

Oderzo (TV), 14 December 2020

SUBJECT: Description of the test used to determine 2019-nCoV in the air of an indoor space

December 14th, 2020, Lifeanalytics srl, located in Via Pezza Alta 22, 31046 Oderzo (TV) was entrusted with Awions Cube D6 C30 (item number AWID6C30) from Alfa Water srl.



The tests, carried out simultaneously, are shown below:

Test 1) "Research 2019-nCoV" while the tool was switched on:

- Determination of the test sample in the air of an indoor space after 10 minutes from the spraying (T=10 min)

Test 2) "Research 2019-nCoV" while the tool was switched off:

- Determination of the test sample in the air of an indoor space after 10 minutes from the spraying (T=10 min)



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Strain used:

The material used for the controlled contamination of the room is a Sars-Cov-2 strain (inactivated by heat and gamma rays) at a known concentration. The analytical evaluation was carried out by the in real-time RT-PCR technique (Reverse Transcriptase PCR). 1×10^5 viral copies (dC) were inoculated.

Material of the tests:

The test was carried out in a 65x55x50 cm room to simulate an indoor environment.

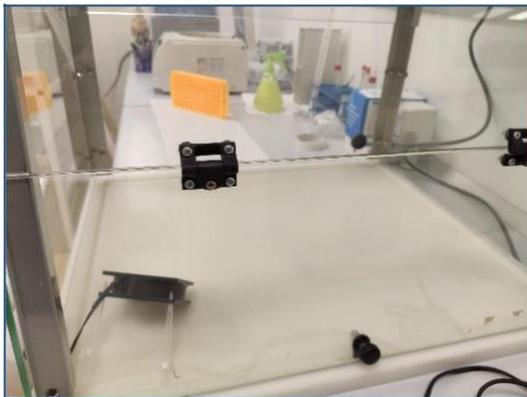
Inside the room were placed:

- Awions Cube D6 C30;
- Portable nebuliser at a continuous flow used for a homogeneous dispersion of the inoculum;
- Aeration fan placed at a 45-degree angle from the surface to maintain the inoculum suspended in the room.



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Outside of the room, a portable aspirator with a filtering membrane, used to determine the inactivated strain in the indoor air, was installed.



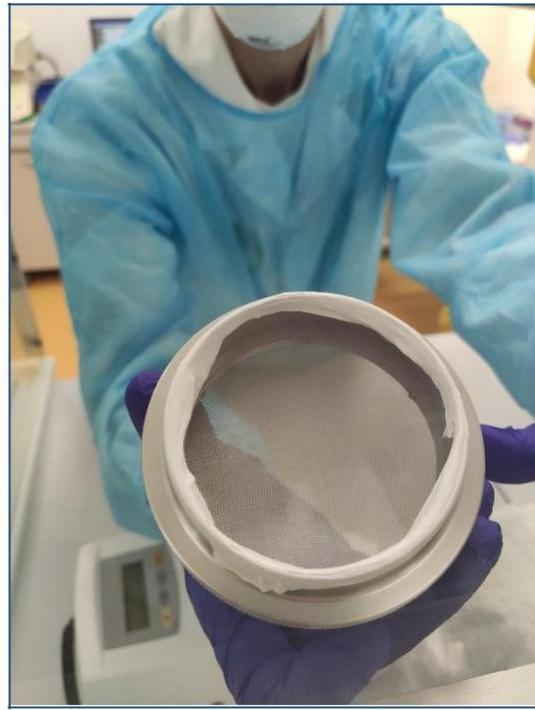
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Short description of the test:

The tests were carried out in bio contaminated controlled environments under the supervision of qualified lab technicians at Lifeanalytics srl.

Test 1) was carried out while the room was closed. The portable nebuliser at a continuous flow distributed uninterruptedly the Sars-Cov2 inoculum inside the room for 5 min. At the end of the dispersion of the inactivated strain, Cube D6 C30 tool was **switched on at a continuous rate** for 10 min.



- After 10 min an air swab from the filtering membrane of the portable aspirator was retrieved



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Test 2) was carried out while the room was closed. The portable nebuliser at a continuous flow distributed uninterruptedly the Sars-Cov2 inoculum inside the room for 5 min. At the end of the dispersion of the inactivated strain, Cube D6 C30 tool was kept **switched off** for 10 min.

- After 10 min an air swab from the filtering membrane of the portable aspirator was retrieved

Results:

The results are shown in the test reports attached to this report:

- Test report N°20AB02158
- Test report N°20AB02159

Direttore laboratorio
Dr. Adriano Giusto
Chimico Ordine dei chimici – Provincia di Treviso Iscrizione n. 93
Documento firmato digitalmente ai sensi della normativa vigente



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TEST REPORT N° 20AB02158

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Issuing date:	21/12/2020		
Sample code:	20AB02158	Company	Alfa Water S.r.l.
Receipt date:		Street	Via Cavalieri di V. Veneto, 25/a
		City:	32026 Sedico, Belluno (BL)
Sampling date:	14/12/2020 12.00		
Place and sampling point:	Lifeanalytics Srl - Via Pezza Alta, 22, 31046 Oderzo (TV)		
Sampling by:	Lifeanalytics Srl Technical Staff		
Start date of analysis:	14/12/2020	End date of analysis:	15/12/2020
Sample description:	Sample - Instrument Cube D6 C30 off - Detection 2019-nCoV indoors - T=10 min		

The results contained in this Test Report refer only to the analyzed sample. This Test Report can not be copied, even partially, without Laboratory written permission by the administrator of: Lifeanalytics - Oderzo (TV).

TEST RESULTS

Test denomination	Unit of measure	Value	LOQ	Analytical Method
Detection 2019-nCoV (LOD= 3 c/l)		present		MI 995 rev. 00 (2020)

This Test Report cancels and replaces the same data Test Report issued on 18/12/2020 due to a change in the customer because of a mistake in the customer request.

Others informations deemed useful for the interpretation of the results:

The reported uncertainty "I" is the expanded uncertainty calculated using a coverage factor of 2 which gives a confidence level of approximately 95. For microbiological research are indicated the upper and lower limit of the confidence interval with level of probability of 95% K=2 or the interval itself. The results of the tests are issued in accordance with the law ISO 7218:2007.

When the results are <4 (UFC/ml) or <40 (UFC/g) the microorganisms are present but fewer than 4 (UFC/ml) or 40 (UFC/g).

"n.r.": < to detection limit LOD (if it is not indicated it is necessary to look at the limit of quantification LOQ).

Please note that each result expressed as "n.r." does not indicate the absence of the parameter in the sample.

LOQ: limit of quantification: It is the lowest analyte concentration in the sample that can be detected with acceptable accuracy under well specified conditions.

LOD: detection limit: it is the lowest analyte concentration in the sample that can be detected but not necessarily quantified under specific conditions. In the case of quantitative analyses it isn't indicate.

When the sampler is not a laboratory technician, the sampling description data shall be provided by the person who performed the sampling and the laboratory shall not be responsible for those data, including any influence on the validity of the results. The results included in the assay report are referred to the sample received.

Conformity opinions: values that comply with and do not comply with laws, decrees, national and EU regulations, specifications provided by the customer are assessed on a case-by-case.

Rec%: Recovery% it indicates the recovery that has been applied to the result where it is positive.

Direttore laboratorio Dr. Adriano Giusto

**Chimico Ordine dei chimici - Provincia di
Treviso Iscrizione n° 93**

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TEST RESULTS

Test denomination	Unit of measure	Value	LOQ	Analytical Method
Detection 2019-nCoV (LOD= 3 c/l)		absent		MI 995 rev. 00 (2020)

This Test Report cancels and replaces the same data Test Report issued on 18/12/2020 due to a change in the costumer because of a mistake in the costumer request.

Others informations deemed useful for the interpretation of the results:

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