



# POST-DISINFECTION CORONAVIRUS-19 FIELD VERIFICATION TESTING REPORT

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CLIENT: Mitchell Gayer  
NJIT  
333 Martin Luther King Blvd  
Newark, NJ 07102

SITE LOCATION: NJIT  
333 Martin Luther King Blvd  
Newark, NJ 07102

SCOPE OF WORK: COVID-19 Verification Testing

AREAS TESTED: Campus wide

CLIENT CONTACT(S): Mitchell Gayer

SITE EVALUATION CONDUCTED: 10/06/20-10/07/20

DATE OF REPORT: 10/09/2020

REPORT PREPARED BY: Kadeem Hill

REPORT REVIEWED BY: Veronica Kero P.E., CIH

{Omega Project#: 20-1175}

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Executive Summary:

On 10/06/20 and 10/07/20 Omega Environmental Services conducted ATP surface testing and SARS-CoV-2 environmental sampling in Kupfrain Hall, Mechanical Engineering Center (MEC), Faculty Memorial Hall (FMH), Guttenberg Information Technologies Center (GITC), Houten Library, The Campus Center, The Central King Building, Wellness Entertainment Center (WEC), Cullimore Hall, and The Life Science, and Engineering Center (LSEC), of the NJIT campus. The purpose of this testing was to document adequate disinfection and cleaning by the NJIT Building Service staff.

Parameter	Results
<p style="text-align: center;">Adenosine Triphosphate (ATP) Direct Reads: Bioluminescence Meter (Detects Bacteria and Bio-Load)</p>	<ul style="list-style-type: none"> <li>• 9 out of the 221 representative ATP surface samples collected reported elevated ATP levels (4.1% of samples).</li> <li>• 1 out of the 9 surfaces with elevated ATP levels were recleaned by NJIT Building Services and retested. Retest results indicated acceptable levels of ATP on all recleaned surfaces.</li> <li>• Omega Environmental Services collected SARS-CoV-2 surface samples on the 8 surfaces, with elevated ATP levels that were not recleaned by NJIT Building Services.</li> <li>• In the Wellness Entertainment Center, the average pre-cleaning ATP concentration was 143 RLU, with 20% of samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 96 RLU, with a 33% decrease in ATP concentrations. 1 post-cleaning sample resulted in elevated levels of ATP but was recleaned and resulted in acceptable ATP levels. It should be noted, only surfaces with elevated or critical pre-cleaning ATP concentrations were tested post-cleaning.</li> </ul>
<p style="text-align: center;">Coronavirus-19 PCR Swab</p>	<ul style="list-style-type: none"> <li>• Laboratory results indicate all the SARS-Cov-2 samples collected on 10/06/20 and 10/07/20 were negative</li> </ul>

### **Bio-Load and COVID-19 Field Sampling & Analysis Protocol:**

While a COVID-19 PCR DNA sequencing field testing method has become available, pre-screen methods that apply to overall bacteria cleaning are being employed to more efficiently clear areas and reduce testing costs.

- **REAL-TIME FIELD SCREEN USING ATP DIRECT-READ BIO-LUMINESCENCE METER AND WHITE CLOTH TESTS:** Omega field IH to inspect the room and collect ATP swabs on all component basis to assess overall cleaning thoroughness. If there are ATP swab results statistically above “typical background,” re-cleaning of the room will be requested followed by repeat ATP testing before proceeding with further testing.
- **COVID-19 PCR DNA SEQUENCING METHOD:** Once a room passes above described bio-load testing protocols, a COVID-19 PCR swab will be collected from alternating room locations.
- **COVID-19 PCR AIR SAMPLING METHOD:** Air samples are collected using a linear oscillating pump in conjunction with a 0.3  $\mu\text{m}$  Polytetrafluoroethylene (PTFE) filter housed 37 mm cassettes. The pump pulls the air from the surrounding area into the cassette where any airborne virus particulates are captured. The samples are collected at a flow rate of 15 liters per minute (LPM), for 2 hours, totaling 1800 liters. Once sampling is complete, samples are shipped to an independent laboratory for analysis. Samples are analyzed via a polymerase chain reaction (PCR) method. The PCR method relies on a protein responsible for DNA replication in cells, please note this protein will only replicate DNA strands that match the COVID-19 sequence. If replication exceeds a threshold established by the laboratory the sample is determined to be positive for the COVID-19 strand. Test results should be used as metrics for cleaning success rather than a direct estimator for infection potential.

**Definitions:**

ATP - Adenosine Triphosphate

RLU – Relative Light Unit

\*- Elevated ATP Levels

**ATP Direct Read: Bio-Luminescence Meter (*Hygiena/Ensure*) Data:**

<b>Test No.</b>	<b>Date</b>	<b>Building</b>	<b>Room</b>	<b>Surface</b>	<b>RLU Result</b>	<b>Lower Control Limit</b>	<b>Upper Control Limit</b>	<b>Notes</b>
1	10/06/2020 09:41 AM	Kupfrian Hall	118	Light Switch	36	105	211	Right Side of the room
2	10/06/2020 09:50 AM	Kupfrian Hall	118	Row 1, Seat 2, Table	14	105	211	
3	10/06/2020 09:51 AM	Kupfrian Hall	118	Row 1, Seat 5, Table	23	105	211	
4	10/06/2020 09:52 AM	Kupfrian Hall	118	Row 1, Seat 11, Table	48	105	211	
5	10/06/2020 09:52 AM	Kupfrian Hall	118	Row 3, Seat 1, Table	20	105	211	
6	10/06/2020 09:53 AM	Kupfrian Hall	118	Row 3, Seat 7, Table	39	105	211	
7	10/06/2020 09:54 AM	Kupfrian Hall	118	Row 3, Seat 19, Table	27	105	211	
8	10/06/2020 09:54 AM	Kupfrian Hall	118	Row 5, Seat 4, Table	27	105	211	
9	10/06/2020 09:55 AM	Kupfrian Hall	118	Row 5, Seat 8, Table	16	105	211	
10	10/06/2020 09:55 AM	Kupfrian Hall	118	Row 5, Seat 13, Table	35	105	211	
11	10/06/2020 09:56 AM	Kupfrian Hall	118	Row 6, Seat 1, Table	25	105	211	
12	10/06/2020 09:56 AM	Kupfrian Hall	118	Row 6, Seat 4, Table	12	105	211	
13	10/06/2020 09:57 AM	Kupfrian Hall	118	Row 6, Seat 5, Table	9	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
14	10/06/2020 09:57 AM	Kupfrian Hall	118	Row 6, Seat 8, Table	25	105	211	
15	10/06/2020 09:57 AM	Kupfrian Hall	118	Row 7, Seat 1, Table	6	105	211	
16	10/06/2020 09:58 AM	Kupfrian Hall	118	Row 7, Seat 2, Table	67	105	211	
17	10/06/2020 10:07 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 1	34	105	211	
18	10/06/2020 10:07 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 2	9	105	211	
19	10/06/2020 10:08 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 3	66	105	211	
20	10/06/2020 10:08 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 4	87	105	211	
21	10/06/2020 10:09 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 5	43	105	211	
22	10/06/2020 10:09 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 6	112	105	211	
23	10/06/2020 10:10 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 7	149	105	211	
24	10/06/2020 10:12 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 8	107	105	211	
25	10/06/2020 10:12 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 9	85	105	211	
26	10/06/2020 10:13 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 10*	240	105	211	SARS-CoV-2 Sample Collected

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
27	10/06/2020 10:14 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table 11	48	105	211	
28	10/06/2020 10:15 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Table12	60	105	211	
29	10/06/2020 10:17 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Vending Machine Keypad*	335	105	211	Pepsi Vending Machine, SARS-CoV-2 Sample Collected
30	10/06/2020 10:18 AM	Kupfrian Hall	1 <sup>st</sup> Fl Sitting Area	Vending Machine Keypad	177	105	211	Hello Goodness Vending Machine
31	10/06/2020 11:00 AM	Cullimore Hall	111	Row 1, Seat 1, Table	11	105	211	
32	10/06/2020 11:03 AM	Cullimore Hall	111	Row 1, Seat 6, Table	8	105	211	
33	10/06/2020 11:04 AM	Cullimore Hall	111	Row 1, Seat 7, Table	12	105	211	
34	10/06/2020 11:04 AM	Cullimore Hall	111	Row 2, Seat 3, Table	3	105	211	
35	10/06/2020 11:05 AM	Cullimore Hall	111	Row 2, Seat 4, Table	15	105	211	
36	10/06/2020 11:05 AM	Cullimore Hall	111	Row 2, Seat 9, Table	7	105	211	
37	10/06/2020 11:06 AM	Cullimore Hall	111	Row 3, Seat 1, Table	8	105	211	
38	10/06/2020 11:06 AM	Cullimore Hall	111	Row 3, Seat 4, Table	14	105	211	
39	10/06/2020 11:07 AM	Cullimore Hall	111	Row 3, Seat 9, Table	12	105	211	
40	10/06/2020 11:07 AM	Cullimore Hall	111	Row 4, Seat 3, Table	18	105	211	
41	10/06/2020 11:08 AM	Cullimore Hall	111	Row 4, Seat 4, Table	16	105	211	
42	10/06/2020 11:22 AM	Cullimore Hall	103	Row 1, Seat 6, Table	20	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
43	10/06/2020 11:23 AM	Cullimore Hall	103	Row 3, Seat 2, Table	32	105	211	
44	10/06/2020 11:24 AM	Cullimore Hall	103	Row 3, Seat 6, Table	75	105	211	
45	10/06/2020 11:24 AM	Cullimore Hall	103	Row 3, Seat 8, Table	82	105	211	
46	10/06/2020 11:25 AM	Cullimore Hall	103	Row 5, Seat 3, Table	38	105	211	
47	10/06/2020 11:25 AM	Cullimore Hall	103	Row 5, Seat 5, Table	52	105	211	
48	10/06/2020 11:26 AM	Cullimore Hall	103	Row 5, Seat 9, Table	26	105	211	
49	10/06/2020 11:27 AM	Cullimore Hall	103	Row 7, Seat 2, Table	34	105	211	
50	10/06/2020 11:27 AM	Cullimore Hall	103	Row 7, Seat 6, Table	39	105	211	
51	10/06/2020 11:28 AM	Cullimore Hall	103	Row 7, Seat 8, Table	26	105	211	
52	10/06/2020 11:29 AM	Cullimore Hall	103	Row 9, Seat 3, table	25	105	211	
53	10/06/2020 11:30 AM	Cullimore Hall	103	Row 9, Seat 5, Table	29	105	211	
54	10/06/2020 11:33 AM	Cullimore Hall	103	Row 9, Seat 9, Table	19	105	211	
55	10/06/2020 02:09 PM	Mechanical Engineering Center (MEC)	221	Row 1, Seat 2, Table	24	105	211	
56	10/06/2020 02:10 PM	(MEC)	221	Row 1, Seat 6, Table	13	105	211	
57	10/06/2020 02:11 PM	(MEC)	221	Row 1, Seat 7, Table	33	105	211	
58	10/06/2020 02:13 PM	(MEC)	221	Row 3, Seat 1, Table	35	105	211	
59	10/06/2020 02:13 PM	(MEC)	221	Row 3, Seat 5, Table	22	105	211	



Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
60	10/06/2020 02:14 PM	(MEC)	221	Row 3, Seat 11, Table	10	105	211	
61	10/06/2020 02:17 PM	(MEC)	221	Row 5, Seat 4, Table	23	105	211	
62	10/06/2020 02:18 PM	(MEC)	221	Row 5, Seat 8, Table	17	105	211	
63	10/06/2020 02:19 PM	(MEC)	221	Row 5, Seat 11, Table	11	105	211	
64	10/06/2020 02:20 PM	(MEC)	221	Door Push Bar	96	105	211	Right Side of the room, Classroom side of the door
65	10/06/2020 02:20 PM	(MEC)	221	Light Button	124	105	211	Button closest to the left door, SARS-CoV-2 Sample Collected
66	10/06/2020 02:33 PM	GITC	3600	Light Button	1	105	211	Middle Button
67	10/06/2020 02:34 PM	`11	3600	Door Push Bar	13	105	211	Left side of the room, Classroom side of the room
68	10/06/2020 02:34 PM	GITC	3600	Extron Control Box	9	105	211	
69	10/06/2020 02:35 PM	GITC	3600	Row 1, Seat 1, Table	5	105	211	
70	10/06/2020 02:36 PM	GITC	3600	Row 1, Seat 5, Table	2	105	211	
71	10/06/2020 02:36 PM	GITC	3600	Row 1, Seat 11, Table	1	105	211	
72	10/06/2020 02:37 PM	GITC	3600	Row 3, Seat 2, Table	1	105	211	
73	10/06/2020 02:38 PM	GITC	3600	Row 3, Seat 7, Table	1	105	211	
74	10/06/2020 02:38 PM	GITC	3600	Row 3, Seat 14, Table	2	105	211	
75	10/06/2020 02:39 PM	GITC	3600	Row 5, Seat 3, Table	1	105	211	
76	10/06/2020 02:40 PM	GITC	3600	Row 5, Seat 8, Table	2	105	211	
77	10/06/2020 02:40 PM	GITC	3600	Row 5, Seat 14, Table	2	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
78	10/06/2020 03:01 PM	Central King Building (CKB)	G-08	Door 1, Push Bar	14	105	211	Classroom side of the door
79	10/06/2020 03:03 PM	CKB	G-08	Table 1, Seat 1	27	105	211	
80	10/06/2020 03:04 PM	CKB	G-08	Table 1, Seat 3	51	105	211	
81	10/06/2020 03:05 PM	CKB	G-08	Table 1, Seat 6	70	105	211	
82	10/06/2020 03:06 PM	CKB	G-08	Table 2, Seat 2	91	105	211	
83	10/06/2020 03:06 PM	CKB	G-08	Table 2, Seat 4	43	105	211	
84	10/06/2020 03:07 PM	CKB	G-08	Table 2, Seat 5	26	105	211	
85	10/06/2020 03:09 PM	CKB	G-08	Table 3, Seat 1	53	105	211	
86	10/06/2020 03:09 PM	CKB	G-08	Table 3, Seat 3	27	105	211	
87	10/06/2020 03:10 PM	CKB	G-08	Table 3, Seat 6	40	105	211	
88	10/06/2020 03:12 PM	CKB	G-08	Table 4, Seat 2	35	105	211	
89	10/06/2020 03:12 PM	CKB	G-08	Table 4, Seat 4	63	105	211	
90	10/06/2020 03:12 PM	CKB	G-08	Table 4, Seat 5	29	105	211	
91	10/06/2020 03:14 PM	CKB	G-08	Table 5, Seat 1	25	105	211	
92	10/06/2020 03:15 PM	CKB	G-08	Table 5, Seat 3	21	105	211	
93	10/06/2020 03:15 PM	CKB	G-08	Table 5, Seat 6	27	105	211	
94	10/06/2020 03:17 PM	CKB	G-08	Table 6, Seat 2	47	105	211	
95	10/06/2020 03:18 PM	CKB	G-08	Table 6, Seat 4	29	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
96	10/06/2020 03:18 PM	CKB	G-08	Table 6, Seat 5	62	105	211	
97	10/06/2020 03:21 PM	CKB	G-08	Table 7, Seat 1	43	105	211	
98	10/06/2020 03:21 PM	CKB	G-08	Table 7, Seat 3	50	105	211	
99	10/06/2020 03:22 PM	CKB	G-08	Table 7, Seat 6	55	105	211	
100	10/06/2020 03:24 PM	CKB	G-08	Table 8, Seat 2	88	105	211	
101	10/06/2020 03:25 PM	CKB	G-08	Table 8, Seat 4	36	105	211	
102	10/06/2020 03:25 PM	CKB	G-08	Table 8, Seat 5	39	105	211	
103	10/06/2020 03:28 PM	CKB	G-08	Table 9, Seat 1	19	105	211	
104	10/06/2020 03:29 PM	CKB	G-08	Table 9, Seat 3	43	105	211	
105	10/06/2020 03:29 PM	CKB	G-08	Table 9, Seat 6	41	105	211	
106	10/06/2020 03:30 PM	CKB	G-08	Table 10, Seat 2	102	105	211	SARS-CoV-2 Sample Collected
107	10/06/2020 03:31 PM	CKB	G-08	Table 10, Seat 4	60	105	211	
108	10/06/2020 03:32 PM	CKB	G-08	Table 10, Seat 5	78	105	211	
109	10/06/2020 03:32 PM	CKB	G-08	Light Button	7	105	211	
110	10/06/2020 03:55 PM	Weston Hall	410	Table 1, Seat 2, Table	124	105	211	
111	10/06/2020 03:56 PM	Weston Hall	410	Table 4, Seat 1, Table*	383	105	211	SARS-CoV-2 Sample Collected
112	10/06/2020 03:57 PM	Weston Hall	410	Table 3, Seat 6, Table	51	105	211	
113	10/06/2020 03:58 PM	Weston Hall	410	Table 6, Seat 6, Table	44	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
114	10/06/2020 03:58 PM	Weston Hall	410	Table 7, Seat 3, Table	180	105	211	
115	10/06/2020 04:00 PM	Weston Hall	410	Table 9, Seat 6, Table*	218	105	211	SARS-CoV-2 Sample Collected
116	10/06/2020 04:00 PM	Weston Hall	410	Table 10, Seat 3, Table	192	105	211	
117	10/06/2020 04:01 PM	Weston Hall	410	Table 12, Seat 1, Table	77	105	211	
118	10/06/2020 04:01 PM	Weston Hall	410	Table 11, Seat 2, Table	25	105	211	
119	10/06/2020 04:02 PM	Weston Hall	410	Table 13, Seat 6, Table*	213	105	211	SARS-CoV-2 Sample Collected
120	10/07/2020 10:10 AM	Faculty Memorial Hall (FMH)	403	Door Handle	121	105	211	Classroom side of the door
121	10/07/2020 10:11 AM	FMH	403	Light Switch	61	105	211	
122	10/07/2020 10:11 AM	FMH	403	Row 1, Seat 1, Table	23	105	211	
123	10/07/2020 10:13 AM	FMH	403	Row 1, Seat 2, Table	15	105	211	
124	10/07/2020 10:13 AM	FMH	403	Row 2, Seat 1, Table	18	105	211	
125	10/07/2020 10:14 AM	FMH	403	Row 2, Seat 2, Table	60	105	211	
126	10/07/2020 10:15 AM	FMH	403	Row 2, Seat 3, Table	13	105	211	
127	10/07/2020 10:15 AM	FMH	403	Row 2, Seat 4, Table	5	105	211	
128	10/07/2020 10:16 AM	FMH	403	Row 3, Seat 1, Table	100	105	211	
129	10/07/2020 10:17 AM	FMH	403	Row 3, Seat 4, Table	12	105	211	
130	10/07/2020 10:18 AM	FMH	403	Row 3, Seat 5, Table	49	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
131	10/07/2020 10:20 AM	FMH	403	Row 4, Seat 2, Table	25	105	211	
132	10/07/2020 10:20 AM	FMH	403	Row 4, Seat 4, Table	22	105	211	
133	10/07/2020 10:21 AM	FMH	403	Row 4, Seat 6, Table	24	105	211	
134	10/07/2020 10:22 AM	FMH	403	Row 5, Seat 1, Table	10	105	211	
135	10/07/2020 10:23 AM	FMH	403	Row5, Seat 2, Table	9	105	211	
136	10/07/2020 10:53 AM	WEC	2nd Floor Fitness Center	Treadmill # 5, Start Button	64	105	211	Pre-Cleaning Sample
137	10/07/2020 10:54 AM	WEC	2nd Floor Fitness Center	Right Handle of Leg Curl Machine	121	105	211	Pre-Cleaning Sample
138	10/07/2020 10:54 AM	WEC	2nd Floor Fitness Center	Left Handle Chest Press Machine	47	105	211	Pre-Cleaning Sample
139	10/07/2020 10:54 AM	WEC	2nd Floor Fitness Center	Central Jungle Gym, Dip Handle	51	105	211	Pre-Cleaning Sample
140	10/07/2020 10:55 AM	WEC	2nd Floor Fitness Center	Handle of 50lbs Curl Bar	96	105	211	Pre-Cleaning Sample
141	10/07/2020 10:55 AM	WEC	2nd Floor Fitness Center	Door Push Bar*	224	105	211	Pre-Cleaning Sample, Fitness Center Side of the Door
142	10/07/2020 10:56 AM	WEC	2nd Floor	Door Handle *	475	105	211	Pre-Cleaning Sample, Hallway Side of the Door

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
			Fitness Center					
143	10/07/2020 10:57 AM	WEC	2nd Floor Fitness Center	Adjustable Free Weight Bench 3	160	105	211	Pre-Cleaning Sample, 3 <sup>rd</sup> Bench most left bench
144	10/07/2020 10:58 AM	WEC	2nd Floor Fitness Center	Paramount XFT, Right Weight Pin	129	105	211	Pre-Cleaning Sample
145	10/07/2020 10:58 AM	WEC	2nd Floor Fitness Center	Smith Machine Bar	99	105	211	Pre-Cleaning Sample, Right Side of the bar
146	10/07/2020 10:59 AM	WEC	2nd Floor Fitness Center	Pull Up Bar Handle	102	105	211	Pre-Cleaning Sample
147	10/07/2020 11:03 AM	WEC	2nd Floor Fitness Center	Right Handle of Leg Curl Machine	69	105	211	Post-Cleaning Sample, Test No. 334 Retest
148	10/07/2020 11:13 AM	WEC	2nd Floor Fitness Center	Adjustable Free Weight Bench 3	8	105	211	Post-Cleaning Sample, 3 <sup>rd</sup> Bench most left bench. Test No. 340 Retest
149	10/07/2020 11:14 AM	WEC	2nd Floor Fitness Center	Paramount XFT, Right Weight Pin	23	105	211	Post-Cleaning Sample, Test No. 341 Retest
150	10/07/2020 11:14 AM	WEC	2nd Floor Fitness Center	Pull Up Bar Handle	28	105	211	Post-Cleaning Sample, Test No. 343 Retest
151	10/07/2020 11:23 AM	WEC	2nd Floor	Door Push Bar	88	105	211	Post-Cleaning Sample, Fitness Center Side of the Door. Test No. 338 Retest

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
			Fitness Center					
152	10/07/2020 11:23 AM	WEC	2nd Floor Fitness Center	Door Handle*	332	105	211	Post-Cleaning Sample, Hallway Side of the Door. Test No. 142 Post-cleaning test
153	10/07/2020 11:25 AM	WEC	2nd Floor Fitness Center	Door Handle	121	105	211	Post-Cleaning Sample, Hallway Side of the Door. Test No. 142 Post-cleaning test. Test No. 152 Retest, SARS-CoV-2 Sample Collected
154	10/07/2020 01:15 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-001 Keyboard	82	105	211	
155	10/07/2020 01:15 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-007 Mouse	97	105	211	
156	10/07/2020 01:17 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-014 Keyboard	38	105	211	
157	10/07/2020 01:18 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-020 Mouse	205	105	211	SARS-CoV-2 Sample Collected
158	10/07/2020 01:20 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-025	136	105	211	
159	10/07/2020 01:23 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-029	62	105	211	
160	10/07/2020 01:24 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-032 Keyboard*	260	105	211	SARS-CoV-2 Sample Collected
161	10/07/2020 01:24 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-030	129	105	211	
162	10/07/2020 01:26 PM	Houten Library	1st Floor Sitting Area	Computer CA-1047-043 Keyboard	70	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
163	10/07/2020 01:27 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-045 Mouse	49	105	211	
164	10/07/2020 01:28 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-050 Keyboard	17	105	211	
165	10/07/2020 01:29 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-056 Mouse	127	105	211	
166	10/07/2020 01:30 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-060 Keyboard	161	105	211	
167	10/07/2020 01:30 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-065 Mouse	44	105	211	
168	10/07/2020 01:31 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-066 Keyboard	34	105	211	
169	10/07/2020 01:32 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-070 Mouse	13	105	211	
170	10/07/2020 01:33 PM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Vending Machine Payment Interface	79	105	211	(Aquafina Vending Machine)
171	10/07/2020 01:36 PM	Houten Library	2 <sup>nd</sup> Floor	Door Handle to Room 2022	39	105	211	Hallway side of the door
172	10/07/2020 01:36 PM	Houten Library	3 <sup>rd</sup> Floor	3 <sup>rd</sup> Floor (Down) Elevator Call Button	18	105	211	
173	10/07/2020 01:37 PM	Houten Library	2 <sup>nd</sup> Floor	Stair Handrail	38	105	211	Between 2 <sup>nd</sup> and 3 <sup>rd</sup> Floor Landing
174	10/07/2020 02:13 PM	Central King Building	204	Row 1, Seat 1, Table	9	105	211	
175	10/07/2020 02:14 PM	Central King Building	204	Row 1, Seat 3, Table	4	105	211	
176	10/07/2020 02:15 PM	Central King Building	204	Row 1, Seat 8, Table	10	105	211	



Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
177	10/07/2020 02:16 PM	Central King Building	204	Row 3, Seat 2, Table	15	105	211	
178	10/07/2020 02:17 PM	Central King Building	204	Row 3, Seat 5, Table	7	105	211	
179	10/07/2020 02:17 PM	Central King Building	204	Row 3, Seat 7, Table	15	105	211	
180	10/07/2020 02:18 PM	Central King Building	204	Row 3, Seat 11, Table	25	105	211	
181	10/07/2020 02:20 PM	Central King Building	204	Row 5, Seat 4, Table	30	105	211	
182	10/07/2020 02:20 PM	Central King Building	204	Row 5, Seat 6, Table	11	105	211	
183	10/07/2020 02:21 PM	Central King Building	204	Row 5, Seat 7, Table	12	105	211	
184	10/07/2020 02:21 PM	Central King Building	204	Row 5, Seat 8, Table	7	105	211	
185	10/07/2020 02:27 PM	Central King Building	204	Door 01, Door Handle	9	105	211	Classroom side of the Door
186	10/07/2020 02:28 PM	Central King Building	204	Light Switch	96	105	211	Left Side of the classroom, Middle switch
187	10/07/2020 03:36 PM	Campus Center	B35	Column 1, Seat 2, Table	23	105	211	
188	10/07/2020 03:37 PM	Campus Center	B35	Column 1, Seat 3, Table	15	105	211	
189	10/07/2020 03:38 PM	Campus Center	B35	Column 2, Seat 1, Table	14	105	211	
190	10/07/2020 03:39 PM	Campus Center	B35	Column 2, Seat 2, Table	40	105	211	
191	10/07/2020 03:40 PM	Campus Center	B35	Column 3, Seat 1, Table	10	105	211	
192	10/07/2020 03:41 PM	Campus Center	B35	Column 3, Seat 2, Table	48	105	211	
193	10/07/2020 03:41 PM	Campus Center	B35	Column 3, Seat 3, Table	27	105	211	
194	10/07/2020 03:41 PM	Campus Center	B35	Column 3, Seat 4, Table	30	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
195	10/07/2020 03:43 PM	Campus Center	B35	Column 4, Seat 1, Table	26	105	211	
196	10/07/2020 03:43 PM	Campus Center	B35	Column 4, Seat 2, Table	22	105	211	
197	10/07/2020 03:44 PM	Campus Center	B35	Column 4, Seat 3, Table	45	105	211	
198	10/07/2020 03:44 PM	Campus Center	B35	Column 4, Seat 4, Table	50	105	211	
199	10/07/2020 03:46 PM	Campus Center	B35	Column 5, Seat 1, Table	88	105	211	
200	10/07/2020 03:47 PM	Campus Center	B35	Column 5, Seat 2, Table	9	105	211	
201	10/07/2020 03:48 PM	Campus Center	B35	Column 5, Seat 3, Table	96	105	211	
202	10/07/2020 03:51 PM	Campus Center	B35	Column 5, Seat 4, Table	38	105	211	
203	10/07/2020 03:52 PM	Campus Center	B35	Column 6, Seat 1, Table	37	105	211	
204	10/07/2020 03:52 PM	Campus Center	B35	Column 6, Seat 2, Table	65	105	211	
205	10/07/2020 04:22 PM	Cullimore Hall	104	Row 1, Seat 2, Table	10	105	211	
206	10/07/2020 04:23 PM	Cullimore Hall	104	Row 1, Seat 5, Table	14	105	211	
207	10/07/2020 04:23 PM	Cullimore Hall	104	Row 1, Seat 10, Table	4	105	211	
208	10/07/2020 04:24 PM	Cullimore Hall	104	Row 3, Seat 4, Table	19	105	211	
209	10/07/2020 04:25 PM	Cullimore Hall	104	Row 3, Seat 7, Table	12	105	211	
210	10/07/2020 04:25 PM	Cullimore Hall	104	Row 3, Seat 8, Table	10	105	211	
211	10/07/2020 04:27 PM	Cullimore Hall	104	Row 5, Seat 1, Table	10	105	211	
212	10/07/2020 04:27 PM	Cullimore Hall	104	Row 5, Seat 5, Table	24	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
213	10/07/2020 04:28 PM	Cullimore Hall	104	Row 5, Seat 7, Table	33	105	211	
214	10/07/2020 04:30 PM	Cullimore Hall	104	Row 7, Seat 2, Table	26	105	211	
215	10/07/2020 04:30 PM	Cullimore Hall	104	Row 7, Seat 4, Table	3	105	211	
216	10/07/2020 04:31 PM	Cullimore Hall	104	Row 7, Seat 8, Table	25	105	211	
217	10/07/2020 04:32 PM	Cullimore Hall	104	Row 9, Seat 1, Table	4	105	211	
218	10/07/2020 04:33 PM	Cullimore Hall	104	Row 9, Seat 4, Table	9	105	211	
219	10/07/2020 04:34 PM	Cullimore Hall	104	Row 9, Seat 7, Table	6	105	211	
220	10/07/2020 04:34 PM	Cullimore Hall	104	Light Switch	29	105	211	Left Side of the Room
221	10/07/2020 04:36 PM	Cullimore Hall	104	Door 01, Push Bar	11	105	211	Classroom side of the door, SARS-CoV-2 Sample Collected

### **Field Notes**

- Row A or 1 is the row closest to the instructor.
- Seat numbering starts on the left side of the room, from the perspective of the Instructor.
- All directions and labels are from the perspective of the Instructor, looking towards the seats
- Due to student occupancy, surface sampling in the Life Science and Engineering Center could not be conducted

### **Data Interpretation:**

- 9 out of the 221 representative ATP surface samples collected reported elevated ATP levels (4.1% of samples).
- 1 out of the 9 surfaces with elevated ATP levels were re-cleaned by NJIT Building Services and retested. Retest results indicated acceptable levels of ATP on all re-cleaned surfaces.
- Omega Environmental Services collected SARS-CoV-2 surface samples on the 8 surfaces, with elevated ATP levels, that were not re-cleaned by NJIT Building Services.
- In the Wellness Entertainment Center, the average pre-cleaning ATP concentration was 143 RLU, with 20% of samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 96 RLU, with a 33% decrease in ATP concentrations. 1 post-cleaning sample resulted in elevated levels of ATP but was re-cleaned and resulted in acceptable ATP levels. It should be noted, only surfaces with elevated or critical pre-cleaning ATP concentrations were tested post-cleaning.

**Surface SARS-CoV-2 Swab Data: 10/06/20-10/07/20**

<b>Sample No.</b>	<b>SARS-CoV-2 Swab Sample Locations</b>	<b>Result (Positive/Negative)</b>
1	Kupfrian Hall, 1 <sup>st</sup> Floor Sitting Area, Table 10	Negative
2	Kupfrian Hall, 1 <sup>st</sup> Floor Sitting Area, Vending Machine Interface	Negative
3	MEC, Room 221, Light Button (Most Left)	Negative
4	Central King Building, G-08, Table 10, Seat 02,	Negative
5	Weston Hall, Studio 410, Table 2, Seat 1	Negative
6	Weston Hall, Studio 410, Table 9, Seat 6	Negative
9	Houten Library, 1 <sup>st</sup> Floor, Computer CA-1047-020, Mouse	Negative
11	Cullimore, Room 104, Door Push Bar, Classroom Side of the Door.	Negative

**SARS-CoV-2 Air Sample Data: 10/06/20-10/07/20**

<b>Sample No.</b>	<b>SARS-CoV-2 Air Sample Locations</b>	<b>Result (Positive/Negative)</b>
1	Kupfrian Hall, Room 118	Negative
2	Tiernan Hall, THL1	Negative
3	Cullimore Hall, Room 103	Negative
4	MEC, Room 221	Negative
5	GIFC, Room 3600	Negative
6	Central King Building, Ground Fl Tutoring Area	Negative
7	Weston Hall, Studio 410	Negative
9	WEC, 2 <sup>nd</sup> Floor Fitness Center	Negative
11	Campus Center, 1 <sup>st</sup> Floor, Leaf and Green Restaurant	Negative
12	Honors College, Fitness Center	Negative
13	Central King Building, Room 116	Negative
14	Life Sciences and Engineering Center, Room 102, Science Commons	Negative
15	Campus Center, 1 <sup>st</sup> Floor, Room CTR 110C	Negative
16	Specht Building, 1 <sup>st</sup> Floor, Campus Bookstore	Negative

**Data Interpretation:**

- Laboratory results indicate all the SARS-Cov-2 samples collected on 10/06/20 and 10/07/20 were negative.

Attachments:

*Laboratory analysis reports with chain-of-custody*

*Prestige EnviroMicrobiology, Inc.*

**Analytical Test Report**

Client: Omega Environmental Services, Inc., 280 Huyler Street, South Hackensack, NJ 07606  
 Client Project/Name: 20-1175  
 Sample date: 10-7-2020  
 Submittal date: 10-7-2020  
 Sample received: 10-8-2020  
 Samples submitted by: Kadeem Hill  
 Date analysis completed: October 9, 2020  
 Prestige Report number: 201008-02

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

Prestige # Client sample ID Location	2019-nCoV (N1 Protein)	Cycle Threshold (Ct) Value <sup>3</sup> (N1 Protein)	2019-nCoV (N2 Protein)	Cycle Threshold Value <sup>3</sup> (N2 Protein)	Conc. (copies of RNA/cm <sup>2</sup> )
201008-02-005 03 WEC 2 <sup>nd</sup> Floor Door Handle (Hallway Side)	ND	ND	ND	ND	NA
201008-02-008 06 Houten Library, Computer CA-1047-032, Keyboard	ND	ND	ND	ND	NA
201008-02-009 07 Houten Library, Computer CA-1047-020, Mouse	ND	ND	ND	ND	NA
201008-02-014 12 Cullimore Hall, Room 104, Door 01, Push Bar	ND	ND	ND	ND	NA

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

Prestige # Client sample ID Location	2019-nCoV (N1 Protein)	Cycle Threshold (Ct) Value <sup>3</sup> (N1 Protein)	2019-nCoV (N2 Protein)	Cycle Threshold Value <sup>3</sup> (N2 Protein)	Conc. (copies of RNA/L)
201008-02-003 01 FMH, Room 403	ND	ND	ND	ND	NA
201008-02-004 02 WEC 2 <sup>nd</sup> Floor, Fitness Center	ND	ND	ND	ND	NA
201008-02-006 04 Library 1 <sup>st</sup> Floor Sitting Area	ND	ND	ND	ND	NA
201008-02-007 05 Campus Center Leaf and Green	ND	ND	ND	ND	NA

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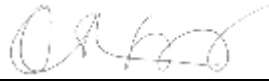
201008-02-010 08 Honors College, Fitness Center	ND	ND	ND	ND	NA
201008-02-011 09 CKB, Room 116	ND	ND	ND	ND	NA
201008-02-012 10 LSEC Ground Floor, 102 Scimu Commons	ND	ND	ND	ND	NA
201008-02-013 11 Campus Center CTR 110C	ND	ND	ND	ND	NA
201008-02-015 13 Campus Book Store	ND	ND	ND	ND	NA

Report approved:



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. 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.
3. 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. 4. ND = not detected, no genetic marker is detected within 40 PCR cycles. NA = not applicable. The detection limit is 10 copies/reaction.
4. Sampling reference: Rahmani, A. R., M. Leili, G. Azarian, A. Poormohammadi. 2020. Sampling and detection of corona viruses in air: A mini review. Science of the Total Environment.  
<https://doi.org/10.1016/j.scitotenv.2020.140207>

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*Prestige EnviroMicrobiology, Inc.*

**Analytical Test Report**

Client: Omega Environmental Services, Inc., 280 Huyler Street, South Hackensack, NJ 07606  
 Client Project/Name: 20-1175  
 Sample date: 10-6-2020  
 Submittal date: 10-6-2020  
 Sample received: 10-7-2020  
 Samples submitted by: Kadeem Hill  
 Date analysis completed: October 8, 2020  
 Prestige Report number: 201007-02

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

Prestige # Client sample ID Location	2019-nCoV (N1 Protein)	Cycle Threshold (Ct) Value <sup>3</sup> (N1 Protein)	2019-nCoV (N2 Protein)	Cycle Threshold Value <sup>3</sup> (N2 Protein)	Conc. (copies of RNA/cm <sup>2</sup> )
201007-02-006 02 Kupfian Hall 1 <sup>st</sup> fl sitting area table 10	ND	ND	ND	ND	NA
201007-02-007 03 Kupfian Hall 1 <sup>st</sup> fl sitting area venting machine	ND	ND	ND	ND	NA
201007-02-014 10 MEC, Room 221, light button, most left	ND	ND	ND	ND	NA
201007-02-015 11 CKB, G-08, Table 10, seat 02	ND	ND	ND	ND	NA
201007-01-016 12 GITC, Rm. 410-studio, Table 4, seat 2	ND	ND	ND	ND	NA
201007-01-017 13 GITC, Studio 410, Table 9, seat 6 Table	ND	ND	ND	ND	NA
201007-01-018 14 GITC, Studio 410, Table 13, seat 6 Table	ND	ND	ND	ND	NA

*Prestige EnviroMicrobiology, Inc.*

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

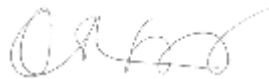
Prestige # Client sample ID Location	2019-nCoV (N1 Protein)	Cycle Threshold (Ct) Value <sup>3</sup> (N1 Protein)	2019-nCoV (N2 Protein)	Cycle Threshold Value <sup>3</sup> (N2 Protein)	Conc. (copies of RNA/L)
201007-02-005 01 Kupfian Hall Room 118	ND	ND	ND	ND	NA
201007-02-008 04 Tiernan Hall, Room THL1	ND	ND	ND	ND	NA
201007-02-009 05 Callimore Hall, Room 103	ND	ND	ND	ND	NA
201007-02-010 06 MEC, Room 221	ND	ND	ND	ND	NA
201007-02-011 07 GITC, Room 3600	ND	ND	ND	ND	NA
201007-02-012 08 CKB, Ground floor tutor area	ND	ND	ND	ND	NA
201007-02-013 09 Weston Hall, Studio 410	ND	ND	ND	ND	NA

Report approved:



Theresa Lehman, MPH, Lab Director

Technical Manager: \_\_\_\_\_



Chin S Yang, Ph.D.

Analyst: Ching-Yi Tsai, Ph.D.

- The samples in this report were received in good, acceptable conditions. Results relate only to the items tested.
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- 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. 4. ND = not detected, no genetic marker is detected within 40 PCR cycles. NA = not applicable. The detection limit is 10 copies/mL.
- Sampling reference: Rahmani, A. R., M. Leili, G. Azarian, A. Poormohammadi. 2020. Sampling and detection of corona viruses in air: A mini review. Science of the Total Environment.  
<https://doi.org/10.1016/j.scitotenv.2020.140207>

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