05	NA	NA	ND
6/3/09	Salem, NH	Mer8	12:07	open stream	na	low flow	None	None	Clear	None	126	NA	NA	ND	NA	NA
5/13/09	Somerville	MWRA205	10:07	CM	4x4 box	me in, some	None	Murky	Light	None	NA	10462	NA	1.80	NA	NA
5/26/09	Somerville	MWRA205	7:57	CM	4x4 box	na	none	light tea	none	None	77010	1989	0.22	2	NA	1.93
7/28/09	Somerville	MWRA205	11:08	CM	4x4 box		slight sewage o	gray/green	e suspende	None	9678	1211	0.24	1.2	0.154	2.65
6/23/08	Stoneham	100A	11:00	open stream	na	stream					14400	NA	0.19	NA	NA	ND
9/15/08	Stoneham	100A	9:42	open stream	na	stream					1642	NA	0.07	NA	NA	ND
8/11/10	Stoneham	100A	7:42	open stream	na	stream	ght musty o	light tea	clear	none	22820	323	NA	0.35	NA	NA
6/23/08	Stoneham	1West	11:42	stone	2x3						14100	NA	0.29	NA	NA	0.410
7/15/08	Stoneham	1West	7:57	stone	2x3						3266	NA	0.05	NA	NA	ND
8/12/08	Stoneham	1West	7:29	stone	2x3						4813	NA	NA	NA	NA	0.18
9/22/08	Stoneham	1West	10:45	stone	2x3						54750	NA	0.05	NA	NA	ND
5/13/09	Stoneham	1West	11:45	stone	2x3		None	None	Clear	None	913	NA	NA	0.10	NA	NA
7/21/09	Stoneham	1West	9:20	stone	2x3	50-100	lightly must	clear	none	None	~64880	~2318	~0.28	0.6	0.148	0.117
8/11/10	Stoneham	1West	8:03	stone	2x3	50-100	moldy mus	light film	clear	surface suds	7945	2613	NA	0.2	NA	NA
6/23/08	Stoneham	2dLinden	12:02	open stream	na	stream					13700	NA	0.30	NA	NA	ND
9/22/08	Stoneham	2dLinden	9:56	open stream	na	stream					3266	NA	0.06	NA	NA	0.098
7/15/08	Stoneham	2Lincul	8:20	clay	8"						430	NA	0.06	NA	NA	ND
9/22/08	Stoneham	2Lincul	10:10	clay	8"						9678	NA	0.06	NA	NA	0.078
8/11/10	Stoneham	2Lincul	8:30	clay	8"	~1 -2	none	none	clear	none	173290	6131	NA	0.2	NA	NA
6/23/08	Stoneham	2Linden	12:02	open stream	na	stream					9600	NA	0.32	NA	NA	ND
7/15/08	Stoneham	2Linden	8:15	open stream	na	stream					689	NA	0.05	NA	NA	ND
8/12/08	Stoneham	2Linden	7:18	open stream	na	stream					8800	NA	0.14	NA	NA	0.37
9/22/08	Stoneham	2Linden	9:56	open stream	na	stream					2747	NA	0.07	NA	NA	0.217
5/13/09	Stoneham	2Linden	12:05	open stream	na	stream	None	None	Clear	None	2190	NA	NA	0.20	NA	NA
7/21/09	Stoneham	2Linden	9:35	open stream	na	stream	none	light tea	none	None	~7945	~1302	~0.32	0.75	0.142	0.206
8/11/10	Stoneham	2Linden	8:25	open stream	na	stream	petroleum	lightly cloud	clear	none	713	285	NA	0.2	NA	NA
5/13/09	Stoneham	Toms	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	242	NA	NA	0.10	NA	NA
7/21/09	Stoneham	Toms	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~16070	~5818	~0.43	0.75	0.176	0.204
7/21/09	Stoneham	Toms	11:30	tal w/asphalt bot	3'	250-500	strong must	gray	cloudy	s, sticks, pa	~3080	~690	~0.08	0.6	0.169	0.193
8/11/10	Stoneham	Toms	9:50	tal w/asphalt bot	3'	~5 -7	bhault/ petro	none	nge flocc o	none	212	10	NA	0.15	NA	NA

5/13/09	Stoneham	Tomsd	12:27	tal w/asphalt bot	3'	20-30	None	None	Clear	None	186	NA	NA	NA	NA	NA
7/21/09	Stoneham	UR003	10:30	tal w/asphalt bot	3'	50	lightly must	clear	none	None	~2069	~924	~0.43	0.75	0.189	0.198
8/11/10	Stoneham	URO33	9:00	rt with metal gra	2' x 4'	~30 - 40	musty	none	clear	none	41060	4352	NA	0.2	NA	NA
6/17/09	Swampscot	StaceyN	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	0.50	NA	NA
7/14/10	Swampscot	StaceyN	8:20	CM	4'x8'	100-150	Cl2 strong	none	clear	rubber glove	109	161	NA	0.2	NA	NA
6/17/09	Swampscot	StaceyND	12:45	CM	4'x8'	40-50	musty sewa	NS	low	None	NA	ND	NA	NA	NA	NA
9/8/09	Watertown	SawB01	8:45	open stream	na	50-100	g petroleum	Orange	cloudy	some suds	1642	104	~0.05	0.2	0.032	0.308
10/5/10	Watertown	SawB01	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	899	156	NA	0.2	NA	NA
9/8/09	Watertown	SawB01b	9:05	cast iron	12"	5	ht sewage d	None	clear	None	~4	ND	NA	0.25	NA	NA
10/5/10	Watertown	UR037	8:15	open stream	na	stream	none	med tea	clear	e leaves & d	890	122	NA	0.2	NA	NA
7/28/08	Winchester	M07	9:26								4813	NA	0.08	NA	NA	ND
8/25/08	Winchester	M07	12:55								806	NA	0.07	NA	NA	0.24
7/22/09	Winchester	Russ1	7:55	Stone (instream)	4'X4'		slightly must	None	Clear	some suds*	1954	NA	NA	0.10	NA	NA
8/4/09	Winchester	Russ1	8:00	Stone (instream)	4'X4'	na	musty	grayish	ightly cloud	None	147	196	~0.05	0.2	0.025	0.108
4/28/10	Winchester	Russ1	11:05	Stone (instream)	4'X4'	stream	none	light tea	clear	some suds	384	359	0.07	0.25	NA	0.083
5/13/09	Winchester	Swan1	11:11	metal	12	50	None	None	Clear	None	98	NA	NA	0.08	NA	NA
4/28/10	Winchester	Swan1	10:45	open stream	na	stream	none	light tea	lightly turbi	some suds	740	171	0.08	0.25	NA	0.887
8/4/09	Winchester	UR007	8:00	stone	3'x4' box	na	musty	grayish	ightly cloud	None	176	118	ND	0.2	0.028	ND
6/23/08	Woburn	1Merrell	10:00	open stream	na	stream					2069	NA	0.10	NA	NA	0.76
9/15/08	Woburn	1Merrell	8:40	open stream	na	stream					6212	NA	0.08	NA	NA	0.776
7/15/09	Woburn	1Merrell	8:55	open stream	na	stream	none	light tea	lightly turbi	None	~494	NA	NA	0.10	NA	NA
7/10/08	Woburn	Mys01	8:15	open stream	na	stream					7945	NA	0.09	NA	NA	2.37
7/15/08	Woburn	Mys01	11:15	open stream	na	stream					164	NA	0.08	NA	NA	3.46
8/12/08	Woburn	Mys01	8:35	open stream	na	stream					3922	NA	NA	NA	NA	NA
5/20/09	Woburn	Mys01	7:36	open stream	na	low flow	None	None	Clear	None	~250	NA	NA	0.10	NA	NA
7/21/10	Woburn	Mys01	9:56	open stream	na	stream	none	bluish	ightly cloud	rash & debri	238	110	NA	0.2	NA	NA
7/10/08	Woburn	Mys07	10:18	open stream	na	stream					27230	NA	0.07	NA	NA	4.29
8/12/08	Woburn	Mys07	8:46	open stream	na	stream					111990	NA	NA	NA	NA	NA
9/22/08	Woburn	Mys07	8:09	open stream	na	stream					3080	NA	0.06	NA	NA	6.22
5/19/09	Woburn	Mys07	10:01	open stream	na	stream	none	tea	heavy	None	518	~63	0.06	~0.1	NA	4.88
5/12/10	Woburn	Mys07	9:05	open stream	na	stream	hulch/sewag	dark brown	very murky	algae	131	145	NA	~0.1	NA	NA
7/10/08	Woburn	Mys08	10:30	open stream	na	stream					41060	NA	0.06	NA	NA	4.57
8/12/08	Woburn	Mys08	8:47	open stream	na	stream					1954	NA	0.06	NA	NA	16.40
5/19/09	Woburn	Mys08	10:20	open stream	na	stream	none	med tea	none	None	~4	~10	~0.05	~0.1	NA	15.80
9/1/09	Woburn	Mys08	9:30	open stream	na	stream	None	light brown	clear	None	363	150	ND	0.25	0.027	14.3
5/12/10	Woburn	Mys08	9:10	open stream	na	stream	t mulch/sew	light brown	clear	none	92	ND	NA	ND	NA	NA
5/19/09	Woburn	Mys08d	10:20	open stream	na	stream	none	med tea	none	None	12	ND	~0.05	~0.1	NA	15.50
7/10/08	Woburn	Mys09	10:45	open stream	na	stream					1549	NA	0.06	NA	NA	4.93
9/1/09	Woburn	Mys09	10:45	open stream	na	stream	None	None	clear	None	205	82	ND	~0.1	ND	16
8/12/08	Woburn	Olym1	10:45	open stream	na	stream					3922	NA	0.12	NA	NA	0.26
9/15/08	Woburn	Olym1	11:31	open stream	na	stream					258	NA	0.08	NA	NA	ND
8/4/09	Woburn	Olym1	9:55	open stream	na	stream	none	light tan	clear	None	2069	205	~0.05	0.2	0.02	0.076
9/1/09	Woburn	UR015	9:30	open stream	na	stream	None	light brown	clear	None	422	148	ND	NA	0.021	14
8/12/08	Woburn	US3	7:53	stone	~16inches	na					>241960	NA	0.18	NA	NA	0.14
9/15/08	Woburn	US3	10:38	stone	~16inches	na					7945	NA	0.08	NA	NA	ND
9/22/08	Woburn	US3	7:14	stone	~16inches	na					1140	NA	0.07	NA	NA	0.132
8/4/09	Woburn	US3	8:50	stone	~16inches	na	none	light tea	ightly cloud	None	587	140	~0.05	ND	0.029	0.14
8/12/08	Woburn	US4	8:03	CM	~24 inches	na					198630	NA	0.17	NA	NA	0.12
9/15/08	Woburn	US4	10:41	CM	~24 inches	na					1164	NA	0.09	NA	NA	ND
8/4/09	Woburn	US4	8:55	CM	~24 inches	na	none	light tan	ightly cloud	None	806	222	~0.05	ND	0.026	0.167
9/15/08	Woburn	US5	10:47	open stream	na	stream					2595	NA	0.07	NA	NA	ND
9/22/08	Woburn	US5	7:24	open stream	na	stream					1102	NA	0.08	NA	NA	0.109
8/4/09	Woburn	US5	9:05	open stream	na	stream	none	light tea	clear	None	542	184	ND	ND	0.032	0.133

NH3 (mg/l)				Nitrate/Nitrite	P	PPCP ng/L									Cl2 (mg/l)				Flou
Field	Nessler	DR-850	Test St.	Alpha	EPA (µg/L)	Atenolol	Acetaminophen	Cotinine	1,7 Dimethylxanthine	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Alpha Free	Alpha Total	Field	Test St.	Alpha
NA	NA	NA	ND	0.57	56	14	76	4.3	14	120	1.6	ND (4.0)	1900	0.43	ND	ND	NA	ND	ND
NA	NA	NA	ND	0.35	54	10	14	6.7	9	72	0.6	ND (4.0)	920	0.5	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	180	33	100	11	47	190	1	ND (4.0)	2000	2.8	NA	NA	~0.02	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	0.52	129	32	23	12	19	98	0.84	ND (4.0)	2700	1.9	ND	ND	ND	ND	ND
NA	NA	NA	2	NA	205	43	99	14	67	230	1.3	ND (4.0)	3000	3.3	NA	NA	0.06	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	NA	ND (2.0)	2900	5.8	470	190	13	ND (4.0)	810	1.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.6	21	ND (2.0)	ND (2.0)	1.1	5.8	11	0.43	5.4	230	1.3	ND	0.18	0.26	ND	ND
NA	NA	NA	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3	1.6	185	250	15000	3.3	170	520	67	ND (5.0)	15000	ND (0.5)	ND	ND	0.08	ND	ND
NA	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	0.6	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.04	ND	ND
NA	NA	NA	3	NA	NA	4.3	43	2.1	14	93	1.4	ND (5.0)	1700	2.9	NA	NA	NA	ND	NA
NA	NA	NA	ND	1.4	93	ND (2.5)	2.6	1.5	ND (2.5)	5.8	ND (0.5)	ND (5.0)	390	ND (0.5)	ND	ND	ND	ND	ND
NA	NA	NA	ND	NA	NA	5.4	68	14	26	200	0.7	ND (5.0)	510	3.2	NA	NA	0.05	ND	NA
NA	NA	NA	0.25	NA	119	10	ND (2.0)	2	2.2	28	3	ND (4.0)	300	300	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	121	ND (2.5)	ND (2.5)	1.2	ND (2.5)	6.6	0.5	ND (5.0)	6.3	ND (0.5)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	4.3	33	14	17	180	ND (0.5)	ND (5.0)	120	1.3	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	173	32	1100	30	360	1200	1.9	ND (4.0)	4700	13	NA	NA	0.03	ND	NA
NA	NA	NA	2	NA	152	46	610	23	200	1400	1.2	ND (4.0)	2000	12	NA	NA	ND	ND	NA
NA	NA	NA	0.5	NA	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1	1.6	ND	0.2	NA	52	~3.0	200	~0.89	37	110	0.69	ND (4.0)	250	1.4	ND	ND	0.08	ND	0.45
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.25	NA	NA	3	NA	155	ND (2.0)	3.8	ND (0.2)	~7.7	19	ND (2.0)	5.9	ND (20.0)	ND (0.2)	ND	ND	0.10	0.1/0.1	0.50
1.5	>3.0	1.11	6	NA	144	ND (10.0)	ND (10.0	ND (2.0)	ND (10.0)	ND (20.0)	ND (2.0)	ND (20.0)	40	ND (2.0)	ND	ND	~0.01	ND	0.44
1.1	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
>2	NA	NA	6	NA	170	~1.8	21	~46	~67	1600	ND (2.0)	ND (2.0)	1100	9.8	ND	ND	0.05	ND	0.22
~1.1	NA	NA	>6.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6	NA	NA	ND (2.0)	8.7	33	9.7	220	ND (0.4)	ND (4.0)	47	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	>6	NA	53	ND (2.0)	ND (2.0)	31	15	110	ND (0.4)	ND (4.0)	ND (4.0)	5.6	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	17	ND (2.0)	4.5	5.5	4.7	40	1	ND (4.0)	3000	ND (4.0)	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	97	ND (2.5)	ND (2.5)	16	24	110	ND (2.5)	ND (5.0)	7.3	0.76	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.06	NA	NA
0.3	2.3	0.19	3	NA	80	~11	470	~2.5	150	430	1.9	8.7	1100	2.2	ND	ND	ND	ND	0.6
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
~0.2	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.25 (0.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	68	ND (2.0)	ND (2.0)	ND (0.4)	11	7.8	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.04	NA	NA
NA	NA	NA	ND	NA	12	ND (2.0)	ND (2.0)	1.3	10	7.9	ND (2.0)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	0.03	ND	NA
NA	NA	NA	0.1	NA	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	23	ND (2.0)	ND (2.0)	6.3	12	45	ND (0.4)	ND (4.0)	5.1	2.1	NA	NA	0.04	ND	NA
0.5 nessle	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
0.6 nessle	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	0.4	ND	ND	NA	9	ND (2.1)	11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3	ND	ND	0.11	ND	ND
NA	NA	NA	ND	NA	NA	ND (4.0)	7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (4.0)	28	78	24	400	ND (0.8)	ND (8.0)	130	3.5	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	NA	ND (5.0)	24	49	18	310	ND (1.0)	ND (10.0)	130	3	NA	NA	0.04	ND	NA
NA	NA	NA	ND	NA	52	5.8	22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6	NA	NA	0.05	ND	NA
2	2.2	ND	2.00	NA	121	~4.7	600	ND (0.5)	100	750	2.9	ND (4.6)	1300	4.6	ND	ND	0.03	ND	ND
~0.1	1.1	ND	0.50	NA	211	ND (2.2)	ND (2.2)	ND (0.4)	3.8	27	ND (0.4)	ND (4.3)	76	ND (0.4)	ND	ND	0.06	ND	ND
NA	NA	NA	3.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.75	NA	97	ND (2.0)	62	27	5.1	350	0.66	ND (4.0)	8000	2.1	NA	NA	0.03	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.2	NA	0.2	ND	NA	23.0	~6.9	170.0	ND (0.4)	21.0	33.0	~2.1	ND (4.0)	230.0	6.0	ND	ND	~0.02	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA

NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.00	NA	NA										NA	NA	NA	ND	NA
ND	0.2	ND	~0.1	NA	48	ND (1.0)	3.8	ND (0.2)	2.4	15	ND (0.2)	11	~210	ND (0.2)	ND	ND	0.04	ND	ND
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	1	0.15	0.50	NA	109	~27	500	~0.95	480	710	6.4	89	~8700	ND (0.2)	ND	ND	0.17	ND	ND
ND	1.6	0.17	0.70	NA	103	~30	550	~0.92	560	770	6.4	100	~9400	ND (0.2)	ND	ND	0.05	ND	ND
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	58	3.7	30	17	7.7	190	1.3	ND (5.0)	560	0.67	NA	NA	ND	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	49	5	64	18	11	160	ND (0.5)	ND (5.0)	600	0.68	NA	NA	ND	ND	NA
0.35*	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
~0.25	1.6	ND	0.75	NA	92	~3.3	81	ND (0.4)	14	100	0.55	ND (4.0)	700	2.9	ND	ND	0.11	ND	0.58
NA	NA	NA	2.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	70	7.1	210	19	41	380	1.7	ND (4.0)	2700	3.6	NA	NA	0.15	ND	NA
NA	NA	NA	6	NA	NA	ND (10.0)	330	260	130	~4100	84	34	910	ND (2.0)	NA	NA	0.03	ND	NA
NA	NA	NA	1	NA	118	64	350	22	140	530	17	ND (4.0)	6100	3	NA	NA	0.05	ND	NA
NA	NA	NA	1	NA	NA	ND (10.0)	320	99	110	~2000	ND (2.0)	ND (20.0)	410	3.8	NA	NA	ND	ND	NA
1.75	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.21	ND	NA
NA	NA	NA	5.00	NA	NA										NA	NA	NA	ND	NA
NA	NA	ND	NA	NA	69	7	17	1.1	60	59	ND (0.2)	ND (2.0)	1900	0.46	ND	ND	NA	ND	0.36
0.2	0.6	ND	~0.10	NA	68	ND (2.0)	40	~0.78	6.6	28	1.6	ND (4.0)	260	0.54	ND	ND	~0.02	ND	0.47
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	53	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	ND	ND	NA	87	~1.9	55	~0.63	47	71	ND (0.2)	ND (2.0)	78	0.58	ND	ND	ND	ND	0.46
ND	NA	ND	ND	NA	66	6.3	15	0.93	55	58	ND (0.2)	ND (2.0)	2500	0.48	ND	ND	0.10	ND	0.38
0.2	0.7	ND	~0.10	NA	69	ND (2.0)	41	~0.82	7	31	1.6	ND (4.0)	250	0.6	ND	ND	~0.02	ND	0.47
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	ND	NA	70	6.2	130	13	60	720	ND (0.4)	ND (4.0)	15000	ND (0.4)	NA	NA	0.07	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	120	8.1	46	~130	ND (2.0)	ND (20.0)	ND (20.0)	ND (2.0)	NA	NA	0.04	ND	NA
~0.1	NA	ND	ND	NA	154	3.1	26	0.43	~22	58	ND (0.2)	ND (2.0)	290	4	ND	ND	0.53	ND	0.39
~0.1	0.9	ND	ND	NA	73	ND (2.0)	3.8	ND (0.4)	ND (2.0)	20	ND (0.4)	ND (4.0)	23	3.2	ND	ND	0.15	ND	0.44
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.1	NA	108	21	56	16	54	190	9.3	ND (4.0)	3900	1.4	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	ND (10.0)	~6.7	2.4	12	~22	ND (2.0)	ND (20.0)	20	ND (2.0)	NA	NA	ND	ND	NA
ND	NA	NA	4.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	2	NA	NA	140	3900	100	850	1800	3.5	ND (4.0)	24000	13	NA	NA	0.06	ND	NA
NA	NA	NA	2	NA	285	ND (2.0)	550	82	40	290	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	NA	NA	ND	ND	NA
~0	NA	NA	6.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	6	NA	NA	14	4900	80	400	1900	13	ND (4.0)	24000	1.8	NA	NA	0.04	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.5	NA	NA	0.25	NA	315	~30	1500	~2.9	650	2800	14	ND (2.0)	13000	26	ND	ND	0.04	ND	0.67
0.5	>3.0	0.96	1	NA	300	~94	4100	~18	970	5000	31	ND (4.0)	20000	340	ND	ND	0.16	ND	0.48
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	100	39	4.6	42	30	490	ND (0.4)	8.1	4.4	2.4	NA	NA	0.09	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	~0.02	NA	NA
0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.09	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
~0.1	NA	ND	ND	NA	48	ND (5.0)	120	2	110	710	ND (1.0)	ND (10.0)	680	ND (1.0)	na	na	~0.0	ND	ND
NA	NA	NA	0.75	NA	84	15	14	20	280	330	ND (0.4)	ND (4.0)	1400	1.4	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.03	NA	NA
NA	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
NA	NA	NA	NA	NA	132	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
0.40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10	NA	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
~0.1	0.9	ND	ND	NA	56	~27	350	~3.1	94	710	ND (1.0)	33	17	ND (1.0)	na	na	~0.0	ND	ND
NA	NA	NA	ND	NA	25	91	31	32	31	140	ND (0.5)	ND (5.0)	48	2.3	NA	NA	ND	ND	NA
NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
ND	0.7	0.24	ND	NA	47	ND (5.0)	95	~2.4	60	790	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	na	na	~0.02	ND	ND
0.3	0.6	0.22	0.3	NA	203	ND (5.0)	77	~2.3	67	540	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	0.4	NA	34	ND (2.0)	9.9	22	27	750	ND (0.4)	ND (4.0)	4	ND (0.4)	NA	NA	0.13	ND	NA

NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.8	ND	ND	NA	49	ND (5.0)	96	~3.0	69	900	ND (1.0)	ND (10.0)	ND (10.0)	ND (1.0)	NA	NA	ND	ND	ND
NA	NA	NA	4	NA	95	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	0.50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	3	NA	342	29	490	27	95	1200	0.56	ND (5.0)	2600	2.7	NA	NA	0.56	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.8	0.11	0.35	NA	42	~4.4	250	~0.79	62	170	1.4	ND (4.0)	480	5.5	ND	ND	0.08	ND	0.29
NA	NA	NA	0.25	NA	NA	ND (20.0)	99	21	99	550	ND (4.0)	ND (40.0)	ND (40.0)	ND (4.0)	NA	NA	ND	ND	NA
~0.1	NA	NA	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.07	ND	NA
NA	NA	NA	0.25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	ND	NA	NA										NA	NA	NA	ND	NA
ND	0.2	ND	ND	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~2.9	ND	ND	~0.01	ND	ND
NA	NA	NA	ND	1.4	22	ND (2.5)	2.8	8.2	ND (2.5)	44	ND (0.5)	ND (5.0)	75	1.8	ND	ND	ND	ND	ND
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.08	NA	NA
NA	NA	NA	3	1.4	23	ND (2.0)	29	19	6.5	250	0.63	ND (4.0)	330	0.65	ND	ND	0.04	ND	ND
ND	0.2	ND	ND	NA	19	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	12	~2.2	ND	ND	0.09	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1.10	NA	NA	0.75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA
NA	NA	NA	>6	NA	23	ND (2.0)	ND (2.0)	11	ND (2.0)	79	ND (0.4)	ND (4.0)	67	ND (4.0)	NA	NA	0.07	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	181	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
>3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA
1.5	NA	NA	NA	NA	NA	ND (1.0)	4.7	ND (0.2)	~4.8	18	~0.4	10	150	1.8	ND	ND	0.03	ND	ND
NA	NA	NA	4	NA	22	ND (2.5)	ND (2.5)	1.3	ND (2.5)	5.6	ND (0.5)	ND (5.0)	100	0.77	NA	NA	0.06	ND	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.75	NA	NA	NA	NA	NA	ND (1.1)	7.6	ND (0.2)	~6.2	13	1.4	ND (2.2)	74	1.5	ND	ND	ND	ND	1.1
2	>3	14.7	>3	NA	18	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	10	~1.1	ND	ND	0.08	ND	1.2
NA	NA	NA	4	NA	19	ND (2.0)	3.3	1.7	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	29	0.63	NA	NA	ND	ND	NA
0.5	NA	NA	NA	NA	NA	ND (1.0)	7.7	ND (0.2)	~5.5	15	ND (0.2)	ND (2.0)	86	1.5	ND	ND	0.04	ND	1.1
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	>3	16.7	>3	NA	25	ND (2.2)	ND (2.2)	ND (0.4)	ND (2.2)	ND (4.4)	ND (0.4)	ND (4.4)	7.5	~1.1	ND	ND	0.07	ND	1.2
NA	NA	NA	NA	NA	51	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
~0.1	0.65	ND	ND	NA	50	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	7.8	ND (0.4)	ND (4.0)	ND (4.0)	~0.71	ND	ND	0.04	ND	ND
NA	NA	13.8	NA	NA	23	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	ND (4.0)	ND (0.4)	ND (4.0)	15	~0.55	ND	ND	NA	ND	1.2
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.45	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.05	NA	NA
~0.1	0.6	ND	0.75	NA	45	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
0.2	0.7	~0.08	0.6	NA	64	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	11	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.08	ND	ND
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
ND	0.6	ND	0.5	NA	44	ND (2.0)	ND (2.0)	ND (0.4)	ND (2.0)	14	ND (0.4)	ND (4.0)	ND (4.0)	ND (0.4)	ND	ND	0.06	ND	ND

			Coordinates				YSI Meter				Weather		
ride	Potassium (mg/L)						Salinity	Temp	Conductivit	Rain Gauge	24hrs	48hrs	Wet/Dry?
DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information	ppt	C	uS	Location	inches	inches	
NA	3.3	0.75	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	14.1	612	Bedford	0	0	Dry
NA	3.8	1.95	42.42475049	-71.18132349	Park St behind Penzy	Mill Brook main stem,	0.3	17.6	714	Bedford	0.12	0.12	Wet
NA	NA	NA	42.426882	-71.189584	just before confluence	just downstream of Ar	0.3	20.2	660	Bedford	0.12	0.13	Wet
NA	NA	0.18	42.426882	-71.189584	before confluence wit	just downstream of Ar	0.3	21.2	667	Bedford	0	0	Dry
NA	NA	NA	42.420417	-71.168133	lots of suspended sed	Mill Brook instream ne	0.4	16.1	847	Bedford	0.12	0.12	Wet
NA	4.1	2.3	42.426894	-71.189660	Drake' slow flow, just	Between condo comp	0.4	15.8	726	Bedford	0.12	0.12	Wet
NA	NA	1.05	42.426894	-71.189660	slow flow, just upstrea	Between condo comp	0.5	21.5	665	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.6	10.4	1200	Bedford	0	0	Dry
NA	NA	NA	42.42032496	-71.16473294	moss/algae growing o	Outfall to Mill Creek	0.7	12.4	1307	Bedford	0.12	0.12	Wet
NA	3.8	1.25	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	10.1	1450	Bedford	0	0	Dry
NA	NA	NA	42.42440075	-71.17458522	near Out of the Wood	Outfall to Mill Brook, B	0.7	11.7	1407	Bedford	0.12	0.12	Wet
NA	6.4	4.15	42.42389075	-71.17374022	fresh smelling	Off Ryder Street lot	1.1	12.8	2188	Bedford	0	0	Dry
NA	NA	NA	42.42389075	-71.17374022	1/2 the flow from last	Off Ryder Street lot	1.1	13.6	2257	Bedford	0.12	0.12	Wet
NA	4.2	1.8	42.42029396	-71.16475294	duplicate of Grove01a		na	na	na	Bedford	0.12	0.12	Wet
NA	NA	NA	42.4503760	-71.2202638		Near corner Grant St	0.4	12.3	741	Bedford	0.12	0.13	Wet
NA	6.3	1.2	42.4277872	-71.2050922	lots of duck weed on s	Mass ave across from	0.5	18	946	Bedford	0.12	0.13	Wet
NA	NA	33.90	42.38549883	-71.06886597	Outflow w/some tidal	Behidnd Schraft's buil	17.2	19.5	28.5mS	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.38549883	-71.06886597	Behidnd Schraft's bui	Sampled 10 min befo	28.3	18.9	44.82mS	Boston-Logan	0	0	Dry
NA	NA	35.50	42.3854766	-71.06883007	Appeared to be mixed	Behidnd Schraft's buil	18.7	18.7	30.85mS	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	21.7	21.8	34.4mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.3854766	-71.06883007	Behidnd Schraft's bui	East of 29J212	28.2	18.6	43.67mS	Boston-Logan	0	0	Dry
NA	NA	NA	42.38549883	-71.06886597	duplicate of 29J212		22.6	20.8	35.83mS	Boston-Logan	0.1	0.35	Wet
NA	NA	NA	42.394436	71.049780	End of beachum and	(midpoint from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
0.97	140	35.30	42.394436	-71.049780	lots of trash; ground v	Just a few feet West o	8	20.2	12.28	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	End of beachum and	(farthest from road) s	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.394405	71.049676	End of beachum and	not quite as black as l	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.394405	71.049676	Duplicate	Duplicate	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	Sewage odor (Gillool	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.403340	71.020587	(Gillooly) Cabot St be	water looks clear. Flo	na	na	na	Boston-Logan	0	0	Dry
NA	150	50+	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	7.5	11.5	na	Boston-Logan	0	0.42	Wet
0.62	77	49.20	42.403340	-71.020587	grey bacterial plaque	Corner of Cabot and C	0.7	16.7	3631	Boston-Logan	0	0	Dry
NA	NA	NA	42.40333987	71.020587	gray plaque on bottom	and below outfall	0.5	15.8	291-246	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	-71.020587	gray bacteria plaque,	(Gillooly) Cabot St be	2	18.1	3750	Boston-Logan	0	0	Dry
NA	42	50+	42.40367	-71.020987	significant gray bacte	privately owned, drain	na	na	na	Boston-Logan	0	0.42	Wet
NA	NA	NA	42.40376623	-71.02130017	significant gray bacterial	plaque; some suds;	1.1/0.1	17.5/17.5	517/142	Boston-Logan	0	0	Dry
NA	NA	15.9	42.40367	-71.020987	significant gray bacte	privately owned, drain	0.5	16.2	1688	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.40367	-71.020987	significant gray bacte	privately owned, drain	1	19.6	1850	Boston-Logan	0	0	Dry
NA	NA	NA	42.403340	71.020587	Duplicate		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Plaque covering outfa	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.407977	71.027112	Downstream of Rev06	Very little flow, greeni	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	43.209555	-71.531041	thick black/orange coating on bottom, tadpol		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	43.209555	-71.531041			0	18.3	18.3	Concord	1.02	1.04	Wet
NA	NA	NA	43.209555	-71.531041	duplicate of Mer4120		0.6	16.7	1204	Concord	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	orange all over the roc	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	very silty, bacteria and	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.399997	71.053984	Where stream exits u	plaque accumulation,	na	na	na	Boston-Logan	0.31	0.31	Wet
0.96	140	50*	42.399997	-71.053984	thick bacteria/algae o	top corner of Boston M	6.5	20.34	11.36	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	very orange, very turb	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.400115	71.050172	small pipe near IsEnd	orange, slimy, and ve	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4001152	-71.050172	Very cloudy, significa	Upstream of Island En	1	19.5	2014	Boston-Logan	0	0	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	Pre-storm sample.	0.1	16.8	184.6	Laconia	0.01	0.02	Dry
NA	NA	NA	43.557084	-71.494182	Facility pipe to stream	same sample location	0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	pre-storm sample. Rig	0	21.7	90.8	Laconia	0.01	0.02	Dry
NA	NA	NA	43.556117	-71.500635	Ahern State Park Bea	2nd sample, taken du	0	89.3	21.7	Laconia	0.13	0.13	Wet
NA	NA	NA	43.557084	-71.494182	Duplicate of 996-F		0	17.6	54	Laconia	0.21	0.21	Wet
NA	NA	NA	42.70516882	-71.14005475	waded in, about 400'	mouth of Shawsheen	0.3	24.6	633	Lawrence	0	0	Dry
NA	NA	NA	42.696984	-71.143777	Mainstem Shawsheen	river sample	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.703501	-71.139591	Shawsheen River	Under 495/RR tracks	0.3	16.6	700	Lawrence	0.1	0.1	Wet
NA	NA	5.05	42.695971	-71.1455601	strong flow, lots and lo	Concrete outfall meta	0.5	14.1	1078	Lawrence	0.1	0.1	Wet
NA	NA	NA	42.695971	-71.1455601	took additional photos	South Lawrence Elem	0.5	15.5	1072	Lawrence	0	0	Dry
0.14	5.5	2.35	42.695971	-71.1455601	stream scoured, lots o	South Lawrence Elem	0.6	15.1	1158	Lawrence	0.01	0.01	Dry
NA	NA	3	42.70688	-71.1476552	SLE3a' significant wh	South Lawrence Elem	0.5	14.6	1045/83	Lawrence	0.04	0.04	Dry
NA	NA	1.25	42.70688	-71.1476552	SLE3b' Nitrate: 2. Nitr	South Lawrence Elem	0.5	14.83	984/790	Lawrence	0.04	0.04	Dry
NA	NA	1.65	42.70688	-71.1476552	SLEc' Lawrence DPW	South Lawrence Elem	0.5	14.7	957/747	Lawrence	0.04	0.04	Dry
NA	NA	NA	42.70688	-71.1476552	significant white/tan/g	South Lawrence Elem	0.6	15.6	1120	Lawrence	0	0	Dry
0.19	6.1	4.55	42.4503760	-71.2202638		Near corner Grant St	0.4	15.8	859	Boston-Logan	0	0	Dry
0.11	7.9	6.90	42.4277872	-71.2050922	Lots of duck weed on	Off Mass Ave	0.4	17.1	819	Boston-Logan	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the S	0.5	14.2	1780	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Lynn		0.4	21.9	776	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.419214	71.117619	Mystic Valley Pkwy (W	Pretty clear	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.41921413	-71.11761932	Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
0.3	ND	0.85	42.419214	-71.117619	clouder than normal w	Meeting house brook,	0.3/1	11.7/11.9	550/180	Boston-Logan	0	0.03	Dry
NA	NA	NA	42.419214	71.117619	Culvert off Meeting H	Strong sewage odor c	na	na	na	Boston-Logan	1.28	1.28	Wet
NA	NA	NA	42.41921413	-71.11761932	Pipe off Meeting House Brook		na	na	na	Boston-Logan	0	0	Dry
NA	NA	NA	42.743207	71.208453	walked in from small	Dry weather during sa	na	na	na		0.43		Wet
NA	NA	NA	42.743250	71.208438	walked in from small	Right on MA/NH borde	na	na	na		0.12		Wet
NA	NA	2.10	42.74320743	-71.20845291	needed reach	Hampshire Rd on boa	0.2	16.9	365.2	Lawrence	0	0	Dry

NA	NA	NA	42.724919	71.183033	RT 28 castle park	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	0.30	42.72491896	-71.18303334	sample collected just	RT 28 castle park	0.2	16.7	384.6	Lawrence	0	0	Dry
NA	NA	NA	42.727453	71.188366	Outfall downstream e	Possible stream culve	na	na	na		0.12		wet
NA	NA	NA	42.72745251	-71.18836554	hydroelectric stream,	Osgood Street	na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.25100306	-71.0519303	Stream 2ft deep. thick	corner of Fullers Roac	0.3	18.1	635	Boston-Logan	0.05	0.06	Dry
0.18	6.9	~7.5	42.251003	-71.051930	sample collected whe	about 1yard from outf	0.4	14.9	712	Boston-Logan	0.51	0.57	Wet
NA	NA	NA	42.20459437	-71.19851397	Plantingfield Brook, a	corner of Ash Rd and	0.3	16.9	663	Norwood	0	0	Dry
0.07	3.8	ND	42.204594	-71.198514	sample collected near culvert		0.3	17.4	712	Norwood	0.54	0.63	Wet
0.08	3.8	~1.7	42.204594	-71.198514	duplicate of PB02		0.3	17.4	712	Norwood	0.54	0.63	Wet
NA	NA	NA	42.25774194	-71.00886049	6 feet across	sampled just upstrean	0.3	18	709	Boston-Logan	0.05	0.06	Dry
NA	NA	NA	42.25766282	-71.00896849	sampled stream before bridge		0.2	12.2	360.6	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.25623392	-71.02049266	2 cement culverts san	off Furnace Brook Par	0.4	17.1	790	Boston-Logan	0.05	0.06	Dry
NA	NA	ND	42.25627321	-71.02067588	onleft side of culvert		0.2	12.3	428.5	Milton-Blue Hi	1.5	0	Wet
NA	NA	>50	42.27616359	-71.03722522	oil sheen, jelly fish co	Office park off Heritag	8.1	13.4	na	Boston-Logan	0	0	Dry
1.15	270	50*	42.276164	-71.037225	occasional fine soap s	Sagamore Creek outf	13	18.5	*23.3m	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27616359	-71.03722522	sampled on incoming	Office park off Heritag	23.7	20	**37.4	Boston-Logan	0.05	0.06	Dry
NA	NA	35.80	42.27602123	-71.0320993	sampled inflow from culvert		4.3	12.6	7.78	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.275935	-71.031798	main chanell under he	previously named Sag	3.4	15.8	6.23mS	Boston-Logan	0.13	0.14	Wet
NA	NA	NA	42.27361693	-71.03395231	5ft from outflow		1.1	13.1	1708	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.273601	-71.034010	large wooden tide gat	Previously named Sag	0.8	15.4	1590	Boston-Logan	0.13	0.14	Wet
NA	NA	50*	42.276174	-71.037325	groundwater seep, wh	about 50ft downstrean	na	na	na	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27616359	-71.03722522	groundwater seep, thi	just downstream of SA	2.3	16.4	3645	Boston-Logan	0.05	0.06	Dry
0.63	54	NA	42.278672	-71.012859	duplicate of WollB1	duplicate of WollB1	na	na	na	Milton-Blue Hi	0	0	Dry
0.8	110	50*	42.278672	-71.012859	duplicate of WollB1		na	na	na	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.25069222	-70.99779295	duplicate of Canal1		na	na	na	Boston-Logan	0.05	0.06	Dry
NA	NA	0.05	42.25766282	-71.00896849	duplicate of FBP02		na	na	na	Milton-Blue Hi	1.5	0	Wet
NA	NA	>50	42.27867229	-71.01285912	covered w/metal grate	Between yacht clubs	15	12	na	Boston-Logan	0	0	Dry
1.01	200	50+	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	4.7	15.2	*10.6m	Boston-Logan	0	0	Dry
0.61	55	29.30	42.278672	-71.012859	water flowing out of b	outfall between yacht	3	16.1	*5.55m	Milton-Blue Hi	0	0	Dry
0.76	100	50*	42.278672	-71.012859	water drops into smal	outfall between yacht	1.9	19	4172	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27867229	-71.01285912	sampled inside of out	Wollaston Beach outf	3.2	18	*5.81m	Boston-Logan	0.05	0.06	Dry
NA	NA	8.65	42.278672	-71.012859		outfall between yacht	3.5	12.8	4.87	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.278672	-71.012859	Pungent 'corpse-y' od	outfall between yacht	17.3	13.8	28.18mS	Boston-Logan	0.09	0.1	Dry
0.77	200	41.20	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	2.7	17.1	**12mS	Milton-Blue Hi	0	0	Dry
0.84	210	50*	42.277357	-71.008933	as tide comes in it arr	outfall between WollB	12	19.4	*30.7m	Boston-Logan	0.01	0.01	Dry
NA	NA	NA	42.27716403	-71.00777498	sampled after tide hac	Wollaston Beach outf	29	19.4	44.56m	Boston-Logan	0.05	0.06	Dry
NA	NA	11.3	42.277357	-71.008933	outfall across from cla	just south of WollB1 o	0.3	12.4	675	Milton-Blue Hi	1.5	0	Wet
NA	NA	NA	42.277357	-71.008933	trash in water and pla	just south of WollB1 o	13.2	14.3	24.89mS	Boston-Logan	0.09	0.1	Dry
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled over pedestr	1.7	18.1	3271	Boston-Logan	0	0	Dry
NA	NA	ND	42.40260397	-71.00346085	off 1A by esquire club	Green Street in Rever	0.5	17.8	943	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.40269115	-71.00375656	Cloudy; algae on rock	Sampled under pedes	0.9	21	1840	Boston-Logan	0	0	Dry
NA	NA	NA	42.399852	-70.99260269	sample taken from ab	NE back corner of Sh	4.3	20.4	7.6	Boston-Logan	0	0	Dry
NA	NA	6.90	42.39988394	-70.99242127	outfall about 1ft under	Behind Shaw's back c	0.5	16.9	993	Boston-Logan	0.08	0.43	Wet
NA	NA	NA	42.755268	71.207933	Walked in behind autoparts/glass stor on righ		na	na	na		0.43		Wet
NA	NA	NA	42.755035	71.208086	Walked in behind auto	No noticable odor to s	na	na	na		0.12		Wet
NA	NA	1.80	42.75526814	-71.20793271	red rusty color, some	By auto glass place of	0.2	313.5	17.2	Lawrence	0	0	Dry
NA	NA	NA	42.762503	71.222746	Parked at Lancelot Court apartments behind		na	na	na		0.43		Wet
NA	NA	2.15	42.76250258	-71.22274645	slightly more cloudy th	downstream of road, s	na	na	na	Lawrence	0	0	Dry
NA	NA	1.65	42.76743837	-71.22301615	low flow	behind Kohl's parked	0.4	16.2	757	Lawrence	0	0	Dry
NA	NA	NA	42.767438	71.223016	Parked behind Kohl's		na	na	na		0.43		Wet
NA	NA	NA	42.774045	71.224331	Parked at Salem Man	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	0.50	42.77404525	-71.22433096	thick algae growth, ve	flow from east under R	0.3	19.6	638	Lawrence	0	0	Dry
NA	NA	NA	42.778121	71.227147	Parked across from n	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	1.80	42.77812136	-71.22714727	flow from under Rockingham park		0.3	15.8	650	Lawrence	0	0	Dry
NA	NA	NA	42.77812136	-71.22714727	duplicate		na	na	na	Lawrence	0	0	Dry
NA	NA	NA	42.776593	71.231045	West side of Rt 38 wh	No noticable odor to s	na	na	na		0.43		Wet
NA	NA	0.20	42.77659345	-71.23104502	sample taken approx	main stream sample	0.3	18.6	665	Lawrence	0	0	Dry
NA	NA	49.30	42.39401523	-71.07608867	Sample taken out out flow		na	na	na	Boston-Logan	0	0	Dry
NA	280	50+	42.41380356	-71.13242519	some surface inflow w	Near Amelia Earhart D	12	12.5	**20mS	Boston-Logan	0	0.42	Wet
0.81	130	46.10	42.41380356	-71.13242519	can hear running water in pipe; YSI measurm		9.1	17.7	15.1	Boston-Logan	0	0	Dry
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Slight musty odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4787841	71.1131562	Sweetwater Brook we	Clear flow, no obvious	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.4787841	-71.1131562	Sweetwater Brook we	behind service master	0.6	21.4	1193	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Medium sewage odor	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Musty odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	Unnamed tributary to	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.4826072	71.1046187	Unnamed tributary to	No distinct odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.4826072	-71.1046187	Unnamed tributary to	Sweetwater Brook opp	na	na	na	Boston-Logan	0	0	Dry
0.15	4.8	0.25	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.4	14.5	798	Boston-Logan	0.04/0	0.04/0.	Wet
NA	NA	NA	42.4826072	-71.1046187	Cl2 exceeded holding	Unnamed tributary to	0.6	15.1	1280	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Duplicate	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Duplicate	Duplicate	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	sampled largest pipe	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484141	71.103935	Inside culvert upstrea	flow about 2-3 gal/min	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	NA	42.484141	-71.103935	Inside culvert upstrea	sampled largest pipe	0.5	19.4	950	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slight odor coming fro	na	na	na	Boston-Logan	0.38	0.38	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	No odor	na	na	na	Boston-Logan	0.07	0.07	Dry
NA	NA	NA	42.484033	71.103950	Sweetwater Brook @	(0.1" 48hrs prior to sa	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.483930	71.1039388	Sweetwater Brook @	Slightly musty odor	na	na	na	Boston-Logan	0.31	0.31	Wet
NA	NA	2.65	42.48393	-71.1039388	Sweetwater Brook @	Lindenwood (upstream	na	na	na	Boston-Logan	0	0	Dry
0.15	3.4	0.90	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.4	17	821	Boston-Logan	0.04/0	0.04/0.	Wet
NA	NA	NA	42.483930	-71.1039388	Cl2 exceeded holding	Sweetwater Brook @	0.7	18.2	1432	Boston-Logan	0	0.7	Dry
NA	NA	0.40	42.490277	-71.101799	much less than 2linde	Off Toms Way in Stor	na	na	na	Boston-Logan	0	0	Dry
0.11	3.2	0.40	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.5	19.1	977	Boston-Logan	0.08/0	0.08/0.	Wet
ND (0.1)	ND	ND	42.490277	-71.101799	Cl2 exceeded holding	same location as Tom	0.1	21	245	Boston-Logan	0.1/0.	0.1/0.2	Wet
NA	NA	NA	42.490277	-71.101799	Cl2 exceeded holding	Off Toms Way in Stor	0.9	18.1	1701	Boston-Logan	0	0.7	Dry

NA	NA	NA	42.490277	-71.101799	duplicate		na	na	na	Boston-Logan	0	0	Dry
0.16	3.1	1.05	42.490277	-71.101799	Cl2 exceeded holding	duplicate of Toms	na	na	na	Boston-Logan	0.08/0	0.08/0.	Wet
NA	NA	NA	42.48607	-71.0976008	duplicate of Elm2		0.8	16.1	1632	Boston-Logan	0	0.7	Dry
NA	NA	NA	42.466942	-70.92203147	1 culvert, 2 gates; son	sampled gate to the N	1.1	14.8	1784	Beverly	0	0	Dry
NA	NA	NA	42.466942	-70.92203147	Stacey Brook, Swamp	Met Town Engineer, V	0.3	21.9	621	Beverly Airpor	0.23	0.23	Wet
NA	NA	NA	42.466942	-70.92203147	duplicate		na	na	na	Beverly	0	0	Dry
0.31	5.2	3.00	42.3628777	-71.1509558	Sawins Brook, sample	Near lot off Arsenal S	0.8	16.2	1521	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	Sawins Brook	small trib flowing ~10(	0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	16.70	42.3636533	-71.1511559	pipe discharging to Sa	about 30 feet upstrean	0.3	15.3	806	Boston-Logan	0	0	Dry
NA	NA	NA	42.3628777	-71.1509558	duplicate of SawB01		0.3	14.1	571	Boston-Logan	0.02	0.51	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Near Super Stop & S	na	na	na	Bedford	0.31	0.64	Wet
NA	NA	NA	42.456149	71.136269	ambient stream samp	Murky, some foam on	na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.46345477	-71.14925777	very light rain, small w	at end of Sylvester St	0.4	17.4	775	Boston-Logan	0	0.47	Wet
0.13	5.8	4.25	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.6	17.1	1283	Bedford	0.01	0.02	Dry
NA	5.6	2.6	42.463455	-71.149258	sampled far right of c	Russel Brook at the e	0.5	9.7	965	Bedford	0.16	0.18	Wet
NA	NA	NA	42.46084009	-71.13716417	90 degree angle on pipe	downward, very stro	na	na	na	Boston-Logan	0	0	Dry
NA	5.1	1.4	42.4608915	-71.13718955	just downstream near	Swanton Street bridge	0.4	9.1	905	Bedford	0.16	0.18	Wet
0.16	6	1.30	42.463455	-71.149258	Duplicate of Russ1		na	na	na	Bedford	0.01	0.02	Dry
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	No odor	na	na	na	Bedford	0.18	0.18	Wet
NA	NA	NA	42.4764251	71.1182001	Aberjona mainstem in	Low TSS, tannish sta	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	0.80	42.4764251	-71.1182001	name on data sheet is	Aberjona mainstem in	0.5	17	935	Bedford	0	0	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	culvert to right not flo	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Sampled main stream	na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.503179	71.135298	Restaurant 99 off Mis	Waded 3 ft upstream	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	12.00	42.50317874	-71.13529801	warmer than yesterda	99 restaurant, Aberjor	na	na	na	Bedford	0	0	Dry
NA	NA	NA	42.50317874	-71.13529801	Mishawum Bridge, do	lots of moss on rocks/	0.4	23.2	1035	Bedford	0.01	0.13	Dry
NA	NA	NA	42.518563	71.146526	New Boston St where	water very turbid slight	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Film on water, low flo	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.518563	71.146526	New Boston St where	Water grayish/green	na	na	na	Bedford	0.15	0.15	wet
NA	7.3	20.90	42.518563	-71.146526	Landfill Brook, very sl	Just south of Landfill E	na	na	na	Bedford	0	0.06	Dry
NA	NA	19.5	42.518563	-71.146526	Algae and oil on surfa	New Boston St where	0.4	9..9	815	Bedford	0	0	Dry
NA	NA	NA	42.518739	71.146411	Opposite stream from	Very turbid, foul odor	na	na	na	Bedford	0.89	0.89	Wet
NA	NA	NA	42.518739	71.146411	Opposite stream from	Suspended solids	na	na	na	Bedford	0.24	0.51	Wet
NA	4.8	34.60	42.518739	-71.146411	some (very little) suds	Southeast of Landfill E	na	na	na	Bedford	0	0.06	Dry
1.26	4.6	31.50	42.518739	-71.146411	Halls Brook across fro	Southeast of Landfill E	0.5	14	9.17	Bedford	0.01	0.01	Dry
NA	NA	20	42.518739	-71.146411	not as strong smelling	Opposite stream from	0.4	10.2	896	Bedford	0	0	Dry
NA	4.8	50.00	42.518739	-71.146411	duplicate		na	na	na	Bedford	0	0.06	Dry
NA	NA	NA	42.520981	71.147709	Just upstream from M	were stream exits outf	na	na	na	Bedford	0.89	0.89	Wet
1.28	4.4	27.80	42.520981	-71.147709	Upstream of Mys08 w	Low flow, light brown	0.5	16.1	935	Bedford	0.01	0.01	Dry
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov	Sandy bottom, beave	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.498925	71.137440	Olympia Ave, just dov	Sandy bottom, med f	na	na	na	Bedford	0.33	0.33	Wet
0.11	5.6	2.35	42.498925	-71.137440	duck instream~40'awa	Off Olympia Ave right	0.7	18	1416	Bedford	0.01	0.02	Dry
1.24	4.4	NA	42.518739	-71.146411	duplicate of Mys08		na	na	na	Bedford	0.01	0.01	Dry
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Grey, turbid water	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Med flow tannish colo	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495550	71.133700	Blue culvert across R	Clear, good flow, no c	na	na	na	Bedford	0.15	0.15	Wet
0.09	3.7	0*	42.495550	-71.133700	flow out of small stone	plue panel covering to	0.3	22.1	660	Bedford	0.01	0.02	Dry
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Lots of green duck we	na	na	na	Bedford	0.24	0.51	Wet
NA	NA	NA	42.495400	71.133700	Culvert just 5 ft south	Very little flow, believ	na	na	na	Bedford	0.33	0.33	Wet
0.09	3.4	0.90	42.495400	-71.133700	sampled on other side	about 10 feet from US	0.3	21.4	643	Bedford	0.01	0.02	Dry
NA	NA	NA	42.495412	71.134111	Upstream of US3, sam	Clear flow	na	na	na	Bedford	0.33	0.33	Wet
NA	NA	NA	42.495412	71.134111	Upstream of US3, sam	Clear flow	na	na	na	Bedford	0.15	0.15	Wet
0.11	3.7	0.70	42.495412	-71.134111	about 6 inches deep,	back corner of United	0	22.3	671	Bedford	0.01	0.02	Dry

	Location				Outfall		Inspection					13
	Date		Site	Time								E.coli
		Sampler			Pipe Mat.	Dia. (in)	Est. Flow (gpm)	Odor	Color	Turbidity	Floatables	(MPN/100 ml)
1	10/23/07	MassDEP	ShaR02t					very			sewage	1,904
2	11/29/07	MassDEP	ShaR02t					very			sewage	52
3	5/8/08	MassDEP	ShaR02t					strong	gray, with			2,909
4	7/11/08	NEET	ShaR02t									7,400
5	7/17/08	MassDEP	ShaR02t									19,863
6	7/30/08	MassDEP	ShaR02t									7,270
7	8/28/08	NEET	ShaR02t									130
8	6/10/09	OES	SLE3	13:11	CM	36	strong musty o		None	Clear	None	616
9	9/22/09	OES	SLE3	11:30	oncrete outf	3'	na	slight musty	None	Clear	None	205
10	3/23/10	OES	SLE3	14:30			10 to 12 inches deep i		gray	cloudy	/ gease / paper	
11	3/24/10	OEME ECA	SHAW01	9:50								307,600
12	3/26/10	Citizen					Gray water.					
13	5/12/10	AECOM	East Schoo	9:00				sewage	green/grey	cloudy	trees, floating matter (n	
14	5/19/10	AECOM	OSGOOD STREET				very strong sew		gray	cloudy	garbage	1,200
15	5/24/10	AECOM	Outfall (dry)				very slight od		clear	clear	None	40
16	6/4/10	AECOM	SLE	10:55			4000	none	clear	clear	branches	
17	6/10/10	OES	SLE3	7:25	oncrete outf	3'	NA	trong must	hite/tan/gra	lightly cloud	lamentous	1,954
18	6/10/10	OES	SLE3	8:25	oncrete outf	3'	NA	trong must	none	lightly cloud	lamentous	899
19	6/10/10	OES	SLE3	9:00	oncrete outf	3'	NA	trong must	none	lightly cloud	lamentous	806
20	6/11/10	AECOM	SLE	11:42			4000	none		clear	none	
21	6/16/10	AECOM	OUTFALL	13:00			rotten egg odor, very slig		clear	clear	none	39,000
22	6/18/10	AECOM	SLE				4000	none	none	none	none	
23	6/25/10	AECOM	SLE				4000	none	none	none	none	
24	7/22/10	City						sewage	gray	suspended solids		
25	7/23/10	AECOM	OUTFALL	15:00			faint musty/sewag		gray	cloudy	lids and ha	20,000
26	7/28/10	City						none	none	clear	surfaces of rocks and c	
27	8/4/10	OES	SLE3	9:30	concrete	3'	sharp punge		none	clear	nks of bact	1,230
28	8/5/10	City					none in stream, slight musty		none	clear	/grayish growth present	
29	8/12/10	City						none	none	clear	the stream bed at the	
30	8/12/10	AECOM	OUTFALL	12:15								3,800
31	8/18/10	City						none	none	clear	uth of the outfall, which	
32	8/23/10	AECOM	OUTFALL	14:30								2,400
33	8/25/10	AECOM	OUTFALL	15:00			slight sulpher odor			clear		4,500
34	9/1/10	City						none	none	clear	terial, which later disap	
35	9/9/10	City					sewage-like		none	clear	aptured on bar grate.	
36	9/10/10	City							white material returns following a dump of ba			

37	9/15/10	City						slight musty o	none	clear	none	
38	9/23/10	City						none	none	clear	none	
39	9/29/10	City						none	none	clear	none	
40	10/6/10	City						none	none	clear	none	
41	10/14/10	City						none	none	clear	none	
42	10/20/10	City						none	none	clear	none	
43	10/27/10	City						none	dark	cloudy	none	
44	10/29/10	City						none	none	clear	none	
45	11/3/10	City						none		clear	none	
46	11/5/10	AECOM	OUTFALL	14:15								1,600
47	11/10/10	City						none	slightly dark	ightly cloud	none	
48	11/19/10	City						none	none; slight sheen, possibly due to leaf c			
49	11/22/10	AECOM	OUTFALL	13:55				none		clear	none	280
50	12/1/10	City						none		none, no debris or growth		
51	12/8/10	City						none		none, no debris or growth		
52	12/16/10	City						none		clear		
53	12/23/10	City						none		clear		
54	1/6/11	City						cottony, doughy substance observed on the bottom c				
55	1/25/11	City						sewage	suspended solids, cottony material on outfal			
56	2/9/11	City						none		cloudy		
57	2/16/11	City						none		cloudy		
58	2/23/11	City						sewage		cloudy	trash	
59	3/4/11	City						none	gray	cloudy		
60	3/9/11	City						none	gray	cloudy	n/surface coating	
61	3/16/11	City						none	gray	cloudy		
62	3/23/11	City						sewage	gray	cloudy		
63	3/28/11	City						sour milk	gray	cloudy		
64	4/6/11	City						none	gray			
65	4/13/11	City						mild sour mi	clear			
66	4/19/11	City							green/gray			
67	4/21/11	City							green/gray			
68	4/28/11	City						none	gray	cloudy		
69	5/2/11	City						sour milk	gray	cloudy		
70	5/11/11	City						sour milk	gray	cloudy		
71	5/18/12	City						sour milk	gray	cloudy		
72	5/26/11	City						none	clear			

73	5/31/11	City						none	clear			
74	6/8/11	City						none	clear			
75	6/9/11	City						none	clear	t from morning rain		
76	6/14/11	City						none	clear			
77	6/22/11	City						none	clear			
78	6/30/11	City						none	clear			
79	7/6/11	City						none	clear			
80	7/15/11	City						none	clear			
81	7/19/11	MassDEP	ShaR02t									517
82	7/21/11	City						none	clear			
83	7/22/11	AECOM	Shawshee	9:15								17,000
84	7/27/11	City						none	clear			
85	8/4/11	City						none	clear			
86	8/10/11	City						none	clear			
87	8/17/11	City						none	clear			
88	8/22/11	City						none	clear			
89	8/29/11	City						none	clear			
90	9/7/11	City						musty odor	clear			
91	9/14/11	City						none	clear			
92	9/19/11	City						none	clear			
93	9/26/11	City						none	clear			
94	10/11/11	City						none	clear			
95	10/17/11	City						none	clear			
96	11/1/11	City						none	clear			
97	11/9/11	City						none	clear			
98	11/14/11	City						none	clear			
99	11/21/11	City						none	clear			
100	11/28/11	City						none	clear			
101	12/6/11	City						none	clear			
102	12/12/11	City						none	clear			
103	12/20/11	City						none	clear			
104	12/26/11	City						none	clear			
105	1/3/12	City						none	clear			
106	1/10/12	City						none	clear			
107	1/17/12	City						none	clear			
108	1/24/12	City						none	clear			

109	1/30/12	City						none	clear			
110	2/7/12	City						none	clear			
111	2/15/12	City						none	clear			
112	2/22/12	City						none	clear			
113	2/27/12	City						none	clear			
114	3/6/12	ity / AECO	OUTFALL	11:35			sewage odor			cloudy		1,000,000
115	3/12/12	City						cloudy flow has subsided				
116	3/19/12	City					sewage odor			cloudy		
117	3/21/12	AECOM	OUTFALL	15:00								210,000
118	3/26/12	City					sewage odo		gray	cloudy		
119	3/30/12	City						none	clear			
120	4/2/12	City						none	clear			
121	4/10/12	City					slight, intermittent sewage odor			clear		
122	4/16/12	City						none		clear		
123	4/24/12	OES	LAW02	8:10			No odor observed; discharge appeared to be clear. Mod					857
124	4/25/12	AECOM	OF	14:20				none	clear	clear		520
125	4/30/12	City						none	clear			
126	5/7/12	City						none	clear			
127	5/14/12	City						none	clear			
128	5/15/12	OEME	OUTFALL	12:24								186
129	5/21/12	City						mild odor	gray	cloudy	toilet paper residue	
130	5/24/12	City						none	clear			
131	5/29/12	City						none	clear			
132	6/8/12	City						none	clear			
133	6/18/12	City						none	clear			
134	6/25/12	City						none	clear			
135	6/27/12	OES	LAW02	10:15			Strong sewage odor observed. Discharge appeared to b					1,986,280
136	6/28/12	City						none		clear		
137	6/29/2012	City								cloudy		
138	7/2/2012	City						none			sediment deposition	
139	7/9/2012	City						none		clear		
140	7/17/2012	City						none		clear		
141	7/24/2012	City						none		clear		
142	7/31/2012	City						none		clear		
143	8/6/2012	City						none		clear		
144	8/13/2012	City						none		clear		
145	8/20/2012	City						none		clear		
146	8/27/2012	City						none		clear		
147	9/4/2012	City						none		clear		

148	9/11/2012	City						none		clear		
149	9/17/2012	City						none		clear		
150	9/25/2012	City						none		clear		
151	10/4/2012	City						none		clear		
152	10/11/2012	City						none		clear		
153	10/15/2012	City						none		clear		
154	10/24/2012	AECOM	E SCHOO	13:10								310
155	10/30/2012	City						none		clear		
156	11/13/2012	City						odor of ashes and burnt material				
157	11/14/2012	City						none		clear		
158	11/14/2012	JM, NH, E	SHAW03	8:30	concrete outfall		20	Slight musty odor, clear, some green growth c				1,164
159	11/19/2012	City						none		clear		
160	11/27/2012	City						none		clear		
161	12/3/2012	City						none		clear		
	12/11/2012	City						none		clear		
	12/19/2012	City						none		clear		
	12/26/2012	City						none		clear		
	1/2/2013	City						none		clear		
	1/9/2013	City						none		clear		
	1/14/2013	City						none		clear		
	1/24/2013	City						none		clear		
	1/30/2013	City						none		clear		
	2/4/2013	City						none		clear		
	2/13/2013	City						none		clear		
	2/19/2013	City						none		clear		
	2/26/2013	City						none		clear		
	3/4/2013	City						none		clear		
	3/13/2013	City						none		clear		
	3/22/2013	City						none		clear		
	3/25/2013	City						none		clear		
	4/1/2013	City						none		clear		
	4/9/2013	City						none		clear		
	4/17/2013	City						none		clear		
	4/22/2013	City						none		clear		
	4/29/2013	City						none		clear		
	5/6/2013	City						none		clear	aquatic plants or algea	
	5/13/2013	City						none		clear		
	5/20/2013	City						none		clear		
	5/28/2013	City						none		clear		
	6/3/2013	City						none		clear		

6/10/2013	City		none		clear	
6/17/2013	City		none		clear	
6/25/2013	City		none		clear	
7/1/2013	City		none		clear	
7/9/2013	City		none		clear	
7/15/2013	City		none		clear	
7/24/2013	City		none		clear	
7/31/2013	City		none		clear	
8/5/2013	City		none		clear	
8/12/2013	City		none		clear	
8/19/2013	City		none		clear	
8/26/2013	City		none		clear	
9/3/2013	City		none		clear	
9/9/2013	City		none		clear	
9/16/2013	City		none		clear	
9/23/2013	City		none		clear	
9/30/2013	City		none		clear	
10/9/2013	City		none		clear	
10/15/2013	City		none		clear	
10/22/2013	City		none		clear	
10/28/2013	City		none		clear	
11/4/2013	City		none		clear	
11/12/2013	City		none		clear	
11/18/2013	City		none		clear	
11/26/2013	City		none		clear	
12/2/2013	City		none		clear	
12/10/2013	City		none		clear	
1/7/2014	City		none		clear	
1/14/2014	City		none		clear	
1/21/2014	City		none		clear	
1/27/2014	City		none		clear	
2/3/2014	City		none		clear	
2/11/2014	City		none		frozen dirt/debris	
2/20/2014	City		none	brown	silty	
2/24/2014	City		none		clear	
3/5/2014	City		none		clear	
3/10/2014	City		none		clear	brown silty deposits fro
3/17/2014	City		none		clear	brown silty deposits fro
3/24/2014	City		none		clear	
4/1/2014	City		Shawsheen flooding			

4/7/2014	City			none	clear		
4/17/2014	EPA	Law 02	7:50				7,945
4/17/2014	City		11:15	none	clear		
4/17/2014	EPA	Law 02	12:35				4,185
4/22/2014	City			none	clear		
4/29/2014	City			none	clear		
5/7/2014	City			none	hazy	macro algae	
5/12/2014	City			none	clear	macro algae	
5/19/2014	City			none	clear		
5/27/2014	City			none	clear		
6/2/2014	City			none	clear		
6/11/2014	City			none	clear		
6/17/2014	City			none	clear		
6/23/2014	City			none	clear		
6/30/2014	City			none	clear		
7/7/2014	City			none	clear		
7/14/2014	City			none	clear		
7/21/2014	City			none	clear		
7/28/2014	City			none	clear		
8/4/2014	City			none	clear		
8/12/2014	City			none	clear		
8/18/2014	City			none	clear		
8/26/2014	City			none	clear		

14	15	16	17	18	19	20	21	22	23	24	25	26
Entero (MPN/100 ml)	Surfact. (mg/l)				NH3 (mg/l)						P	
	Any	Alpha	Field	DR-850	Any	Alpha	Field	Nessler	DR-850	Test St.	EPA (µg/L)	Atenolol
	ND (0.10)		ND (0.10)		0.31	0.31						
	0.10		0.10		0.6			0.6				
445	0.10		0.1		0.4			0.4			9	ND (2.1)
					3		3					
17,329												
ot sewage)												
	0.12	0.12			0.095	0.095						
	ND (0.05)	ND (0.05)			ND (0.075)	ND (0.075)						
2,359	1		1									ND (4.0)
4,884	0.2		0.2									ND (4.0)
2,014	0.5		0.5									ND (5.0)
	ND (0.05)	ND (0.05)			0.084	0.084						
	3	3			5.17	5.17						
oncrete in flow path												
275	0.1		0.1							ND	52	5.8
t												
mouth of the outfall												
	ND (0.05)	ND (0.05)			0.085	0.085						
transitions to a yellow color further downstream												
	0.06	0.06			0.105		0.105					
	ND (0.05)	ND (0.05)			0.096		0.096					
peared												
agel water												

	0.08	0.08			0.1	0.1						
decay												
	ND (0.05)	ND (0.05)			0.116	0.116						
of the outfall apron												
l surfaces												

	0.25		0.25		ND (0.10)		ND (0.10)					
	0.05	0.05			0.465	0.465						

	0.48	0.48			1.72	1.72						
	0.49	0.49			1.26	1.26						
30	0.2		0.2		ND (0.10)		ND (0.10)					8.8
	ND (0.05)	ND (0.05)			0.146	0.146						
488,400	2.5		2.5		6		6					820

	ND (0.05)	ND (0.05)			0.176	0.176						
120		NA				NA						1.7

›m catch basins and some green growth
›m catch basins

313
231

4.3
8.7

27	28	29	30	31	32	33	34	35	36			
PPCP ng/L									Chlorine			
Acetaminophen	Cotinine	1,7-Dimethyl	Caffeine	Azithromycin	Primidone	Urobilin	Carbamazepine	Metoprolol	Any	Alpha Total	Field	Test St.
									ND (0.02)		ND (0.02)	
11	ND (0.4)	ND (2.1)	17	ND (0.4)	ND (4.2)	82	6.3		0.11		0.11	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
7.5	16	5.3	51	ND (0.8)	ND (8.0)	ND (8.0)	3.3					
28	78	24	400	ND (0.8)	ND (8.0)	130	3.5		0.04		0.04	
24	49	18	310	ND (1.0)	ND (10.0)	130	3		0.04		0.04	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
22	2.3	15	150	ND (0.4)	ND (4.0)	18	2.6		0.05		0.05	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		

								ND (0.02)	ND (0.02)		
								ND (0.02)	ND (0.02)		

								ND (0.02)	ND (0.02)		

									ND (0.02)	ND (0.02)		
27	2.2	5	59				3		0.3		0.3	
									ND (0.02)	ND (0.02)		
									ND (0.02)	ND (0.02)		
15000	260	5300	25000				ND (4.0)	380	ND (0.02)		ND (0.02)	

									ND (0.02)	ND (0.02)		
17	64	20	290		71		2.9	3.5				

200	3.6	26	190				2.1	5.2
95	ND (0.4)	14	150				2.3	2.5

				Coordinates			
Flouride		Potassium (mg/L)					
Alpha	DR-850	Alpha	Field	GPS North(+)	GPS West (-)	Comments	Additional Location Information
				42.69553	-71.14606		Conduit at upper end of
			5.05	42.69597	-71.14556	strong flow, lots and lots of gray stringy bacterial gro	Concrete outfall metal grate
	0.14	5.5	2.35	42.69597	-71.14556	stream scoured, lots of bacteria growth washed awa	South Lawrence Elementar
						Todd visit following several days of heavy rain.	South Lawrence Elementary
						White growth on all surfaces in flow path	
			3	42.70688	-71.14766	SLE3a' significant white/tan/gray bacteria growth, al	South Lawrence Elementar
			1.25	42.70688	-71.14766	SLE3b' Nitrate: 2. Nitrite: 0.3. Phos Strip: 4	South Lawrence Elementar
			1.65	42.70688	-71.14766	SLEc' Lawrence DPW stopped (didn't get out of truc	South Lawrence Elementar
						white/orange growth below water surface covers most rock/concrete surfaces. E	
				42.70688	-71.14766	significant white/tan/gray bacteria growth, almost m	South Lawrence Elementar

						SSO due to blocked sewer	0.47" precip 3 days prior
						SSO due to blocked sewer	
				42.69553	-71.14615	Outfall located on East Boxford Street, north of Law	had rained previous mornin
				42.69553	-71.14615	Outfall located on East Boxford Street, north of Lawrence High School.	
						SSO due to sewer collapse	

NA						42.69552111	-71.14611578

Shawsheen flooding

Shawsheen flooding

YSI Meter			Weather		
Salinity	Temp	Conducti	24hrs	48hrs	Wet/Dry?
ppt	C	uS	inches	inches	
			0.09	0.09	dry
			0.1	0.1	wet
			0	0.01	dry
					dry
					dry
					dry
0.5	14.1	1078	0.1	0.1	Wet
0.6	15.1	1158	0.01	0.01	Dry
/, behind the school			1.26	1.29	wet
					dry
			0.03	0.52	wet
			0	0	dry
			0	0.02	dry
0.5	14.6	1045/835	0.04	0.04	Dry
0.5	14.83	984/790	0.04	0.04	Dry
0.5	14.7	957/747	0.04	0.04	Dry
			0.13		wet
Bare patches of rock and soil now			0	0	dry
0.6	15.6	1120	0	0	Dry
		0.09" - 0.47"			wet
			~2"		wet

					wet
					wet

					WET

			0	0	dry
			0	0	dry
			0	0	dry
0.3	13.5	614	Trace	1.67	wet
			0	trace	dry
			0	0.06	dry
0.5	15.8	935	Trace	Trace	dry

			0	0	dry
South		0.5	14.5	950	0.26

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 23 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Wednesday, 10 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at multiple locations between East Boxford Street and Merrimack Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Christina Murphy.

At approximately 12:30 pm EPA collected a sample from the center of the Shawsheen River just prior to entering a culvert beneath Merrimack Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 700 uS/16.6 °C/0.3 ppt, respectively at the "Shaw1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as "Shaw1". EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges.

EPA observed the outfall just east of the intersection of East Boxford Street and Crawford Street at approximately 1235 hours. The EPA Inspector observed a large culvert emerging from beneath East Boxford Street with a moderate flow of surface water coming from the outfall. A strong smell of sewage was noted all along the approximate 200 yard length of the unnamed tributary channel before it empties into the Shawsheen River. EPA personnel noted some of the most significant filamentous bacterial growth they had ever observed in the field throughout the unnamed stream channel (see photos). The thickness and variety of the bacterial growth, and the fact that the growth extended throughout the approximate 200-yard length of the stream channel, was quite unusual.

EPA collected sample "SLE1" at 12:58 in the Shawsheen river approximately 10 yards downstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 577 uS/16.7 °C/0.3 ppt, respectively at the "SLE1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel

processed a surface water sample collected at the location. Field kits indicated low levels of

ammonia (0.4 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE1”.

EPA collected sample “SLE2” at 13:02 in the Shawsheen river approximately 30 yards upstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 679 uS/16.7 °C/0.3 ppt, respectively at the “SLE2” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as “SLE2”.

EPA collected sample “SLE3” at 13:05 in the unnamed tributary approximately 6 feet downstream of outfall from beneath East Boxford Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 1078 uS/14.1 °C/0.5 ppt, respectively at the “SLE3” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.6 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE3”. As stated above, there was a significant sewage smell throughout this location and the bacterial growth along the stream bed was quite significant.

EPA notified MassDEP (Kevin Brander and Jenny Birnbaum) of their observations and referred the situation for potential enforcement, as MassDEP has an existing enforcement relationship with the City.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during wet weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was 0.1 inches on 9 June 2009 (Lawrence Municipal Airport gauge).

Inspection ended at 1315.

Photographs Attached.

Photo 1: 6/10/09 12:30 PM View facing west – Shawsheen River, flowing left to right, prior to entering culvert beneath Merrimack Street.

Photo 2: 6/10/09 View of confluence of unnamed stream and Shawsheen River. Shawsheen flow is right to left. Unnamed stream enters fro lower left. Note bacterial growth along unnamed stream bottom.

Photo 3: 6/10/09 View of sample location “SLE3” just downstream from culvert opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/09. Sample location “SLE3” and close up of bacterial growth. Entire stream bed is covered in thick white/gray bacterial growth.

Photo 5: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout stream.

Photo 6: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout streambed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 5 April 2010

Subj: NPDES Compliance Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Tuesday, 23 March 2010, EPA inspector Todd Borci conducted an unannounced inspection of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at East Boxford Street in Lawrence, MA.

At approximately 2:30 pm EPA observed an unnamed outfall at the eastern terminus of East Boxford Street in Lawrence, MA. EPA had visited the location multiple times during the 2009 calendar year, and had sampled the outfall during several of those visits. During previous observations, the outfall often has a strong odor, the stream bed is stained gray, and the streambed is covered in gray filamentous bacteria, all indicators of an illicit discharge. After several days of heavy rain, EPA was inspecting the condition of the discharge.

EPA observed the Shawsheen River to be flooded, and the entire streambed from the unnamed outfall to the Shawsheen River was under water. The water level was approximately 10 to 12 inches in the pipe, and a distinct gray plume was visible for approximately 50 feet within the outfall opening. Upon closer inspection, gray, turbid water with a grease or oil sheen and a significant amount of small pieces of shredded paper were visible discharging from the outfall.

EPA collected a sample of the discharge for field screening for ammonia using Hach brand test strips. The field screening indicated an ammonia level of approximately 3 mg/l.

EPA notified the City of Lawrence of the apparent Sanitary Sewer Overflow (SSO) at approximately 3 pm. After speaking with a secretary at the City Public Works Department, EPA was instructed to leave a message for Matt Howland (978-382-2453).

The EPA inspector contacted Tim Bridges at EPA's Regional Laboratory in Chelmsford, MA to arrange for the outfall to be sampled. Due to the time of day, EPA scheduled the outfall for sampling the next morning.

Photo 1: 3/23/10 2:30 PM Unnamed outfall at eastern terminus of East Boxford Street. Water level is level of Shawsheen River. Distinct gray discharge with oil/grease/small pieces of paper coming from the outfall.

Photo 2: 3/23/10 Close up view of small pieces of paper being discharged from the unnamed outfall at the eastern terminus of East Boxford Street in Lawrence, MA.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/04/24	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
7:45AM 4/24/2012	August 2003
Exit Time/Date	**Permit Expiration Date**
12:00PM 4/24/2012	August 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data

Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.

John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Todd Borci	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	4/24/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MAR041201	11 12 12/06/27	17 18 <	19 R 20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)

Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W)
Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
In-stream sample collected from the canal located upstream of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
Control sample collected from Merrimack River upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

Entry Time/Date	Permit Effective Date
8:25AM 6/27/2012	
Exit Time/Date	**Permit Expiration Date**
12:00PM 6/27/2012	

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the City of Lawrence was made during this sampling inspection.

O her Facility Data
Receiving Water: Merrimack River
Shawsheen River (LAW02)

Name, Address of responsible Official/Title/Phone and Fax Number.
John Isensee
Director of Public Works
Phone: (978) 620-3090 Fax: (978) 722-9160

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	7/13/2012
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	7/13/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 15 June 2010

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Thursday, 15 June 2010, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at an outfall located to the east of East Boxford Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Leanna Conway.

At approximately 0700 EPA personnel arrived on site. EPA initiated the inspection based on predicted rainfall of 0.5 inches overnight; however, no heavy precipitation had materialized overnight. Conditions upon arrival were a light drizzle and the ground and all surfaces were wet.

Upon initial examination, a strong sewage odor was noted within 20 to 30 feet of the outfall, and significant white/gray/tan bacterial and/or fungal growth was visible at the mouth of the outfall and along the stream bottom (Photograph Nos. 1 and 2). The unnamed stream travels for a total distance of approximately 500 feet to the northeast and then curving to the west before joining the Shawsheen River, and the entire stream bed over this distance was observed to be covered in the same bacterial/fungal growth observed at the outfall (see photos). The same strong odor was observed along the stream channel as well. Based on previous EPA visits to this outfall, the only real difference from prior events was that it appeared trash had been cleaned from the metal grate at the outfall opening.

At 0735, EPA collected the first set of samples. EPA collected a total of three sample sets at 0735, 0825, and 0900 hours. Each sample set consisted of a bacterial sample, a pharmaceutical sample, and a sample for field kit analyses. Water temperature, conductivity, and salinity were recorded during the collection of each sample set. A duplicate bacterial sample was collected during the 0735 sample set. All field results were recorded in the sample note book. Final data will be attached to this report once it has received quality assurance approval.

The City is required to investigate this outfall under a recent EPA Information Request. EPA will pass along analytical results to the City once received.

EPA departed the site at 1000 hours.

Photo 1: 6/10/10 0735 hrs. View facing Northeast – Flow from culvert toward Shawsheen River. Note thick gray bacterial growth throughout entire stream bed.

Photo 2: 6/10/10 0735 hrs. View of outfall opening. Note thick gray bacterial growth on stream

bed.

Photo 3: 6/10/10 0834 hrs. View of outfall opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/10. 9:03 hrs. Close-up photo of thick bacterial growth coating stream bed. Photo taken just downstream of outfall opening.

Photo 5: 9:10 hrs. Photo taken looking into culvert through metal grate. Note significant bacterial growth along culvert bottom.

Photo 6: 9:11 hrs. Photo taken facing northeast from outfall opening toward Shawsheen River. Note significant bacterial growth throughout streambed.

Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

July 02, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: Enterococcus in Water
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 06/27/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Enterococcus by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

Enterococcus in Water

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100mL	RL MPN/100mL	Qualifier
LAW 01	AB30854	06/27/12 9:40 am	06/27/12 1:39 pm	Enterococcus in Water	**63**	10	
LAW 02	AB30855	06/27/12 10:15 am	06/27/12 1:39 pm	Enterococcus in Water	**488,400**	1000	
LAW 03	AB30851	06/27/12 8:25 am	06/27/12 1:39 pm	Enterococcus in Water	**20**	10	
LAW 03 UP	AB30853	06/27/12 8:50 am	06/27/12 1:39 pm	Enterococcus in Water	ND	10	
LAW 04	AB30852	06/27/12 8:30 am	06/27/12 1:39 pm	Enterococcus in Water	**10**	10	
LAW 05	AB30857	06/27/12 11:55 am	06/27/12 1:39 pm	Enterococcus in Water	**41**	10	
LAW 07	AB30856	06/27/12 11:10 am	06/27/12 1:39 pm	Enterococcus in Water	ND	10	

Number of Samples: 7

Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

July 02, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: E. Coli Defined Substrate
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 06/27/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Total Coliform/E. coli by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
LAW 01	AB30854	06/27/12 9:40 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**91**	4	
LAW 02	AB30855	06/27/12 10:15 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**1,986,280**	1000	
LAW 03	AB30851	06/27/12 8:25 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**115**	4	
LAW 03 UP	AB30853	06/27/12 8:50 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**98**	4	
LAW 04	AB30852	06/27/12 8:30 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**96**	4	
LAW 05	AB30857	06/27/12 11:55 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**86,640**	100	
LAW 07	AB30856	06/27/12 11:10 am	06/27/12 1:39 pm	E. Coli Defined Substrate	**252**	4	

Number of Samples: 7

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
12060044	Lawrence MS4

SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	E. Coli	Enterococcus					REMARKS
Law03	6/27/12	0825		X		1	X	X					
Law04		0830		X		1	X	X					
Law3up		0850		X		1	X	X					
Law01		0940		X		1	X	X					
Law02		1015		X		1	X	X					
~~Law06~~ @07		11:10		X	Law07	1	X	X					
Law05		11:55		X		1	X	X					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	6/27/12 13:34				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks
		Brittany [signature]	6/27/12 13:34	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

1- 18981

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: July 13, 2012

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Wednesday, June 27, 2012, 8:25 AM

B. Weather Conditions: Overcast, scattered rain, approximately 65 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: Various locations within the City of Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Samples were collected from seven (7) stormwater outfalls/culverts in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
- Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W).
- Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
- In-stream sample collected from the canal located upstream (to the south) of LAW03, identified as LAW3up (42.70243609 N, 71.13576928 W).
- Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
- Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
- Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

IV. Inspection Observations and Findings

On Wednesday, June 27, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at seven locations which discharge into the Merrimack and Shawsheen Rivers.

The inspection started in Lawrence at approximately 8:25 AM. At the time of the inspection, the weather was overcast with scattered rain and approximately 65 degrees Fahrenheit. A rain event of approximately 1 inch occurred within 48 hours of the inspection. At the time of the inspection, water level of the Merrimack River was artificially lowered downstream of the Great Stone Dam by Enel Green Power to a depth of approximately 9 feet.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory analytical results are anticipated to be available July 2012.

Attachments → Photogrpahs

End of Report

Summary of Lawrence, MA MS4 Inspection, June 27, 2012

Sample ID	LAW01	LAW02	LAW03	LAW03up	LAW04	LAW05	LAW07
Time	09:40	10:15	08:25	08:50	08:30	11:55	11:10
Latitude/Longitude	42.70861770 N/ 71.13402411 W	42.69552796 N/ 71.14615106 W	42.70352069 N/ 71.15579820 W	42.70243609 N/ 71.13576928 W	42.70349669 N/ 71.15589465 W	42.69218977 N/ 71.17582728 W	42.69453064 N/ 71.17665595 W
Description of Location	Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.	Outfall located on East Boxford Street, north of Lawrence High School.	Outfall located along south side of Merrimack River, north of New Balance factory.	In-stream sample collected from the canal located upstream (to the south) of LAW03.	Approximately 10 feet upstream of LAW03.	Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.	Outfall located along north side of Merrimack River, off of Water Street.
Physical Observations	Musty odor observed. Flow approximately 100-200 GPM.	Strong sewage odor observed. Discharge appeared to be cloudy. Grey bacterial growth observed on concrete outfall and spillway. Approximate flow 60-80 GPM.	Outfall submerged, sample collected on left side of concrete structure approximately one foot below water surface where upwelling in river was observed.	Musty odor observed. Flow greater than 100 GPM.	Control sample collected from river to compare results with LAW 03.	Outfall partially submerged. Moderate sewage odor. Debris/scum present above flow from outfall.	No odor observed. Flow from outfall did not appear mix with river until approximately 20 feet from point of sample collection.
Temperature, ºC	20.5	15.8	23.4	23.5	23.6	14.8	20.7
Specific Conductivity, µS	320	935	162	134	164.4	729	521
Salinity, ppt	0.2	0.5	0.1	0.1	0.1	0.4	0.3
Ammonia, mg/l	0.25	>6	0	0	NA	0	0.5
Total Chlorine, mg/l	0	0	0	0.48	NA	0	0.03
Detergent, mg/l	0.1	2.5	0.1	0.05	NA	0.2	0.2

NA: Not analyzed

LAW01: Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School.

LAW02: Grey bacterial growth on concrete spillway at LAW02.

LAW03: Outfall located along south side of Merrimack River, north of New Balance factory.

LAW03up: Canal located upstream (to the south) of LAW03.

LAW04: Control sample collected upstream of sample identified as LAW03 to compare results.

LAW05: Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.

LAW07: Outfall located along north side of Merrimack River, off of Water Street.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: April 24, 2012

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

I. Background Information

A. Date, Time of inspection: Tuesday, April 24, 2012, 7:00 AM

B. Weather Conditions: Mostly sunny, approximately 55 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: Various locations within the City of Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Samples were collected from seven (7) stormwater outfalls/culverts in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station, identified as LAW01 (42.70861770 N, 71.13402411 W).
- Outfall located on East Boxford Street, north of Lawrence High School, identified as LAW02 (42.69552796 N, 71.14615106 W).
- Outfall located along south side of Merrimack River, north of New Balance factory, identified as LAW03 (42.70352069 N, 71.15579820 W).
- Control sample collected upstream of sample identified as LAW03 to compare results, identified as LAW04 (42.70349669 N, 71.15589465 W).
- Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse, identified as LAW05 (42.69218977 N, 71.17582728 W).
- Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park, identified as LAW06 (42.68850280 N, 71.17926558 W).
- Outfall located along north side of Merrimack River, off of Water Street, identified as LAW07 (42.69453064 N, 71.17665595 W).

IV. Inspection Observations and Findings

On Tuesday, April 24, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at seven locations which discharge into the Merrimack and Shawsheen Rivers.

The inspection started in Lawrence at approximately 7:00 AM. At the time of the inspection, the weather was mostly sunny and approximately 55 degrees Fahrenheit. A rain event of approximately 2.5 inches occurred within 48 hours of the inspection. Low to moderate flows were generally observed. Based on USGS Hydrologic Unit 01100000, located in the City of Lowell, and USGS Hydrologic Unit 01100693, located in the Town of Haverhill, the Merrimack River had an increased gauge depth of approximately 3.5 feet between April 22, 2012 and the time of the inspection.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory analytical results are anticipated to be available May 2012.

Summary of Lawrence, MA MS4 Inspection, April 24, 2012

Sample ID	LAW01	LAW02	LAW03	LAW04	LAW05	LAW06	LAW07
Time	7:45	8:10	8:54	9:00	9:40	10:30	11:08
Latitude/Longitude	42.70861770 N/ 71.13402411 W	42.69552796 N/ 71.14615106 W	42.70352069 N/ 71.15579820 W	42.70349669 N/ 71.15589465 W	42.69218977 N/ 71.17582728 W	42.68850280 N/ 71.17926558 W[1]	42.69453064 N/ 71.17665595 W
Description of Location	Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.	Outfall located on East Boxford Street, north of Lawrence High School.	Outfall located along south side of Merrimack River, north of New Balance factory.	Approximately 10 feet upstream of LAW03.	Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.	Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park.	Outfall located along north side of Merrimack River, off of Water Street.
Physical Observations	Slight sewage odor, possibly treated discharge. Some suds present.	No odor observed; discharge appeared to be clear. Moderate flow.	Outfall submerged, sample collected where upwelling in river was observed.	Control sample collected from river to compare results with LAW 03.	Outfall partially submerged. Moderate sewage odor. Debris/scum present above flow from outfall.	No odor observed; discharge appeared to be clear. Flow approximately 50-100 GPM.	Slight musty odor. Flow appeared to be flowing in then out of outfall. Debris present above sampling location.
Temperature, ºC	12.6	13.5	14.8	14.5	11	11.3	12.9
Specific Conductivity, µS	286	614	185	182	506	390.7	532.2
Salinity, ppt	0.14	0.3	0.09	0.09	0.24	0.19	0.26
Ammonia, mg/l	0.25	0	NA	NA	0	0	0.25
Total Chlorine, mg/l	0.43	0.3	NA	NA	0.17	0.04	0.11
Detergent, mg/l	<0.25	0.2	NA	NA	<0.25	<0.25	0.50

1. GPS coordinates were taken from Shepard Street due to limited satellite coverage.

NA: Not analyzed

LAW01: Outfall located on south side of Merrimack River, adjacent to Greater Lawrence Sanitary District Riverside Pump Station.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School.

LAW03: Outfall located along south side of Merrimack River, north of New Balance factory.

LAW04: Control sample collected upstream of sample identified as LAW03 to compare results.

LAW05: Outfall located on Eaton Street, southeast of ABE Bashara Community Boathouse.

LAW06: Outfall located on Shepard Street, northeast of Lawrence Riverfront Industrial Park.

LAW07: Outfall located along north side of Merrimack River, off of Water Street.

End of Report.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: May 27, 2014

SUBJ: Lawrence, MA MS4 Inspections
City of Lawrence, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REVIEWED BY: Todd Borci, May 20, 2014

I. Background Information

A. Date, Time of inspection: Tuesday, April 17, 2014, 7:45 AM

B. Weather Conditions: Mostly sunny and cool, approximately 40 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative: John Isensee
Town of Lawrence
Director of Public Works
200 Common Street, Lawrence, MA 01840

Note: Site Representatives were not contacted.

E. Address: East Boxford Street, Lawrence, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the City of Lawrence Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River and Shawsheen River. Two samples were collected from the stormwater outfall located at the end of East Boxford Street in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Inspection Observations and Findings

On Tuesday, April 17, 2014, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence MS4 at the outfall located on East Boxford Street, north of Lawrence High School (42.69552796 N, 71.14615106 W).

The inspection started in Lawrence at approximately 7:45 AM. At the time of the inspection, the weather was mostly sunny and cool, approximately 40 degrees Fahrenheit. A rain event of approximately 3/4 inches occurred within 48 hours of the inspection. High flows in the receiving water were observed.

The City of Lawrence is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the City of Lawrence Notice of Intent (NOI) has been posted online, and is dated August 20, 2003. The City of Lawrence EPA NPDES permit number is MAR041201.

Two samples, spaced approximately 5 hours apart, were collected from the stormwater outfall located at the end of East Boxford Street. The samples were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and Pharmaceutical and Personal Care Products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, and Carbamazepine. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included.

Summary of Lawrence, MA MS4 Inspection, April 17, 2014

Sample ID	LAW02	LAW02
Time	7:50	12:35
Physical Observations	High level in Shawsheen River. Low flow from outfall confirmed. Sample collected straight down from concrete headwall. Slight sheen in water surface.	Shawsheen River appears to have risen since AM sample. Sample collected up by grates.
Temperature, ºC	12.2	12.0
Specific Conductivity, µS	980	1109
Salinity, ppt	0.5	0.6
Ammonia, mg/l	0.25	0
Total Chlorine, mg/l	0	0.0
Detergent, mg/l	0.25	0.25
Atenolol, ng/l	4.3	8.7
Acetaminophen, ng/l	200	95
Cotinine, ng/l	3.6	ND
1,7-Dimethylxanthine, ng/l	26	14
Caffeine, ng/l	190	150
Carbamazepine, ng/l	2.1	2.3
Metoprolol, ng/l	5.2	2.5
E.Coli, MPN/100ml	7,945	4,185
Enterococcus, MPN/100ml	313	231

ND: Not detected above laboratory reporting limit.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School, 0750.

LAW02: Outfall located on East Boxford Street, north of Lawrence High School, 1235.

End of Report.

EPA
Region 1, New England

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Laboratory Report

July 12, 2012

Erin Trainor - EIA / OEME
US EPA New England R1

Project Number: 12060044
Project: MS4 Outfalls - Lawrence, MA
Analysis: HPLC/MS/MS Source Tracking Analysis
Analyst: Peter Philbrook Peter Philbrook 12-JULY-2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I SOP, EIA-LCMS_STA.0.

The SOP is based on an EPA Regional Analytical Method developed at the EPA New England Laboratory.

Date Samples Received by the Laboratory: 06/27/2012

Data were reviewed in accordance with the internal verification procedures described in the EPA New England OEME Chemistry QA Plan.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

Report may contain multiple sections and each section will be numbered independently.

If you have any questions please call me at 617-918-8340

Sincerely,

Daniel N Boudreau 7/16/12
Daniel N Boudreau
Chemistry Team Leader

DATA QUALIFIERS

RL	Reporting limit
J	Estimated value
E	Estimated value exceeds the calibration range
L	Estimated value is below the calibration range
B	Analyte is associated with the lab blank or trip blank contamination.
R	No recovery was calculated since the analyte concentration is greater than four times the spike level.
ND	Not Detected above Reporting limit
NA	Not Applicable due to high sample dilutions or sample interferences
ME	Matrix Effect - Sample matrix was responsible for either enhanced or suppressed ionization within the electrospray ionization probe

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NARRATIVE

Aqueous samples (500mL) were extracted using a solid phase extraction (SPE) technique, following EPA Method 1694, in which samples were passed through a cartridge containing a solid sorbent material which pre-concentrates the target compounds onto the sorbent. The target compounds (TCs) were then eluted off the sorbent material using methanol. The resulting eluant is concentrated to dryness and re-constituted to a final volume of 1 mL with 20/80 Methanol/Water.

A 5uL aliquot of the sample extract was injected into a Ultra High Performance Liquid Chromatograph (UPLC), and the TCs were separated chromatographically using a C18 UPLC column running a buffered water/methanol gradient. The ionization mode used was electrospray with the polarity operating in the positive mode. The TCs were detected using a Waters Acquity TQD Tandem Quadrupole Mass Spectrometer. The tandem quadrupole is used to perform multiple reaction monitoring (MRM) where the precursor ion of interest is fragmented to product ion(s).

Quantitation was performed by the internal standard calibration method using isotopically labeled analogues. Sulfamethazine *13*C6 and Primidone d5 were used as a surrogate compounds to monitor extraction efficiency.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 03	Lab Sample ID:	AB30851
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.47

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	30	2.00	
103-90-2	Acetaminophen	4.4	2.00	
486-56-6	Cotinine	3.4	0.40	
611-59-6	1,7-Dimethylxanthine	12	4.00	
58-08-2	Caffeine	27	8.00	
298-46-4	Carbamazepine	9.4	0.40	
56392-17-7	Metoprolol	22	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	68	23 - 181
Sulfamethazine 13C6	97	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 04	Lab Sample ID:	AB30852
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.22

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**35**	2.00	
103-90-2	Acetaminophen	**3.7**	2.00	
486-56-6	Cotinine	**3.7**	0.40	
611-59-6	1,7-Dimethylxanthine	**12**	4.00	
58-08-2	Caffeine	**24**	8.00	
298-46-4	Carbamazepine	**4.9**	0.80	
56392-17-7	Metoprolol	**21**	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	66	23 - 181
Sulfamethazine 13C6	99	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 03 UP	Lab Sample ID:	AB30853
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.16

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**30**	2.00	
103-90-2	Acetaminophen	**4.8**	2.00	
486-56-6	Cotinine	**3.5**	0.40	
611-59-6	1,7-Dimethylxanthine	**13**	4.00	
58-08-2	Caffeine	**28**	8.00	
298-46-4	Carbamazepine	**11**	0.80	
56392-17-7	Metoprolol	**24**	4.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	67	23 - 181
Sulfamethazine 13C6	102	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 01	Lab Sample ID:	AB30854
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1 & 2
Volume Extracted:	500 mL	pH:	7.33

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	**6.0**	4.00	
486-56-6	Cotinine	**13**	0.40	
611-59-6	1,7-Dimethylxanthine	**27**	4.00	
58-08-2	Caffeine	**94**	8.00	
298-46-4	Carbamazepine	**0.49**	0.80	L
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	57	23 - 181
Sulfamethazine 13C6	109	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 02	Lab Sample ID:	AB30855
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	100
Volume Extracted:	500 mL	pH:	6.92

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**820**	20.00	
103-90-2	Acetaminophen	**15000**	200.00	
486-56-6	Cotinine	**260**	4.00	
611-59-6	1,7-Dimethylxanthine	**5300**	200.00	
58-08-2	Caffeine	**25000**	400.00	
298-46-4	Carbamazepine	ND	4.00	
56392-17-7	Metoprolol	**380**	20.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	78	23 - 181
Sulfamethazine 13C6	132	15 - 132

Comments: Sample required multiple dilutions to quantitate target compounds. The extract was run at both a 10X and 100X dilution.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 07	Lab Sample ID:	AB30856
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1,2,20
Volume Extracted:	500 mL	pH:	7.49

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**31**	2.00	
103-90-2	Acetaminophen	**2500**	40.00	
486-56-6	Cotinine	**3.3**	0.40	
611-59-6	1,7-Dimethylxanthine	**190**	4.00	
58-08-2	Caffeine	**74**	8.00	
298-46-4	Carbamazepine	**1.8**	0.80	
56392-17-7	Metoprolol	**2.8**	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	58	23 - 181
Sulfamethazine 13C6	73	15 - 132

Comments: Sample was run at 1X, 2X , and 20X dilutions to quantitate target compounds.

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	LAW 05	Lab Sample ID:	AB30857
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	7.38

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	**3.8**	2.00	
103-90-2	Acetaminophen	**40**	2.00	
486-56-6	Cotinine	**1.2**	0.40	
611-59-6	1,7-Dimethylxanthine	**9.5**	2.00	
58-08-2	Caffeine	**23**	4.00	
298-46-4	Carbamazepine	**3.7**	0.40	
56392-17-7	Metoprolol	**2.2**	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	58	23 - 181
Sulfamethazine 13C6	90	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

HPLC/MS/MS Source Tracking Analysis

Client Sample ID:	FIELD BLANK 01	Lab Sample ID:	AB30858
Date of Collection:	6/27/2012	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	6.39

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	ND	2.00	
486-56-6	Cotinine	ND	0.40	
611-59-6	1,7-Dimethylxanthine	ND	2.00	
58-08-2	Caffeine	ND	4.00	
298-46-4	Carbamazepine	ND	0.40	
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Primidone d5	91	23 - 181
Sulfamethazine 13C6	81	15 - 132

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Outfalls - Lawrence, MA

Laboratory Blank

Client Sample ID:	N/A	Lab Sample ID:	N/A
Date of Collection:	N/A	Matrix	Water
Date of Extraction:	06/27/2012	Final Volume:	1 mL
Date of Analysis:	06/28/2012	Extract Dilution:	1
Volume Extracted:	500 mL	pH:	6.39

CAS Number	Compound	Concentration ng/L	RL ng/L	Qualifier
29122-68-7	Atenolol	ND	2.00	
103-90-2	Acetaminophen	ND	2.00	
486-56-6	Cotinine	ND	0.40	
611-59-6	1,7-Dimethylxanthine	ND	2.00	
58-08-2	Caffeine	ND	4.00	
298-46-4	Carbamazepine	ND	0.40	
56392-17-7	Metoprolol	ND	2.00	

Surrogate Compounds	Recoveries (%)	QC Ranges
Sulfamethazine 13C6	65	
Primidone d5	81	

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

LABORATORY FORTIFIED BLANK (LFB) RECOVERY

MS4 Outfalls - Lawrence, MA

COMPOUND	SPIKE ADDED ng/L	LFB CONCENTRATION ng/L	LFB RECOVERY %	QC LIMITS (% REC)
1,7-Dimethylxanthine	120	114	95.0	64 - 135
Acetaminophen	120	98.0	81.7	48 - 122
Atenolol	120	97.5	81.2	52 - 128
Caffeine	240	212	88.3	68 - 126
Carbamazepine	24	20.1	83.8	65 - 121
Cotinine	24	20.4	85.0	60 - 120
Metoprolol	120	102	85.0	60 - 140

Comments:

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MATRIX SPIKE RECOVERY

Sample ID: AB30850

PARAMETER	SPIKE ADDED ng/L	SAMPLE CONCENTRATION ng/L	MS CONCENTRATION ng/L	MS % REC	QC LIMITS (% REC)
1,7-Dimethylxanthine	120	16	129	94.2	13 - 174
Acetaminophen	120	12	106	78.3	23 - 138
Atenolol	120	ND	102	85.0	49 - 137
Caffeine	240	126	229	42.9	31 - 156
Carbamazepine	24	2.2	22	82.5	47 - 143
Cotinine	24	11	24	54.2	46 - 121
Metoprolol	120	4.4	140	113	60 - 140

LABORATORY DUPLICATE RESULTS

Sample ID: AB30849

PARAMETER	SAMPLE RESULT ng/L	SAMPLE DUPLICATE RESULT ng/L	PRECISION RPD %	QC LIMITS
1,7-Dimethylxanthine	5.7	5.3	7.27	50
Acetaminophen	2.8	2.4	15.4	50
Atenolol	ND	ND	ND	50
Caffeine	16	17	6.06	50
Carbamazepine	2.0	1.9	5.13	50
Cotinine	3.3	3.4	2.98	50
Metoprolol	4.2	2.9	36.6	50

ENVIRONMENTAL PROTECTION AGENCY

REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
120600 44	Lawrence MS4

SAMPLERS: *(Signature)*

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	STA	REMARKS
Law 03	6/27/12	0825		X		1	X	
Law 04	6/27/12	0830		X		1	X	
Law 3up	6/27/12	0850		X		1	X	
Law 01	6/27/12	0940		X		1	X	
Law 02	6/27/12	1015		X		1	X	
Law 06	6/27/12	11:10		X		1	X	
Law 05	6/27/12	11:55		X		1	X	
Field Blank 01	6/27/12	07:00		X		1	X	

Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
	6/27/12 12:46				
Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*	Relinquished by: *(Signature)*	Date / Time	Received by: *(Signature)*
Relinquished by: *(Signature)*	Date / Time	Received for Laboratory by: *(Signature)* ESAT	Date / Time	Remarks	
			6/27/12 12:46		

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

20°C -

1- 18986

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

DRAFT REPORT

May 21, 2012

Tim Bridges - ECA / OEME
US EPA New England Regional Laboratory
11 Technology Dr.
North Chelmsford, MA 01863 - 2431

Project Number: 12050022
Project: Lawrence High School - Lawrence, MA
Analysis: E. Coli Defined Substrate
Analyst: Nathan Raines

Date Samples Received by the Laboratory: 05/15/2012

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method: Total Coliform/E. coli by Defined Substrate, Revision #2

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

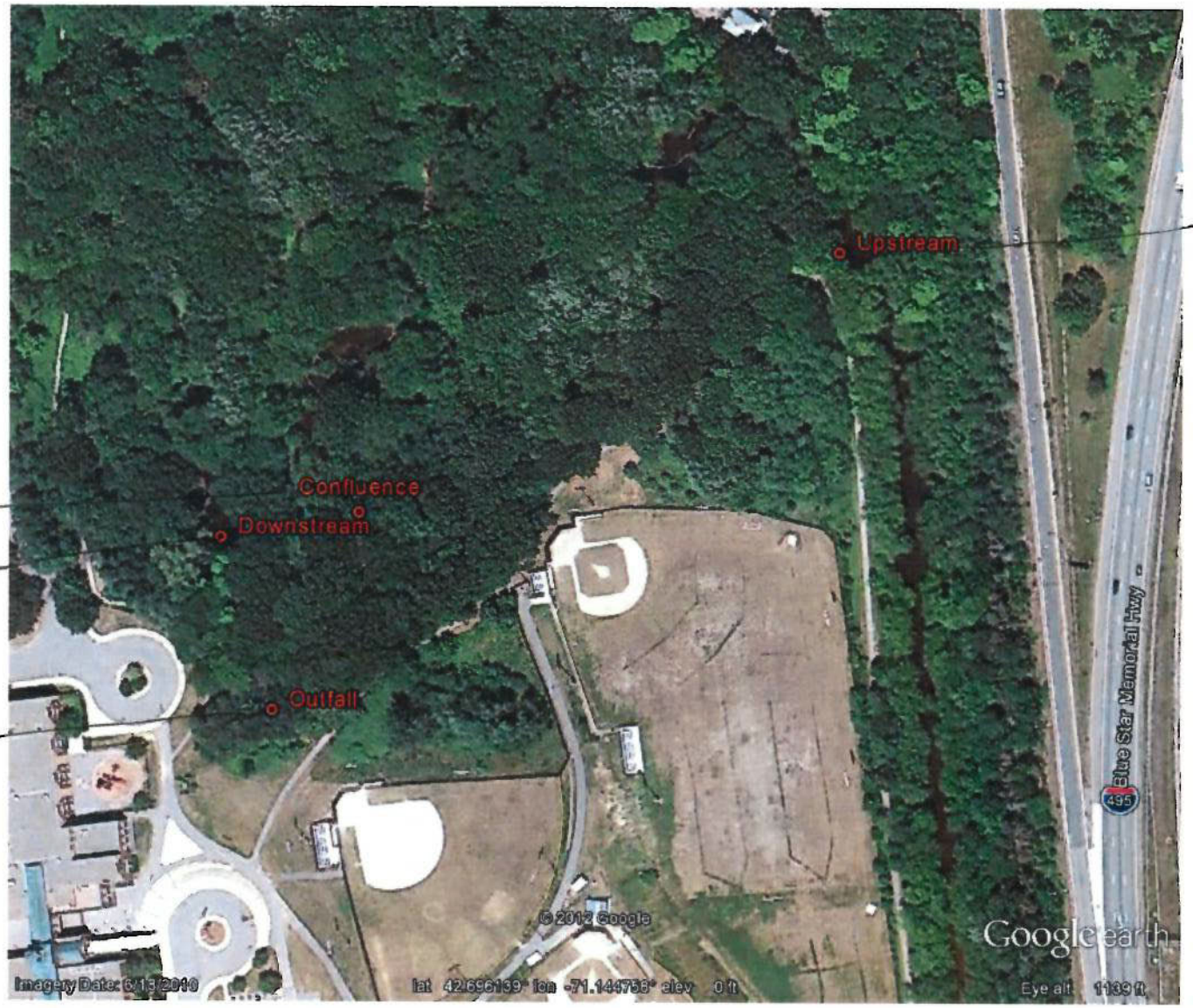
Sincerely,

David F. McDonald
Biology Laboratory Manager

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

Lawrence High School Sampling Locations May 15, 2012



2190

1844

1642

186

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

Lawrence High School - Lawrence, MA

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
CONFLUENCE	AB29959	05/15/12 12:33 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**1844**	4	
DOWNSTREAM	AB29956	05/15/12 12:27 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**1642**	4	
OUTFALL	AB29957	05/15/12 12:24 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**186**	4	
UPSTREAM	AB29958	05/15/12 12:48 pm	05/15/12 2:40 pm	E. Coli Defined Substrate	**2190**	4	

Number of Samples: 4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: January 2, 2012

SUBJ: MS4 Compliance Sampling Inspections
Municipalities of Lawrence, North Andover, and Methuen, Massachusetts

FROM: Jack Melcher, Inspector

THRU: Neil Handler, Senior Enforcement Coordinator

TO: File

I. Background Information

A. Date, Time of inspection: Wednesday, November 14, 8:00 AM

B. Weather Conditions: Sunny, approximately 50 degrees F

C. USEPA Representatives: Jack Melcher
Erin Trainor
Neil Handler

D. Site Representative(s): John Isensee
City of Lawrence
Acting Director of Public Works
200 Common Street, Lawrence, MA 01840

Eugene Willis
Town of North Andover
Town Engineer
384 Osgood St, North Andover, MA 01845

Frank Russo
City of Methuen
Chief Engineer
41 Pleasant St, Methuen, MA 01844

Note: Site Representatives were not contacted and were not present during the inspection.

E. Address: Various locations within the municipalities of Lawrence, North Andover, and Methuen (refer to Section III).

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the municipalities of Lawrence, North Andover, and Methuen municipal separate stormwater sewer systems (MS4s) that may adversely impact the water quality. Samples were collected from eight (8) stormwater outfalls/culverts and/or directly from the stream, in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

Refer to attachments for a map of sampling locations.

Lawrence

- Outfall behind the South Lawrence East Elementary School, identified as SHAW03 (42.69552111, -71.14611578).
- Culverted Bloody Brook outfall to the Spickett River, identified as SPI07 (42.71510088, -71.15405144).
- Outfall to the Merrimack River near Doyle Street, identified as MERR08 (42.69445544, -71.17662812).
- Outfall to the Merrimack River near Fordham Road, identified as MERR09 (42.69590063, -71.18520015).
- Outfall to an unnamed tributary of the Merrimack River near the Abe Bashara community boathouse, identified as MERR04 (42.69220019, -71.17585447).

North Andover

- Chochechiwick River near Sutton Street, upstream of the sewer force main, identified as CHOC01 (42.70726365, -71.13327503).
- Chochechiwick River near the Greater Lawrence Sanitary District Riverside Pump Station, downstream of the sewer force main, identified as CHOC02 (42.70829022, -71.13395397).

Methuen

- Bloody Brook entering storm drain behind CVS off of Swan Street (Rte 110) in Methuen, identified as BLOO05 (42.72349286, -71.15844595).

IV. Inspection Observations and Findings

On Wednesday, November 14, 2012, EPA inspectors John Melcher, Neil Handler, and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) within the municipalities of Lawrence, North Andover, and Methuen at eight locations along the Shawsheen River, Chochechiwick River, Bloody Brook, Spickett River, and the Merrimack River.

The inspection started in Lawrence at approximately 8:00 AM. At the time of the inspection, the weather was sunny and approximately 50 degrees Fahrenheit. A rain event occurred in the sampling area on the previous day (November 13, 2012), with approximately 0.26 inches of rainfall[1].

The municipalities of Lawrence, North Andover, and Methuen are covered under the 2003 EPA NPDES General Permit for Storm Water Discharges from Small MS4s ("Permit"). The Permit, Notices of Intent (NOIs), and other information for these municipalities are available on the Permit website at http://www.epa.gov/region1/npdes/stormwater/2003-permit-archives.html. Permit numbers and NOI effective dates for these municipalities are summarized in the following table:

Municipality	**Permit Number**	**NOI Date Effective**
Lawrence	MAR041201	March 7, 2003
Methuen	MAR041210	July 25, 2003
North Andover	MAR041214	July 22, 2003

At all of the locations described in Section III, samples were analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol, Primidone, and Sulfamethazine. In-situ measurements for conductivity, salinity, and temperature were also recorded at the time of sampling. At some of the sampling locations described in Section III, samples field screened using test kits for ammonia, chlorine, and surfactants. Field test kits were not conducted on samples SHAW03, MERR08, MERR09, and MERR04 because of constraints on the holding time of the bacteria samples. Table 1 summarizes the field data and Table 2 summarizes the laboratory data.

End of Report

Attachments:
Map: Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012
Table 1: Summary of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012
Photos

[1] Based on observations at Lawrence Municipal Airport, provided by NCDC.

Map: Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

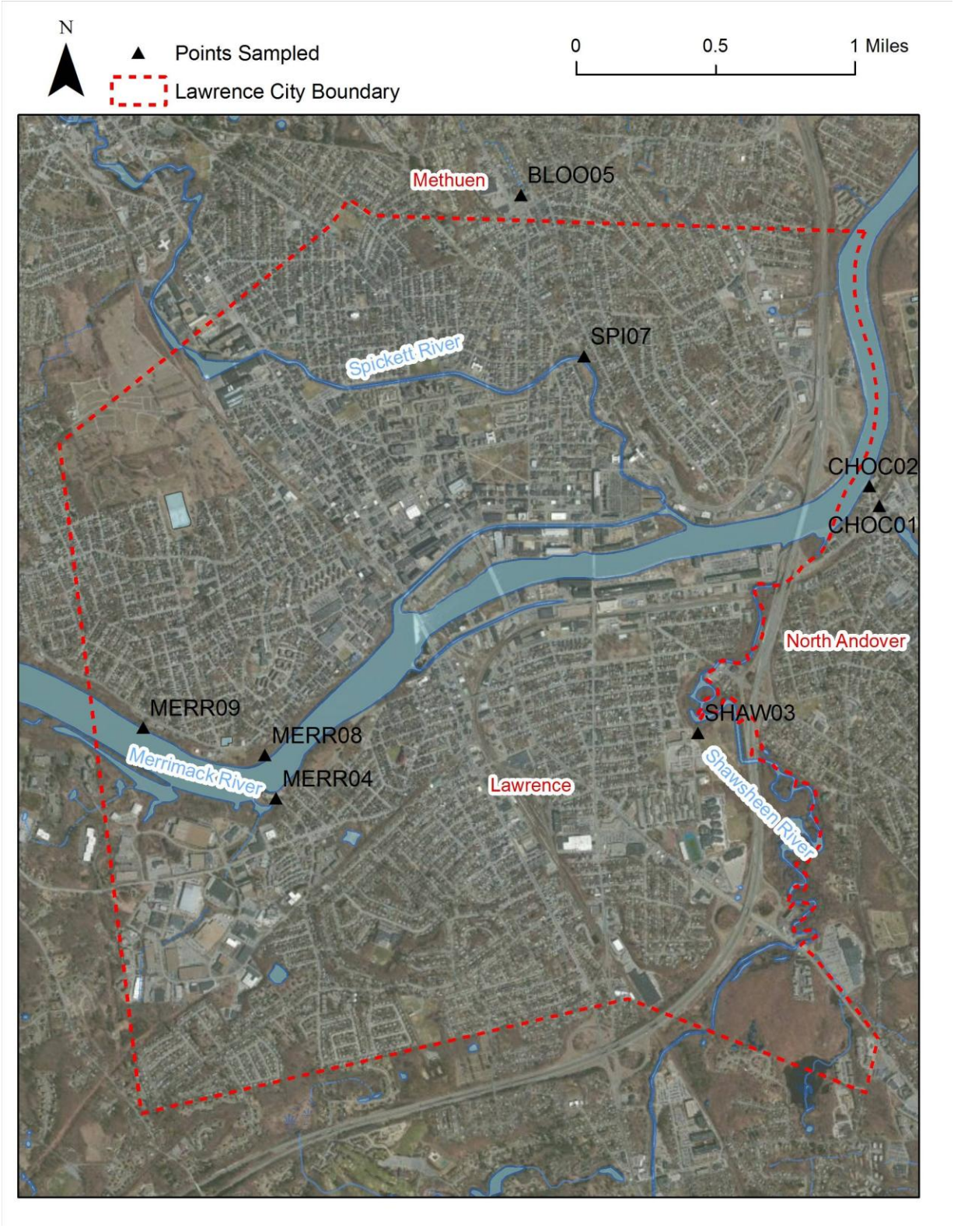


Table 1: Field Data of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

Sample ID	SHAW03	CHOC01	CHOC02	BLOO05	SPI07	MERR08	MERR09	MERR04
Time	8:30	9:10	9:45	10:25	11:00	12:40	13:10	13:40
Description of Location	South Lawrence East Elementary School	Chochechiwick River upstream of sewer main	Chochechiwick River downstream of sewer main	Bloody Brook entering storm drain behind CVS in Methuen	Culverted Bloody Brook outfall to Spickett River	Outfall to Merrimack River near Doyle Street	Outfall to Merrimack River near Fordham St	Outfall to the Merrimack River near boathouse
Coordinates of Location (decimal degrees)	42.69552111, -71.14611578	42.70726365, -71.13327503	42.70829022, -71.13395397	42.72349286, -71.15844595	42.71510088, -71.15405144	42.69445544, -71.17662812	42.69590063, -71.18520015	42.69220019, -71.17585447
Photos	3447	3448	3449	3450	3451, 3452, 3453	3454	3455, 3456	3458
Physical Observations	Slight musty odor, clear, some green growth on rocks	Slight sewer odor, cloudy	Slight odor	Slight odor, cloudy	Black film on rocks in channel	No odor, clear	Very little flow	Partially submerged
Estimated Flow, gpm	20	NA	50	NA	100	5-10	<1	NA
Temperature, ˚C	14.5	7.3	7.3	8.0	9.4	10.5	11.5	14.4
Specific Conductivity, µS/cm	950	535	475	1,050	1,032	288	1,410	690
Salinity, ppt	0.5	0.3	0.2	0.5	0.5	0.1	0.7	0.3
Ammonia, mg/L	NA	ND (0.1)	0.25	ND (0.1)	0.25	NA	NA	NA
Total Chlorine, mg/L	NA	0.03	0.02	0.04	0.03	NA	NA	NA
Surfactants, mg/L	NA	<0.25 (0.2)	<0.25 (0.1)	<0.25 (0.2)	0.25	NA	NA	NA

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute (X.X): estimated value

Table 2: Laboratory Data of Lawrence, North Andover, and Methuen, MA MS4 Inspection, November 14, 2012

Sample ID	SHAW03	CHOC01	CHOC02	BLOO05	SPI07	MERR08	MERR09	MERR04
Time	8:30	9:10	9:45	10:25	11:00	12:40	13:10	13:40
Description of Location	South Lawrence East Elementary School	Chochechiwick River upstream of sewer main	Chochechiwick River downstream of sewer main	Bloody Brook entering storm drain behind CVS in Methuen	Culverted Bloody Brook outfall to Spickett River	Outfall to Merrimack River near Doyle Street	Outfall to Merrimack River near Fordham St	Outfall to the Merrimack River near boathouse
Atenolol, ng/l	1.7	ND (4.00)	ND (4.00)	ND (4.0)	11	14	ND (2.0)	140
Acetaminophen, ng/l	17	10	11	4.1	130	690	ND (2.0)	330
Cotinine, ng/l	64	9.4	9.4	8.4	9.8	4.5	0.81	17
1,7-Dimethylxanthine, ng/l	20	6.6	5.2	6.7	35	63	2.2	140
Caffeine, ng/l	290	94	94	57	220	250	6.9	290
Carbamazepine, ng/l	2.9	ND (0.80)	ND (0.80)	ND (0.80)	ND (0.8)	2.6	2.1	14
Metoprolol, ng/l	3.5	ND (4.00)	ND (4.00)	ND (4.00)	1.9	7.1	ND (2.0)	88
Primidone, ng/l	71	66	61	64	63	60	75	68
Sulfamethazine, ng/l	114	82	96	75	87	75	126	106
E.Coli, MPN/100ml	1,164	39	34	2,595	9,678	16	53	92,080
Enterococcus, MPN/100ml	120	31	41	909	583	ND (10)	ND (10)	11,199

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute

Photo Log:

Photo 3447. SHAW04. 11/14/12. Photo by Jack Melcher.
Outfall behind the South Lawrence East Elementary School.

Photo 3448. CHOC01. 11/14/12. Photo by Jack Melcher.
Chochechiwick River upstream of the sewer force main.

Photo 3449. CHOC02. 11/14/12. Photo by Jack Melcher.
Chochechiwick River downstream of the sewer force main.

Photo 3450. BLOO05. 11/14/12. Photo by Jack Melcher.
Bloody Brook entering storm drain behind CVS in Methuen.

Photo 3451. SPI07. 11/14/12. Photo by Jack Melcher.
Culverted Bloody Brook outfall to the Spickett River.

Photo 3452. SPI07. 11/14/12. Photo by Jack Melcher.
Channel to the Spickett River.

Photo 3453. SPI07. 11/14/12. Photo by Jack Melcher.
Black growth on rocks in channel to Spickett River.

Photo 3454. MERR08. 11/14/12. Photo by Jack Melcher.
Outfall to the Merrimack River near Doyle Street.

Photo 3455. MERR09. 11/14/12. Photo by Jack Melcher.
Outfall to the Merrimack River near Fordham Road.

Photo 3456. MERR09. 11/14/12. Photo by Jack Melcher.
Concrete channel to Merrimack River from outfall.

Photo 3458. MERR04. 11/14/12. Photo by Jack Melcher.
Outfall to an unnamed tributary of the Merrimack River near the community boathouse.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 23 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Lawrence, MA

From: Todd Borci

To: File

On Wednesday, 10 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Lawrence, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") at multiple locations between East Boxford Street and Merrimack Street in Lawrence, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Christina Murphy.

At approximately 12:30 pm EPA collected a sample from the center of the Shawsheen River just prior to entering a culvert beneath Merrimack Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 700 uS/16.6 °C/0.3 ppt, respectively at the "Shaw1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as "Shaw1". EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges.

EPA observed the outfall just east of the intersection of East Boxford Street and Crawford Street at approximately 1235 hours. The EPA Inspector observed a large culvert emerging from beneath East Boxford Street with a moderate flow of surface water coming from the outfall. A strong smell of sewage was noted all along the approximate 200 yard length of the unnamed tributary channel before it empties into the Shawsheen River. EPA personnel noted some of the most significant filamentous bacterial growth they had ever observed in the field throughout the unnamed stream channel (see photos). The thickness and variety of the bacterial growth, and the fact that the growth extended throughout the approximate 200-yard length of the stream channel, was quite unusual.

EPA collected sample "SLE1" at 12:58 in the Shawsheen river approximately 10 yards downstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 577 uS/16.7 °C/0.3 ppt, respectively at the "SLE1" sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel

processed a surface water sample collected at the location. Field kits indicated low levels of

ammonia (0.4 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE1”.

EPA collected sample “SLE2” at 13:02 in the Shawsheen river approximately 30 yards upstream of the confluence of the unnamed tributary and the Shawsheen River. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 679 uS/16.7 °C/0.3 ppt, respectively at the “SLE2” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.5 mg/l) and surfactants (0.05 mg/l) in the sample location identified as “SLE2”.

EPA collected sample “SLE3” at 13:05 in the unnamed tributary approximately 6 feet downstream of outfall from beneath East Boxford Street. Using a YSI conductivity/ temperature/salinity meter, EPA recorded levels of 1078 uS/14.1 °C/0.5 ppt, respectively at the “SLE3” sample location. Using a Hach brand color wheel/Nessler reagent field kit for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed a surface water sample collected at the location. Field kits indicated low levels of ammonia (0.6 mg/l) and surfactants (0.1 mg/l) in the sample location identified as “SLE3”. As stated above, there was a significant sewage smell throughout this location and the bacterial growth along the stream bed was quite significant.

EPA notified MassDEP (Kevin Brander and Jenny Birnbaum) of their observations and referred the situation for potential enforcement, as MassDEP has an existing enforcement relationship with the City.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during wet weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was 0.1 inches on 9 June 2009 (Lawrence Municipal Airport gauge).

Inspection ended at 1315.

Photographs Attached.

Photo 1: 6/10/09 12:30 PM View facing west – Shawsheen River, flowing left to right, prior to entering culvert beneath Merrimack Street.

Photo 2: 6/10/09 View of confluence of unnamed stream and Shawsheen River. Shawsheen flow is right to left. Unnamed stream enters fro lower left. Note bacterial growth along unnamed stream bottom.

Photo 3: 6/10/09 View of sample location “SLE3” just downstream from culvert opening. Note white/gray bacterial growth coating streambed.

Photo 4: 6/10/09. Sample location “SLE3” and close up of bacterial growth. Entire stream bed is covered in thick white/gray bacterial growth.

Photo 5: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout stream.

Photo 6: Unnamed stream downstream of SLE3 location. Significant bacterial growth throughout streambed.

Inspection Conclusion Data Sheet (ICDS)

FY2010

Inspector: Ted Lavery, Erin Trainor_____

Inspection Date: _October 5, 2011_____

Facility Name/Address: _Town of North Andover, Massachusetts MS4 – Various Locations____

Facility Manager/Title and Address (if different from facility address): _Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845_____

Facility Contact/Title and Address (if different from facility address): _Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845_____

1. Media Type: (Check one)

□ CAA-Stationary	□ CAA-Mobile Source	□ CAA-112r	
□ CAA-NESHAP			
□ CWA-NPDES	□ CWA-Pretreatment POTW	□ CWA-Pretreatment IU	
□ CWA 311	□ CWA 404	Ξ CWA-Stormwater	
□ EPCRA 313	□ EPCRA N313		
□ RCRA-C	□ RCRA-I		
□ SDWA-UIC	□ SDWA-PWSS		
□ TSCA-Lead Paint	□ TSCA-PCBs	□ TSCA-Core	□ TSCA-AHERA

2. Did you observe deficiencies (potential violations) during the inspection?

□ Yes Ξ No

3. If you observed deficiencies, did you communicate them to the facility during the inspection?

□ Yes Ξ No

4. Deficiencies observed?

_____ Potential violation of a compliance schedule in an enforceable order.

_____ Potential failure to maintain a record or failure to disclose a document.

_____ Potential failure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.

_____ Potential failure to complete or submit a notification, report, certification, or manifest.

_____ Potential failure to obtain a permit, product approval, or certification.

_____ Potential failure to follow a required sampling or monitoring procedure or laboratory procedure.

_____ Potential failure to follow or develop a required management practice or procedure.

_____ Potential failure to identify and manage a regulated waste or pollutant in any media.

_____ Potential failure to report regulated events such as spills, accidents, etc.

_____ Potential incorrect use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.

_____ Potential failure to follow a permit condition(s).

5 Did you observe or see the facility take any actions during the inspection to address the deficiencies communicated to the facility?

□ Yes □ No Ξ N/A only if #3 was NO.

If YES, check only the action(s) actually observed/seen or write in a short description of the action in the "optional" section. (Check all that apply)

Action(s) taken

_____ Complete(d) a Notification or Report

_____ Correct(ed) Monitoring Deficiencies

_____ Correct(ed) Record Keeping Deficiencies

_____ Implemented New or Improved Management Practices or Procedures

_____ Improved Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)

_____ Reduced Pollution (e.g., Use Reduction, Industrial Process Change, Emissions or Discharge Change, etc.)

_____ Request(ed) a Permit Application or Applied for a Permit

_____ Verified Compliance with Previously Issued Enforcement Action - Part or All Conditions

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water: □ Ammonia □ BOD □COD □TSS □O/G □Total Coliform □D.O.
□ Metals □Cyanide □ Other_____

Air: □ NOx □ SO2 □ PM □ VOC □ Metals □ HAPs □ CO
□ Other_____

6. Did you provide general compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

7. Did you provide site-specific compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

Optional Additional Information: EPA inspectors may wish to provide a narrative description of actions taken by the facility or assistance to help the facility come into compliance. (Narratives may be used in national or regional reports to provide examples of EPA inspection outcomes).

The water quality standard for E.Coli (235 MPN/100mL) was exceeded at the Rte. 114 North Andover sampling location with a result of 1,379 MPN/100mL. The water quality standard for Enterococcus (61 MPN/100mL) was exceeded at the same sampling location (Rte. 114 North Andover) with a result of 794 MPN/100mL.

Inspection Conclusion Data Sheet (ICDS)

FY2010

Inspector: Ted Lavery, Erin Trainor

Inspection Date: October 12, 2011

Facility Name/Address: Town of North Andover, Massachusetts MS4 – Various Locations

Facility Manager/Title and Address (if different from facility address): Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845

Facility Contact/Title and Address (if different from facility address): Eugene P. Willis
Town Engineer, 384 Osgood Street, North Andover, MA 01845

1. Media Type: (Check one)

□ CAA-Stationary	□ CAA-Mobile Source	□ CAA-112r	
□ CAA-NESHAP			
□ CWA-NPDES	□ CWA-Pretreatment POTW	□ CWA-Pretreatment IU	
□ CWA 311	□ CWA 404	Ξ CWA-Stormwater	
□ EPCRA 313	□ EPCRA N313		
□ RCRA-C	□ RCRA-I		
□ SDWA-UIC	□ SDWA-PWSS		
□ TSCA-Lead Paint	□ TSCA-PCBs	□ TSCA-Core	□ TSCA-AHERA

2. Did you observe deficiencies (potential violations) during the inspection?

□ Yes Ξ No

3. If you observed deficiencies, did you communicate them to the facility during the inspection?

□ Yes Ξ No

4. Deficiencies observed?

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_____ Potential failure to maintain a record or failure to disclose a document.

_____ Potential failure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.

_____ Potential failure to complete or submit a notification, report, certification, or manifest.

_____ Potential failure to obtain a permit, product approval, or certification.

_____ Potential failure to follow a required sampling or monitoring procedure or laboratory procedure.

_____ Potential failure to follow or develop a required management practice or procedure.

_____ Potential failure to identify and manage a regulated waste or pollutant in any media.

_____ Potential failure to report regulated events such as spills, accidents, etc.

_____ Potential incorrect use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.

_____ Potential failure to follow a permit condition(s).

5 Did you observe or see the facility take any actions during the inspection to address the deficiencies communicated to the facility?

□ Yes □ No Ξ N/A only if #3 was NO.

If YES, check only the action(s) actually observed/seen or write in a short description of the action in the "optional" section. (Check all that apply)

Action(s) taken

_____ Complete(d) a Notification or Report

_____ Correct(ed) Monitoring Deficiencies

_____ Correct(ed) Record Keeping Deficiencies

_____ Implemented New or Improved Management Practices or Procedures

_____ Improved Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)

_____ Reduced Pollution (e.g., Use Reduction, Industrial Process Change, Emissions or Discharge Change, etc.)

_____ Request(ed) a Permit Application or Applied for a Permit

_____ Verified Compliance with Previously Issued Enforcement Action - Part or All Conditions

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water: □ Ammonia □ BOD □COD □TSS □O/G □Total Coliform □D.O.
□ Metals □Cyanide □ Other_____

Air: □ NOx □ SO2 □ PM □ VOC □ Metals □ HAPs □ CO
□ Other_____

6. Did you provide general compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

7. Did you provide site-specific compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

□ Yes Ξ No

Optional Additional Information: EPA inspectors may wish to provide a narrative description of actions taken by the facility or assistance to help the facility come into compliance. (Narratives may be used in national or regional reports to provide examples of EPA inspection outcomes).

_____

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U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Data Version: VER2

QUALITY CONTROLLED LOCAL CLIMATOLOGICAL DATA
(final)
HOURLY PRECIPITATION TABLE
LAWRENCE MUNICIPAL AIRPORT (94723)
LAWRENCE, MA
(04/2014)

National Climatic Data Center
Federal Building
151 Patton Avenue
Asheville, North Carolina 28801

	A.M. HOUR(L.S.T) ENDING AT													P.M. HOUR(L.S.T) ENDING AT												
DT	--1--	--2--	--3--	--4--	--5--	--6--	--7--	--8--	--9--	--10--	--11--	--12--	--DT--	--1--	--2--	--3--	--4--	--5--	--6--	--7--	--8--	--9--	--10--	--11--	--12--	--DT--
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Start of Sample Activities

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Lawrence, MA / MS4 North Andover, MA

E. Coli Defined Substrate

Matrix: Water

Draft Results

Sample Number	Lab ID	Date of Collection	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
DMH 1013	AB47613	04/17/14 9:45 am	04/17/14 1:45 pm	E. Coli Defined Substrate	215	4	
DMH 1013	AB47614	04/17/14 9:50 am	04/17/14 1:45 pm	E. Coli Defined Substrate	212	4	
DMH 1014	AB47619	04/17/14 11:45 am	04/17/14 1:45 pm	E. Coli Defined Substrate	198	4	
DMH 1016	AB47620	04/17/14 12:05 pm	04/17/14 1:45 pm	E. Coli Defined Substrate	25	4	
DMH 1018	AB47618	04/17/14 11:25 am	04/17/14 1:45 pm	E. Coli Defined Substrate	44	4	
DMH 1025	AB47617	04/17/14 10:55 am	04/17/14 1:45 pm	E. Coli Defined Substrate	142	4	
DMH 1026	AB47616	04/17/14 10:30 am	04/17/14 1:45 pm	E. Coli Defined Substrate	166	4	
DMH 1027	AB47615	04/17/14 10:20 am	04/17/14 1:45 pm	E. Coli Defined Substrate	230	4	
Law 02-07:	AB47609	04/17/14 7:50 am	04/17/14 1:45 pm	E. Coli Defined Substrate	7,945	4	
Law 02-12:	AB47621	04/17/14 12:35 pm	04/17/14 1:45 pm	E. Coli Defined Substrate	4,185	4	
Sutton 01	AB47610	04/17/14 8:25 am	04/17/14 1:45 pm	E. Coli Defined Substrate	63	4	
Sutton 02	AB47611	04/17/14 8:55 am	04/17/14 1:45 pm	E. Coli Defined Substrate	54	4	
Sutton 06	AB47612	04/17/14 9:20 am	04/17/14 1:45 pm	E. Coli Defined Substrate	430	4	
Sutton 06 D	AB47622	04/17/14 9:20 am	04/17/14 1:45 pm	E. Coli Defined Substrate	186	4	

Number of Samples: 14

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

MS4 Lawrence, MA / MS4 North Andover, MA

Enterococcus in Water

Matrix: Water

Draft Results

Sample Number	Lab ID	Date of Collection	Date of Analysis	Compound	Concentration MPN/100mL	RL MPN/100mL	Qualifier
DMH 1013	AB47613	04/17/14 9:45 am	04/17/14 1:45 pm	Enterococcus in Water	**20**	10	
DMH 1013	AB47614	04/17/14 9:50 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
DMH 1014	AB47619	04/17/14 11:45 am	04/17/14 1:45 pm	Enterococcus in Water	**10**	10	
DMH 1016	AB47620	04/17/14 12:05 pm	04/17/14 1:45 pm	Enterococcus in Water	**20**	10	
DMH 1018	AB47618	04/17/14 11:25 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
DMH 1025	AB47617	04/17/14 10:55 am	04/17/14 1:45 pm	Enterococcus in Water	ND	10	
DMH 1026	AB47616	04/17/14 10:30 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
DMH 1027	AB47615	04/17/14 10:20 am	04/17/14 1:45 pm	Enterococcus in Water	**10**	10	
Law 02-07:	AB47609	04/17/14 7:50 am	04/17/14 1:45 pm	Enterococcus in Water	**313**	10	
Law 02-12:	AB47621	04/17/14 12:35 pm	04/17/14 1:45 pm	Enterococcus in Water	**231**	10	
Sutton 01	AB47610	04/17/14 8:25 am	04/17/14 1:45 pm	Enterococcus in Water	**10**	10	
Sutton 02	AB47611	04/17/14 8:55 am	04/17/14 1:45 pm	Enterococcus in Water	**20**	10	
Sutton 06	AB47612	04/17/14 9:20 am	04/17/14 1:45 pm	Enterococcus in Water	**30**	10	
Sutton 06 D	AB47622	04/17/14 9:20 am	04/17/14 1:45 pm	Enterococcus in Water	**41**	10	

Number of Samples: 14

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: April 23, 2014

SUBJ: City of North Andover, MA MS4 Inspection
North Andover, Massachusetts

FROM: Todd Borci, Enforcement Officer

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Thursday, April 17, 2014, 0830 Hrs

B. Weather Conditions: Sunny, approximately 45 degrees F

C. USEPA Representatives: Todd Borci
Erin Trainor

D. Site Representative: Eugene Willis, Town Engineer
Town of North Andover
Engineering Department
384 N. Osgood St., North Andover, MA 01845
Phone: (978) 685-0950

E. Address: Various locations within the Town of North Andover, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Town of North Andover (the "Town") Municipal Separate Stormwater Sewer System ("MS4") that may adversely impact the water quality in the Merrimack River or its tributaries, including the Cochichewick River. This inspection is a follow up of a May 2013 inspection by EPA that identified a North Andover outfall (identified as "Sutton 06") discharging stormwater mixed with non-stormwater, as evidenced by the presence of ammonia and selected pharmaceutical compounds. The presence of ammonia and the specific selected pharmaceutical compounds indicated the presence of sanitary sewage in the discharge.

For this Compliance Sampling Inspection ("CSI"), arrangements were made with the Town of North Andover to open storm drainage manhole ("DMH") access points and to provide EPA access for the purpose of collecting stormwater samples. The samples were analyzed in the field

for ammonia, total chlorine, and surfactants, and were analyzed via field meter for temperature, specific conductivity, and salinity. Samples were taken to the EPA New England regional laboratory in Chelmsford, MA to be analyzed for e. coli and enterococci bacteria, as well as selected pharmaceutical compounds. During this CSI eleven samples were collected from two (2) stormwater outfalls, one (1) stream segment of the Cochichewick River, and seven (7) DMH access points (two water sources were sampled from within a single DMH) in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- **Sutton01 -** Stormwater outfall located immediately west of the Greater Lawrence Sanitary District ("GLSD") Riverview Pump Station – this is the outlet of the Cochichewick River to the Merrimack River.
- **Sutton02 -** Cochichewick River sample collected approximately 20 feet upstream of railroad crossing identified as location.
- **Sutton06 -** Approximately 24" stormwater outfall discharging into Sutton Pond located behind 12-14 Main Street, North Andover.
- **DMH1013A** – Inside the first DMH upstream of the Sutton06 outfall, this is the first of two samples collected – this sample location was a large pipe discharging from the southwest inside DMH1013 – this was the higher of the two discharges within the DMH.
- **DMH1013B** – Inside the first DMH upstream of the Sutton06 outfall, this is the second of two samples collected – this sample location was a large pipe discharging from the southeast inside DMH1013 – this was the lower of the two discharges within the DMH.
- **DMH1027** – first upstream DMH from discharge identified as DMH1013A – only one discharge into DMH from southeast.
- **DMH1026** – first upstream DMH from discharge identified as DMH1027 – only one discharge into DMH from southeast
- **DMH1025** – first upstream DMH from discharge identified as DMH1013B – only one discharge into DMH from southeast
- **DMH1018** – DMH approximately 400 feet upstream of DMH 1026, located on northern sidewalk along Waverly Road.
- **DMH1014** – DMH approximately 450 feet upstream of DMH1025, located on Main Street.
- **DMH1016** – DMH approximately 50 feet upstream of DMH1018, located along northerly sidewalk along Waverly Road.

IV. Inspection Observations and Findings

On Thursday, April 17, 2014, EPA inspectors Todd Borci and Erin Trainor conducted an announced Compliance Sampling Inspection (CSI) of the Town of North Andover MS4. EPA was met on site by Town Engineer Gene Willis and Town Public Works Department employees Lou Salamone and Mike Dunn. Eleven sets of water quality samples were collected at two (2) stormwater outfalls, one (1) location along the Cochichewick River, and seven (7) DMH access points (two sample sets were collected from separate water sources within DMH 1013). EPA was following up on previous sampling that indicated low levels of compounds associated with sanitary sewage discharging from outfall location Sutton06.

The inspection started in at the outfall of the Cochichewick River into the Merrimack River at approximately 0830 hrs. At the time of the inspection, the weather was sunny and approximately 45 degrees Fahrenheit. According to precipitation records for Lawrence Airport, approximately 0.0 inches of precipitation had occurred in the 24-hour period prior to the start of the inspection, and 0.76 inches of precipitation had fallen in the 48-hour period prior to the inspection.

The Town of North Andover is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the Town of North Andover Notice of Intent (NOI) has been posted online, and is dated July 22, 2003. The Town of North Andover EPA NPDES permit number is MAR041214.

All sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory results are anticipated to be available by the end of May 2014.

EPA noted relatively strong flow (approximately 5 to 10 gallons per minute) throughout both branches of the drain system. System infrastructure seemed to consist of a mixture of concrete and corrugated metal piping.

One note with respect to the field screening data, EPA was informed that Town roadways were treated with a sand and salt mixture the previous morning due to a light snowfall that occurred in the early morning hours of April 16th, 2014. This is noteworthy as higher salinity levels can cause false positives in the surfactant field kit.

Attachments: Photographs

Rainfall data

Town of North Andover MS4 Map excerpt

End of Report

Summary of North Andover, MA MS4 Inspection, April 17, 2014

Sample ID	Sutton01	Sutton02	Sutton06	DMH1013A	DMH1013B	DMH1027
Time	0826	0855	0920	0945	0950	1020
Description of Location	Outfall grab sample west of Riverview Pump Station	Cochichewick River sample upstream of railroad (RR) bridge	24" outfall located behind 12-14 Main St	DMH 30 feet south of 12-14 Main Street - inlet from west/DMH1027	DMH 30 feet south of 12-14 Main Street – inlet from south/DMH1025	DMH approx 15 west and upstream of DMH1013A
Physical Observations	Strong clear flow, some small suds from outfall.	Clear flow	Clear flow; approx. 10 GPM	Clear flow; approx 10 GPM	Clear flow; 5GPM	Clear flow
Temperature, ºC	9.4	9.3	5.0	8.2	6.6	8.2
Specific Conductivity, uS	445.8	440.5	150.1	234	116	1120
Salinity, ppt	0.2	0.2	0.8	0.1	0.1	0.6
Ammonia, mg/l	0.0	0.0	0.1	0.2	0.1	0.0
Total Chlorine, mg/l	0.00	0.03	0.06	0.0	0.01	0.02
Detergent, mg/l	0.2	0.1	0.25	0.5	0.25	0.25

Sample ID	DMH1026	DMH1025	DMH1018	DMH1014	DMH1016	
Time	1030	1055	1125	1145	1205	
Description of Location	DMH approx 30 feet upstream of DMH1027	DMH upstream of location DMH1013B	DMH approx 400 feet upstream of DMH1026	DMH approx 450 feet upstream of DMH1025	DMH approx 50 feet upstream of DMH1018	
Physical Observations	Clear flow	Clear flow	Clear flow, slight musty odor	Clear flow	Clear flow, slight musty odor	
Temperature, ºC	8.3	8.7	8.3	8.8	8.2	
Specific Conductivity, uS	1075	1219	1129	1821	1121	
Salinity, ppt	0.5	0.6	0.6	0.9	0.6	
Ammonia, mg/l	0.0	0.1	0	0.0	0.0	
Total Chlorine, mg/l	0.0	0.06	0.22	0.02	0.0	
Detergent, mg/l	0.25	0.25	0.25	0.25	0.25	

GPM: Gallon per minute

Photo 1: Cochichewick passes through Riverview pump station and discharges into Merrimack River (immediately behind photographer) via this outfall – "Sutton01" sample collected here.

Photo 2: Facing west, location Sutton02 north of railroad tracks.

Photo 3: Location “Sutto06” outfall to Sutton Pond.

Photo 4: DMH 1013 to the southwest of 12-14 Main Street. Sample location 1013A at higher elevation as seen in top right of photo; sample location 1013B at lower elevation in top left of photo.

Photo 5: Second photo of sample locations DMH1013A (top right) and DMH1013B (top left).

Photo 6: Sample location DMH1027 approximately 15 feet upstream of DMH1013A – flow is from top right to center left.

Photo 7: Sample location DMH1026 – first DMH upstream of DMH1027.

Photo 8: Sample location DMH1025 – first DMH upstream of DMH1013B.

Photo 9: Sample location DMH1018 – DMH approximately 400 feet upstream of DMH1026 – slight musty odor noted – and elevated level of chlorine (0.22 mg/L) detected.

Photo 10: Sample location DMH1014 – DMH approximately 450 feet upstream of DMH1025.

Photo 11: Sample location DMH1016 – approximately 50 feet upstream of DMH1018, located in northern sidewalk of Waverly Road near intersection with Main Street – slight musty odor noted here.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: May 30, 2013

SUBJ: City of North Andover, MA MS4 Inspection
North Andover, Massachusetts

FROM: Todd Borci, Enforcement Officer

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Tuesday, May 7, 2013, 1100 Hrs

B. Weather Conditions: Sunny, approximately 60 degrees F

C. USEPA Representatives: Todd Borci
Jerry Keefe

D. Site Representative: Eugene Willis, Town Engineer
Town of North Andover
Engineering Department
384 N. Osgood St., North Andover, MA 01845
Phone: (978) 685-0950

E. Address: Various locations within the Town of North Andover, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Town of North Andover Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River or its tributaries, including the Cochichewick River. Samples were collected from two (2) stormwater outfalls, and five (5) stream segments of the Cochichewick River in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Stormwater outfall identified as location **Sutton01** located immediately west of the Greater Lawrence Sanitary District ("GLSD") Riverview Pump Station – this is the outlet of the Cochichewick River to the Merrimack River.
- Cochichewick River sample collected approximately 20 feet upstream of railroad crossing identified as location **Sutton02**.
- Cochichewick River sample collected approximately 70 feet upstream of railroad crossing identified as location **Sutton03.**
- Cochichewick River sample collected immediately downstream of Sutton Street identified as location **Sutton04.**
- Cochichewick River sample collected approximately 20 feet upstream of Sutton Street identified as location **Sutton05.**
- Approximately 24" stormwater outfall discharging into Sutton Pond located behind 12-14 Main Street, North Andover identified as location **Sutton06**.
- Sample from Sutton Pond located approximately 30 feet upstream of Sutton06 outfall identified as **Sutton07**.

IV. Inspection Observations and Findings

On Tuesday, May 7, 2013, EPA inspectors Todd Borci and Jerry Keefe conducted an unannounced Compliance Sampling Inspection (CSI) of the Town of North Andover MS4 at two (2) outfalls and five locations along the Cochichewick River. EPA was following up on previous sampling that indicated low levels of compounds associated with sanitary sewage.

The inspection started in at the outfall of the Cochichewick River into the Merrimack River at approximately 1100 hrs. At the time of the inspection, the weather was sunny and approximately 60 degrees Fahrenheit. According to precipitation records for Lawrence Airport, no precipitation had occurred for over 10 days antecedent to the day of the inspection.

The Town of North Andover is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the Town of North Andover Notice of Intent (NOI) has been posted online, and is dated July 22, 2003. The Town of North Andover EPA NPDES permit number is MAR041214.

Several sampling locations described in Section III were field screened using test kits for ammonia, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory results are anticipated to be available by the end of May 2013.

Attachments → Photographs

End of Report

Summary of North Andover, MA MS4 Inspection, May 7, 2013

Sample ID	Sutton01	Sutton02	Sutton03	Sutton04	Sutton05	Sutton06	Sutton07
Time	1105	1135	1145	1155	1205	1240	1245
Description of Location	Outfall grab sample west of Riverview Pump Station	Cochichewick River sample upstream of railroad (RR) bridge	Cochichewick River sample approx 70' upstream of RR bridge	Cochichewick River sample just downstream of Sutton St.	Cochichewick River sample just upstream of Sutton St.	24" outfall located behind 12-14 Main St	Sutton Pond sample collected 30' upstream of where Sutton06 discharges
Physical Observations	Strong clear flow, slight chemical odor from outfall.	Clear flow	Clear flow, some algae on rocky stream bottom	Clear flow	Clear flow, some algae on rocky stream bottom	<1GPM flow - slimy algae growth	Clear, still pond, small fish
Temperature, ºC	17.2	18.3	18.6	18.9	19.5	14.2	20.4
Specific Conductivity, uS	624	664	681	695	693	868	704
Salinity, ppt	0.3	0.3	0.3	0.3	0.3	0.4	0.3
Ammonia, mg/l	0	NA	NA	NA	NA	0.0	NA
Total Chlorine, mg/l	NA	NA	NA	NA	NA	NA	NA
Detergent, mg/l	0.25	NA	NA	NA	NA	0.2	NA

NA: Not analyzed
GPM: Gallon per minute

Sample ID	0Pipe
Time	1140
Description of Location	4" iron pipe on east bank of stream. Only NH3 sample collected
Physical Observations	Dripping, significant orange staining in and around pipe.
Temperature, ºC	NA
Specific Conductivity, uS	NA
Salinity, ppt	NA
Ammonia, mg/l	3.0
Total Chlorine, mg/l	NA
Detergent, mg/l	NA

Photo 1: Cochichewick passes through Riverview pump station and discharges into Merrimack River (immediately behind photographer) via this outfall – "Sutton01" sample collected here.

Photo 2: Location Sutton02 north of railroad tracks.

Photo 3: View downstream beneath railroad tracks – stream enters culvert through pump station at center.

Photo 4: Location “0pipe” just east of Sutton02 location – note orange staining.

Photo 5: Location Sutton03-approximately half way between railroad and Sutton Street.

Photo 6: Location Sutton04-immediately downstream of Sutton Street.

Photo 7: Location Sutton05 – approximately 20 feet upstream of Sutton Street.

Photo 8: Location Sutton07-Sutton Pond behind 12-14 Main Street.

Photo 9: Location Sutton06-discharge into Sutton Pond behind 12-14 Main Street.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: May 30, 2013

SUBJ: City of North Andover, MA MS4 Inspection
North Andover, Massachusetts

FROM: Todd Borci, Enforcement Officer

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Monday, May 13, 2013, 1100 Hrs

B. Weather Conditions: Sunny, approximately 60 degrees F

C. USEPA Representatives: Todd Borci
Erin Trainor

D. Site Representative: Eugene Willis, Town Engineer
Town of North Andover
Engineering Department
384 N. Osgood St., North Andover, MA 01845
Phone: (978) 685-0950

E. Address: Various locations within the Town of North Andover, Massachusetts

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Town of North Andover Municipal Separate Stormwater Sewer System (MS4) that may adversely impact the water quality in the Merrimack River or its tributaries, including the Cochichewick River. Samples were collected from two (3) stormwater outfalls, and five (2) stream segments of the Cochichewick River in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

- Stormwater outfall identified as location **Sutton01** located immediately west of the Greater Lawrence Sanitary District ("GLSD") Riverview Pump Station – this is the outlet of the Cochichewick River to the Merrimack River.
- Cochichewick River sample collected approximately 20 feet upstream of railroad crossing identified as location **Sutton02**.
- Outfall sample from 4" iron pipe discharging into Cochichewick River from the east bank just downstream of Sutton02, identified as **Sutton08**.
- Cochichewick River sample collected immediately downstream of Sutton Street identified as location **Sutton04.**
- Approximately 24" stormwater outfall discharging into Sutton Pond located behind 12-14 Main Street, North Andover identified as location **Sutton06**.

IV. Inspection Observations and Findings

On Monday, May 7, 2013, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) of the Town of North Andover MS4 at three (3) outfalls and two (2) locations along the Cochichewick River. EPA was following up on previous sampling that indicated low levels of compounds associated with sanitary sewage.

The inspection started in at the outfall of the Cochichewick River into the Merrimack River at approximately 1100 hrs. At the time of the inspection, the weather was sunny and approximately 60 degrees Fahrenheit. According to precipitation records for Lawrence Airport, approximately 0.7 inches of precipitation had occurred in the 24-hour period prior to the start of the inspection and 0.18 inches of precipitation had fallen in the 48-hour period prior to the inspection.

The Town of North Andover is covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s). A copy the Town of North Andover Notice of Intent (NOI) has been posted online, and is dated July 22, 2003. The Town of North Andover EPA NPDES permit number is MAR041214.

Several sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. The following tables summarize the findings. Photographs are included. Laboratory results are anticipated to be available by the end of May 2013.

Attachments → Photographs

End of Report

Summary of North Andover, MA MS4 Inspection, May 7, 2013

Sample ID	Sutton01	Sutton02	Sutton08	Sutton04	Sutton06
Time	1100	1120	1130	1150	1220
Description of Location	Outfall grab sample west of Riverview Pump Station	Cochichewick River sample upstream of railroad (RR) bridge	4” iron pipe on east bank downstream/east of Sutton02	Cochichewick River sample just downstream of Sutton St.	24” outfall located behind 12-14 Main St
Physical Observations	Strong clear flow, some small suds from outfall.	Clear flow	Cloudy with orange precipitate	Clear flow	<5GPM flow - slimy algae growth
Temperature, ºC	16.4	16.8	NA	17.5	14.4
Specific Conductivity, uS	674	664	NA	657	945
Salinity, ppt	0.3	0.3	NA	0.3	0.5
Ammonia, mg/l	0.1	0.2	4.0	0.0	0.2
Total Chlorine, mg/l	0.03	NA	0.32	NA	0.01
Detergent, mg/l	0.2	NA	0.25	NA	0.2

NA: Not analyzed
GPM: Gallon per minute

Photo 1: Cochichewick passes through Riverview pump station and discharges into Merrimack River (immediately behind photographer) via this outfall – "Sutton01" sample collected here.

Photo 2: Location Sutton02 north of railroad tracks.

Photo 3: Location “Sutto08” just east of Sutton02 location – note orange staining.

Photo 4: Location Sutton06-discharge into Sutton Pond behind 12-14 Main Street.

EPA Region 1
Clean Water Act
Inspection Data Entry Form: 3560EZ

Version 1.02

Inspector:	Todd Borci	Date form completed:	6/19/2015

Section A: Facility Information						
Inspection start date:	4/17/2013	Inspection start time:	0830			
Inspection end date (if more than one day):	Choose date	Inspection finish time:	1230			
NPDES ID:	MAR041214	Federal facility?	No			
Name and Location of Facility Inspected:						
Name:	Town of North Andover, MA					
Address:	384 Osgood Street					
City:	North Andover	State:	MA	ZIP:	01845	
Facility Representative #1:						
Name:	Gene Willis	Title:	Town Engineer			
Address (if off-site):	Enter text					
City:	Enter text	State:	Enter text	ZIP:	Enter text	
Phone #:	978-685-0950	Email:	gwillis@townofnorthandover.com			
Facility Representative #2 (if necessary):						
Name:	Enter text	Title:	Enter text			
Address (if off-site):	Enter text					
City:	Enter text	State:	Enter text	ZIP:	Enter text	
Phone #:	Enter text	Email:	Enter text			

Section B: Compliance Monitoring Information		
Clean Water Act Section (choose from only one of the following):		
	CWA §308[A][B]: NPDES	Stormwater - MS4
	CWA §311: Oil and Hazardous Substances	Choose an item
	CWA §404: Permits for Dredge and Fill Material	Choose an item
Compliance Monitoring Type:		Inspection w/ Sampling
Compliance Monitoring Reason:		Agency Priority
	If Agency Priority, then specify priority(s):	

OECA - CAFO	☐
OECA - CAFO Region Initiative Areas	☐
OECA - CSOs w/ < 50,000 service population	☐
OECA - CSOs w/ >= 50,000 service population	☐
OECA - MS4s Phase I	☐
OECA - MS4s Phase II	☒

OECA - SSOs ≥ 10 MGD and < 100 MGD	☐
Region 1 - Environmental Justice	☐
Region 1 - Green Economy / Green Infrastructure	☐
Region 1 - Industrial Laundries	☐
Region 1 - Lead Poisoning	☐
Region 1 - Municipal Infrastructure	☐
Region 1 - Pollution Prevention & Resource Conservation	☐
Region 1 - Ship / Boat Yards	☐
Region 1 - Wet Weather	☐

Compliance Monitoring Agency Type:	EPA
Was this a Joint Compliance Monitoring Activity?	No
If Joint, which party had the lead?	Choose an item or leave blank if N/A
If State lead, what was the purpose of EPA participation?	Choose an item or leave blank if N/A

Section C: ICDS Information	
Did you observe deficiencies (potential violations) during the inspection?	No
Potential excess emission in violation of regulations:	☐
Potential failure to… … complete or submit a notification, report, certification, or manifest:	☐
… follow a permit condition(s):	☐
… follow a required sample monitoring procedure or laboratory procedure:	☐
… follow or develop a required management practice or procedure:	☐
… identify and manage a regulated waste or pollutant in any media:	☐
… maintain a record or failure to disclose a document:	☐
… maintain/inspect/repair meters, sensors, and recording equipment:	☐
… obtain a permit, product approval, or certification:	☐
… report regulated events such as spills, accidents, etc.:	☐
Potential incorrect use of a material (pesticide, waste, product) or use of an unapproved material:	☐
Potential violation of a compliance schedule in an enforceable order:	☐
If you observed deficiencies, did you communicate the deficiencies to the Facility during the inspection?	Choose an item
If yes, did you observe the Facility take any actions during the inspection to address the deficiencies noted?	Choose an item
If yes, what actions were taken?	Choose an item
If the Facility reduced pollution, what pollutant was reduced?	Enter text
Did you provide *general compliance assistance* in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	Yes
Did you provide *site-specific compliance assistance* in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	Yes

Comments: Announced MS4 compliance sampling inspection of Town of North Andover MS4 – eleven sets of water quality samples collected –report and data on file

Inspection Conclusion Data Sheet (ICDS)

FY2012

Inspector:__John Melcher, Erin Trainor, Neil Handler_____

Inspection Date: __11/14/2012_____

Facility Name/Address: __Town of North Andover (various locations)_____

Facility Manager/Title and Address (if different from above): ___
Eugene Willis
Town of North Andover
Town Engineer
384 Osgood St, North Andover, MA

Facility Contact/Title and Address (if different from above): _____
_____

1. Media Type: (Check one)

☐ CAA-Stationary	☐ CAA-Mobile Source	☐ CAA-112r
☐ CAA-NESHAP		
☐ CWA-NPDES	☐ CWA-Pretreatment POTW	☐ CWA-Pretreatment IU
☐ CWA 311	☐ CWA 404	x CWA-Stormwater
☐ EPCRA 313	☐ EPCRA N313	
☐ RCRA-C	☐ RCRA-UST	
☐ SDWA-UIC	☐ SDWA-PWSS	
☐ TSCA-Lead Paint	☐ TSCA-PCBs	
☐ TSCA-Core	☐ TSCA-AHERA	

2. Did you observe deficiencies (potential violations) during the inspection?

❒ Yes X No

3. If you observed deficiencies, did you communicate them to the facility during the inspection?

❒ Yes ❒ No

4. Deficiencies observed?

_____ Potential violation of a compliance schedule in an enforceable order.

_____ Potential failure to maintain a record or failure to disclose a document.

_____ Potential failure to maintain, inspect or repair equipment including meters, sensors, and recording equipment.

_____ Potential failure to complete or submit a notification, report, certification, or manifest.

_____ Potential failure to obtain a permit, product approval, or certification.

_____ Potential failure to follow a required sampling or monitoring procedure or laboratory procedure.

_____ Potential failure to follow or develop a required management practice or procedure.

_____ Potential failure to identify and manage a regulated waste or pollutant in any media.

_____ Potential failure to report regulated events such as spills, accidents, etc.

_____ Potential incorrect use of a material (e.g., pesticide, waste, product, etc.) or use of improper or unapproved material.

_____ Potential failure to follow a permit condition(s).

5 Did you observe or see the facility take any actions during the inspection to address the deficiencies communicated to the facility?

❒ Yes ❒ No x N/A only if #3 was NO.

If YES, check only the action(s) actually observed/seen or write in a short description of the action in the "optional" section. (Check all that apply)

Action(s) taken

_____ Complete(d) a Notification or Report

_____ Correct(ed) Monitoring Deficiencies

_____ Correct(ed) Record Keeping Deficiencies

_____ Implemented New or Improved Management Practices or Procedures

_____ Improved Pollutant Identification (e.g., Labeling, Manifesting, Storage, etc.)

_____ Reduced Pollution (e.g., Use Reduction, Industrial Process Change, Emissions or Discharge Change, etc.)

_____ Request(ed) a Permit Application or Applied for a Permit

_____ Verified Compliance with Previously Issued Enforcement Action - Part or All Conditions

The following common air or water pollutant(s) **should only be checked** if the "Reduced Pollution" line was checked.

Water: ☐ Ammonia ☐BOD ☐COD ☐TSS ☐O/G ☐Total Coliform ☐D.O. ☐ Metals ☐Cyanide ☐ Other_____

Air: ☐NOx ☐SO2 ☐PM ☐VOC ☐Metals ☐HAPs ☐CO

☐ Other_____

6. Did you provide general compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

❒ Yes x No

7. Did you provide site-specific compliance assistance in accordance with the policy on the Role of the EPA Inspector in Providing Compliance Assistance During Inspections?

❒ Yes x No

Optional Additional Information: EPA inspectors may wish to provide a narrative description of actions taken by the facility or assistance to help the facility come into compliance. (Narratives may be used in national or regional reports to provide examples of EPA inspection outcomes).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE – SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

Certified Mail – Return Receipt Requested

AUG - 7 2013

Mr. Andrew Maylor, Town Administrator
120 Main Street
North Andover, MA 01845

Re: **Notice of Violation No. 2013–NOV-04**

The purpose of this Notice of Violation ("NOV") is to inform you that personnel of the United States Environmental Protection Agency ("EPA") have identified violations of the Clean Water Act ("CWA") within the Town of North Andover, Massachusetts (the "Town").

The Town is subject to the Small Municipal Separate Storm Sewer System ("MS4") General Permit Number MAR041214 ("MS4 Permit"). Part I.B.2.(a) and (j) of the MS4 Permit prohibits the discharge of stormwater mixed with non-stormwater and discharges that would cause or contribute to the instream exceedence of water quality standards. Part II.B.3 of the MS4 Permit requires the permittee to develop and implement a plan to detect and eliminate illicit discharges into the storm sewer system. An illicit discharge is any discharge to a MS4 that is not composed entirely of stormwater and is not listed as an allowable non-stormwater discharge.

On May 13, 2013, EPA personnel collected surface water quality samples, in accordance with an EPA-approved Quality Assurance Project Plan, from the Cochichewick River downstream of Sutton Pond, and from an outfall discharging to Sutton Pond located behind 12-14 Main Street, North Andover, Massachusetts. These samples were analyzed and the resulting data (see Attachment 1), demonstrate that the Town is discharging stormwater mixed with non-stormwater containing sanitary sewage through its MS4 into Sutton Pond and the Cochichewick River, and in turn into the Merrimack River. The outfall discharge (identified as "Sutton 06" in Attachment 1) was analyzed for, and found to contain, selected pharmaceutical compounds. The presence of the specific pharmaceutical compounds in these samples provides evidence that the discharge contains sanitary sewage of human origin. The discharges on May 13, 2013 violate the prohibitions on discharging stormwater mixed with non-stormwater. A photograph of the outfall behind 12-14 Main Street taken on May 13, 2013 can be found in Attachment 2, photo 1.

On June 26, 2013, an EPA inspector observed the outfall to be discharging a large volume of highly turbid runoff with a sewage odor (Attachment 2, photo 2). The weather station at Lawrence municipal airport recorded 0.66 inches of rain on June 24, 0.43 inches of rain on June 25, and 0.61 inches of rain on June 26.[1] Based on the rainfall data

[1] National Oceanic and Atmospheric Administration, National Climatic Data Center. Available at: http://cdo.ncdc.noaa.gov/qclcd/QCLCD

and observations made at the outfall, it appears there may be a connection or blockage in the sanitary collection system causing a Sanitary Sewage Overflow ("SSO") in wet weather.

The Town's discharges violate Section 301 of the CWA, 33 U.S.C. § 1311. It is the responsibility of the Town to maintain compliance with its MS4 Permit and the CWA. **Within thirty (30) days of the date of receipt of this NOV**, pursuant to Section 308 of the CWA, 33 U.S.C § 1318, please submit to the contact person listed below a Statement describing the following: (1) the suspected source(s) of the human sanitary sewage at the location listed above; (2) any corrective actions that have been implemented, and, for all violations not yet corrected; (3) a description of the actions that will be taken to correct the violation(s) and a schedule for their implementation.

This NOV may not specify all violations of the CWA or violations of other environmental requirements that may exist in the Town. This NOV does not preclude the EPA or any other agency from commencing any enforcement action regarding any such violations. It is your responsibility to comply with all legal requirements, whether or not the EPA notifies you of any violations or takes enforcement action against you. Nothing in this NOV relieves you of other obligations under applicable federal, state, and local law. Failure to comply with the CWA may result in your liability for administrative, civil, or criminal penalties under Section 309(c), (d), or (g) of the CWA, 33 U.S.C. § 1319(c), (d), or (g), as modified by 40 C.F.R. Part 19. No provision of this NOV and no action or inaction by EPA shall be construed to constitute an assurance by the EPA that actions you take to address the violation(s) specified herein will result in compliance.

Please submit all information and refer any questions regarding this NOV to:

U.S. Environmental Protection Agency, Region 1
5 Post Office Square – Suite 100
Water Technical Unit
Mail Code OES04-4
Boston, MA 02109-3912
Attn: Todd Borci
617-918- 1358

Sincerely,

Sam Silverman, acting for

Susan Studlien, Director
Office of Environmental Stewardship
Environmental Protection Agency, Region 1

cc: Kevin Brander, MassDEP (electronic mail only)
Gene Willis, North Andover Town Engineer
Susan Sawyer, Director, North Andover Health Dept.

Attachment 1 - EPA New England Stormwater Outfall Inspection & Sampling Summary - North Andover, MA 5/13/13

Location						PPCP ng/L							Surfactants	Chlorine	NH3 (mg/l)	Coordinates		YSI Meter		
Date	Town	Site Name	Time	E.coli (MPN/100ml)	Entero (MPN/100ml)	Atenolol	Acetaminophen	Cotinine	1,7-Dimethylxanthine	Caffeine	Metoprolol	Carbamazepine			Test St.	GPS North(+)	GPS West (-)	Salinity ppt	Temp C	Conductivity uS
5/13/13	N Andover, MA	Sutton 01	1100	12	10	2.6	16	20	20	240	1.3	0.97	0.2	0.03	0.1	42.708637 N	71.133988 W	0.3	16.4	674
5/13/13	N Andover, MA	Sutton 02	1120	39	10	1.5	16	18	19	260	1.6	0.88	NA	NA	0.2	42.707267 N	71.133278 W	0.3	16.8	664
5/13/13	N Andover, MA	Sutton 04	1150	25	10	3.2	23	19	20	270	0.85	0.75	NA	NA	0	42.706816 N	71.132794 W	0.3	17.5	657
5/13/13	N Andover, MA	Sutton 06	1220	30	10	120	1400	58	150	1400	62	31	0.2	0.01	0.2	42.706051 N	71.132195 W	0.5	14.4	945

* precipitation was 0.0 inches in 24 hours prior to sampling and 0.18 inches in 48 hours prior to sampling

E. coli - color key: Red *≥10,000 col/100ml, Orange ≥1260 col/100ml, Yellow ≥235 col/100ml, Black < 235 col/100ml*
Note 1: MA Water Quality Standard single sample maximum for E. coli in Class B waters is 235 cfu/100ml
Entero - color key: Red *≥1000 col/100ml, Orange ≥350 Yellow ≥61 col/100ml, Black < 61 col/100ml*
Note 2: MA Water Quality Standard single sample maximum for enterococcus in inland Class B waters is 61 cfu/100 ml
NH3 - color key: Red *≥6 mg/L, Orange ≥0.5 mg/L, Yellow ≥0.0 mg/L*
Surfactants - color key: Red *≥1.0 mg/L, Orange ≥0.5 mg/L, Yellow ≥0.25 mg/L, Black < 0.25 mg/L* *** *may give false positive at salinity greater than 1 ppt*
PPCP color key: Pink = Concentrations greater than background
Cl2 - color key: Red *≥1.0 mg/L, Orange ≥0.3 mg/L, Yellow ≥0.02 mg/L, Black < 0.02 mg/L*

REPORTING LIMITS
E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Field = 0.1 mg/L
Ammonia Field = 0.1 mg/L
Chlorine Field = 0.02 mg/L

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

Attachment 2

EPA Notice of Violation 2013–NOV-04

Photo 1: Outfall behind 12-14 Main Street, North Andover, MA on 5/13/13, identified as Sample Location "Sutton06".

Photo 2: Outfall behind 12-14 Main Street, North Andover, MA discharging turbid water on 6/26/13.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspection Type	Inspector	Fac Type
N	MAR041214	11/10/05	<	R	

Inspection Type Description: Stormwater-MS4-sampling

Remarks:

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)
In-stream sample located on downstream side of Rte 114 - Shawsheen River (42.68443000 N, 71.13913246 W)

Entry Time/Date	Permit Effective Date
11:20AM 10/5/2011	July 2003
Exit Time/Date	**Permit Expiration Date**
12:00AM 10/5/2011	July 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the Town of North Andover was made during this sampling inspection.

Other Facility Data
Receiving Water: Merrimack River

Name, Address of responsible Official/Title/Phone and Fax Number.
Eugene P. Willis
Town Engineer
Phone: (978) 685-0950

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Preven ion	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Erin F. Trainor	US EPA / EIA / (617) 918-8382 / (617) 918-8282	11/22/2011
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

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Eugene P. Willis
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United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

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1 N	2	3 MAR041214	11 12 11/10/12	17 18 <	19 R	20

Inspection Type Description: Stormwater-MS4-sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 . 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)	Entry Time/Date	Permit Effective Date
In-stream sample located on downstream side of Rte 114 - Shawsheen River (42.68443000 N, 71.13913246 W)	11:45AM 10/12/2011	July 2003
	Exit Time/Date 12:30AM 10/12/2011	Permit Expiration Date July 2008

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)	Other Facility Data
No contact with the Town of North Andover was made during this sampling inspecti	Receiving Water: Merrimack River

Name, Address of responsible Official/Title/Phone and Fax Number.
Eugene P. Willis
Town Engineer
Phone: (978) 685-0950

Contacted: [ ] Yes [X] No

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[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Preven ion	
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[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
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Erin F. Trainor	US EPA / EIA / (617) 918-8382 / (617) 918-8282	11/22/2011
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 17 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
Town of Arlington, MA

From: Todd Borci

To: File

On Tuesday, 02 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the Town of Arlington, Massachusetts's (the "Town") Municipal Separate Storm Sewer System ("MS4"). EPA personnel collected surface water samples within Mill Brook at and upstream of 91 Mystic Street in Arlington, MA. Additional EPA personnel assisting in the inspection were Leah Bowe and Sam Burke.

The outfall of Mill Brook to the Lower Mystic Lake is sampled monthly by the Mystic River Watershed Association. The data collected to date has indicated elevated bacterial concentrations on several occasions (see www.mysticriver.org for historical data). EPA selected a sample location upstream and adjacent to a commercial building at 91 Mystic Street based on ease of access and surrounding urban density.

Upon arriving, EPA personnel noted that facing downstream from the Mystic Street bridge, there appeared to be a cloudy plume in the water along the left side of the stream. EPA collected surface water samples (Location ID: "91Mys") for the following parameters: bacteria (e. coli and enterococcus); ammonia; surfactants; total and free chlorine; potassium; and fluoride. EPA collected an additional grab sample for field processing of surfactants, ammonia, and free and total chlorine.

As EPA personnel were processing this first set of field kit samples, it was noted that upstream of the Mystic Street bridge the stream was turning quite cloudy. Within a few minutes, the stream was so cloudy the bottom of the shallow stream could not be seen. At that time EPA personnel collected surface water samples upstream of the Mystic Street bridge, just downstream of where the Mill Brook exits a large culvert (Location ID: "MillB"). EPA immediately contacted Jenny Birnbaum at MassDEP, and Mike Rademacher, the Town Engineer for the Town of Arlington. Mr. Rademacher and several Town employees responded to the site and observed the cloudy stream themselves.

Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed surface water samples collected at the two locations. Both field kits indicated elevated levels of ammonia (0.75 mg/l) and surfactants (1.25 mg/l) downstream of the

EPA personnel then collected a second set of samples from the original sampling location downstream of the Mystic Street bridge (“91Mys2”), and a set of samples from a new location immediately upstream of the Mystic Street bridge (“91Mysup”). Again, the field kits provided similar results, indicating elevated concentrations downstream of the bridge (1.5 mg/l ammonia and 1.5 mg/l surfactants) but not upstream (0.1 mg/l and 0.2 mg/l, respectively). EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges. EPA personnel informed Mr. Rademacher that there appeared to be two issues at present: (1) there appeared to be a possible sewage leak from beneath the Mystic Street bridge; and (2) the cloudy discharge upstream of the Mystic Street bridge may not be due to a release of sewage; however, it did appear a discharge of something other than stormwater was occurring. At 1230 EPA personnel departed for EPA’s Chelmsford laboratory to meet sample holding times.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during dry weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was 0.03 inches on 31 May 2001 (Logan Airport gauge).

Inspection ended at 1230. EPA Inspector has been and will continue to be in contact with the Town and MassDEP as follow-up.

End of Report.

Photos Attached.

Arlington, MA 6/2/09 EPA MS4 Inspection
Photographs

Photo 1: 6/2/09 at 10:33 AM. View from Mystic Street bridge facing downstream Mill Brook. Suspected sewage plume. "91Mys" sample collected center left in photo within plume footprint.

Photo 2: 6/2/09 10:41 AM. View of Mill Brook upstream of Mystic Street bridge. Note cloudy

appearance of stream. Sample “91Mysup” collected at photo center at 11:32 AM.

Arlington, MA 6/2/09 EPA MS4 Inspection
Photographs

Photo 3: 6/2/09 10:43 AM. View upstream of Mill Brook. Note cloudy appearance to stream. Photo taken along stream just south of Photo 4 location.

Photo 4: 6/2/09 at 10:50. View facing Mill Brook culvert opening, upstream of Mystic Street bridge. Cloudy discharge in stream, coming from culvert. “MillB” sample location at center of photo.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 22 April 2010

Subj: NPDES Compliance Inspection
Municipal Separate Storm Sewer System (MS4)
Town of Arlington, MA

From: Todd Borci

To: File

On Wednesday, 21 April 2010, EPA inspector Todd Borci and EPA personnel Leah O'Neill conducted an unannounced inspection of the Town of Arlington, Massachusetts's (the "Town") Municipal Separate Storm Sewer System ("MS4") at several locations along Mill Brook.

EPA began surveying sampling locations at 0700 hours. The sample event was anticipated to include several in-stream locations from Mystic Avenue to Park Street in the Town, in addition to several outfalls. Several flowing outfalls were identified and noted for sampling.

EPA sample collection began at approximately 0800 at Mystic Avenue. Between 0800 and 1230 hours EPA collected 8 "full suite" sample sets and 4 "limited suite" sample sets. The "full suite" sets consisted of bacteria (E. coli and enterococcus), ammonia, selected pharmaceutical compounds, potassium, fluoride, nitrate/nitrite, surfactants, free and total chlorine, and a "kit" sample for analyses by multiple field test kits (ammonia, surfactants, chlorine, and potassium). The "limited suite" sets consisted bacteria (E. coli and enterococcus) and a "kit" sample.

EPA collected "full suite" sample sets at Mill Brook outfall at Cooke's Hollow (MillB), the Mill Brook outfall downstream of Arlington High School (AHS), Grove Street (Grove01), and outfall on the west sidewall at Quinn Road (Quinn2), an outfall beneath a mill building on Ryder Street (RyMill), an outfall from the west under Ryder Street (RyWest), an outfall from the east at Ryder Street (RyEast), and Mill Brook just downstream of Park Street (30Park). EPA collected "limited suite" samples at Mystic Avenue (91Mys), Mill Brook just south of Mill Street (MBike), an outfall from the east at Grove Street (GroveS), and a seep beneath a mill building on Ryder Street (RyMill2).

Field test kit analyses were conducted on samples collected from all locations. Samples collected from the outfall beneath the mill building on Ryder Street and the outfall from the east at Ryder Street both met or exceeded EPA's ammonia and surfactant thresholds of 0.5 mg/l and 0.25 mg/l, respectively, indicating the potential for illicit connections upstream. The outfall beneath the mill building on Ryder Street, along with the seep just downstream, both had gray staining along the stream bed, indicating potential sanitary sewage.

EPA will await sample analytical results and provide the results to MassDEP and the Town.

Figure of sample locations, photographs, and Chain of Custody ("COC") form attached.

Photograph Log – 21 April 2010 Stormwater CSI – Arlington, MA

Photo 1: 4/21/10 0808 hrs. View facing north of 91MYS sample location.

Photo 2: 4/21/10 0812 hrs. View facing west of MillB sample location. Strong musty odor at site.

Photo 3: 0934 hrs. View of AHS sample location. Arlington High School in background.

Photo 4: 4/21/10 0945 hrs. View facing northeast of MBike sample location. Culvert daylights downstream at MillB sample location.

Photo 5: 4/21/10 1040 hrs. View of Quinn2 sample location (outfall pipe). No odor, some green algal grown in pipe and below outfall in stream bed.

Photo 6: 4/21/10 1116 hrs. View of RyMill sample location (outfall pipe). Mild sewage odor, gray bacterial plaque on stream bed. Suspected illicit discharge(s) upstream.

Photo 7: 4/21/10 1152 hrs. View of RyWest sample location (outfall pipe). Slight natural gas odor, clear flow.

Photo 8: 4/21/10 1153 hrs. View of RyEast sample location (outfall pipe).

United States Environmental Protection Agency
Office of Environmental Measurement & Evaluation
11 Technology Drive
North Chelmsford, MA 01863-2431

Water Microbiology Laboratory Report

April 26, 2010

Todd Borci (OES04-4)
US EPA New England Region 1

Project Number: 10040019
Project: RARE Stormwater
Analysis: E. Coli Defined Substrate
Analyst: Emily Bouthiette

Date Samples Received by the Laboratory: 04/21/2010

Analytical Procedure:

All samples were received and logged in by the laboratory according to the USEPA New England Laboratory SOP for Sample Log-in.

Sample preparation and analysis was done following the EPA Region I method, A107 / 9223.

Results relate only to the items tested or to the samples as received by the Laboratory. This analytical report shall not be reproduced except in full, without written approval of the laboratory.

If you have any questions please call me at 617-918-8609.

Sincerely,

David F. McDonald
Biology Quality Assurance Officer

Water Microbiology Laboratory
Data Qualifier Codes

J = Estimate
H = Exceeds holding time
I = Exceeds incubation time
At = Atypical overgrowth
S = Lost sample
V = Insufficient sample volume
TNTC = Too numerous to count
MB = Media blank
+++ = Positive control
- - - = Negative control
SP = Spiked Sample
L = Estimated, result below reporting limit (RL)
ND = Not Detected, result less than RL
D = Lab Duplicate
P = Plate counts outside preferred range

US ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND LABORATORY

RARE Stormwater

E. Coli Defined Substrate

Matrix: Water

Sample Number	Lab ID	Date of Collection:	Date of Analysis	Compound	Concentration MPN/100 mL	RL MPN/100 mL	Qualifier
30Park	AB04169	04/21/10 12:25 pm	04/21/10 1:30 pm	E. Coli Defined Substrate	**1741**	4	
91Mys	AB04157	04/21/10 8:00 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**152**	4	
AHS	AB04160	04/21/10 9:05 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**666**	4	
Grove01	AB04162	04/21/10 9:40 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**4480**	4	
GroveS	AB04163	04/21/10 9:45 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**744**	4	
MBike	AB04159	04/21/10 8:50 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**268**	4	
MillB	AB04158	04/21/10 8:10 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**395**	4	
Quinn2	AB04164	04/21/10 10:30 am	04/21/10 1:30 pm	E. Coli Defined Substrate	ND	4	
RyderE	AB04167	04/21/10 11:20 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**271**	4	
RyderW	AB04168	04/21/10 11:30 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**30**	4	
RyMill	AB04165	04/21/10 11:05 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**1302**	4	
RyMill2	AB04166	04/21/10 11:10 am	04/21/10 1:30 pm	E. Coli Defined Substrate	ND	4	
UR020	AB04161	04/21/10 9:05 am	04/21/10 1:30 pm	E. Coli Defined Substrate	**1549**	4	

Number of Samples: 13

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
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Memorandum - Enforcement Confidential

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Inspection ended at 1230. EPA Inspector has been and will continue to be in contact with the Town and MassDEP as follow-up.

End of Report.

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Arlington, MA 6/2/09 EPA MS4 Inspection
Photographs

Photo 1: 6/2/09 at 10:33 AM. View from Mystic Street bridge facing downstream Mill Brook. Suspected sewage plume. "91Mys" sample collected center left in photo within plume footprint.

Photo 2: 6/2/09 10:41 AM. View of Mill Brook upstream of Mystic Street bridge. Note cloudy

appearance of stream. Sample “91Mysup” collected at photo center at 11:32 AM.

Arlington, MA 6/2/09 EPA MS4 Inspection
Photographs

Photo 3: 6/2/09 10:43 AM. View upstream of Mill Brook. Note cloudy appearance to stream. Photo taken along stream just south of Photo 4 location.

Photo 4: 6/2/09 at 10:50. View facing Mill Brook culvert opening, upstream of Mystic Street bridge. Cloudy discharge in stream, coming from culvert. “MillB” sample location at center of photo.

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MA0410027	11 12 12/06/19	17 18 <	19 R 20

Inspection Type Description: Stormwater - MS4 - Sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For industrial users discharging to POTW, also include POTW name and NPDES permit number)
- Outfall located along Dudley Street approximately 80 feet upstream of the Grove Street crossing, identified as "Grove S" (42.4202 -71.164672075W).
- Outfall located beneath street crossing at Old Colony Lane, identified as "Robbins" (42.422100065N, -71.170523298W).

Entry Time/Date: 9:50AM 6/19/2012
Permit Effective Date:
Exit Time/Date: 10:30AM 6/19/2012
Permit Expiration Date:

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the Town of Arlington was made during this sampling inspection.

O her Facility Data
Receiving Water: Mill Brook

Name, Address of responsible Official/Title/Phone and Fax Number.
Michael Rademacher
Director of Public Works
Phone: (781) 316-3108

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	6/29/2012
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	6/29/2012

Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: June 29, 2012

SUBJ: MS4 Compliance Sampling Inspections
Towns of Arlington, Belmont, and Lexington, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Tuesday, June 19, 2012, 8:00 AM

B. Weather Conditions: Sunny, approximately 60 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

D. Site Representative(s): Michael Rademacher
Town of Arlington
Director of Public Works
51 Grove Street, Arlington, MA 02476

Peter J. Castanino
Town of Belmont
Director of Public Works
19 Moore Street, Belmont, MA 02478

William Hadley
Town of Lexington
Director of Public Works
201 Bedford Street, Lexington, MA 02420

Note: Site Representatives were not contacted.

E. Address: Various locations within the Towns of Arlington, Belmont, and Lexington, Massachusetts (refer to Section III).

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Towns of Arlington, Belmont, and Lexington municipal separate stormwater sewer systems (MS4s) that may adversely impact the water quality. Samples were collected from twelve (12) stormwater outfalls/culverts and/or directly from the stream, in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

Belmont

- Winn Brook culvert located on west side of Little Pond off of Brighton Street, identified as Winn B (42.39938469 N, 71.16103802 W).
- Wellington Brook culvert located on the west side of Clay Pit Pond, located to the south of Belmont High School, identified as Well B1 (42.39355937 N, 71.16679001 W).
- Wellington Brook culvert located along Common Street south of the Belmont Lions Club, identified as Well B2 (42.39548193 N, 71.17609220 W).

Arlington

- Outfall located along Dudley Street, approximately 80 feet upstream of the Grove Street crossing of Mill Brook, identified as Grove S (42.42025899 N, 71.16467208 W).
- Outfall located beneath street crossing at Old Colony Lane, identified as Robbins (42.42210007 N, 71.17052330 W).

Lexington

- Outfall located at Bow Street crossing of Mill Brook, identified as Bow P (42.42644568 N, 71.19435744 W).
- In stream sample located directly upstream of Bow P, identified as Mill B1 (42.42644568 N, 71.19435744 W).
- In stream sample located approximately 150 feet upstream of Mill B1, identified as Mill B2 (42.42656593 N, 71.19481806 W).
- In stream sample located approximately 100 feet upstream of Mill B2, identified as Mill B3 (42.42667578 N, 71.19512052 W).
- In stream sample located approximately 150 feet upstream of Mill B3, identified as Mill B4 (42.42676662 N, 71.19558559 W).
- In stream sample located approximately 400 feet upstream of Mill B4 at the west end of Brandon Street, identified as Mill B5 (42.42750035 N, 71.19692711 W).
- In stream sample located approximately 300 feet upstream of Mill B5 at the Fottler Avenue crossing of Mill Brook, identified as Mill B6 (42.42833380 N, 71.19679345 W).

IV. Inspection Observations and Findings

On Tuesday, June 19, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) within the Towns of Arlington, Belmont, and Lexington at twelve locations along Winn Brook, Wellington Brook, and Mill Brook.

The inspection started in Belmont at approximately 8:00 AM. At the time of the inspection, the weather was sunny and approximately 60 degrees Fahrenheit. A rain event had not occurred in the sampling areas in over 72 hours of the inspection. Low to moderate flows were generally observed.

The Towns of Arlington, Belmont, and Lexington are covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) (2003 Small MS4 General Permit). A copy the Town of Arlington Notice of Intent (NOI) has been posted online, and is dated July 28, 2003. The Town of Arlington EPA NPDES permit number is MAR041027. A copy the Town of Belmont NOI has been posted online, and is dated October 9, 2003. The Town of Belmont EPA NPDES permit number is MAR041074. A copy the Town of Lexington NOI has been posted online, and is dated July 31, 2003. The Town of Lexington EPA NPDES permit number is MAR041042.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. Field test kits were not conducted on samples Mill B1 through Mill B6. The following tables summarize the findings and laboratory results. Table 1 summarizes the findings in Arlington and Belmont and Table 2 summarizes the findings in Lexington. Photographs are included. Bacteria results are anticipated to be available July 2012.

End of Report

Attachments:
Table 1: Summary of Arlington and Belmont, MA MS4 Inspection, June 19, 2012
Table 2: Summary of Lexington, MA MS4 Inspection, June 19, 2012
Photos

Table 1: Summary of Arlington and Belmont, MA MS4 Inspection, June 19, 2012

Sample ID	Winn B	6/19D	Well B1	Well B2	Grove S	Robbins
Time	08:05	08:05	08:45	09:10	09:50	10:15
Latitude/Longitude	42.39938469N/ 71.16103802W	42.39938469N/ 71.16103802W	42.39355937N/ 71.16679001W	42.39548193N/ 71.17609220W	42.42025899N/ 71.16467208W	42.42210007N/ 71.17052330W
Description of Location	Culvert located on west side of Little Pond off of Brighton Street.	Duplicate sample of Winn B.	Culvert located on the west side of Clay Pit Pond, located to the south of Belmont High School.	Culvert located along Common Street south of the Belmont Lions Club.	Outfall located along Dudley Street, approximately 80 feet upstream of the Grove Street crossing of Mill Brook.	Outfall located beneath street crossing at Old Colony Lane.
Physical Observations	No odor observed, some suds present, low to moderate flow primarily on right side of culvert	Duplicate sample of Winn B.	Some cloudiness/opacity especially in deeper sections after drop off. No odor observed. Flow > 200 gpm	Slight opacity, strong musty and slightly soapy odor. Outfall is 15 feet across with a water depth between 6 and 12 inches.	No odor observed. Flow approximately 5 gpm.	Musty odor observed from upstream channel. Some white suds from upstream observed. Flow approximately 20-30 gpm.
Temperature, ºC	15.2	15.2	14.2	13.7	16.7	17.2
Specific Conductivity, µS	477	477	1099	312	943	753
Salinity, ppt	0.3	0.3	0.5	0.1	0.5	0.4
Ammonia, mg/l	0.10	NA	0.20	0.6	0.25	0.4
Total Chlorine, mg/l	0.03	NA	0.01	0.02	0.03	0.05
Detergent, mg/l	0.05	NA	0.2	0.75	0.25	<0.25
Atenolol, ng/l	3.1	3.4	7.2	24	ND	ND
Acetaminophen, ng/l	8.0	4.7	190	530	300	ND
Cotinine, ng/l	1.2	2.1	3.8	6.3	0.90	35
1,7-Dimethylxanthine, ng/l	32	22	100	560	110	37
Caffeine, ng/l	28	36	200	1100	120	92
Carbamazepine, ng/l	0.6	0.75	3.1	3.7	4.1	3.3
Metoprolol, ng/l	1.7	ND	8.6	18	4.0	ND
E.Coli, MPN/100ml	542	504	1,844	19,890	343	6,212
Enterococcus, MPN/100ml	213	201	314	2,909	1,313	51

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute

Table 2: Summary of Lexington, MA MS4 Inspection, June 19, 2012

Sample ID	Bow P	Mill B1	Mill B2	Mill B3	Mill B4	Mill B5	Mill B6
Time	10:50	10:55	11:15	11:20	11:30	11:40	11:50
Latitude/Longitude	42.42644568N/ 71.19435744W	42.42644568N/ 71.19435744W	42.42656593 N/ 71.19481806 W	42.42667578 N/ 71.19512052 W	42.42676662 N/ 71.19558559 W	42.42750035 N/ 71.19692711 W	42.42833380 N/ 71.19679345 W
Description of Location	Outfall located at Bow Street crossing of Mill Brook	In stream sample located directly upstream of Bow P	In stream sample located approximately 150 feet upstream of Mill B1	In stream sample located approximately 100 feet upstream of Mill B2	In stream sample located approximately 150 feet upstream of Mill B3	In stream sample located approximately 400 feet upstream of Mill B4 at the west end of Brandon Street	In stream sample located approximately 300 feet upstream of Mill B5 at the Fottler Avenue crossing of Mill Brook
Physical Observations	No odor observed. Trickling flow.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.
Temperature, ºC	17.2	14.6	14.8	14.8	14.8	14.5	14.8
Specific Conductivity, µS	108	324	212.8	346.3	446	370.8	406.5
Salinity, ppt	0	0.2	0.1	0.2	0.2	0.2	0.2
Ammonia, mg/l	0.1	NA	NA	NA	NA	NA	NA
Total Chlorine, mg/l	0.01	NA	NA	NA	NA	NA	NA
Detergent, mg/l	0.25	NA	NA	NA	NA	NA	NA
Atenolol, ng/l	ND	7.2	ND	ND	ND	ND	ND
Acetaminophen, ng/l	ND	82	130	ND	ND	1.6	ND
Cotinine, ng/l	13	3.7	5.4	1.1	ND	1.1	0.98
1,7-Dimethylxanthine, ng/l	1.6	4.3	58	6.2	ND	ND	ND
Caffeine, ng/l	4.4	100	160	3.9	ND	4.3	ND
Carbamazepine, ng/l	8.5	ND	ND	ND	ND	ND	ND
Metoprolol, ng/l	ND	2.8	ND	ND	ND	ND	ND
E.Coli, MPN/100ml	4	9,677	5,199	408	363	475	432
Enterococcus, MPN/100ml	74	2,723	1,607	364	240	256	259

NA: Not analyzed
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WinnB: Approximate 5’x15’ culvert located on west side of Little Pond off of Brighton Street.

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LAW03: Approximate 4'x15' culvert located on located along Common Street south of the Belmont Lions Club

Grove S: Approximate 36" outfall located along Dudley Street, approximately 80 feet upstream of the Grove Street crossing of Mill Brook. Outfall is depicted on the right.

Robbins: Approximate 24" outfall located beneath street crossing at Old Colony Lane.

Bow P: Approximate 12" outfall at Bow Street crossing of Mill Brook.

Mill B1: In stream sample located directly upstream of Bow P.

Mill B2: In stream sample located approximately 150 feet upstream of Mill B1.

View from Mill B2 facing south.

Mill B3: In stream sample located approximately 100 feet upstream of Mill B2.

View from Mill B3 facing south.

Mill B4: In stream sample located approximately 150 feet upstream of Mill B3.

View from Mill B4 facing south.

Mill B5: In stream sample located approximately 400 feet upstream of Mill B4 at the west end of Brandon Street

View from Mill B5 facing west.

Mill B6: In stream sample located approximately 300 feet upstream of Mill B5 at the Fottler Avenue crossing of Mill Brook.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

DATE: June 29, 2012

SUBJ: MS4 Compliance Sampling Inspections
Towns of Arlington, Belmont, and Lexington, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REQUESTED BY: Todd Borci (OES)

I. Background Information

A. Date, Time of inspection: Tuesday, June 19, 2012, 8:00 AM

B. Weather Conditions: Sunny, approximately 60 degrees F

C. USEPA Representatives: Erin Trainor
Todd Borci

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End of Report

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Photos

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Temperature, ºC	15.2	15.2	14.2	13.7	16.7	17.2
Specific Conductivity, µS	477	477	1099	312	943	753
Salinity, ppt	0.3	0.3	0.5	0.1	0.5	0.4
Ammonia, mg/l	0.10	NA	0.20	0.6	0.25	0.4
Total Chlorine, mg/l	0.03	NA	0.01	0.02	0.03	0.05
Detergent, mg/l	0.05	NA	0.2	0.75	0.25	<0.25
Atenolol, ng/l	3.1	3.4	7.2	24	ND	ND
Acetaminophen, ng/l	8.0	4.7	190	530	300	ND
Cotinine, ng/l	1.2	2.1	3.8	6.3	0.90	35
1,7-Dimethylxanthine, ng/l	32	22	100	560	110	37
Caffeine, ng/l	28	36	200	1100	120	92
Carbamazepine, ng/l	0.6	0.75	3.1	3.7	4.1	3.3
Metoprolol, ng/l	1.7	ND	8.6	18	4.0	ND
E.Coli, MPN/100ml	542	504	1,844	19,890	343	6,212
Enterococcus, MPN/100ml	213	201	314	2,909	1,313	51

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute

Table 2: Summary of Lexington, MA MS4 Inspection, June 19, 2012

Sample ID	Bow P	Mill B1	Mill B2	Mill B3	Mill B4	Mill B5	Mill B6
Time	10:50	10:55	11:15	11:20	11:30	11:40	11:50
Latitude/Longitude	42.42644568N/ 71.19435744W	42.42644568N/ 71.19435744W	42.42656593 N/ 71.19481806 W	42.42667578 N/ 71.19512052 W	42.42676662 N/ 71.19558559 W	42.42750035 N/ 71.19692711 W	42.42833380 N/ 71.19679345 W
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Specific Conductivity, µS	108	324	212.8	346.3	446	370.8	406.5
Salinity, ppt	0	0.2	0.1	0.2	0.2	0.2	0.2
Ammonia, mg/l	0.1	NA	NA	NA	NA	NA	NA
Total Chlorine, mg/l	0.01	NA	NA	NA	NA	NA	NA
Detergent, mg/l	0.25	NA	NA	NA	NA	NA	NA
Atenolol, ng/l	ND	7.2	ND	ND	ND	ND	ND
Acetaminophen, ng/l	ND	82	130	ND	ND	1.6	ND
Cotinine, ng/l	13	3.7	5.4	1.1	ND	1.1	0.98
1,7-Dimethylxanthine, ng/l	1.6	4.3	58	6.2	ND	ND	ND
Caffeine, ng/l	4.4	100	160	3.9	ND	4.3	ND
Carbamazepine, ng/l	8.5	ND	ND	ND	ND	ND	ND
Metoprolol, ng/l	ND	2.8	ND	ND	ND	ND	ND
E.Coli, MPN/100ml	4	9,677	5,199	408	363	475	432
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View from Mill B2 facing south.

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View from Mill B5 facing west.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

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Towns of Arlington, Belmont, and Lexington, Massachusetts

FROM: Erin Trainor, Inspector

TO: File

REQUESTED BY: Todd Borci (OES)

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A. Date, Time of inspection: Tuesday, June 19, 2012, 8:00 AM

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Todd Borci

D. Site Representative(s): Michael Rademacher
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Note: Site Representatives were not contacted.

E. Address: Various locations within the Towns of Arlington, Belmont, and Lexington, Massachusetts (refer to Section III).

II. Purpose of Inspection

The purpose of the inspection was to identify illicit connections or illegal discharges within the Towns of Arlington, Belmont, and Lexington municipal separate stormwater sewer systems (MS4s) that may adversely impact the water quality. Samples were collected from twelve (12) stormwater outfalls/culverts and/or directly from the stream, in accordance with the Environmental Investigations and Analysis (EIA) unit Stormwater Program Plan.

III. Description of Sampling Locations

Belmont

- Winn Brook culvert located on west side of Little Pond off of Brighton Street, identified as Winn B (42.39938469 N, 71.16103802 W).
- Wellington Brook culvert located on the west side of Clay Pit Pond, located to the south of Belmont High School, identified as Well B1 (42.39355937 N, 71.16679001 W).
- Wellington Brook culvert located along Common Street south of the Belmont Lions Club, identified as Well B2 (42.39548193 N, 71.17609220 W).

Arlington

- Outfall located along Dudley Street, approximately 80 feet upstream of the Grove Street crossing of Mill Brook, identified as Grove S (42.42025899 N, 71.16467208 W).
- Outfall located beneath street crossing at Old Colony Lane, identified as Robbins (42.42210007 N, 71.17052330 W).

Lexington

- Outfall located at Bow Street crossing of Mill Brook, identified as Bow P (42.42644568 N, 71.19435744 W).
- In stream sample located directly upstream of Bow P, identified as Mill B1 (42.42644568 N, 71.19435744 W).
- In stream sample located approximately 150 feet upstream of Mill B1, identified as Mill B2 (42.42656593 N, 71.19481806 W).
- In stream sample located approximately 100 feet upstream of Mill B2, identified as Mill B3 (42.42667578 N, 71.19512052 W).
- In stream sample located approximately 150 feet upstream of Mill B3, identified as Mill B4 (42.42676662 N, 71.19558559 W).
- In stream sample located approximately 400 feet upstream of Mill B4 at the west end of Brandon Street, identified as Mill B5 (42.42750035 N, 71.19692711 W).
- In stream sample located approximately 300 feet upstream of Mill B5 at the Fottler Avenue crossing of Mill Brook, identified as Mill B6 (42.42833380 N, 71.19679345 W).

IV. Inspection Observations and Findings

On Tuesday, June 19, 2012, EPA inspectors Todd Borci and Erin Trainor conducted an unannounced Compliance Sampling Inspection (CSI) within the Towns of Arlington, Belmont, and Lexington at twelve locations along Winn Brook, Wellington Brook, and Mill Brook.

The inspection started in Belmont at approximately 8:00 AM. At the time of the inspection, the weather was sunny and approximately 60 degrees Fahrenheit. A rain event had not occurred in the sampling areas in over 72 hours of the inspection. Low to moderate flows were generally observed.

The Towns of Arlington, Belmont, and Lexington are covered under the 2003 General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) (2003 Small MS4 General Permit). A copy the Town of Arlington Notice of Intent (NOI) has been posted online, and is dated July 28, 2003. The Town of Arlington EPA NPDES permit number is MAR041027. A copy the Town of Belmont NOI has been posted online, and is dated October 9, 2003. The Town of Belmont EPA NPDES permit number is MAR041074. A copy the Town of Lexington NOI has been posted online, and is dated July 31, 2003. The Town of Lexington EPA NPDES permit number is MAR041042.

The sampling locations described in Section III were field screened using test kits for ammonia, chlorine, and surfactants, and analyzed at the EPA New England Regional Laboratory (NERL) for E.Coli, Enterococcus, and pharmaceutical and personal care products (PPCPs) including: Atenolol, Acetaminophen, Cotinine, 1,7-Dimethylxanthine, Caffeine, Carbamazepine, and Metoprolol. In-situ measurements for conductivity, salinity, and temperature were also recorded. Field test kits were not conducted on samples Mill B1 through Mill B6. The following tables summarize the findings and laboratory results. Table 1 summarizes the findings in Arlington and Belmont and Table 2 summarizes the findings in Lexington. Photographs are included. Bacteria results are anticipated to be available July 2012.

End of Report

Attachments:
Table 1: Summary of Arlington and Belmont, MA MS4 Inspection, June 19, 2012
Table 2: Summary of Lexington, MA MS4 Inspection, June 19, 2012
Photos

Table 1: Summary of Arlington and Belmont, MA MS4 Inspection, June 19, 2012

Sample ID	Winn B	6/19D	Well B1	Well B2	Grove S	Robbins
Time	08:05	08:05	08:45	09:10	09:50	10:15
Latitude/Longitude	42.39938469N/ 71.16103802W	42.39938469N/ 71.16103802W	42.39355937N/ 71.16679001W	42.39548193N/ 71.17609220W	42.42025899N/ 71.16467208W	42.42210007N/ 71.17052330W
Description of Location	Culvert located on west side of Little Pond off of Brighton Street.	Duplicate sample of Winn B.	Culvert located on the west side of Clay Pit Pond, located to the south of Belmont High School.	Culvert located along Common Street south of the Belmont Lions Club.	Outfall located along Dudley Street, approximately 80 feet upstream of the Grove Street crossing of Mill Brook.	Outfall located beneath street crossing at Old Colony Lane.
Physical Observations	No odor observed, some suds present, low to moderate flow primarily on right side of culvert	Duplicate sample of Winn B.	Some cloudiness/opacity especially in deeper sections after drop off. No odor observed. Flow > 200 gpm	Slight opacity, strong musty and slightly soapy odor. Outfall is 15 feet across with a water depth between 6 and 12 inches.	No odor observed. Flow approximately 5 gpm.	Musty odor observed from upstream channel. Some white suds from upstream observed. Flow approximately 20-30 gpm.
Temperature, ºC	15.2	15.2	14.2	13.7	16.7	17.2
Specific Conductivity, µS	477	477	1099	312	943	753
Salinity, ppt	0.3	0.3	0.5	0.1	0.5	0.4
Ammonia, mg/l	0.10	NA	0.20	0.6	0.25	0.4
Total Chlorine, mg/l	0.03	NA	0.01	0.02	0.03	0.05
Detergent, mg/l	0.05	NA	0.2	0.75	0.25	<0.25
Atenolol, ng/l	3.1	3.4	7.2	24	ND	ND
Acetaminophen, ng/l	8.0	4.7	190	530	300	ND
Cotinine, ng/l	1.2	2.1	3.8	6.3	0.90	35
1,7-Dimethylxanthine, ng/l	32	22	100	560	110	37
Caffeine, ng/l	28	36	200	1100	120	92
Carbamazepine, ng/l	0.6	0.75	3.1	3.7	4.1	3.3
Metoprolol, ng/l	1.7	ND	8.6	18	4.0	ND
E.Coli, MPN/100ml	542	504	1,844	19,890	343	6,212
Enterococcus, MPN/100ml	213	201	314	2,909	1,313	51

NA: Not analyzed ND: Not detected above reporting limit gpm: gallons per minute

Table 2: Summary of Lexington, MA MS4 Inspection, June 19, 2012

Sample ID	Bow P	Mill B1	Mill B2	Mill B3	Mill B4	Mill B5	Mill B6
Time	10:50	10:55	11:15	11:20	11:30	11:40	11:50
Latitude/Longitude	42.42644568N/ 71.19435744W	42.42644568N/ 71.19435744W	42.42656593 N/ 71.19481806 W	42.42667578 N/ 71.19512052 W	42.42676662 N/ 71.19558559 W	42.42750035 N/ 71.19692711 W	42.42833380 N/ 71.19679345 W
Description of Location	Outfall located at Bow Street crossing of Mill Brook	In stream sample located directly upstream of Bow P	In stream sample located approximately 150 feet upstream of Mill B1	In stream sample located approximately 100 feet upstream of Mill B2	In stream sample located approximately 150 feet upstream of Mill B3	In stream sample located approximately 400 feet upstream of Mill B4 at the west end of Brandon Street	In stream sample located approximately 300 feet upstream of Mill B5 at the Fottler Avenue crossing of Mill Brook
Physical Observations	No odor observed. Trickling flow.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.	No odor observed. Low flow in brook.
Temperature, ºC	17.2	14.6	14.8	14.8	14.8	14.5	14.8
Specific Conductivity, µS	108	324	212.8	346.3	446	370.8	406.5
Salinity, ppt	0	0.2	0.1	0.2	0.2	0.2	0.2
Ammonia, mg/l	0.1	NA	NA	NA	NA	NA	NA
Total Chlorine, mg/l	0.01	NA	NA	NA	NA	NA	NA
Detergent, mg/l	0.25	NA	NA	NA	NA	NA	NA
Atenolol, ng/l	ND	7.2	ND	ND	ND	ND	ND
Acetaminophen, ng/l	ND	82	130	ND	ND	1.6	ND
Cotinine, ng/l	13	3.7	5.4	1.1	ND	1.1	0.98
1,7-Dimethylxanthine, ng/l	1.6	4.3	58	6.2	ND	ND	ND
Caffeine, ng/l	4.4	100	160	3.9	ND	4.3	ND
Carbamazepine, ng/l	8.5	ND	ND	ND	ND	ND	ND
Metoprolol, ng/l	ND	2.8	ND	ND	ND	ND	ND
E.Coli, MPN/100ml	4	9,677	5,199	408	363	475	432
Enterococcus, MPN/100ml	74	2,723	1,607	364	240	256	259

NA: Not analyzed
ND: Not detected above reporting limit
gpm: gallons per minute

WinnB: Approximate 5’x15’ culvert located on west side of Little Pond off of Brighton Street.

WellB1: Approximate 5’x15’ culvert located on the west side of Clay Pit Pond to the south of Belmont High School.

LAW03: Approximate 4'x15' culvert located on located along Common Street south of the Belmont Lions Club

Grove S: Approximate 36" outfall located along Dudley Street, approximately 80 feet upstream of the Grove Street crossing of Mill Brook. Outfall is depicted on the right.

Robbins: Approximate 24" outfall located beneath street crossing at Old Colony Lane.

Bow P: Approximate 12" outfall at Bow Street crossing of Mill Brook.

Mill B1: In stream sample located directly upstream of Bow P.

Mill B2: In stream sample located approximately 150 feet upstream of Mill B1.

View from Mill B2 facing south.

Mill B3: In stream sample located approximately 100 feet upstream of Mill B2.

View from Mill B3 facing south.

Mill B4: In stream sample located approximately 150 feet upstream of Mill B3.

View from Mill B4 facing south.

Mill B5: In stream sample located approximately 400 feet upstream of Mill B4 at the west end of Brandon Street

View from Mill B5 facing west.

Mill B6: In stream sample located approximately 300 feet upstream of Mill B5 at the Fottler Avenue crossing of Mill Brook.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I - EPA NEW ENGLAND

DATE: Draft:
Final: 10/21/11
Revised:

SUBJ: Recon of storm water outfalls around Beaver Brook and Curtis pond, Worcester MA.

FROM: Douglas Koopman, Environmental Engineer
Water Technical unit

THRU: Denny Dart, Water Technical Branch Chief

TO: File

I. Background Information

Date of inspection: 10/20/11

Weather Conditions: It had rained the day before and was overcast and drizzling in the morning of the inspection. By noon the sun was out and it was 68 F.

Personnel in attendance: Doug Koopman EPA
Erin Trainor EPA Lab

II. Purpose of Inspection

Storm water outfalls around Beaver Brook and Curtis pond were specifically targeted because they had been previously determined by the City of Worcester to have had illicit sewer connections or the outfall was a location where the brook daylighted downstream of a industrial or heavy residential neighborhood.

A couple of outfalls were the smell of sewage was present were sampled and tested for ammonia, chlorine and surfactants.

III. Description of Outfalls

195 Grove Street – inlet to Salisbury Pond
32 Amherst Street – Beaver Brook
31 Mann Street - Beaver Brook
111 &121 Maywood Street - Beaver Brook

1094 Main Street – Beaver Brook
91 Stafford Street – Curtis Pond
19 Heard Street – Curtis Pond
15 Nutmeg Drive- Curtis Pond

V. Inspection

We began our inspection at 8:30am, the ground was wet and there was a slight drizzle. The inspectors used the inspection kits at two locations but due to the rain and flow of water from the outfalls the results were not useful.

195 Grove Street – inlet to Salisbury Pond

A test kit was run from a sample at this location the results were:
Chlorine 0 ppm
Ammonia 0ppm
Surfactants <.25 ppm

Downstream of this location is the inlet to Salisbury Pond.

32 Amherst Street – Beaver Brook
This location was not located and this street appeared to be far away from any connection to Beaver Brook.

31 Mann Street - Beaver Brook

There are two outfall pipes at this location. The City's list only has one listed for this address. No samples taken from this location.

111 & 121 Maywood Street - Beaver Brook

There are two outfalls at this location located under a small bridge. The pictures taken did not come out due to the lack of sunlight. Both outfalls were flowing. The inspectors noted the smell of raw sewage at this location.

1094 Main Street – Beaver Brook

91 Stafford Street – Curtis Pond

The test kits were run on the discharge from this outfall. The results were:
Chlorine .01ppm
Ammonia 0ppm
Surfactants .25 ppm

The inspectors noted the smell of raw sewage at this location. There was also what looked like toilet paper on a branch of a bush downstream of the outfall.

19 Heard Street – Curtis Pond

Two outfalls are located at this location. The City's list has only one outfall at this location. Water was flowing from one or both of these outfalls and foam was noted in the rocks below the outfall.

15 Nutmeg Drive – Curtis Pond

No picture was taken of this location. The stormwater discharge was into a small wetland area which was fenced in. There was no smell or visual indication of storm water pollution from this outfall.

As a follow-up the inspector went back out to several of these locations on Tuesday October 25, 2011. The reason for the follow-up was to see if there was dry weather flow from the outfalls. The four outfalls listed below had dry weather flow. The first inspection was conducted on Thursday October 20th 2011. October 19th was a rainy day NOAA Boston reported 1.21 inches of rain in Worcester. The days from October 20th to October 25 had no rain.

111 &121 Maywood Street

There was no smell of sewage. You cannot tell from the pictures due to the shadows but there was water flowing out of each outfall.

1094 Main Street

The picture did not come out very clear but there is water flowing out of the pipe.

91 Stafford Street

Picture shows dry weather flow. There was no smell of sewerage. Water looks cleaner than pics taken on October 20th.

19 Heard Street

Water was flowing out of one or both of these pipes. There was no foam noted on the surface of the water.

148 Beaver Brook Pkwy

Beaver Brook @Eddy's outfall

Kettle Brook

Downstream kettle brook KTB3 219 James st

Upstream kettle brook KTB5 232 Stafford st

Weasel Brook

This is outfall at KB03 130 Higgins

212 Lake Ave

This is end of Fitzgerald brook before it goes into lake quinsigamond. Upstream is on the left and downstream is on the right.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE – SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

File NOV

Certified Mail – Return Receipt Requested

February 6, 2013

Mr. David J. Kale, Town Administrator
Belmont Town Hall
455 Concord Avenue
Belmont, MA 02478

Re: **Notice of Violation No. 2013–NOV-01**

The purpose of this Notice of Violation ("NOV") is to inform you that personnel of the United States Environmental Protection Agency ("EPA") have identified violations of the Clean Water Act ("CWA") within the Town of Belmont, Massachusetts (the "Town").

The Town is subject to the Small Municipal Separate Storm Sewer System ("MS4") General Permit Number MAR021074 ("MS4 Permit"). Part I.B.2.(a)(j) and (k) of the MS4 Permit prohibits the discharge of stormwater mixed with non-stormwater and discharges that would cause or contribute to the instream exceedence of water quality standards. Part II.B.3 of the MS4 Permit requires the permittee to develop and implement a plan to detect and eliminate illicit discharges into the storm sewer system. An illicit discharge is any discharge to a MS4 that is not composed entirely of stormwater and is not listed as an allowable non-stormwater discharge.

On June 19, 2012, EPA personnel collected surface water quality samples, in accordance with an EPA-approved Quality Assurance Project Plan, from Wellington Brook immediately east of Common Street, Wellington Brook at Clay Pit Pond, and Winn Brook at Little Pond. These samples were analyzed and the resulting data, summarized in Attachment 1, demonstrate that the Town is discharging stormwater mixed with non-stormwater containing E. coli and enterococcus bacteria through its MS4 into Wellington Brook and Winn Brook and, in turn, into the Little River, Alewife Brook, and the Mystic River. The discharges were also analyzed for, and found to contain, selected pharmaceutical compounds. The presence of the specific pharmaceutical compounds in these samples provides evidence that the sources of the bacterial water quality exceedances are of human origin and due to the presence of sanitary sewage. The discharges on June 19, 2012 violate the prohibitions on discharging stormwater mixed with non-stormwater and on discharges that cause or contribute to violations of the Massachusetts surface water quality standards for E. coli and enterococcus bacteria.

The Town's discharges violate Section 301 of the CWA, 33 U.S.C. § 1311. It is the responsibility of the Town to maintain compliance with its MS4 Permit and the CWA. **Within thirty (30) days of the date of receipt of this NOV**, pursuant to Section 308 of the CWA, 33 U.S.C § 1318, please submit to the contact person listed below a Statement describing the following: (1) the suspected source(s) of the human sanitary sewage at the

locations listed above; (2) the location of any additional known instances of violations of water quality standards in the Town, whether at stormwater outfalls or inter-municipal stormwater connections into adjacent municipalities; (3) any corrective actions that have been implemented, and, for all violations not yet corrected; (4) a description of the actions that will be taken to correct the violation(s) and a schedule for their implementation.

This NOV may not specify all violations of the CWA or violations of other environmental requirements that may exist in the Town. This NOV does not preclude the EPA or any other agency from commencing any enforcement action regarding any such violations. It is your responsibility to comply with all legal requirements, whether or not the EPA notifies you of any violations or takes enforcement action against you. Nothing in this NOV relieves you of other obligations under applicable federal, state, and local law. Failure to comply with the CWA may result in your liability for administrative, civil, or criminal penalties under Section 309(c), (d), or (g) of the CWA, 33 U.S.C. § 1319(c), (d), or (g), as modified by 40 C.F.R. Part 19. No provision of this NOV and no action or inaction by EPA shall be construed to constitute an assurance by the EPA that actions you take to address the violation(s) specified herein will result in compliance.

Please submit all information and refer any questions regarding this NOV to:

U.S. Environmental Protection Agency, Region 1
5 Post Office Square – Suite 100
Water Technical Unit
Mail Code OES04-4
Boston, MA 02109-3912
Attn: Todd Borci
617-918- 1358

Sincerely,

Susan Studlien

Susan Studlien, Director
Office of Environmental Stewardship
Environmental Protection Agency, Region 1

cc: Kevin Brander, MassDEP (electronic mail only)
Glenn R. Clancy, Belmont Town Engineer
Stefan A. Russakow, Director, Belmont Health Dept.

EPA New England Stormwater Outfall Inspection & Sampling Summary - Belmont, MA 6/19/12

Location																Coordinates		YSI Meter		
						PPCP ng/L							Surfactants	Chlorine	NH3 (mg/l)			Salinity	Temp	Conductivity
Date	Town	Site Name	Time	E.coli (MPN/100ml)	Entero (MPN/100ml)	Atenolol	Acetaminophen	Cotinine	1,7-Dimethylxanthine	Caffeine	Metoprolol	Carbamazepine			Test St.	GPS North(+)	GPS West (-)	ppt	C	uS
6/19/12	Belmont, MA	WinnB	805	542	213	3.1	8	1.2	32	28	1.7	0.6	0.05	0.03	0.1	42.399385 N	71.161038 W	0.3	15.2	477
6/19/12	Belmont, MA	6/19 D **	805	504	201	3.4	4.7	2.1	22	36	ND	0.75	NA	NA	NA	42.399385 N	71.161038 W	0.3	15.2	477
6/19/12	Belmont, MA	WellB1	845	1,844	314	7.2	190	3.8	100	200	8.6	3.1	0.2	0.01	0.2	42.393559 N	71.166790 W	0.5	14.2	1099
6/19/12	Belmont, MA	WellB2	910	19,890	2,909	24	530	6.3	560	1100	18	3.7	0.75	0.02	0.6	42.395482 N	71.176092 W	0.1	13.7	312

** sampling conducted in dry weather*

*** Location 6/19 D was a duplicate of WinnB for quality control purposes*

E. coli - color key: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 235 col/100ml, Black < 235 col/100ml
Note 1: MA Water Quality Standard single sample maximum for E. coli in Class B waters is 235 cfu/100ml
Entero - color key: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 61 col/100ml, Black < 61 col/100ml
Note 2: MA Water Quality Standard single sample maximum for enterococcus in inland Class B waters is 61 cfu/100 ml
NH3 - color key: Red ≥ 6 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.0 mg/L
*Surfactants - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L *** may give false positive at salinity greater than 1 ppt*
PPCP color key: Pink = Concentrations greater than background
Cl2 - color key: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L

REPORTING LIMITS
E. coli = 4 MPN/100mL
Enterococcus = 10 MPN/100mL
Surfactants Field = 0.1 mg/L
Ammonia Field = 0.1 mg/L
Chlorine Field = 0.02 mg/L

ND – not detected above the associated detection limit
NA – not applicable (analyte not tested for at that site at this time)
(~) – data reported as estimate

United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NDPES	yy/mm/dd	Inspec ion Type	Inspector	Fac Type
1 N	2	3 MA0410074	11 12 12/06/19	17 18 <	19 R 20

Inspection Type Description: Stormwater - MS4 - Sampling

Remarks: 21 66

Inspec ion Work Days	Facility Self-Monitoring Evaluation Rating	B1	QA	Reserved
67 1.0 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected (For indust ial users discharg ng to POTW also include POTW name and NPDES permit number)

W).
• Wellington Brook culvert located on the west side of Clay Pit Pond, located to the south of Belmont High School, identified as We (42.39355937 N, 71.16679001 W).
• Wellington Brook culvert located along Common Street south of the Belmont Lions Club, identified as Well B2 (42.39548193 N, 71.17609220 W).

Entry Time/Date	Permit Effective Date
8:00AM 6/19/2012	
Exit Time/Date	**Permit Expiration Date**
9:30AM 6/19/2012	

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)
No contact with the Town of Belmont was made during this sampling inspection.

O her Facility Data
Receiving Water: Winn Brook and Wellington Brook

Name, Address of responsible Official/Title/Phone and Fax Number.
Peter J. Castanino
Director of Public Works
Phone: (617) 993-2680

Contacted: [ ] Yes [X] No

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

[ ] Permit	[ ] Self-Monitoring Program	[ ] Pretreatment	[X] MS4
[ ] Records/Reports	[ ] Compliance Schedules	[ ] Pollution Prevention	
[ ] Facility Site Review	[ ] Laboratory	[X] Storm Water	
[X] Effluent/Receiving Waters	[ ] Operations & Maintenance	[ ] Combined Sewer Overflow	
[ ] Flow Measurement	[ ] Sludge Handling/Disposal	[ ] Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

SEV Codes	SEV Description

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Todd Borci	US EPA / EIA / p. (617) 918-1358 / f. (617) 918-1810	6/29/2012
Erin F. Trainor	US EPA / EIA / p. (617) 918-8382 / f. (617) 918-8282	6/29/2012
Signature of Management QA Reviewer	Agency/Office/Phone and Fax Numbers	Date

EPA Region 1
Clean Water Act
Inspection Data Entry Form: 3560EZ

Version 1.02

Inspector:	Andrew Spejewski	Date form completed:	7/31/2015

Section A: Facility Information						
Inspection start date:	8/28/2013	Inspection start time:	9:00am			
Inspection end date (if more than one day):	Choose date	Inspection finish time:	3:30pm			
NPDES ID:	MAR041181	Federal facility?	No			
Name and Location of Facility Inspected:						
Name:	City of Beverly MS4					
Address:	191 Cabot St					
City:	Beverly	State:	MA	ZIP:	01915	
Facility Representative #1:						
Name:	Roland Adams	Title:	GIS Coordinator			
Address (if off-site):	Enter text					
City:	Enter text	State:	Enter text	ZIP:	Enter text	
Phone #:	Enter text	Email:	Enter text			
Facility Representative #2 (if necessary):						
Name:	Enter text	Title:	Enter text			
Address (if off-site):	Enter text					
City:	Enter text	State:	Enter text	ZIP:	Enter text	
Phone #:	Enter text	Email:	Enter text			

Section B: Compliance Monitoring Information	
Clean Water Act Section (choose from only one of the following):	
CWA §308[A][B]: NPDES	Stormwater - MS4
CWA §311: Oil and Hazardous Substances	Choose an item
CWA §404: Permits for Dredge and Fill Material	Choose an item
Compliance Monitoring Type:	Audit - MS4
Compliance Monitoring Reason:	Agency Priority
If Agency Priority, then specify priority(s):	

OECA - CAFO	☐
OECA - CAFO Region Initiative Areas	☐
OECA - CSOs w/ < 50,000 service population	☐
OECA - CSOs w/ >= 50,000 service population	☐
OECA - MS4s Phase I	☐
OECA - MS4s Phase II	☒

OECA - SSOs ≥ 10 MGD and < 100 MGD	☐
Region 1 - Environmental Justice	☐
Region 1 - Green Economy / Green Infrastructure	☐
Region 1 - Industrial Laundries	☐
Region 1 - Lead Poisoning	☐
Region 1 - Municipal Infrastructure	☐
Region 1 - Pollution Prevention & Resource Conservation	☐
Region 1 - Ship / Boat Yards	☐
Region 1 - Wet Weather	☒

Compliance Monitoring Agency Type:	EPA
Was this a Joint Compliance Monitoring Activity?	No
If Joint, which party had the lead?	Choose an item or leave blank if N/A
If State lead, what was the purpose of EPA participation?	Choose an item or leave blank if N/A

Section C: ICDS Information	
Did you observe deficiencies (potential violations) during the inspection?	No
Potential excess emission in violation of regulations:	☐
Potential failure to… … complete or submit a notification, report, certification, or manifest:	☐
… follow a permit condition(s):	☐
… follow a required sample monitoring procedure or laboratory procedure:	☐
… follow or develop a required management practice or procedure:	☐
… identify and manage a regulated waste or pollutant in any media:	☐
… maintain a record or failure to disclose a document:	☐
… maintain/inspect/repair meters, sensors, and recording equipment:	☐
… obtain a permit, product approval, or certification:	☐
… report regulated events such as spills, accidents, etc.:	☐
Potential incorrect use of a material (pesticide, waste, product) or use of an unapproved material:	☐
Potential violation of a compliance schedule in an enforceable order:	☐
If you observed deficiencies, did you communicate the deficiencies to the Facility during the inspection?	No
If yes, did you observe the Facility take any actions during the inspection to address the deficiencies noted?	Choose an item
If yes, what actions were taken?	Choose an item
If the Facility reduced pollution, what pollutant was reduced?	Enter text
Did you provide *general compliance assistance* in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	Yes
Did you provide *site-specific compliance assistance* in accordance with the policy on the role of the EPA inspector in providing compliance assistance during inspections?	No

Comments: Enter text

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Memorandum - Enforcement Confidential

Date: 16 November 2010

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Boston, MA

From: Todd Borci

To: File

On Wednesday, 27 October 2010, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Boston, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4"). EPA collected water quality samples from three stormwater outfalls in southeastern portion of the City.

BWSC stormwater outfall 12L092 (EPA sample ID "Ten1" due to the outfall's proximity to Tenean Beach) was sampled at approximately 0855 hours. EPA observed the outfall to be discharging at low tide and a significant amount of suspended sediment was immediately observed at the outfall. Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, and a Hach total residual chlorine field kit, EPA personnel processed a surface water sample collected at this location. Field kits indicated elevated levels of ammonia (3.0 mg/l) and surfactants (1.5 mg/l) in the sample, above EPA screening thresholds of 0.5 mg/l for ammonia and 0.25 mg/l for surfactants. A slight concentration of chlorine was detected at 0.04 mg/l. EPA notes that the outfall is subject to tidal influence, and the elevated surfactant levels may be due in part to salinity levels in the sample (salinity level was greater than 1 ppt; samples above that level appear to cause elevated readings in the surfactant field kit). Samples were sent back to the EPA laboratory for analyses for enterococcus and E.coli bacteria, optical brighteners, and pharmaceutical compounds.

At 0920 hours, a sample and duplicate sample were collected from BWSC stormwater outfall 10L094 (Davenport Brook). This outfall discharges to the Neponset River, near the Neponset River's outlet to Dorchester Bay/Boston Harbor. EPA observed moderate flow coming from around/beneath two large flood gates at the outlet along Hallet Street. The discharge appeared cloudy with a blue-gray tint and a slight musty odor. Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, and a Hach total residual chlorine field kit, EPA personnel processed a surface water sample collected at this location. Field kits indicated elevated levels of ammonia (3.0 mg/l) and surfactants (0.6 mg/l) in the sample, above EPA screening thresholds of 0.5 mg/l for ammonia and 0.25 mg/l for surfactants. EPA notes that the outfall is subject to tidal

sample (salinity level was greater than 1 ppt; samples above that level appear to cause elevated readings in the surfactant field kit). Samples were sent back to the EPA laboratory for analyses for enterococcus and E.coli bacteria, optical brighteners, and pharmaceutical compounds.

At 0925 hours, EPA sampled an unnamed outfall located approximately 200 feet downstream of outfall 10L094. Running water was heard coming from the east bank of the stream bed, and an approximately 24-inch pipe of unknown material was observed to be discharging to the stream. EPA was unable to access the pipe directly, and collected a sample of the discharge before it comingled with Davenport Brook. Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, and a Hach total residual chlorine field kit, EPA personnel processed a surface water sample collected at this location. Field kits indicated elevated levels of ammonia (3.0 mg/l) and surfactants (1.5 mg/l) in the sample, above EPA screening thresholds of 0.5 mg/l for ammonia and 0.25 mg/l for surfactants. It is unclear whether this outfall is subject to tidal influence, and the elevated surfactant levels may be due in part to salinity levels in the sample (salinity level was greater than 1 ppt; samples above that level appear to cause elevated readings in the surfactant field kit). Samples were sent back to the EPA laboratory for analyses for enterococcus and E.coli bacteria, optical brighteners, and pharmaceutical compounds.

Once received, the analytical data for this sampling effort will be attached to this report.

While the weather was damp during the time of inspection, the inspection technically occurred during dry weather, as according to the National Oceanic and Atmospheric Administration less than 0.1 inches of precipitation was measured in the 24-hour period prior to sampling and less than 0.2 inches precipitation was measured in the 48-hour period prior to sampling.

EPA has been and will continue to be in contact with BWSC and MassDEP as follow-up.

Photo 1: 10/27/10 View facing west of "Ten1" sample location (BWSC outfall 12L092). Note high level of suspended solids in the discharge.

Photo 2: 10/2710 View facing northwest of BWSC outfall 10L094. Flow was discharging from around flood gates on both sides of the outfall, sample was collected from in front of southern (left) gate.

Photo 3: 10.27.10 View of unnamed outfall on north bank of Davenport Brook. Pipe is visible in top center of photo.

Photo 4: 10.27.10 View facing northwest of outfall 10L094 in distance and discharge

point for unnamed outfall (“10L094a”) at center right of photo.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 23 June 2009

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Boston, MA

From: Todd Borci

To: File

On Tuesday, 09 June 2009, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Boston, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4") Cantebury Brook outfall at the intersection of Harvard Street and Hansborough Street in Boston, MA.

EPA located the outfall just west of the intersection of Harvard Street and Hansborough Street at approximately 1100 hours on Tuesday, 9 June 2009. The EPA Inspector observed a large culvert emerging from beneath Harvard Street with moderate (10 to 20 gallons per minute) flow of surface water coming from the outfall. A strong smell of sewage was immediately noticed. In addition, surface waters had slight gray turbidity and the stream bank was covered in gray filamentous bacteria, a common indicator of sewage. Surface water samples were collected for following parameters: bacteria (e. coli and enterococcus); ammonia; surfactants; total and free chlorine; potassium; and fluoride. EPA collected an additional grab sample for field processing of surfactants, ammonia, and free and total chlorine. Some sanitary sewage floatable debris, including a condom, was observed in the stream and along the stream bank. Based on the visual and olfactory observations, and the inspector's experience at similar sites, the outfall was discharging surface water mixed with sewage.

Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, EPA personnel processed surface water samples collected at the location. Both field kits indicated elevated levels of ammonia (6.0 mg/l) and surfactants (1.5 mg/l) in the sample location identified as "CantB". EPA personnel typically use 0.5 mg/l ammonia and 0.25 mg/l surfactants as threshold level screening concentrations, where locations with sample results equal to or greater than these concentrations may be indicative of illicit discharges.

Once received, the analytical data for this sampling effort will be attached to this report.

The inspection occurred during dry weather, as according to the National Oceanic and Atmospheric Administration the last measurable precipitation was a trace on 7 June 2009. Light rain was falling at the time of the inspection, and what appeared to be a "first flush" of pollen and an increase in stream flow (nearly double) was observed to occur approximately 40 minutes after

Inspection ended at 1230. EPA has been and will continue to be in contact with BWSC and MassDEP as follow-up.

Photo 1: 6/9/09 11:30 AM View facing east of Cantebury Brook outfall. Note cloudy gray/blue color to stream.

Photo 2: 6/9/09 11:40 AM. View of sample location "CantB" just downstream from outfall. Note gray filamentous bacteria along stream bottom and condom along bottom stream bank.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Memorandum - Enforcement Confidential

Date: 16 November 2010

Subj: NPDES Compliance Sampling Inspection
Municipal Separate Storm Sewer System (MS4)
City of Boston, MA

From: Todd Borci

To: File

On Wednesday, 27 October 2010, EPA inspector Todd Borci conducted an unannounced Compliance Sampling Inspection (CSI) of the City of Boston, Massachusetts's (the "City") Municipal Separate Storm Sewer System ("MS4"). EPA collected water quality samples from three stormwater outfalls in southeastern portion of the City.

BWSC stormwater outfall 12L092 (EPA sample ID "Ten1" due to the outfall's proximity to Tenean Beach) was sampled at approximately 0855 hours. EPA observed the outfall to be discharging at low tide and a significant amount of suspended sediment was immediately observed at the outfall. Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, and a Hach total residual chlorine field kit, EPA personnel processed a surface water sample collected at this location. Field kits indicated elevated levels of ammonia (3.0 mg/l) and surfactants (1.5 mg/l) in the sample, above EPA screening thresholds of 0.5 mg/l for ammonia and 0.25 mg/l for surfactants. A slight concentration of chlorine was detected at 0.04 mg/l. EPA notes that the outfall is subject to tidal influence, and the elevated surfactant levels may be due in part to salinity levels in the sample (salinity level was greater than 1 ppt; samples above that level appear to cause elevated readings in the surfactant field kit). Samples were sent back to the EPA laboratory for analyses for enterococcus and E.coli bacteria, optical brighteners, and pharmaceutical compounds.

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At 0925 hours, EPA sampled an unnamed outfall located approximately 200 feet downstream of outfall 10L094. Running water was heard coming from the east bank of the stream bed, and an approximately 24-inch pipe of unknown material was observed to be discharging to the stream. EPA was unable to access the pipe directly, and collected a sample of the discharge before it comingled with Davenport Brook. Using Hach brand test strips for ammonia and a Chemetrics K-9400 field kit for surfactants, and a Hach total residual chlorine field kit, EPA personnel processed a surface water sample collected at this location. Field kits indicated elevated levels of ammonia (3.0 mg/l) and surfactants (1.5 mg/l) in the sample, above EPA screening thresholds of 0.5 mg/l for ammonia and 0.25 mg/l for surfactants. It is unclear whether this outfall is subject to tidal influence, and the elevated surfactant levels may be due in part to salinity levels in the sample (salinity level was greater than 1 ppt; samples above that level appear to cause elevated readings in the surfactant field kit). Samples were sent back to the EPA laboratory for analyses for enterococcus and E.coli bacteria, optical brighteners, and pharmaceutical compounds.

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EPA has been and will continue to be in contact with BWSC and MassDEP as follow-up.

Photo 1: 10/27/10 View facing west of "Ten1" sample location (BWSC outfall 12L092). Note high level of suspended solids in the discharge.

Photo 2: 10/2710 View facing northwest of BWSC outfall 10L094. Flow was discharging from around flood gates on both sides of the outfall, sample was collected from in front of southern (left) gate.

Photo 3: 10.27.10 View of unnamed outfall on north bank of Davenport Brook. Pipe is visible in top center of photo.

Photo 4: 10.27.10 View facing northwest of outfall 10L094 in distance and discharge

point for unnamed outfall (“10L094a”) at center right of photo.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 1
One Congress Street, Suite 1100
Boston, MA 02114-2023

Memorandum - Enforcement Confidential

Date: 19 November 2009

Subj: NPDES Inspection
Municipal Separate Storm Sewer System (MS4)
Town of Brookline, MA

From: Todd Borci

To: File

On Tuesday, 17 November 2009, EPA inspector Todd Borci conducted an announced Inspection of the Town of Brookline, Massachusetts's (the "Town") Municipal Separate Storm Sewer System ("MS4"). The Inspection covered both a review of the Town's MS4 permit compliance and field inspection of selected points in the system.

EPA met with Jay Hersey, an Engineer for the Town, who has been leading the Town's illicit discharge, detection, and elimination ("IDDE") efforts since EPA had issued an Administrative Order ("AO") to the Town in the fall of 2004. For background, as a result of the AO, the Town produced an IDDE plan that was reviewed and approved by EPA. After the Town began implementing the plan and had demonstrated significant progress, the Town requested and EPA approved that the AO was rescinded and the IDDE Plan was incorporated into the Town's MS4 permit.

EPA's discussion with Mr. Hersey covered the Town's Stormwater Management Plan and the Town's efforts to comply with the MS4 permit, as modified by inclusion of the IDDE Plan. The Town has expended significant effort since the 2004 AO, and as of the 11th Compliance Report submitted by the Town to EPA on October 13, 2009, the Town has identified and removed 42 illicit connections (ranging from single plumbing fixtures to large apartment buildings), and has eliminated an estimated 10,149 gallons per day of sewage from the MS4.

Other topic areas discussed included EPA providing guidance on the use of test kits for ammonia and surfactants during the Town's IDDE work, discussion of underdrains and their potential link to elevated bacterial concentrations, reinforcing the need for SSO reporting to MassDEP and EPA (although no known SSOs have occurred in Town for some time now), catch basin cleaning procedures, and specific IDDE progress in several areas.

EPA then accompanied Mr. Hersey on a field inspection of several randomly chosen locations. Most locations were upstream of the BOS 132 (Boston University) and BOS 035 (Salt/Smelt Brook) outfalls, which had historically discharged elevated bacterial concentrations to the Charles River. No obvious visual, olfactory, or other indications of illicit connections or contaminated flow were observed.

Several large apartment buildings are scheduled to be dye tested and overall work continues. The Town believes additional illicit connections exist and is working to identify them. The Town will continue to report progress to EPA.