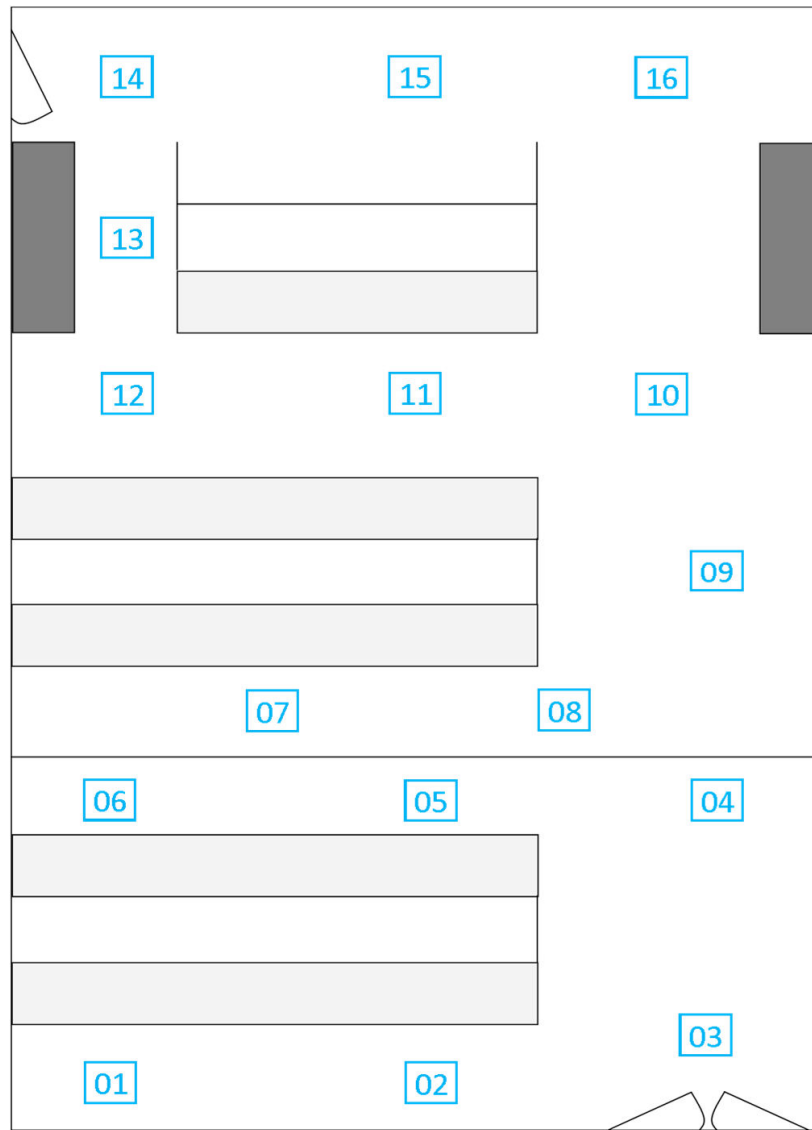




## Data Centre Cleaning Report

CLIENT	Who ever Ltd
ADDRESS	Near London
LOCATION	Data Room
PREPARED BY	Steve Yates
DATE	21-09-11

# ROOM REPORT



An air particulate test was carried out before and after the clean. A full deep clean of the room was provided including the floor void. There are a few maintenance issues to mention, there is a tile where the vinyl has delaminated and is a potential trip hazard (near reading 9). The trolley/shelves near reading 2 is very unstable as it is overloaded, one of wheels looks like it is about to fail and it appears the shelves are top heavy. There is also a grill on the air con at location 13 which is loose and flapping about.

## **Air testing**

The 2 graphs showing the particulates at the beginning and end of the clean show a considerable reduction in all the particulate sizes. Only the 5.0 micron readings are not within Class 7. Therefore the levels achieve



I.T. CLEANING

## CERTIFICATE OF CONFORMITY

Near London  
Data Room

### Specification Achieved ISO 14644 Class 8

Specification Required:	CLASS 8 or better
Date:	21-09-11
Time:	1100
Tester:	Steve Yates
Test Instrument:	Light house Solair 5100+
Area tested:	173 m <sup>2</sup>
Number of tests locations:	16
Sample protocol:	Logical spaces shown on room plan
Sample volume:	0.02 m <sup>3</sup>
Sample time:	42s
Air flow:	Non Directional
Occupancy state:	Operational
Particle sizes tested:	0.5µm, 1.0µm, 5.0µm

## TEST RESULTS

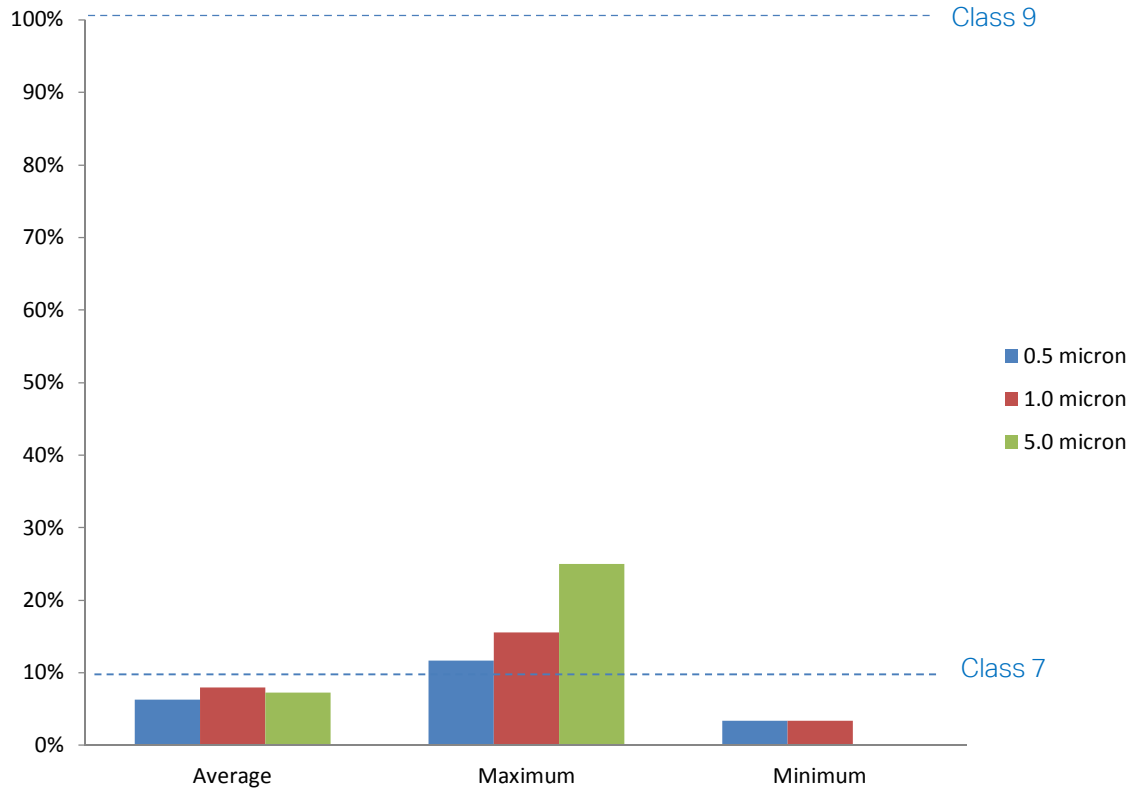
<u>Particle Size</u>	<u>particles/m<sup>3</sup></u>	<u>CLASS 7</u>	<u>CLASS 8</u>
0.5 micron	70,000	PASS 352,000	PASS 3,520,000
1.0 micron	37,400	PASS 83,220	PASS 832,200
5.0 micron	4,940	FAIL 2,930	PASS 29,300





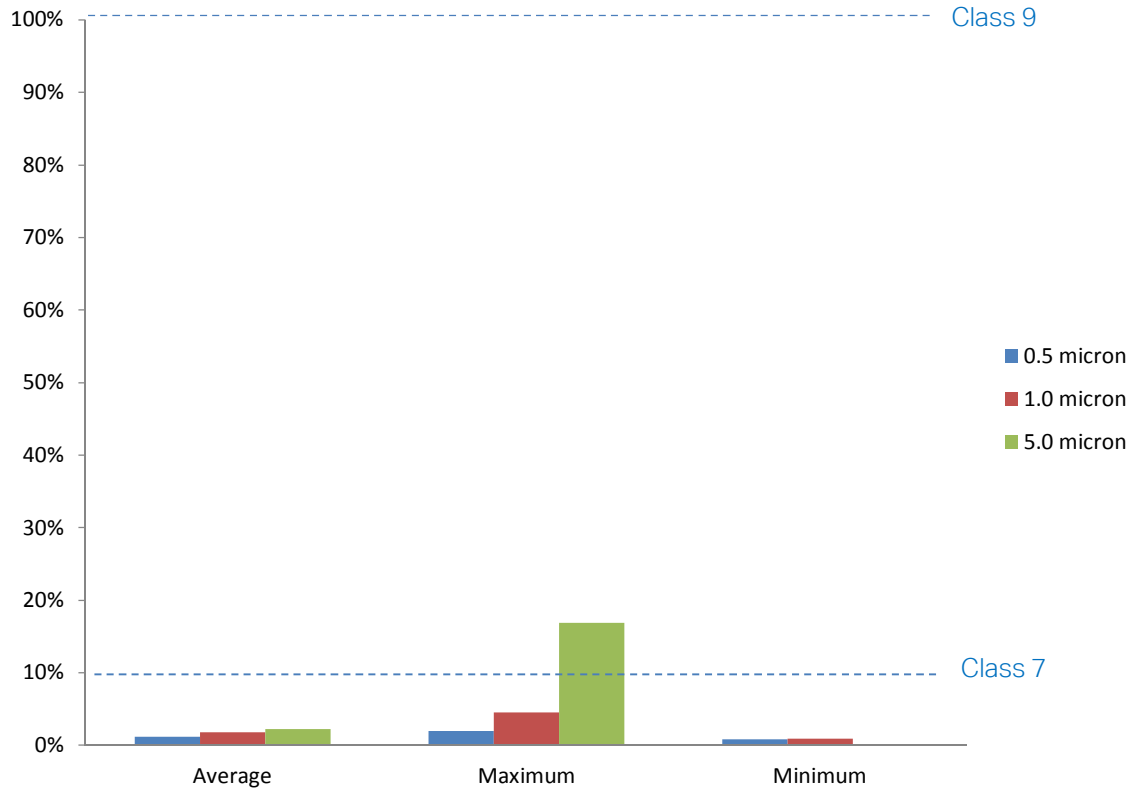
# GRAPHICAL RESULTS - INITIAL

## Percentage of ISO 14644 - Class 8



# GRAPHICAL RESULTS - FINAL

## Percentage of ISO 14644 - Class 8



# International Standards for Cleanrooms and Critical Environments

## Airborne Particulate Cleanliness Classes ISO 14644

Class	Number of Particles per Cubic Meter by Micrometer Size					
	0.1 um	0.2 um	0.3 um	0.5 um	1 um	5 um
ISO 1	10	2				
ISO 2	100	24	10	4		
ISO 3	1,000	237	102	35	8	
ISO 4	10,000	2,370	1,020	352	83	
ISO 5	100,000	23,700	10,200	3,520	832	29
ISO 6	1,000,000	237,000	102,000	35,200	8,320	293
ISO 7				352,000	83,200	2,930
ISO 8				3,520,000	832,000	29,300
ISO 9				35,200,000	8,320,000	293,000

### ISO-14644-1 Classification of Air Cleanliness

Cleanliness class designations and quantity have changed from FS209E (see Table 1). Along with the obvious change to metric measure of air volume, ISO 14644-1 adds three additional classes.

IT Cleaning Ltd Specification for Data Room class 8 clean; Air particulate levels to Class 8 or better plus all accessible surfaces free from dust.

### Strategic Testing: (Table 1) Schedule of Tests to Demonstrate Continuing Compliance.

Test Parameter	Class	Maximum Time Interval	Test Procedure
Particle Count Test	≤ ISO 5	6 Months	ISO 14644-1 Annex A
	> ISO 5	12 Months	
Air Pressure Difference	All Classes	12 Months	ISO 14644-1 Annex B5
Airflow	All Classes	12 Months	ISO 14644-1 Annex B4

### Definitions

Operational	Populated room, equipment is live
Occupied	Populated room, equipment is not live
Unoccupied	Unpopulated room




# CERTIFICATE OF CALIBRATION



CERTIFICATE NO. M10228/NT/01

## CERTIFICATE OF CALIBRATION

CUSTOMER DETAILS								
CUSTOMER IT Cleaning Limited								
ADDRESS 112 Clifton Street, Swindon, SN1 3QA								
PARTICLE COUNTER DETAILS								
MODEL Lighthouse Solair 5100+								
SERIAL NUMBER 080203003				REFERENCE ID None				
CALIBRATION TEST INSTRUMENTATION								
INSTRUMENT	SERIAL NUMBER	CERTIFICATE NUMBER	CALIBRATION EXPIRY					
PHA	uT0002	M10103/NT/01	18 May 2011					
DMM	1080635654	1196148	21 Oct 2011					
Rotameter	F138007/2	19645	23 Oct 2011					
PERFORMANCE DETAILS								
Particle Size (µm)	Lot Number	Expiry Date	Output					
0.498	33445	May 2011	217 mV	Calibration Volt.	N/A			
0.707	35757	Sept 2012	496 mV	Flow Rate	1.0 CFM			
1.034	36608	Mar 2013	573 mV	Noise	24.7 mV			
5.000	33533	May 2011	2820 mV	Signal/Noise	8.9:1			
10.000	36031	Nov 2012	3560 mV	Resolution (%)	N/A			
				Extra Details: Laser Ref 59 mV				
COMMENTS								
INSTRUMENT CHANNEL SETTINGS								
Size (µm)	0.5	0.7	1.0	3.0	5.0	10.0	----	----
Threshold	220 mV	487 mV	565 mV	1690 mV	2820 mV	3560 mV	----	----
THIS IS TO CERTIFY THAT THE INSTRUMENT HAS BEEN CALIBRATED IN ACCORDANCE WITH THE MANUFACTURERS PROCEDURES.								
NAME Nick Todd				CALIBRATION DATE 31 Jan 2011				
SIGNATURE 				NEXT CALIBRATION DUE January 2012				