

*"Environmental & Energy Solutions, Inc.
is now Ardent Group, Inc."*

July 09, 2021

Mr. Paul Costello
Ginivan Group, LLC
17 Summer Path Way
Pembroke, MA 02359

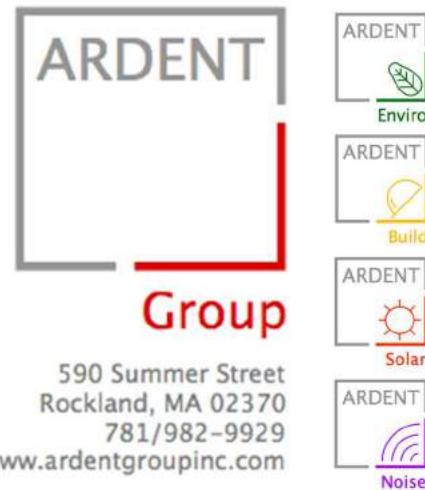
RE: Town of Medfield
National Pollutant Discharge Elimination System (NPDES)
FY2021 MS4 Compliance Assistance
Ardent File ECLP-1382

Mr. Costello:

Ardent Group, Inc. (**Ardent**) is pleased to present this summary of Town of Medfield Outfall Sampling Activities. Dry weather screening and sampling was conducted at a selection of outfalls and manways. The dry weather screening consisted of a series of qualitative field observations along with field and/or lab analysis of selected water quality parameters where outfalls were discharging during dry weather.

Outfall sampling was completed on June 11, 2021. Weather was sunny and dry with temperatures around 70 degrees Fahrenheit. **Ardent** was accompanied by Mr. Joe Gorman, Town of Medfield Department of Public Works, during the sampling event.

A review of Table 1 reveals that a total of three outfalls and 4 manways were inspected. One of the outfalls was found to be dry and therefore could not be sampled. Physical parameters were measured using a YSI Meter meter and a Hach flow meter. Samples collected were analyzed for Total Suspended Solids, E.coli, Coliform, Enterococci, Ammonia, Chlorine, Phosphorous, Surfactants, and Salinity.



590 Summer Street

Rockland, MA 02370

781/982-9929

www.ardentgroupinc.com

TABLE 1 – June 2021 Outfall Field Screening

SCREEN	OF-414	OF-280	DMH-407	DMH-411
pH	7.50	6.96	7.17	6.96
Temperature (°C)	17.96	17.45	16.34	14.93
Specific Conductance (uS/cm)	352	259	949	812
Dissolved Oxygen (%)	83.1	52.5	98.1	88.7
Dissolved Oxygen (mg/L)	7.86	5*	9.59	8.92
Turbidity (NTU)	3.48	0.0	2.85	2.12
Flow (ft./sec.)	0.24	0.06	DNR	0.07
Analysis	Yes	Yes	Yes	Yes
Notes	-2" depth, clear of sediment	-6" depth, clear of sediment -DO mg/L value approximated due to error in field recording	-1" depth -Not deep enough to collect flow measurement	-3" depth, clear of sediment

TABLE 1 – June 2021 Outfall Field Screening continued

SCREEN	DMH-262	OF-209	DMH-781
pH	6.81	Dry	6.35
Temperature (°C)	16.36	Dry	10.52
Specific Conductance (uS/cm)	559	Dry	214
Dissolved Oxygen (%)	86.2	Dry	78.6
Dissolved Oxygen (mg/L)	8.43	Dry	8.71
Turbidity (NTU)	1.60	Dry	0.0
Flow (ft./sec.)	0.05		DNR
Analysis	Yes	No	Yes
Notes	-6" depth, some sediment present -Algal mass present	Dry	-1.5" depth -Not deep enough to collect flow measurement

Attached hereto find the following documentation:

- ° Sample Log
- ° Laboratory Certificates of Analyses
- ° Photos

Thank you for the opportunity to be of service in this matter. If you have any questions, please feel free to contact the firm.

Sincerely,

Ardent Group, Inc.

APPENDIX A – SAMPLE LOG

ARDENT GROUP, INC.

SAMPLING LOG

PROJECT:

Project: ECLP-1382 TOWN OF MEDFIELD

Page: 1 of 1

Methodology: IDDE

Ardent Personnel: BXT, PFC

Exploration Date: 06/11/21

Precipitation: None

Sub Contractor: None

Temperature (F): 70

Equipment: Sampling

Sun: Sunny

Snow Cover: None

Run Off: None

Last Rain: 06/07

WATER QUALITY:

Outfall ID:	OF-414	OF-280	DMH-407	DMH-411	DMH-262	OF-209	DMH-781
pH:	7.50	6.96	7.17	6.96	6.81		6.35
Temperature (°C):	17.96	17.45	16.34	14.93	16.36		10.52
Conductance (us/cm):	352	259	949	812	559		214
DO (%):	83.1	52.5	98.1	88.7	86.2		78.6
DO (mg/L):	7.86	52.5	9.59	8.92	8.43		8.71
Turbidity (NTU):	3.48	0.0	2.85	2.12	1.60		0.0
feet/sec. Flow:	0.24	0.06	DNR*	0.07	0.05		DNR*
Salinity (ppt):	Laboratory	Laboratory	Laboratory	Laboratory	Laboratory		Laboratory
Analyses:	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl				
Notes:	-2" depth pipe clear at Sediment	6" depth - clear at salinity	≥ 1" depth	~ 3" depth - no sediment	~ 6" depth - some sediment - bio-mass present		~ 1.5" depth

WATER QUALITY:

Outfall ID:							
pH:							
Temperature (°C):							
Conductance (us/cm):							
DO (%):							
DO (mg/L):							
Turbidity (NTU):							
Flow:							
Salinity (ppt):							
Analyses:	TSS, P, NH3, Bacteria*, Surfactants, Cl	TSS, P, NH3, Bacteria*, Surfactants, Cl					
Notes:							

NOTES:

* Sampling equipment includes: Lutron TU 2016 Turbidity Meter, Long-reach sampler w/ dedicated bottle, YSI Meter

* Bacteria testing includes Total coliform, E. Coli, Fecal Coliform, Enterococci

* - Too shallow to measure

02-10

APPENDIX B – CERTIFICATE OF ANALYSIS



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

June 23, 2021

Brent Tardiff
Environmental & Energy Solutions, Inc.
22 Industrial Boulevard, Suite F
Hanson, MA 02341

Project Location: Town of Medfield
Client Job Number:
Project Number: ECLP-1118
Laboratory Work Order Number: 21F0708

Enclosed are results of analyses for samples received by the laboratory on June 11, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Raymond J. McCarthy". The signature is fluid and cursive, with "Raymond J." on the top line and "McCarthy" on the bottom line.

Raymond J. McCarthy
Project Manager

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Environmental & Energy Solutions, Inc.
22 Industrial Boulevard, Suite F
Hanson, MA 02341
ATTN: Brent Tardiff

REPORT DATE: 6/23/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: ECLP-1118

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21F0708

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Town of Medfield

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
OF-414	21F0708-01	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301 MA M-RI010/CT PH-0740/NY11673/+ Additional
OF-280	21F0708-02	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301 MA M-RI010/CT PH-0740/NY11673/+ Additional
DMH-407	21F0708-03	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301 MA M-RI010/CT PH-0740/NY11673/+ Additional



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Environmental & Energy Solutions, Inc.
22 Industrial Boulevard, Suite F
Hanson, MA 02341
ATTN: Brent Tardiff

REPORT DATE: 6/23/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER: ECLP-1118

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 21F0708

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Town of Medfield

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
DMH-411	21F0708-04	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301 MA M-RI010/CT PH-0740/NY11673/+ Additional
DMH-262	21F0708-05	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301 MA M-RI010/CT PH-0740/NY11673/+ Additional
DMH-781	21F0708-06	Waste Water		ENTEROLERT SM 21-22 4500 P E SM 5540C SM 9223B - COLILERT SM19-22 4500 NH3 C SM21-22 2540D SM21-22 4500 CL G SM2520B	MA M-CT007/CT PH-0618/NY11301 MA M-RI010/CT PH-0740/NY11673/+ Additional



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CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink that reads "Lisa A. Worthington".

Lisa A. Worthington
Technical Representative

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Field Sample #: OF-414

Sampled: 6/11/2021 10:00

Sample ID: 21F0708-01

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	6.3	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	550	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	0.14	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:31	EC
Total Suspended Solids	4.4	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	1.0	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Absent	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:00

Field Sample #: OF-414

Sample ID: 21F0708-01

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Field Sample #: OF-414

Sampled: 6/11/2021 10:00

Sample ID: 21F0708-01

Sample Matrix: Waste Water

SM5540 C-11

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:31	PEL

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Field Sample #: OF-280

Sampled: 6/11/2021 10:15

Sample ID: 21F0708-02Sample Matrix: Waste Water**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.53	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	3.1	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	670	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:33	EC
Total Suspended Solids	ND	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	6.3	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Absent	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:15

Field Sample #: OF-280**Sample ID:** 21F0708-02Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Field Sample #: OF-280

Sampled: 6/11/2021 10:15

Sample ID: 21F0708-02

Sample Matrix: Waste Water

SM5540 C-11

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:32	PEL

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:40

Field Sample #: DMH-407**Sample ID:** 21F0708-03Sample Matrix: Waste Water**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	66	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	1000	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:35	EC
Total Suspended Solids	1.2	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	30	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Present	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:40

Field Sample #: DMH-407

Sample ID: 21F0708-03

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 10:40

Field Sample #: DMH-407

Sample ID: 21F0708-03

Sample Matrix: Waste Water

SM5540 C-11

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:33	PEL

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:15

Field Sample #: DMH-411**Sample ID:** 21F0708-04Sample Matrix: Waste Water**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	60	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	1000	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:37	EC
Total Suspended Solids	5.6	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	2.0	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Present	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:15

Field Sample #: DMH-411

Sample ID: 21F0708-04

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:15

Field Sample #: DMH-411

Sample ID: 21F0708-04

Sample Matrix: Waste Water

SM5540 C-11

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:34	PEL

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:40

Field Sample #: DMH-262**Sample ID:** 21F0708-05Sample Matrix: Waste Water**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	50	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	1000	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	0.092	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:39	EC
Total Suspended Solids	6.4	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
E. Coli	21	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Enterococci	Present	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:40

Field Sample #: DMH-262

Sample ID: 21F0708-05

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 11:40

Field Sample #: DMH-262

Sample ID: 21F0708-05

Sample Matrix: Waste Water

SM5540 C-11

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:34	PEL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 12:15

Field Sample #: DMH-781**Sample ID:** 21F0708-06Sample Matrix: Waste Water**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)**

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/15/21	6/15/21 14:44	IS
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/11/21	6/11/21 22:20	DJM
Coliform, Fecal	ND	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:45	CB2
Coliform, Total	ND	1.0	MPN/100 mL	1		SM 9223B - COLILERT	6/11/21	6/11/21 17:55	CB2
Phosphorus, Total	ND	0.050	mg/L	1		SM 21-22 4500 P E	6/14/21	6/15/21 13:41	EC
Total Suspended Solids	1.0	1.0	mg/L	1		SM21-22 2540D	6/14/21	6/14/21 12:00	LL
Enterococci	Absent	1.0	present/absent	1		ENTEROLERT	6/11/21	6/11/21 17:15	CB2

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 12:15

Field Sample #: DMH-781

Sample ID: 21F0708-06

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Salinity	ND	0.1	ppt	1		SM2520B		6/23/21 0:00	NET

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Project Location: Town of Medfield

Sample Description:

Work Order: 21F0708

Date Received: 6/11/2021

Sampled: 6/11/2021 12:15

Field Sample #: DMH-781

Sample ID: 21F0708-06

Sample Matrix: Waste Water

SM5540 C-11

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
MBAS	< 0.05	0.05	mg/L	1		SM5540 C-11	6/11/21	6/11/21 22:35	PEL

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Sample Extraction Data

ENTEROLERT

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283851	100	100	06/11/21
21F0708-02 [OF-280]	B283851	100	100	06/11/21
21F0708-03 [DMH-407]	B283851	100	100	06/11/21
21F0708-04 [DMH-411]	B283851	100	100	06/11/21
21F0708-05 [DMH-262]	B283851	100	100	06/11/21
21F0708-06 [DMH-781]	B283851	100	100	06/11/21

SM 21-22 4500 P E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283936	50.0	50.0	06/14/21
21F0708-02 [OF-280]	B283936	50.0	50.0	06/14/21
21F0708-03 [DMH-407]	B283936	50.0	50.0	06/14/21
21F0708-04 [DMH-411]	B283936	50.0	50.0	06/14/21
21F0708-05 [DMH-262]	B283936	50.0	50.0	06/14/21
21F0708-06 [DMH-781]	B283936	50.0	50.0	06/14/21

SM 9223B - COLILERT

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283852	100	100	06/11/21
21F0708-02 [OF-280]	B283852	100	100	06/11/21
21F0708-03 [DMH-407]	B283852	100	100	06/11/21
21F0708-04 [DMH-411]	B283852	100	100	06/11/21
21F0708-05 [DMH-262]	B283852	100	100	06/11/21
21F0708-06 [DMH-781]	B283852	100	100	06/11/21

SM 9223B - COLILERT

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283853	100	100	06/11/21
21F0708-02 [OF-280]	B283853	100	100	06/11/21
21F0708-03 [DMH-407]	B283853	100	100	06/11/21
21F0708-04 [DMH-411]	B283853	100	100	06/11/21
21F0708-05 [DMH-262]	B283853	100	100	06/11/21
21F0708-06 [DMH-781]	B283853	100	100	06/11/21

SM19-22 4500 NH3 C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283999	100	100	06/15/21
21F0708-02 [OF-280]	B283999	100	100	06/15/21
21F0708-03 [DMH-407]	B283999	100	100	06/15/21
21F0708-04 [DMH-411]	B283999	100	100	06/15/21
21F0708-05 [DMH-262]	B283999	100	100	06/15/21
21F0708-06 [DMH-781]	B283999	100	100	06/15/21

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Sample Extraction Data
SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date
21F0708-01 [OF-414]	B283888	500	06/14/21
21F0708-02 [OF-280]	B283888	500	06/14/21
21F0708-03 [DMH-407]	B283888	500	06/14/21
21F0708-04 [DMH-411]	B283888	500	06/14/21
21F0708-05 [DMH-262]	B283888	500	06/14/21
21F0708-06 [DMH-781]	B283888	500	06/14/21

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
21F0708-01 [OF-414]	B283866	100	100	06/11/21
21F0708-02 [OF-280]	B283866	100	100	06/11/21
21F0708-03 [DMH-407]	B283866	100	100	06/11/21
21F0708-04 [DMH-411]	B283866	100	100	06/11/21
21F0708-05 [DMH-262]	B283866	100	100	06/11/21
21F0708-06 [DMH-781]	B283866	100	100	06/11/21

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch B283851 - ENTEROLERT

Blank (B283851-BLK1)	Prepared & Analyzed: 06/11/21										
Enterococci	Absent	1.0 present/absent									

Batch B283852 - SM 9223B - COLILERT

Blank (B283852-BLK1)	Prepared & Analyzed: 06/11/21										
Coliform, Total	ND	1.0 MPN/100 mL									

Batch B283853 - SM 9223B - COLILERT

Blank (B283853-BLK1)	Prepared & Analyzed: 06/11/21										
Coliform, Fecal	ND	1.0 MPN/100 mL									

Batch B283866 - SM21-22 4500 CL G

Blank (B283866-BLK1)	Prepared & Analyzed: 06/11/21												
Chlorine, Residual	ND	0.020	mg/L										

LCS (B283866-BS1)	Prepared & Analyzed: 06/11/21													
Chlorine, Residual	0.74	0.020	mg/L	0.663	111 80.3-122									

LCS Dup (B283866-BSD1)	Prepared & Analyzed: 06/11/21													
Chlorine, Residual	0.75	0.020	mg/L	0.663	113 80.3-122 1.61 10.7									

Duplicate (B283866-DUP1)	Source: 21F0708-06	Prepared & Analyzed: 06/11/21											
Chlorine, Residual	ND	0.020	mg/L	ND NC 27.6									

Matrix Spike (B283866-MS1)	Source: 21F0708-06	Prepared & Analyzed: 06/11/21														
Chlorine, Residual	0.32	0.020	mg/L	0.300	ND	106	10-169									

Batch B283888 - SM21-22 2540D

Blank (B283888-BLK1)	Prepared & Analyzed: 06/14/21												
Total Suspended Solids	ND	2.5	mg/L										

LCS (B283888-BS1)	Prepared & Analyzed: 06/14/21													
Total Suspended Solids	208	5.0	mg/L	200	104 53.8-124									

Batch B283936 - SM 21-22 4500 P E

Blank (B283936-BLK1)	Prepared: 06/14/21 Analyzed: 06/15/21												
Phosphorus, Total	ND	0.050	mg/L										

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QUALITY CONTROL**Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
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Batch B283936 - SM 21-22 4500 P E

LCS (B283936-BS1)	Prepared: 06/14/21 Analyzed: 06/15/21							
Phosphorus, Total	0.18	0.050	mg/L	0.167	107	76.5-122		
LCS Dup (B283936-BSD1)	Prepared: 06/14/21 Analyzed: 06/15/21							
Phosphorus, Total	0.18	0.050	mg/L	0.167	110	76.5-122	1.90	12.6

Batch B283999 - SM19-22 4500 NH3 C

Blank (B283999-BLK1)	Prepared & Analyzed: 06/15/21							
Ammonia as N	ND	0.30	mg/L					
LCS (B283999-BS1)	Prepared & Analyzed: 06/15/21							
Ammonia as N	5.3	0.30	mg/L	5.00	106	86.2-110		
LCS Dup (B283999-BSD1)	Prepared & Analyzed: 06/15/21							
Ammonia as N	5.0	0.30	mg/L	5.00	101	86.2-110	5.21	10
Duplicate (B283999-DUP2)	Source: 21F0708-06			Prepared & Analyzed: 06/15/21				
Ammonia as N	ND	0.30	mg/L		ND		NC	26.7
Matrix Spike (B283999-MS2)	Source: 21F0708-06			Prepared & Analyzed: 06/15/21				
Ammonia as N	1.9	0.30	mg/L	2.00	ND	93.0	56.2-136	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM 21-22 4500 P E in Water	
Phosphorus, Total	CT,MA,NH,NY,RI,NC,ME,VA
SM 9223B - COLILERT in Water	
Coliform, Fecal	MA,CT,RI,ME
E. Coli	MA,CT,RI
SM19-22 4500 NH3 C in Water	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
SM21-22 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-22 4500 CL G in Water	
Chlorine, Residual	CT,MA,RI,ME

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Public Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2022
FL	Florida Department of Health	E871027 NELAP	06/30/2022
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2022
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Acha Group, Inc.
10 Town of Medfield

Billing Information:

Address: 590 Summer St. Boston, MA 02130
Report To: e.ardiff@AchaGroupInc.com
Copy To:

Email To:

Site Collection Info/Address:
Town of Medfield, various

Customer Project Name/Number:

Ecu-1382

Site/Facility ID #:

Phone:

Email:

Collected By (print):

Purchase Order #:

Quote #:

Collected By (Signature):

Turnaround Date Required:

Rush:

Same Day

3 Day

4 Day

5 Day

(Expedite Charges Apply)

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OI), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID

Matrix *

Comp /

Collected (or

Composite Start)

Date

Time

Date

Time

Res

of

Ctns

OF-414 WW G 06/11 10:00 10:15 10:40 11:15 11:40 12:15

OF-280

DMH-407

DMH-411

DMH-262

DMH-781

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used:

Blue

Dry

None

Packing Material Used:

Rattchen sample(s) screened (<500 ppm):

Y

N

NA

Samples received via

FEDEX

UPS

Client

Counter

Date Counter

Comments:

MTL LAB USE ONLY

Table #:

Acetamin.

Template:

Prelein.

PM:

PB:

YES / NO

of:

Page:

of:

Page:

of:

Customer Project Name/Number:

Ecu-1382

Date/Time:

06/11/12

10:00

Received by/Company: (Signature)

John

Date/Time:

06/11/12

14:30

Received by/Company: (Signature)

John

Date/Time:

06/11/12

15:30

Received by/Company: (Signature)

John

Date/Time:

06/11/12

16:30

Received by/Company: (Signature)

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Date/Time:

06/11/12

17:00

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Date/Time:

06/11/12

38:30

Received by/Company: (Signature)

John

Date/Time:

06/11/12

39:00

Received by/Company: (Signature)

John

Date/Time:

06/11/12

39:30

Received by/Company: (Signature)

John

Date/Time:

APPENDIX C – PHOTOGRAPHS



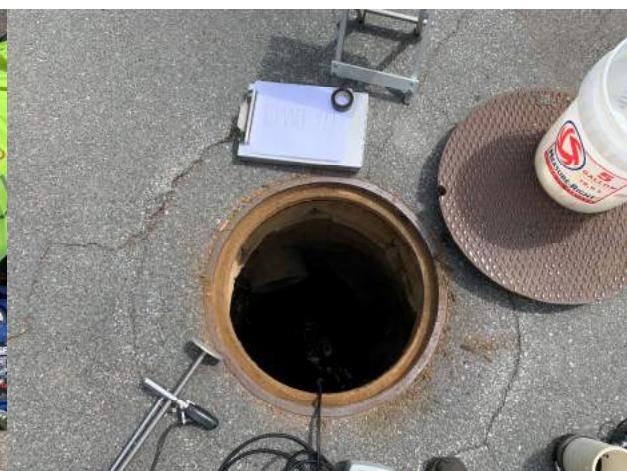
OF-414



OF-280



DMH-407



DMH-414



DMH-262



DMH-781