



# POST-DISINFECTION CORONAVIRUS-19 FIELD VERIFICATION TESTING REPORT

---

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: 10/20/20-10/21/2020

DATE OF REPORT: 10/21/2020

REPORT PREPARED BY: Kadeem Hill

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

{Omega Project#: 20-1175}

## Table of Contents

<b><u>Executive Summary</u></b>	3
<b><u>Project Overview</u></b>	3
<ul style="list-style-type: none"><li>• Project Overview/Scope of Work</li><li>• Bio-Load and COVID-19 Field Sampling &amp; Analysis Protocol</li></ul>	
<b><u>ATP Direct Read: Bioluminescence</u></b>	4
<ul style="list-style-type: none"><li>• ATP Direct Read Meter Data</li><li>• Data Interpretation</li><li>• Field Notes</li></ul>	
<b><u>COVID-19 PCR DNA Sequencing</u></b>	13
<ul style="list-style-type: none"><li>• SARS-CoV-2 PCR DNA Swab Sample Results</li><li>• SARS-CoV-2 PCR DNA Air Sample Results</li><li>• Data Interpretation</li></ul>	
<b><u>Attachments</u></b>	16
<ul style="list-style-type: none"><li>• Laboratory analysis reports with chain-of-custody</li></ul>	

Executive Summary:

On 10/20 and 10/21/2020 Omega Environmental Services conducted ATP surface testing and SARS-CoV-2 environmental sampling in Kupfrain Hall, 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, Engineering Center (LSEC), and Laurel Hall 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>• 23-out-of-227 representative ATP surface samples collected reported elevated ATP levels (10.1% of samples). 11 out of the 23 samples with elevated ATP levels were pre-cleaning samples.</li> <li>• Omega Environmental Services collected SARS-CoV-2 surface samples on the 12 surfaces, with elevated ATP levels, that were not re-cleaned by NJIT Building Services.</li> <li>• In the Wellness Entertainment Center, the average pre-cleaning ATP concentration was 313 RLU, with 70% of the samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 63 RLU, with a 79% decrease in ATP concentrations.</li> <li>• In the Highlander Pub, the average pre-cleaning ATP concentration was 116 RLU, with approximately 13% of the samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 61 RLU, with a 47% decrease in ATP concentrations.</li> <li>• In the Life Sciences and Engineering Center, Room 102, the average pre-cleaning ATP concentration was 205 RLU, with approximately 22% of the samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 78 RLU, with a 61% decrease in ATP concentrations. 1 post-cleaning sample resulted in elevated levels of ATP and could not be cleaned to an acceptable level. On this surface, a SARS-CoV-2 surface sample was collected.</li> </ul>
<p style="text-align: center;">Coronavirus-19 PCR Samples</p>	<ul style="list-style-type: none"> <li>•Laboratory results indicate all the SARS-Cov-2 samples collected on 10/20 and 10/21/2020 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 the 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:**

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
1	10/20/2020 09:38 AM	CKB	205	Bench 1, Seat 01, Table Surface	51	105	211	
2	10/20/2020 09:39 AM	CKB	205	Bench 1, Seat 1, Computer Mouse	25	105	211	
3	10/20/2020 09:39 AM	CKB	205	Bench 1, Seat 05, Table Surface	43	105	211	
4	10/20/2020 09:40 AM	CKB	205	Surface of Table 2 at Seat 1	87	105	211	
5	10/20/2020 09:40 AM	CKB	205	Surface of Table 2 at Seat 6	17	105	211	
6	10/20/2020 09:41 AM	CKB	205	Surface of Table 3 at Seat 1	128	105	211	SARS-CoV-2 sample collected
7	10/20/2020 09:41 AM	CKB	205	Surface of Table 3 at Seat 4	33	105	211	
8	10/20/2020 09:41 AM	CKB	205	Surface of Table 4 at Seat 1	64	105	211	
9	10/20/2020 09:42 AM	CKB	205	Surface of Table 4 at Seat 4	30	105	211	
10	10/20/2020 09:42 AM	CKB	205	Surface of Table 5 at Seat 1	58	105	211	
11	10/20/2020 09:43 AM	CKB	205	Surface of Table 6 at Seat 1	54	105	211	
12	10/20/2020 09:43 AM	CKB	205	Surface of Table 6 at Seat 7	11	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
13	10/20/2020 09:44 AM	CKB	205	Light Switch	104	105	211	
14	10/20/2020 09:44 AM	CKB	205	Sign-in Desk Pen	25	105	211	
15	10/20/2020 10:08 AM	Kupfrian Hall	204	Row 1, Seat 1, Table Surface	22	105	211	
16	10/20/2020 10:09 AM	Kupfrian Hall	204	Row 1, Seat 2, Table Surface	4	105	211	
17	10/20/2020 10:09 AM	Kupfrian Hall	204	Row 2, Seat 3, Table Surface	7	105	211	
18	10/20/2020 10:10 AM	Kupfrian Hall	204	Row 2, Seat 4, Table Surface	15	105	211	
19	10/20/2020 10:10 AM	Kupfrian Hall	204	Row 2, Seat 6, Table Surface	13	105	211	
20	10/20/2020 10:11 AM	Kupfrian Hall	204	Row 2, Seat 9, Table Surface	15	105	211	
21	10/20/2020 10:11 AM	Kupfrian Hall	204	Row 3, Seat 3, Table Surface	19	105	211	
22	10/20/2020 10:12 AM	Kupfrian Hall	204	Row 3, Seat 6 Table Surface	18	105	211	
23	10/20/2020 10:12 AM	Kupfrian Hall	204	Row 3, Seat 9, Table Surface*	243	105	211	SARS-CoV-2 sample collected
24	10/20/2020 10:13 AM	Kupfrian Hall	204	Row 4, Seat 4, Table Surface	14	105	211	
25	10/20/2020 10:14 AM	Kupfrian Hall	204	Row 4, Seat 7, Table Surface	94	105	211	
26	10/20/2020 10:14 AM	Kupfrian Hall	204	Row 4, Seat 10, Table Surface	15	105	211	
27	10/20/2020 10:15 AM	Kupfrian Hall	204	Row 5, Seat 4, Table Surface	14	105	211	
28	10/20/2020 10:15 AM	Kupfrian Hall	204	Row 5, Seat 7, Table Surface	21	105	211	
29	10/20/2020 10:16 AM	Kupfrian Hall	204	Row 5, Seat 10, Table Surface	21	105	211	
30	10/20/2020 10:17 AM	Kupfrian Hall	204	Door Handle *	235	105	211	Classroom Side of the Door

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
31	10/20/2020 10:17 AM	Kupfrian Hall	204	Door Handle	159	105	211	Hallway Side of the Door
32	10/20/2020 10:18 AM	Kupfrian Hall	204	Light Switch	204	105	211	
33	10/20/2020 10:38 AM	Tiernan Hall	TLH1	Row 1, Seat 3, Table Surface	41	105	211	
34	10/20/2020 10:39 AM	Tiernan Hall	TLH1	Row 3, Seat 3, Table Surface	14	105	211	
35	10/20/2020 10:40 AM	Tiernan Hall	TLH1	Row 3, Seat 7, Table Surface	32	105	211	
36	10/20/2020 10:41 AM	Tiernan Hall	TLH1	Seat 12, Table Surface	9	105	211	
37	10/20/2020 10:42 AM	Tiernan Hall	TLH1	Row 5, Seat 1, Table Surface	13	105	211	
38	10/20/2020 10:44 AM	Tiernan Hall	TLH1	Row 5, Seat 4, Table Surface	15	105	211	
39	10/20/2020 10:45 AM	Tiernan Hall	TLH1	Row 5, Seat 10, Table Surface	5	105	211	
40	10/20/2020 10:45 AM	Tiernan Hall	TLH1	Row 7, Seat 3, Table Surface	19	105	211	
41	10/20/2020 10:46 AM	Tiernan Hall	TLH1	Row 7, Seat 7, Table Surface	14	105	211	
42	10/20/2020 10:46 AM	Tiernan Hall	TLH1	Row 7, Seat 13 Table Surface	58	105	211	
43	10/20/2020 10:47 AM	Tiernan Hall	TLH1	Row 9, Seat 2, Table Surface	148	105	211	SARS-CoV-2 sample collected
44	10/20/2020 10:47 AM	Tiernan Hall	TLH1	Row 9, Seat 5, Table Surface	0	105	211	
45	10/20/2020 10:48 AM	Tiernan Hall	TLH1	Row 9, Seat 11, Table Surface	24	105	211	
46	10/20/2020 10:48 AM	Tiernan Hall	TLH1	Row 11, Seat 5, Table Surface	0	105	211	
47	10/20/2020 10:49 AM	Tiernan Hall	TLH1	Row 11, Seat 10, Table Surface	13	105	211	
48	10/20/2020 10:50 AM	Tiernan Hall	TLH1	Row 11, Seat 12, Table Surface	4	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
49	10/20/2020 10:52 AM	Tiernan Hall	TLH1	Door Push Bar	120	105	211	Top Left side of the lecture hall, Lecture Hall side of the door
50	10/20/2020 10:53 AM	Tiernan Hall	TLH1	Cisco Tablet on Instructors Desk	75	105	211	
51	10/20/2020 01:05 PM	FMH	110	Row 1, Seat 3, Surface of the Table	10	105	211	
52	10/20/2020 01:10 PM	FMH	110	Row 1, Seat 4, Surface of the Table	7	105	211	
53	10/20/2020 01:10 PM	FMH	110	Row 1, Seat 6, Surface of the Table	4	105	211	
54	10/20/2020 01:11 PM	FMH	110	Row 1, Seat 7, Surface of the Table	7	105	211	
55	10/20/2020 01:11 PM	FMH	110	Row 2, Seat 3, Surface of the Table	34	105	211	
56	10/20/2020 01:12 PM	FMH	110	Row 2, Seat 4, Surface of the Table	3	105	211	
57	10/20/2020 01:13 PM	FMH	110	Row 2, Seat 6, Surface of the Table	5	105	211	
58	10/20/2020 01:13 PM	FMH	110	Row 2, Seat 7, Surface of the Table	5	105	211	
59	10/20/2020 01:17 PM	FMH	110	Row 3, Seat 3, Surface of the Table	145	105	211	
60	10/20/2020 01:18 PM	FMH	110	Row 3, Seat 4, Surface of the Table	2	105	211	
61	10/20/2020 01:22 PM	FMH	110	Row 3, Seat 6, Surface of the Table	10	105	211	
62	10/20/2020 01:23 PM	FMH	110	Row 3, Seat 7, Surface of the Table	8	105	211	
63	10/20/2020 01:23 PM	FMH	110	Row 4, Seat 3, Surface of the Table	12	105	211	
64	10/20/2020 01:24 PM	FMH	110	Row 4, Seat 4, Surface of the Table	4	105	211	
65	10/20/2020 01:27 PM	FMH	110	Row 4, Seat 6, Surface of the Table	6	105	211	
66	10/20/2020 01:28 PM	FMH	110	Row 4, Seat 7, Surface of the Table	8	105	211	



Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
67	10/20/2020 01:30 PM	FMH	110	Door Handle*	281	105	211	Classroom side of the door, SARS-CoV-2 sample collected
68	10/20/2020 01:31 PM	FMH	110	Light Switch	151	105	211	
69	10/20/2020 01:50 PM	Cullimore Hall	103	Row 1, Seat 1, Table Surface	5	105	211	
70	10/20/2020 01:51 PM	Cullimore Hall	103	Row 1, Seat 7, Table Surface	8	105	211	
71	10/20/2020 01:52 PM	Cullimore Hall	103	Row 3, Seat 2, Table Surface	1	105	211	
72	10/20/2020 01:52 PM	Cullimore Hall	103	Row 3, Seat 6, Table Surface	1	105	211	
73	10/20/2020 01:53 PM	Cullimore Hall	103	Row 3, Seat 9, Table Surface	1	105	211	
74	10/20/2020 01:53 PM	Cullimore Hall	103	Row 5, Seat 3, Table Surface	3	105	211	
75	10/20/2020 01:54 PM	Cullimore Hall	103	Row 5, Seat 5, Table Surface	11	105	211	
76	10/20/2020 01:54 PM	Cullimore Hall	103	Row 5, Seat 8, Table Surface	16	105	211	
77	10/20/2020 01:55 PM	Cullimore Hall	103	Row 7, Seat 2, Table Surface	1	105	211	
78	10/20/2020 01:55 PM	Cullimore Hall	103	Row 7, Seat 6, Table Surface	4	105	211	
79	10/20/2020 01:56 PM	Cullimore Hall	103	Row 7, Seat 9, Table Surface	1	105	211	
80	10/20/2020 01:57 PM	Cullimore Hall	103	Row 9, Seat 3, Table Surface	1	105	211	
81	10/20/2020 01:57 PM	Cullimore Hall	103	Row 9, Seat 5, Table Surface	0	105	211	
82	10/20/2020 01:58 PM	Cullimore Hall	103	Row 9, Seat 8, Table Surface	2	105	211	
83	10/20/2020 01:59 PM	Cullimore Hall	103	Door Handle*	261	105	211	Classroom side of the door, left side of the lecture hall
84	10/20/2020 02:22 PM	MEC	224	Door Handle	104	105	211	Classroom side of the door, the right side of the classroom

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
85	10/20/2020 02:31 PM	MEC	224	Row 1, Seat 1, Table Surface	5	105	211	
86	10/20/2020 02:32 PM	MEC	224	Row 1, Seat 5, Table Surface	3	105	211	
87	10/20/2020 02:32 PM	MEC	224	Row 1, Seat 8, Table Surface	5	105	211	
88	10/20/2020 02:32 PM	MEC	224	Row 3, Seat 3, Table Surface	11	105	211	
89	10/20/2020 02:34 PM	MEC	224	Row 3, Seat 6, Table Surface	23	105	211	
90	10/20/2020 02:35 PM	MEC	224	Row 3, Seat 9, Table Surface	26	105	211	
91	10/20/2020 02:35 PM	MEC	224	Row 5, Seat 2, Table Surface	21	105	211	
92	10/20/2020 02:36 PM	MEC	224	Row 5, Seat 6, Table Surface	11	105	211	
93	10/20/2020 02:37 PM	MEC	224	Row 5, Seat 12, Table Surface	42	105	211	
94	10/20/2020 02:55 PM	GITC	3600	Row 1, Seat 1, Table Surface	1	105	211	
95	10/20/2020 02:55 PM	GITC	3600	Row 1, Seat 5, Table Surface	0	105	211	
96	10/20/2020 02:56 PM	GITC	3600	Row 1, Seat 8, Table Surface	0	105	211	
97	10/20/2020 02:57 PM	GITC	3600	Row 1, Seat 11, Table Surface	0	105	211	
98	10/20/2020 02:57 PM	GITC	3600	Row 3, Seat 2, Table Surface	0	105	211	
99	10/20/2020 02:58 PM	GITC	3600	Row 3, Seat 7, Table Surface	0	105	211	
100	10/20/2020 02:59 PM	GITC	3600	Row 3, Seat 10, Table Surface	00	105	211	
101	10/20/2020 02:59 PM	GITC	3600	Row 3, Seat 13, Table Surface	1	105	211	
102	10/20/2020 03:00 PM	GITC	3600	Row 5, Seat 3, Table Surface	0	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
103	10/20/2020 03:00 PM	GITC	3600	Row 5, Seat 5, Table Surface	0	105	211	
104	10/20/2020 03:01 PM	GITC	3600	Row 5, Seat 8, Table Surface	1	105	211	
105	10/20/2020 03:02 PM	GITC	3600	Row 5, Seat 14, Table Surface	1	105	211	
106	10/20/2020 03:31 PM	LSEC	102	Table 2 Surface	448	105	211	Pre-Cleaning Sample
107	10/20/2020 03:33 PM	LSEC	102	Table 3 Surface	108	105	211	Pre-Cleaning Sample
108	10/20/2020 03:34 PM	LSEC	102	Table 4 Surface	125	105	211	Pre-Cleaning Sample
109	10/20/2020 03:34 PM	LSEC	102	Table 5 Surface	199	105	211	Pre-Cleaning Sample
110	10/20/2020 03:34 PM	LSEC	102	Table 6 Surface	104	105	211	Pre-Cleaning Sample
111	10/20/2020 03:35 PM	LSEC	102	Table 7 Surface	503	105	211	Pre-Cleaning Sample
112	10/20/2020 03:35 PM	LSEC	102	Table 8 Surface	151	105	211	Pre-Cleaning Sample
113	10/20/2020 03:36 PM	LSEC	102	Table 9 Surface	61	105	211	Pre-Cleaning Sample
114	10/20/2020 03:36 PM	LSEC	102	Table 10 Surface	148	105	211	Pre-Cleaning Sample
115	10/21/2020 09:29 AM	LSEC	102	Table 1 Surface	49	105	211	Post-Cleaning Sample
116	10/21/2020 09:29 AM	LSEC	102	Table 2 surface	89	105	211	Post-Cleaning Sample Test No. 106 Retest
117	10/21/2020 09:32 AM	LSEC	102	Table 3 Surface	150	105	211	Post-Cleaning Sample Test No. 107 Retest
118	10/21/2020 09:32 AM	LSEC	102	Table 4 Surface	24	105	211	Post-Cleaning Sample Test No. 108 Retest
119	10/21/2020 09:33 AM	LSEC	102	Table 5 Surface	30	105	211	Post-Cleaning Sample Test No. 109 Retest
120	10/21/2020 09:33 AM	LSEC	102	Table 6 Surface	49	105	211	Post-Cleaning Sample. Test No. 110 Retest

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
121	10/21/2020 09:34 AM	LSEC	102	Table 7 Surface	40	105	211	Post-Cleaning Sample. Test No. 111 Retest
122	10/21/2020 09:34 AM	LSEC	102	Table 8 Surface	62	105	211	Post-Cleaning Sample. Test No. 112 Retest
123	10/21/2020 09:34 AM	LSEC	102	Table 9 Surface	19	105	211	Post-Cleaning Sample Test No. 113 Retest
124	10/21/2020 09:35 AM	LSEC	102	Table 10 Surface	48	105	211	Post-Cleaning Sample. Test No. 114 Retest
125	10/21/2020 09:35 AM	LSEC	102	Table 11 Surface	108	105	211	Post-Cleaning Sample
126	10/21/2020 09:36 AM	LSEC	102	Table 12 Surface	51	105	211	Post-Cleaning Sample
127	10/21/2020 09:36 AM	LSEC	102	Table 13 Surface	47	105	211	Post-Cleaning Sample
128	10/21/2020 09:37 AM	LSEC	102	Table 14 Surface*	267	105	211	Post-Cleaning Sample. SARS-CoV-2 sample collected
129	10/21/2020 10:20 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-041 Keyboard	98	105	211	
130	10/21/2020 10:21 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-047 Mouse	26	105	211	
131	10/21/2020 10:21 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-052 Keyboard	77	105	211	
132	10/21/2020 10:22 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-054 Mouse	29	105	211	
133	10/21/2020 10:22 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-060 Keyboard	75	105	211	
134	10/21/2020 10:23 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-065 Mouse	37	105	211	
135	10/21/2020 10:23 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-068 Keyboard	120	105	211	
136	10/21/2020 10:24 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-074 Mouse	50	105	211	
137	10/21/2020 10:24 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Elevator Call button (Up)*	233	105	211	SARS-CoV-2 sample collected
138	10/21/2020 10:26 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-003 Keyboard	134	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
139	10/21/2020 10:28 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-009 Mouse*	300	105	211	SARS-CoV-2 sample collected
140	10/21/2020 10:29 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-012 Mouse	54	105	211	
141	10/21/2020 10:30 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-018 Keyboard	105	105	211	
142	10/21/2020 10:30 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-025 Keyboard*	370	105	211	SARS-CoV-2 sample collected
143	10/21/2020 10:31 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-027 Mouse*	293	105	211	SARS-CoV-2 sample collected
144	10/21/2020 10:31 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-030 Mouse*	231	105	211	SARS-CoV-2 sample collected
145	10/21/2020 10:32 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Computer CA-1047-036 Keyboard	99	105	211	
146	10/21/2020 10:33 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Women's Bathroom Door Push Pad	33	105	211	
147	10/21/2020 10:34 AM	Houten Library	1 <sup>st</sup> Floor Sitting Area	Stapler at Circulation Desk	389	105	211	
148	10/21/2020 10:55 AM	WEC	2nd Floor Fitness Center	Door Push Bar	84	105	211	Fitness Center Side of the Door Pre-Cleaning Sample
149	10/21/2020 10:55 AM	WEC	2nd Floor Fitness Center	Door Handle*	295	105	211	Hallway side of the door Pre- Cleaning Sample
150	10/21/2020 10:56 AM	WEC	2nd Floor Fitness Center	Treadmill 2 Interface*	231	105	211	Pre-Cleaning Sample
151	10/21/2020 10:56 AM	WEC	2nd Floor Fitness Center	Treadmill 7 Interface	191	105	211	Pre-Cleaning Sample
152	10/21/2020 10:57 AM	WEC	2nd Floor Fitness Center	Central Jungle Gym, Dip Handle*	748	105	211	Pre-Cleaning Sample
153	10/21/2020 10:57 AM	WEC	2nd Floor Fitness Center	Row Machine Handle	97	105	211	Pre-Cleaning Sample

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
154	10/21/2020 10:58 AM	WEC	2nd Floor Fitness Center	Smith Machine Bar*	268	105	211	Pre-Cleaning Sample
155	10/21/2020 10:58 AM	WEC	2nd Floor Fitness Center	25 lbs. Dumbbell handle*	310	105	211	Pre-Cleaning Sample
156	10/21/2020 10:59 AM	WEC	2nd Floor Fitness Center	Paramount Machine Pull up Bar*	638	105	211	Pre-Cleaning Sample
157	10/21/2020 10:59 AM	WEC	2nd Floor Fitness Center	“Knee Raise” Machine Handle	276	105	211	Pre-Cleaning Sample
158	10/21/2020 11:06 AM	WEC	2nd Floor Fitness Center	Treadmill 2 Interface	27	105	211	Post-Cleaning Sample Test No. 150 Retest
159	10/21/2020 11:09 AM	WEC	2nd Floor Fitness Center	Treadmill 7 Interface	38	105	211	Post-Cleaning Sample Test No. 151 Retest
160	10/21/2020 11:13 AM	WEC	2nd Floor Fitness Center	Central Jungle Gym, Dip Handle	47	105	211	Post-Cleaning Sample Test No. 152 Retest
161	10/21/2020 11:13 AM	WEC	2nd Floor Fitness Center	Smith Machine Bar	2	105	211	Post-Cleaning Sample Test No. 154 Retest
162	10/21/2020 11:14 AM	WEC	2nd Floor Fitness Center	“Knee Raise” Machine Handle	62	105	211	Post-Cleaning Sample Test No. 157 Retest
163	10/21/2020 11:17 AM	WEC	2nd Floor Fitness Center	Paramount Machine Pull up Bar*	339	105	211	Post-Cleaning Sample Test No. 156 Retest
164	10/21/2020 11:17 AM	WEC	2nd Floor Fitness Center	25 lbs. Dumbbell handle	0	105	211	Post-Cleaning Sample Test No. 155 Retest
165	10/21/2020 11:18 AM	WEC	2nd Floor Fitness Center	Door Handle	7	105	211	Post-Cleaning Sample. Test No. 149 Retest

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
166	10/21/2020 11:19 AM	WEC	2nd Floor Fitness Center	Paramount Machine Pull up Bar*	48	105	211	Post-Cleaning Sample Test No. 156 and 164 Retest
167	10/21/2020 11:49 AM	Campus Center	Highlander Pub	The surface of Table 1	141	105	211	Pre-Cleaning Sample
168	10/21/2020 11:49 AM	Campus Center	Highlander Pub	The surface of Table 2	51	105	211	Pre-Cleaning Sample
169	10/21/2020 11:49 AM	Campus Center	Highlander Pub	The surface of Table 3	56	105	211	Pre-Cleaning Sample
170	10/21/2020 11:50 AM	Campus Center	Highlander Pub	The surface of Table 4	46	105	211	Pre-Cleaning Sample
171	10/21/2020 11:50 AM	Campus Center	Highlander Pub	The surface of Table 5	29	105	211	Pre-Cleaning Sample
172	10/21/2020 11:51 AM	Campus Center	Highlander Pub	The surface of Table 6	155	105	211	Pre-Cleaning Sample
173	10/21/2020 11:51 AM	Campus Center	Highlander Pub	The surface of Table 7	110	105	211	Pre-Cleaning Sample
174	10/21/2020 11:52 AM	Campus Center	Highlander Pub	The surface of Table 8	119	105	211	Pre-Cleaning Sample
175	10/21/2020 11:52 AM	Campus Center	Highlander Pub	The surface of Table 9	40	105	211	Pre-Cleaning Sample
176	10/21/2020 11:52 AM	Campus Center	Highlander Pub	The surface of Table 10	119	105	211	Pre-Cleaning Sample
177	10/21/2020 11:53 AM	Campus Center	Highlander Pub	The surface of Table 11*	213	105	211	Pre-Cleaning Sample
178	10/21/2020 11:53 AM	Campus Center	Highlander Pub	The surface of Table 12*	326	105	211	Pre-Cleaning Sample
179	10/21/2020 11:54 AM	Campus Center	Highlander Pub	The surface of Table 13	130	105	211	Pre-Cleaning Sample
180	10/21/2020 11:54 AM	Campus Center	Highlander Pub	The surface of Table 14	110	105	211	Pre-Cleaning Sample
181	10/21/2020 11:55 AM	Campus Center	Highlander Pub	The surface of Table 15	102	105	211	Pre-Cleaning Sample
182	10/21/2020 12:24 PM	Campus Center	Highlander Pub	The surface of Table 2	45	105	211	Post-Cleaning Sample. Test No. 168 Retest

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
183	10/21/2020 12:25 PM	Campus Center	Highlander Pub	The surface of Table 3	12	105	211	Post-Cleaning Sample. Test No. 169 Retest
184	10/21/2020 12:26 PM	Campus Center	Highlander Pub	The surface of Table 4	39	105	211	Post-Cleaning Sample. Test No. 170 Retest
185	10/21/2020 12:26 PM	Campus Center	Highlander Pub	The surface of Table 5	3	105	211	Post-Cleaning Sample. Test No. 171 Retest
186	10/21/2020 12:28 PM	Campus Center	Highlander Pub	The surface of Table 9	28	105	211	Post-Cleaning Sample. Test No. 175 Retest
187	10/21/2020 12:28 PM	Campus Center	Highlander Pub	The surface of Table 10	64	105	211	Post-Cleaning Sample. Test No. 176 Retest
188	10/21/2020 12:28 PM	Campus Center	Highlander Pub	The surface of Table 11	168	105	211	Post-Cleaning Sample, SARS-CoV-2 sample collected. Test No. 177 Retest
189	10/21/2020 12:29 PM	Campus Center	Highlander Pub	The surface of Table 12	58	105	211	Post-Cleaning Sample. Test No. 178 Retest
190	10/21/2020 12:29 PM	Campus Center	Highlander Pub	The surface of Table 13	80	105	211	Post-Cleaning Sample. Test No. 179 Retest
191	10/21/2020 12:30 PM	Campus Center	Highlander Pub	The surface of Table 14	40	105	211	Post-Cleaning Sample Test No. 180 Retest
192	10/21/2020 12:30 PM	Campus Center	Highlander Pub	The surface of Table 15	87	105	211	Post-Cleaning Sample. Test No. 181 Retest
193	10/21/2020 12:31 PM	Campus Center	Highlander Pub	The surface of Table 1	36	105	211	Post-Cleaning Sample. Test No. 167 Retest
194	10/21/2020 12:33 PM	Campus Center	Highlander Pub	The surface of Table 6	43	105	211	Post-Cleaning Sample. Test No. 172 Retest
195	10/21/2020 12:33 PM	Campus Center	Highlander Pub	The surface of Table 7	101	105	211	Post-Cleaning Sample. Test No. 173 Retest
196	10/21/2020 12:34 PM	Campus Center	Highlander Pub	The surface of Table 8	116	105	211	Post-Cleaning Sample. Test No. 174 Retest
197	10/21/2020 03:42 PM	Cullimore Hall	111	Row 1, Seat 2, Table Surface	3	105	211	
198	10/21/2020 03:42 PM	Cullimore Hall	111	Row 1, Seat 3, Table Surface	3	105	211	
199	10/21/2020 03:43 PM	Cullimore Hall	111	Row 1, Seat 7, Table Surface	7	105	211	



Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
200	10/21/2020 03:43 PM	Cullimore Hall	111	Row 2, Seat 1, Table Surface	2	105	211	
201	10/21/2020 03:43 PM	Cullimore Hall	111	Row 2, Seat 6, Table Surface	7	105	211	
202	10/21/2020 03:44 PM	Cullimore Hall	111	Row 2, Seat 9, Table Surface	7	105	211	
203	10/21/2020 03:44 PM	Cullimore Hall	111	Row 3, Seat 1, Table Surface	1	105	211	
204	10/21/2020 03:45 PM	Cullimore Hall	111	Row 3, Seat 4, Table Surface	1	105	211	
205	10/21/2020 03:45 PM	Cullimore Hall	111	Row 3, Seat 9, Table Surface	3	105	211	
206	10/21/2020 03:45 PM	Cullimore Hall	111	Row 4, Seat 1, Table Surface	0	105	211	
207	10/21/2020 03:46 PM	Cullimore Hall	111	Row 4, Seat 4, Table Surface	3	105	211	
208	10/21/2020 03:46 PM	Cullimore Hall	111	Row 4, Seat 5, Table Surface	12	105	211	
209	10/21/2020 03:47 PM	Cullimore Hall	111	Door Handle	38	105	211	Hallway Side
210	10/21/2020 03:47 PM	Cullimore Hall	111	Light Switch	18	105	211	
211	10/21/2020 03:55 PM	Cullimore Hall	106	Row 1, Seat 1, Table Surface	2	105	211	
212	10/21/2020 03:56 PM	Cullimore Hall	106	Row 1, Seat 7, Table Surface	0	105	211	
213	10/21/2020 03:57 PM	Cullimore Hall	106	Row 1, Seat 10, Table Surface	3	105	211	
214	10/21/2020 03:57 PM	Cullimore Hall	106	Row 3, Seat 3, Table Surface	0	105	211	
215	10/21/2020 03:57 PM	Cullimore Hall	106	Row 3, Seat 6, Table Surface	7	105	211	
216	10/21/2020 03:58 PM	Cullimore Hall	106	Row 3, Seat 9, Table Surface	0	105	211	
217	10/21/2020 03:58 PM	Cullimore Hall	106	Row 5, Seat 1, Table Surface	0	105	211	

Test No.	Date	Building	Room	Surface	RLU Result	Lower Control Limit	Upper Control Limit	Notes
218	10/21/2020 03:58 PM	Cullimore Hall	106	Row 5, Seat 4, Table Surface	5	105	211	
219	10/21/2020 03:59 PM	Cullimore Hall	106	Row 5, Seat 7, Table Surface	5	105	211	
220	10/21/2020 03:59 PM	Cullimore Hall	106	Row 7, Seat 2, Table Surface	0	105	211	
221	10/21/2020 03:59 PM	Cullimore Hall	106	Row 7, Seat 5, Table Surface	0	105	211	
222	10/21/2020 04:00 PM	Cullimore Hall	106	Row 7, Seat 8, Table Surface	0	105	211	
223	10/21/2020 04:00 PM	Cullimore Hall	106	Row 9, Seat 3, Table Surface	0	105	211	
224	10/21/2020 04:01 PM	Cullimore Hall	106	Row 9, Seat 5, Table Surface	3	105	211	
225	10/21/2020 04:01 PM	Cullimore Hall	106	Row 9, Seat 9, Table Surface	3	105	211	
226	10/21/2020 04:01 PM	Cullimore Hall	106	Door Push Bar	38	105	211	
227	10/21/2020 04:02 PM	Cullimore Hall	106	Light Switch	121	105	211	Bottom Right Side of the room

### **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 Weston Studio could not be conducted.
- Only surfaces with elevated or critical pre-cleaning ATP concentrations were tested post-cleaning.

### **Data Interpretation:**

- 23-out-of-227 representative ATP surface samples collected reported elevated ATP levels (10.1% of samples). 11 out of the 23 samples with elevated ATP levels were pre-cleaning samples. Meaning they were collected before the area was cleaned by NJIT building services.
- Omega Environmental Services collected SARS-CoV-2 surface samples on the 12 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 313 RLU, with 70% of the samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 63 RLU, with a 79% decrease in ATP concentrations.
- In the Highlander Pub, the average pre-cleaning ATP concentration was 116 RLU, with approximately 13% of the samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 61 RLU, with a 47% decrease in ATP concentrations.
- In the Life Sciences and Engineering Center, Room 102, the average pre-cleaning ATP concentration was 205 RLU, with approximately 22% of the samples indicating elevated ATP levels. The average post-cleaning ATP concentration was 78 RLU, with a 61% decrease in ATP concentrations. 1 post-cleaning sample resulted in elevated levels of ATP and could not be cleaned to an acceptable level. On this surface, a SARS-CoV-2 surface sample was collected.

**Surface SARS-CoV-2 Swab Data: 10/20-10/21/2020**

Sample No.	SARS-CoV-2 Swab Sample Locations	Result (Positive/Negative)
1	Central King Building, Room 205, Surface of Table 3 at Seat 1	Negative
2	Kupfrian Hall, Room 204, Row 3, Seat 9, Table Surface	Negative
3	Kupfrian Hall, Room 204, Door Handle (Classroom side of the Door)	Negative
4	Kupfrian Hall, Room 204, Light Switch	Negative
5	Tiernan Hall, TLH1, Row 9, Seat 2, Table Surface	Negative
6	Tiernan Hall, TLH1, Door Push Bar (Classroom side of the Door, Top, Left Side of the Lecture Hall)	Negative
7	Faculty Memorial Hall, Room 110, Door Handle, (Classroom side of the Door, Left side of the room)	Negative
8	Cullimore Hall, Room 103, Door Handle (Classroom side of the Door, Left side of the room)	Negative
9	Life Sciences and Engineering Center, Room 102, Science Commons, Surface of Table 14 Surface	Negative
10	Houten Library, 1st Fl Elevator Call Button (Up)	Negative
11	Houten Library, Computer CA-1047-009, Mouse	Negative
12	Houten Library, Computer CA-1047-025, Keyboard	Negative
13	Houten Library, Computer CA-1047-027, Mouse	Negative
14	Houten Library, Computer CA-1047-030, Mouse	Negative
15	Campus Center, Highlanders Pub, Table 11 Surface	Negative
16	Weston Hall, Campbell Studio, Door Handle (Hallway side of the Door)	Negative
17	Laurel Hall, 5th Fl Elevator Call Button (Down)	Negative
18	Laurel Hall, 4th Fl Elevator Call Button (Down)	Negative
19	Laurel Hall, 3rd Fl Elevator Call Button (Down)	Negative
20	Laurel Hall, 2nd Fl Elevator Call Button (Down)	Negative
21	Laurel Hall, 1st Fl Elevator Call Button (Up)	Negative
22	Laurel Hall, 1st Fl Lobby, Door Handle to 1st Fl Hallway (Lobby side of Door)	Negative
23	Cullimore Hall, Exterior Door Handle (The Most Right Door) (Summit St Entrance)	Negative
24	Campus Center Exterior Door Handle (The Most Right Door) (Summit St Entrance)	Negative
25	Kupfrian Hall, Exterior Door Handle (The Rightmost Door) ("NJIT Greens" Entrance)	Negative
26	Tiernan Hall Entrance Door Handle (The Most Right Door) ("NJIT Greens" Entrance)	Negative

**SARS-CoV-2 Air Sample Data: 10/20/20-10/21/20**

<b>Sample No.</b>	<b>SARS-CoV-2 Air Sample Locations</b>	<b>Result (Positive/Negative)</b>
1	Kupfrian Hall, Room 204	Negative
2	Central King Building, Room 205	Negative
3	Tiernan Hall, TLH1	Negative
4	Faculty Memorial Hall, Room 110	Negative
5	Cullimore Hall, Room 103	Negative
6	Mechanical Engineering Center, Room 224	Negative
7	GITC, Room 3600	Negative
8	Life Sciences and Engineering Center, Room 102 (Science Commons)	Negative
9	Houten Library, 1st Fl (Near the Entrance)	Negative
10	Campus Center C-Store	Negative
11	Weston Hall, Campbell Studio	Negative
12	Weston Hall, 3 <sup>rd</sup> Fl Admin Office Area	Negative
13	Campus Center 1 <sup>st</sup> Fl, Sitting Area Near Dining Hall	Negative
14	Wellness Entertainment Center, 2 <sup>nd</sup> Floor Fitness Center	Negative
15	Laurel Hall, 5 <sup>th</sup> Fl Hallway, Near the Elevator	Negative
16	Laurel Hall, 3 <sup>rd</sup> Fl Hallway, Near the Elevator	Negative
17	Laurel Hall, 2 <sup>nd</sup> Fl Hallway, Near the Elevator	Negative
18	Laurel Hall, 1 <sup>st</sup> Fl Vestibule (Entrance Side)	Negative

**Data Interpretation:**

- Laboratory results indicate all the SARS-Cov-2 samples collected on 10/20 and 10/21/2020 were negative.

Attachments:

*Laboratory analysis reports with chain-of-custody*

### Analytical Test Report

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

Client Project/Name: 20-1175

Sample date: 10-20-2020

Submittal date: 10-20-2020

Sample received: 10-21-2020

Samples submitted by: Kadeem Hill

Date analysis completed: October 22, 2020

Prestige Report number: 201021-03

#### 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> )
201021-03-008 03 CKB, Room 205, Surface of Table 3 at Seat 1	ND	ND	ND	ND	NA
201021-03-009 04 Kupfrian Hall, Row 3, Seat 9, Table Surface	ND	ND	ND	ND	NA
201021-03-010 05 Kupfrian Hall, Room 204, Door Handle, Classroom side	ND	ND	ND	ND	NA
201021-03-011 06 Light Switch	ND	ND	ND	ND	NA
201021-03-013 08 Tiernan Hall, TLH1, Row 9, Seat 2, Table Surface	ND	ND	ND	ND	NA
201021-03-014 09 Tiernan Hall, TLH1, Door Push Bar	ND	ND	ND	ND	NA
201021-03-020 16 FMH, Room 110, Door Handle, Classroom side of the door	ND	ND	ND	ND	NA
201021-03-021 17 Cullimore Hall, Room 103, Door Handle	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)
201021-03-006 01 Kupfrian Hall, Room 204	ND	ND	ND	ND	NA
201021-03-007 02 CKB, Room 205	ND	ND	ND	ND	NA
201021-03-012 07 Tiernan Hall, TLH1	ND	ND	ND	ND	NA
201021-03-015 10 FMH, Room 110	ND	ND	ND	ND	NA
201021-03-016 11 Cullimore Hall, Room 103	ND	ND	ND	ND	NA
201021-03-017 12 MEC, Room 224	ND	ND	ND	ND	NA
201021-03-018 14 GITC, Room 3600	ND	ND	ND	ND	NA
201021-03-019 15 LSEC, Room 102	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.
5. 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>



### Analytical Test Report

Client: Omega Environmental Services, Inc., 280 Huyler Street, South Hackensack, NJ 07606  
 Client Project/Name: 20-1175  
 Sample date: 10-21-2020  
 Submittal date: 10-21-2020  
 Sample received: 10-22-2020  
 Samples submitted by: Kadeem Hill  
 Date analysis completed: October 23, 2020  
 Prestige Report number: 201022-03

#### 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> )
201022-03-004 18 LSEC, Room 102, Table 14 Surface	ND	ND	ND	ND	NA
201022-03-007 21 Houten Library, 1 <sup>st</sup> Fl Elevator Call Button (Up)	ND	ND	ND	ND	NA
201022-03-008 22 Houten Library, Computer CA-1047-009 Mouse	ND	ND	ND	ND	NA
201022-03-009 23 Houten Library, Computer CA-1047-025 Keyboard	ND	ND	ND	ND	NA
201022-03-010 24 Houten Library, Computer CA-1047-027 Mouse	ND	ND	ND	ND	NA
201022-03-011 25 Houten Library, Computer CA-1047-030 Mouse	ND	ND	ND	ND	NA
201022-03-016 30 Campus Center, Highlanders Pub, Table 11 Surface	ND	ND	ND	ND	NA
201022-03-017 31 Weston Hall, Campbell Studio Door Handle, Hallway side	ND	ND	ND	ND	NA

201022-03-021 35 Laurel Hall, 5 <sup>th</sup> Fl Hallway Elevator Call Button (Down)	ND	ND	ND	ND	NA
201022-03-022 36 Laurel Hall, 4 <sup>th</sup> Fl Hallway Elevator Call Button (Down)	ND	ND	ND	ND	NA
201022-03-023 37 Laurel Hall, 3 <sup>rd</sup> Fl Hallway Elevator Call Button (Down)	ND	ND	ND	ND	NA
201022-03-024 38 Laurel Hall, 2 <sup>nd</sup> Fl Hallway Elevator Call Button (Down)	ND	ND	ND	ND	NA
201022-03-025 39 Laurel Hall, 1 <sup>st</sup> Fl Hallway Elevator Call Button (Up)	ND	ND	ND	ND	NA
201022-03-026 40 Door Handle to 1 <sup>st</sup> Fl Hallway (Lobby side of Door)	ND	ND	ND	ND	NA
201022-03-028 42 Cullimore Hall Entrance Door Handle, Most Right Summit St side of Door	ND	ND	ND	ND	NA
201022-03-029 43 Campus Center Entrance Door Handle, Most Right, Summit St Side of Door	ND	ND	ND	ND	NA
201022-03-030 44 Kupfrian Hall Door Handle, Most Right, "NJIT Greens" Side of Door	ND	ND	ND	ND	NA
201022-03-031 45 Tiernan Hall Entrance Door Handle, Most Right "NJIT Greens" Side of Door	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)
201022-03-005 19 Houten Library, 1 <sup>st</sup> Fl, Near the Entrance	ND	ND	ND	ND	NA
201022-03-006 20 Campus Center C-Store	ND	ND	ND	ND	NA
201022-03-012 26 WEC, 2 <sup>nd</sup> Floor Workout Center	ND	ND	ND	ND	NA
201022-03-013 27 Weston Hall, Campbell Studio	ND	ND	ND	ND	NA
201022-03-014 28 Weston Hall, 3 <sup>rd</sup> Fl Admin Office	ND	ND	ND	ND	NA
201022-03-015 29 Campus Center 1 <sup>st</sup> Fl, Sitting Area Near Dinning Hall	ND	ND	ND	ND	NA
201022-03-018 32 Laurel Hall, 5 <sup>th</sup> Fl Near Elevator	ND	ND	ND	ND	NA
201022-03-019 33 Laurel Hall, 3 <sup>rd</sup> Fl Near Elevator	ND	ND	ND	ND	NA
201022-03-020 34 Laurel Hall, 2 <sup>nd</sup> Fl Near Elevator	ND	ND	ND	ND	NA
201022-03-027 41 Laurel Hall, Vestibule, Entrance Side	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.

1. 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.
2. 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.
5. 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>