

## MUAYENE RAPORU

**Kuruluş** : MORZON BİLİŞİM SAN. TIC. LTD. ŞTİ.  
*Organization*  
**Adresi** : Cumhuriyet Mah. Kartal Cd. No:49 D:6 Kartal İstanbul  
*Address*  
**Temiz Oda/Bölge Tanımı** : Ofis odası / HV EU  
*Definition of Clean Room/Zone*  
**Muayene Tarih(ler)i** : 02.11.2020  
*Inspection Date(s)*  
**Muayene Rapor No** : VD.TEO.1120.1243.3.1  
*Inspection Report Nr*  
**Yayın Tarihi** : 05.11.2020  
*Date of Issue*  
**Toplam Sayfa Adedi** : 3 (Kapak ve Ekler Hariç)  
*Number of Pages* **Ekler:**Kullanılan Cihazların Kalibrasyon Sertifikaları,DPC Cihazı Çıktısı

Yukarıda bilgileri verilmiş kuruluşa ait temiz oda/bölge ve/veya tesisatında aşağıda listelenmiş deneyler ilgili referans standartlarına göre gerçekleştirilerek muayenesi yapılmıştır. Muayene sonuçları, metodları, uygunluk ve varsa metotlardan sapmalar bu sertifikanın devamı niteliğindeki muayene raporlarında belirtilmiştir.

*The clean room/zone and/or installations which belongs to the organization stated above is inspected through the tests according to respective reference standard stated below. Inspection results, methods, conformity and, if any, departures are given in the corresponding inspection report(s) which is/are complementary part(s) of this certificate.*

### Yapılan Deneyler Conducted Tests

No	Deney Adı Test	Bölüm Part	Deney Yöntemi Test Method	Yapılan Conducted
1	HVAC PQ Testleri		EN ISO 14644-1	√



Muayene Uzmanı  
Inspector  
Mümin KAYIŞ

Onay  
Approved by  
Kartal Selçuk ATAN

Uluslararası Laboratuvar Akreditasyon Birliği (International Laboratory Accreditation Cooperation - ILAC) Karşılıklı Tanınma Anlaşması

Universal Sertifikasyon ve Gözetim Hizmetleri Tic. Ltd. Şti.

www.universalcert.com



Rapor No:VD.TEO.1120.1243.3.1

Report Nr:

**H.Muayene Sonuçları**  
**H.1. Partikül Sayım Testi**

<b>H.1.1. DPC Cihazı Bilgileri</b> <i>H.1.1. DPC Device Information</i>			
<b>Marka ve Modeli</b> <i>Brand and Model</i>	LASAIR III 5100	<b>Seri No</b> <i>Serial Number</i>	104197
<b>Örnekleme Kap. (l/dak)</b> <i>Sampling Flow (l/min)</i>	100	<b>Kanal Eşikleri (µm)</b> <i>Channel Tresholds (µm)</i>	0.3-25
<b>Not: DPC cihazı örnekleme kapasitesi tek numune hacmine eşit ya da daha büyükse numune alma süresi 1 dakika olarak belirlenir.</b> <i>Sampling duration is determined as 1 minute, if DPC sampling flow rate is equal or bigger than single sample volume.</i>			

<b>H.1.2. Değerlendirmeye Alınan Partikül Boyutları</b> <i>H.1.2. Assessed Particle Size Ranges</i>			
<b>1. Çap, D<sub>1</sub> (µm)</b> <i>1st Diameter, D<sub>1</sub> (µm)</i>	0,5	<b>2. Çap, D<sub>2</sub> (µm)</b> <i>2nd Diameter, D<sub>2</sub> (µm)</i>	5,0

<b>H.1.3. Alınan Numune Sonuçları</b> <i>H.1.3. Sampling Results</i>	
<b>Numune Alma Yeri Sayısı</b> <i>Number of Sampling Location</i>	EN 14644-1:2015 Tablo A:1

*MM* 05.11.2020

**Rapor No:VD.TEO.1120.1243.3.1**

Report Nr.:

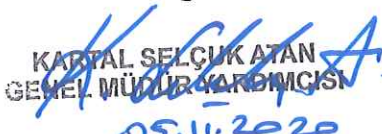
**H.1.4. Temiz Odalar Sınıflandırma Sonuçları**

*H.1.4. Clean Rooms Classification Results*

Ölçüm Noktası Sampling Location No.	D <sub>1</sub>	Ölçülen Measured		D <sub>2</sub>	Ölçülen Measured		Kabul Kriteri Acc.Criteria	UYGUNLUK Confirmity	
								UYGUN Confirm	U.DEĞİL N.C.
P1	0,5	Ortalama Mean	30886686	5	Ortalama Mean	34633	N/A	N/A	N/A
P2	0,5	Ortalama Mean	30001478	5	Ortalama Mean	33211			
P3	0,5	Ortalama Mean	28888954	5	Ortalama Mean	32026			
P4	0,5	Ortalama Mean	28944500	5	Ortalama Mean	31218			
P5	0,5	Ortalama Mean	28586432	5	Ortalama Mean	30952			
P6	0,5	Ortalama Mean	28258062	5	Ortalama Mean	30436			
HV EU ( 16,2 m <sup>2</sup> )	0,5	Maksimum Maximum	30886686	5	Maksimum Maximum	34633			
		Ortalama Mean	29261018		Ortalama Mean	32079			
		Std.Sapma St.Deviation	989014		Std.Sapma St.Deviation	1582			

**Açıklamalar:** HV EU cihazını çalıştırmadan önce odadaki 0,5 ve 5 m partikül değerleri yukarıdaki gibidir. Tablodaki değerlere göre oda içerisinde hava temizleyici cihaz çalıştırılmadan önce partikül değerleri ISO 9 sınıfına karşılık gelmektedir.

**Testi Yapan**  
*Test Conducted By*  
  
**MÜMİN KAYIS**  
 YALIDASYON SORUMLUSU  
 05.11.2020

**Kontrol Eden:**  
*QC:*  
  
**KARTAL SELÇUK ATAN**  
 GENEL MÜDÜR YARDIMCISI  
 05.11.2020

**Onaylayan:**  
*Approved By:*

Rapor No:VD.TEO.1120.1243.3.1

Report Nr:

## H.2. Performans Testi Sonuçları

### H.2.1. Performans Testi Ölçüm Cihazı Bilgileri

#### H.2.1 Measurement Device Information

No	Cihaz Tipi Device Type	Marka Brand	Model Model	Seri No Serial No	Kalibrasyon Tarihi Calibration Date
1	Partikül Ölç.Cihazı	Lasair	III 5100	104197	06.01.2020

### H.2.2. Ölçüm Şartları

#### H.2.2. Measurement Conditions

Partikül Boyutu ( $\mu\text{m}$ ) Particle Size ( $\mu\text{m}$ )	0,5	5,0	Numune Yeri Sayısı Sampling Location Number	1
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Ö.Noktası T.Point	Partikül Boyutu Particle Size	İlk Konsantrasyon (/m <sup>3</sup> ) Initial Concentration (/m <sup>3</sup> )	Düşük Konsantrasyon (/m <sup>3</sup> ) Decayed Concentration (/m <sup>3</sup> )	Süre (dak) Time (min)	Kbl.Kriteri Acc.Criteria
HV EU (16,2 m <sup>2</sup> )	0,5	27729864	493848	30	N/A
	5,0	31693	1370		N/A

**Açıklamalar:** HV EU cihazı çalıştırılıp oda içerisinde yapılan partikül ölçüm sonuçları yukarıdaki tabloda verilmiştir. Cihaz 30 dk da oda içerisindeki partikülleri yukarıdaki tabloda bulunan İlk konsantrasyon değerlerinden Düşük konsantrasyon değerlerine kadar temizlediği görülmüştür.

Bu raporda bulunan partikül ölçüm testleri hava temizleme cihazı için herhangi bir uygunluk vermek için değil, bilgi amaçlı olarak cihazın oda içerisinde bulunan partikülleri ne kadar sürede temizlediğini belirlemek için yapılmıştır.

Testi Yapan  
Test Conducted By

MÜMİN KAYIŞ  
VALİDASYON SORUMLUSU  
05.11.2020

Kontrol Eden:  
QC:

KARTAL SELÇUK ATAN  
GENEL MÜDÜR YARDIMCISI  
05.11.2020

Onaylayan:  
Approved By:

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: #001  
 Room: HV EU

02/11/2020 16:03:04  
 02/11/2020 16:04:04 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	30852052	30886686
5.0	34633	34633

0.1000 m<sup>3</sup>      0.100021 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: #002  
 Room: HV EU

02/11/2020 16:04:30  
 02/11/2020 16:05:30 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	29968266	30001478
5.0	33211	33211

0.1000 m<sup>3</sup>      0.099997 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: #003  
 Room: HV EU

02/11/2020 16:05:50  
 02/11/2020 16:06:50 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	28856928	28888954
5.0	32026	32026

0.1000 m<sup>3</sup>      0.100014 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: #004  
 Room: HV EU

02/11/2020 16:07:11  
 02/11/2020 16:08:11 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	28913280	28944500
5.0	31218	31218

0.1000 m<sup>3</sup>      0.100005 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: #005  
 Room: HV EU

02/11/2020 16:08:47  
 02/11/2020 16:09:47 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	28555480	28586432
5.0	30952	30952

0.1000 m<sup>3</sup>      0.100025 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: #006  
 Room: HV EU

02/11/2020 16:10:14  
 02/11/2020 16:11:14 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	28227626	28258062
5.0	30436	30436

0.1000 m<sup>3</sup>      0.100012 m<sup>3</sup>/m

### Cleanroom Certification Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019

Batch ID:  
 Operator:  
 Room: HV EU

02/11/2020 16:04:04

Certification Standard

Standard: ISO 14644:2015

Class: ISO 9

Particle Sizes: 0.5  $\mu\text{m}$

5.0  $\mu\text{m}$

Certification Results:

**PASS**

### Sampling Plan

Area	(m <sup>2</sup> )	Min	Plan	Actual
Locations/Room:	6	6	6	6
Samples/Location	1	1	1	1
Total Samples	6	6	6	6
Min. Volume: (m <sup>3</sup> )	0.1000	0.1000	0.1000	0.1000

### Particle Data

Target	$\mu\text{m}$	(N/m <sup>3</sup> )
0.5	3520000	
5.0	293000	
Max	0.5	30886686
	5.0	34633
Mean	0.5	29261018
	5.0	32079
S.D.	0.5	989014
	5.0	1582

### Location Averages

Location	#	$\mu\text{m}$	$\Sigma (N/m^3)$
HV EU #001	1	0.5	30886686
		5.0	34633
HV EU #002	1	0.5	30001478
		5.0	33211
HV EU #003	1	0.5	28888954
		5.0	32026
HV EU #004	1	0.5	28944500
		5.0	31218
HV EU #005	1	0.5	28586432
		5.0	30952
HV EU #006	1	0.5	28258062
		5.0	30436

Deleted Samples: 0

*M. K.* 05.11.2020

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:15:21  
02/11/2020 16:16:21 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	27698170	27729864
5.0	31693	31693

00:01:00 0.099989 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:16:31  
02/11/2020 16:17:31 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	25331124	25357446
5.0	26322	26322

00:01:00 0.099991 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:17:41  
02/11/2020 16:18:41 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	22188082	22208154
5.0	20072	20072

00:01:00 0.100040 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:18:51  
02/11/2020 16:19:51 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	18955280	18972558
5.0	17278	17278

00:01:00 0.100011 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:20:01  
02/11/2020 16:21:01 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	15743638	15756677
5.0	13039	13039

00:01:00 0.100009 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:21:11  
02/11/2020 16:22:11 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	12935320	12946590
5.0	11270	11270

00:01:00 0.100003 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:22:21  
02/11/2020 16:23:21 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	10473652	10483341
5.0	9688	9688

00:01:00 0.100016 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:23:31  
02/11/2020 16:24:31 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	8411197	8418997
5.0	7800	7800

00:01:00 0.099999 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV  
02/11/2020 16:24:41  
02/11/2020 16:25:41 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	6645652	6651602
5.0	5950	5950

00:01:00 0.099999 m<sup>3</sup>/m

*M. H. 05.11.2020*

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:25:51  
 02/11/2020 16:26:51 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	5238495	5243935
5.0	5440	5440

00:01:00 0.100000 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:27:01  
 02/11/2020 16:28:01 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	4228829	4233549
5.0	4720	4720

00:01:00 0.099997 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:28:11  
 02/11/2020 16:29:11 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	3361941	3366151
5.0	4211	4211

00:01:00 0.099984 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:29:21  
 02/11/2020 16:30:21 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	2761890	2765499
5.0	3610	3610

00:01:00 0.100004 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:30:31  
 02/11/2020 16:31:31 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	2268949	2272509
5.0	3560	3560

00:01:00 0.100001 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:31:41  
 02/11/2020 16:32:41 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	1819375	1822165
5.0	2790	2790

00:01:00 0.099986 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:32:51  
 02/11/2020 16:33:51 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	1530859	1533580
5.0	2720	2720

00:01:00 0.099992 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:34:01  
 02/11/2020 16:35:01 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	1302647	1305107
5.0	2460	2460

00:01:00 0.099991 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
 Serial Number: 104197  
 Calibrated: 17/12/2019  
 Location: HV EU RCV

02/11/2020 16:35:11  
 02/11/2020 16:36:11 #1  
 Sample Status: Valid

$\mu\text{m}$	$\Delta (N/m^3)$	$\Sigma (N/m^3)$
0.5	1097452	1099513
5.0	2060	2060

00:01:00 0.099982 m<sup>3</sup>/m

*M* 05.11.2020

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:36:21

02/11/2020 16:37:21

#1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	929105	931064
5.0	1960	1960

00:01:00 0.100013 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:39:51

02/11/2020 16:40:51

#1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	623222	624792
5.0	1570	1570

00:01:00 0.100009 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:37:31

02/11/2020 16:38:31

#1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	851065	853065
5.0	2000	2000

00:01:00 0.099983 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:41:01

02/11/2020 16:42:01

#1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	566700	567890
5.0	1190	1190

00:01:00 0.100018 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:38:41

02/11/2020 16:39:41

#1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	709750	711601
5.0	1850	1850

00:01:00 0.099977 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:42:11

02/11/2020 16:43:11

#1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	519595	520895
5.0	1300	1300

00:01:00 0.100024 m<sup>3</sup>/m

*M* 05.11.2020



### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:43:21

02/11/2020 16:44:21 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	544924	546494
5.0	1570	1570

00:01:00 0.100010 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:44:31

02/11/2020 16:45:31 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	489113	490453
5.0	1340	1340

00:01:00 0.099997 m<sup>3</sup>/m

### Final Sample Report

UNIVERSALCERTIFICATION

Instrument ID: Lasair III  
Serial Number: 104197  
Calibrated: 17/12/2019  
Location: HV EU RCV

02/11/2020 16:45:41

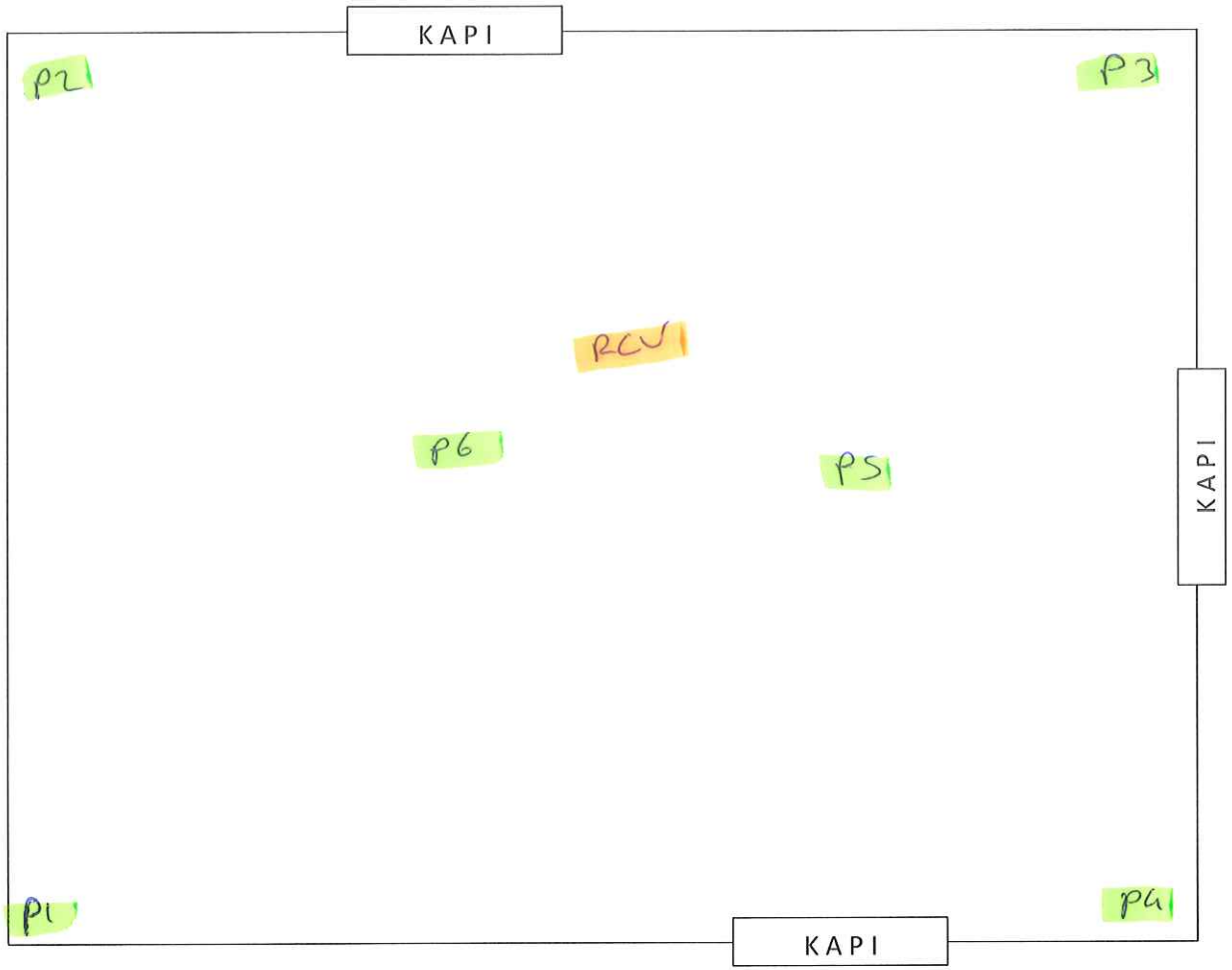
02/11/2020 16:46:41 #1

Sample Status: Valid

$\mu\text{m}$	$\Delta$ (N/m <sup>3</sup> )	$\Sigma$ (N/m <sup>3</sup> )
0.5	486210	487340
5.0	1130	1130

00:01:00 0.099988 m<sup>3</sup>/m

*MW* 05.11.2020



→ İlk partikül ölçüm noktaları.

→ Performans ölçüm noktası.

MÜMİN KAYIŞ  
VALIDASYON SORUMLUSU  
05.11.2020