OMEGA ENVIRONMENTAL SERVICES, INC

Date: 9/15/2020

To: Mitchell Gayer

From: David Ekstrand
Kadeem Hill
Veronica Kero, CIH, P.E.

Re: (NJIT NEWARK CAMPUS WASTEWATER DISCHARGE SARS-CoV-2 SAMPLING &PCR ANALYSIS) WEEKLY DATA SUMMARY FOR 9/08-9/10/2020 {Omega Project #: 20-1177}

Attachment(s):

- *Prestige EnviroMicrobiology Laboratory Analysis Reports for samples collected 9/08-9/10/2020*

Project Overview:

In order to proactively predict potential escalation of COVID-19 cases in occupied campus dormitory buildings, 24-hour composite wastewater (WW) discharge sampling is being performed, followed by 3rd party laboratory analysis in accordance with the published method cited on the attached laboratory analysis report using the approved CDC EUA Kit.

Weekly Data Summary:

WW Discharge Sampling Location	24-hr Sampling Date Range	2019-nCoV (N1 Protein)	Cycle Threshold Value[3] (N1 Protein)	2019-nCoV (N2 Protein)	Cycle Threshold Value[3] (N2 Protein)
Oak 3 – Oak Building	9/08-9/09/2020	ND	ND	ND	ND
Laurel M3 – Laurel Main	9/08-9/09/2020	ND	ND	ND	ND
Cypress 2 – Cypress Building	9/08-9/09/2020	ND	ND	ND	ND
Greek-3 – Greek House Manhole	9/09-9/10/2020	ND	ND	ND	ND
Redwood-1 - Redwood	9/09-9/10/2020	ND	ND	ND	ND

Data Interpretation:

The NJ published COVID-19 infection rate was <2%, this data set reflects a full occupancy baseline with one reported outbreak. If order-of-magnitude other variations are reported in upcoming weeks, the data set will be analyzed for relative week-to-week infection outbreak risk.

Prestige EnviroMicrobiology, Inc.

Analytical Test Report

Client: Omega Environmental Services, Inc., 280 Huyler Street, South Hackensack, NJ 07606

Client Project/Name: 20-1177

Sample date: NA

Submittal date: 9-9-2020

Sample received: 9-10-2020

Samples submitted by: David Ekstrand

Date analysis completed: September 14, 2020

Prestige Report number: 200910-02

RT-PCR 2019-nCoV: Analysis of Water samples for the detection of SARS-CoV-2 Genetic Markers

Prestige # Client sample ID Location	2019-nCoV (N1 Protein)	Cycle Threshold (Ct) Value[3] (N1 Protein)	2019-nCoV (N2 Protein)	Cycle Threshold Value[3] (N2 Protein)	Result
200910-02-014 Oak 3 Oak BLDG	ND	ND	ND	ND	Negative
200910-02-015 Laurel M3 Laurel Main	ND	ND	ND	ND	Negative
200910-02-016 Cypress 2 Cypress BLDG	ND	ND	ND	ND	Negative

Report approved: Theresa Lehman

Theresa Lehman, MPH, Lab Director

Technical Manager:

Chin S Yang, Ph.D.

Analyst: Ching-Yi Tsai, Ph.D.

1. The samples in this report were received in good, acceptable conditions. Results relate only to the items tested.
2. Wastewater samples are processed following the protocol described in the article: Ahmed, W., et al. 2020. First confirmed detection of SARS-CoV-2 in untreated wastewater in Australia: A proof of concept for the wastewater surveillance of COVID-19 in the community. Science of the Total Environment 728. https://doi.org/10.1016/j.scitotenv.2020.138764
3. The primers and probes in 2019-nCoV CDC EUA Kit are designed for the detection of the two SARS-CoV-2 genes that encode for the N1 and N2 proteins. The kit is manufactured and supplied by Integrated DNA Technologies and approved by the U.S. Centers for Disease Control and Prevention (CDC). Three controls, two positive controls for N proteins and one internal control for the RNA extraction process, are simultaneously run with the samples.
4. Cycle Threshold Value refers to the number of cycles required for the fluorescent signal to cross the detectable threshold in Reverse Transcriptase Polymerase Chain Reaction (RT-PCR); a lower cycle threshold value indicates a higher viral load.
5. ND = not detected, no genetic marker is detected within 40 PCR cycles. The detection limit is 10 copies/reaction.

Prestige EnviroMicrobiology, Inc.

Analytical Test Report

Client: Omega Environmental Services, Inc., 280 Huyler Street, South Hackensack, NJ 07606

Client Project/Name: 20-1177

Sample date: 9-9-2020 & 9-10-2020

Submittal date: 9-10-2020

Sample received: 9-11-2020

Samples submitted by: David Ekstrand

Date analysis completed: September 14, 2020

Prestige Report number: 200911-03

RT-PCR 2019-nCoV: Analysis of Water samples for the detection of SARS-CoV-2 Genetic Markers

Prestige # Client sample ID Location	2019-nCoV (N1 Protein)	Cycle Threshold (Ct) Value[3] (N1 Protein)	2019-nCoV (N2 Protein)	Cycle Threshold Value[3] (N2 Protein)	Result
200911-03-010 Greek-3 Greek House Manhole	ND	ND	ND	ND	Negative
200911-03-011 Redwood-1 Redwood	ND	ND	ND	ND	Negative

Report approved: Theresa Lehman
Theresa Lehman, MPH, Lab Director

Technical Manager:
Chin S Yang, Ph.D.

Analyst: Ching-Yi Tsai, Ph.D.

1. The samples in this report were received in good, acceptable conditions. Results relate only to the items tested.
2. Wastewater samples are processed following the protocol described in the article: Ahmed, W., et al. 2020. First confirmed detection of SARS-CoV-2 in untreated wastewater in Australia: A proof of concept for the wastewater surveillance of COVID-19 in the community. Science of the Total Environment 728. https://doi.org/10.1016/j.scitotenv.2020.138764
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4. Cycle Threshold Value refers to the number of cycles required for the fluorescent signal to cross the detectable threshold in Reverse Transcriptase Polymerase Chain Reaction (RT-PCR); a lower cycle threshold value indicates a higher viral load.
5. ND = not detected, no genetic marker is detected within 40 PCR cycles. The detection limit is 10 copies/reaction.

Prestige EnviroMicrobiology, Inc. Tel: 856-767-8300 www.Prestige-em.com Prestige Proj.#: 20091002
242 Terrace Boulevard, Suite B-1, Voorhees, New Jersey 08043

Chain-of-Custody and Analysis Request Form

Company Name: Omega Environmental Client Proj. #: **20-1177**

Company Address: 280 Huyler St., S. Hackensack, NJ PO#:

Date Sampled:

Contact Name: David Ekstrand Phone: 201-522-9879 Report E-mail: Davide@omega-env.com/lab@omega-env.com

Sample ID	Location or source	Sample type	Area (inch^2)	Analysis requests code or description	Turnaround time*	Notes or special instructions
OAK 3	OAK BLDG	Water	NA	**PCR for COVID19**	48 hours	FL. 1000g
LAUREL M 3	LAUREL MAIN	Water	NA	**PCR for COVID19**	48 hours	FL 2000g
CYPRESS 2	CYPRESS BLDG	Water	NA	**PCR for COVID19**	48 hours	FL. 1,900g
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	

*Indicate your request, either standard (3 business days), next day, same day or Saturday.

Samples Submitted by: (print) David Ekstrand Samples Submitted by: (sign) D Ekstrand Date submitted: 9/9/20

Received by: (sign & print) Date & time received: 9/10/20 11:20A Delivered by: Fedex, UPS, USPO, in person

Prestige EnviroMicrobiology, Inc. Tel: 856-767-8300 www.Prestige-em.com
242 Terrace Boulevard, Suite B-1, Voorhees, New Jersey 08043

Prestige Proj.#: 200911-03

Chain-of-Custody and Analysis Request Form

Company Name: Omega Environmental

Client Proj. #: **20-1177**

Company Address: 280 Huyler St., S. Hackensack, NJ

PO#:

Date Sampled: 9/9-9/10/2020

Contact Name: David Ekstrand Phone: 201-522-9879 Report E-mail: Davide@omega-env.com/lab@omega-env.com

Sample ID	Location or source	Sample type	Area (inch^2)	Analysis requests code or description	Turnaround time*	Notes or special instructions
Greek-3	Greek House Manhole	Water	NA	**PCR for COVID19**	48 hours	
Redwood-2	Redwood	Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	
		Water	NA	**PCR for COVID19**	48 hours	

*Indicate your request, either standard (3 business days), next day, same day or Saturday.

Samples Submitted by: (print) David Ekstrand / Keri-Dean Scarlett Samples Submitted by: (sign) KScarlett Date submitted: 9/15/2020

Received by: (sign & print) Julie Yang Date & time received: 9/15/20 11:05A Delivered by: Fedex, UPS, USPO, in person