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**CERTIFICATION REPORT – Cleanroom Certification**  
**CERTIFICATION REPORT #:** 02169-20250730RT01

**CUSTOMER NAME:** Boothwyn Pharmacy  
**CUSTOMER ADDRESS:** 221 Gale Lane, Kennett Square PA, 19348

<b>Manufacturer &amp; Model:</b> Pharmacy Cleanroom <b>Test Completion Date:</b> 09 Oct 2025 <b>Contact:</b> [REDACTED] <b>Location &amp; Room:</b> Rooms 166, 167, 169, 169A	<b>Identifying No.:</b> N/A <b>Next Service Date:</b> Jan 2026 <b>CEC Asset No.:</b> 02169
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PAGE TITLE	ACCEPTANCE CRITERIA: NOT APPLICABLE PER DESIGN CLIENT CRITERIA USED FOR DIAGNOSTIC PURPOSES	RESULTS: PASS FAIL NO TEST FOR REFERENCE ONLY
<b>Identification &amp; Room Dimension Drawing</b>	Not Applicable	For Reference Only
<b>Airflow Volume</b>	Sufficient Air to Achieve Air Changes Per Hour	Pass
<b>Room Air Change Rate Calculation</b>	HD Airlock ≥ 30 ACPH HD Prep Room ≥ 30 ACPH HD Ante Room ≥ 30 ACPH HD Buffer Room ≥ 30 ACPH	Pass
<b>Room Pressurization &amp; Airflow Directional Smoke Pattern Test</b>	HD Airlock to Pharmacy > 0.020" w.c. HD Airlock to HD Prep Room 0.010 -0.030" w.c. HD Prep Room to HD Ante Room ≥ 0.010" w.c. HD Ante Rm to HD Buffer Rm = 0.010 - 0.030" w.c.	Pass
<b>HEPA Filter Installation Leak Test</b>	≤ 0.010% of the upstream challenge	Pass After Replacement
<b>Aerosol Challenge Introduction Location</b>	Not Applicable	For Reference Only
<b>Airborne Non-Viable Particle Counting</b>	Rooms 166, 167, 169, 169A ISO Class 7: ≤ 352,000 ppcm @ 0.5µm and larger	Pass
<b>Filter Differential Pressure</b>	Not Applicable	For Reference Only
<b>Light Intensity &amp; Sound Level</b>	Not Applicable	For Reference Only
<b>Repair Patch Tracking</b>	Lesser dimension of each repair no greater than 1.50"  Total of all repairs not to exceed 3.00% of the effective filter area	Pass
<b>HEPA Filter Historical Data</b>	Used for Diagnostic Purposes	For Reference Only

**Certified in Accordance with the most current:** CETA CAG-003-2022, ISO 14644-1:2015

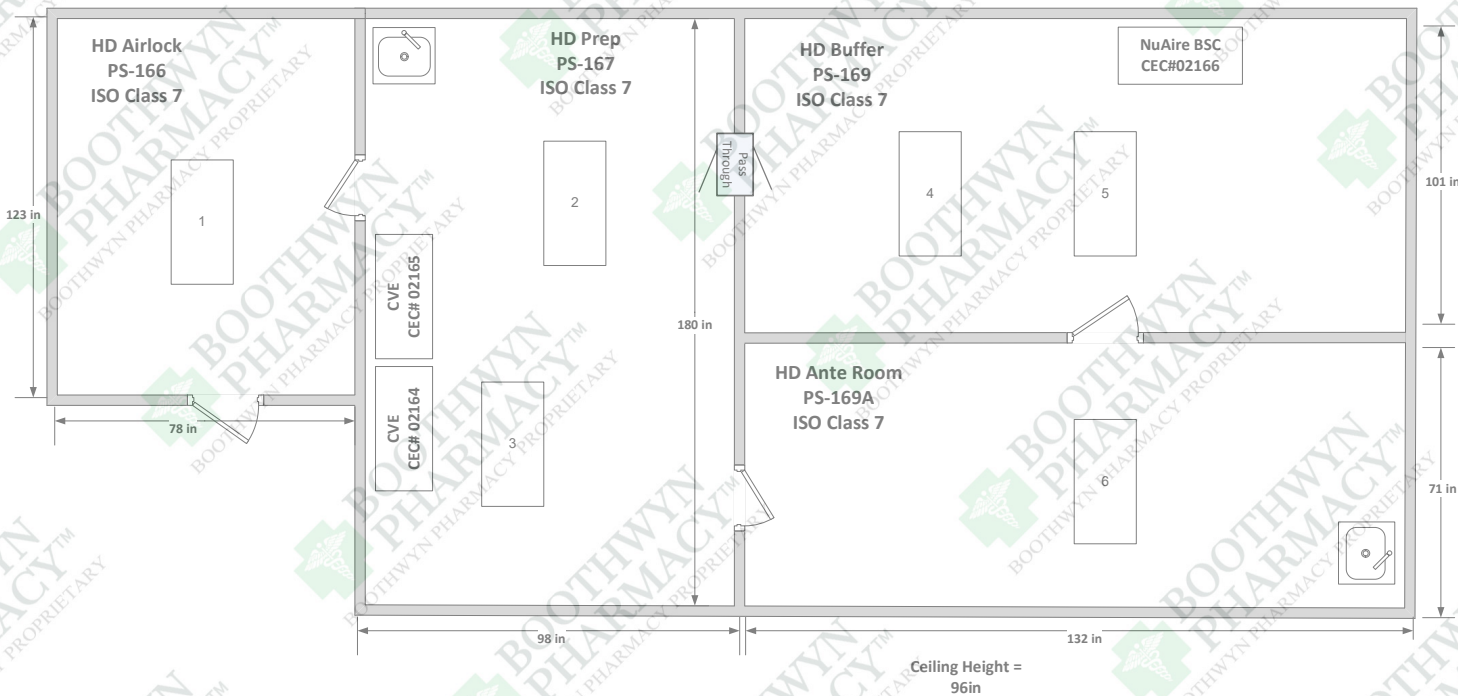
**COMMENTS:** Airflows and room pressures completed on 09 Oct 2025 all other testing was completed on 30 Jul 2025

**COMPLETED BY:** [REDACTED] **DATE:** 09 Oct 2025



IDENTIFICATION & ROOM DIMENSION DRAWING:

\*All dimensions measured to the nearest inch.



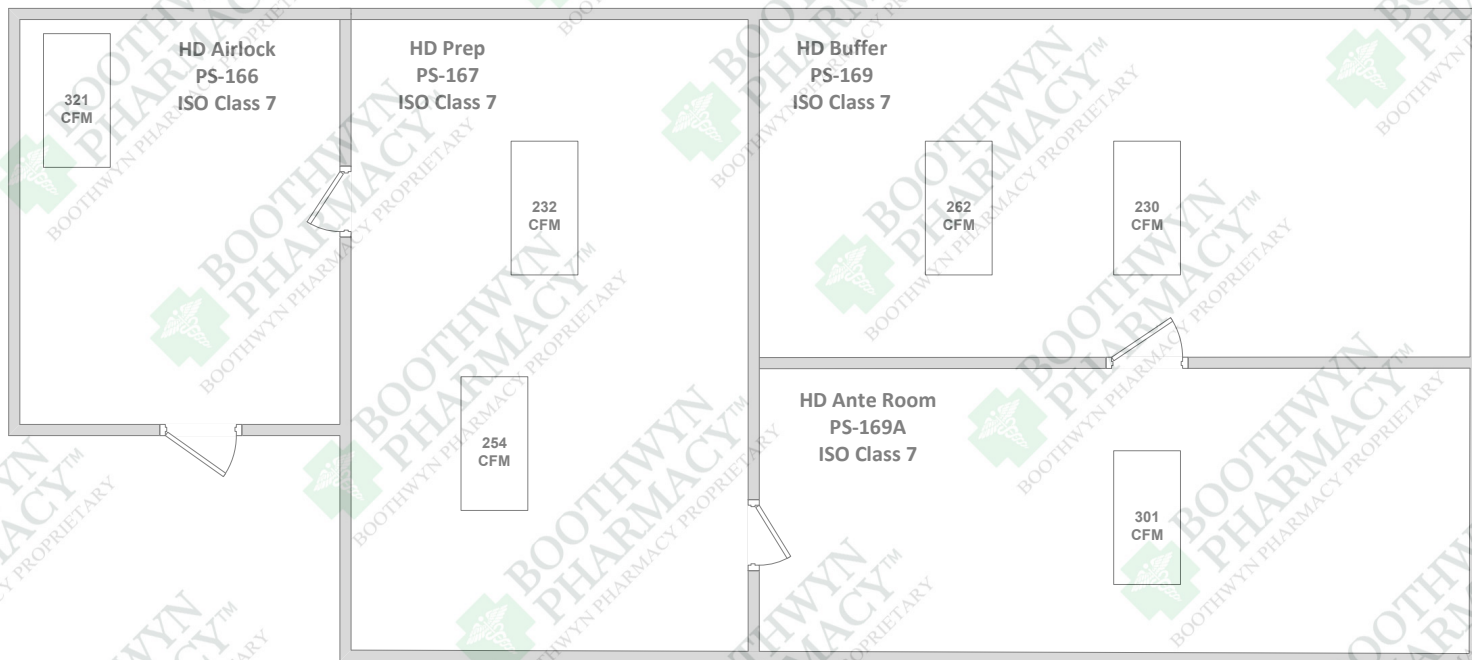


### AIRFLOW VOLUME

All Volume readings were recorded in Cubic Feet Per Minute (CFM). All readings were backpressure compensated.

#### NIST TRACEABLE STANDARDS USED

DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	CALIBRATION DUE
Capture Hood	Evergreen Telemetry	S-PVF-1	2100805C	15 Jan 2026



COMMENTS: N/A



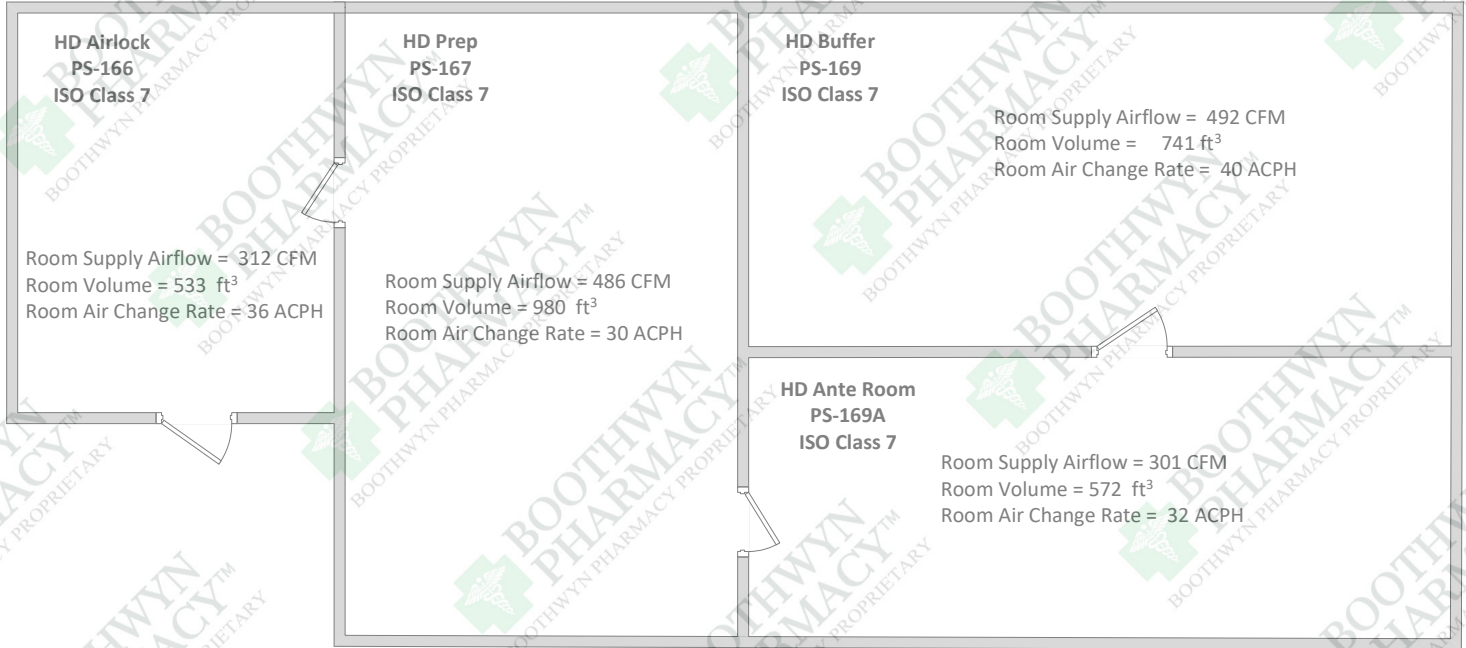
### ROOM AIR CHANGE RATE CALCULATION

**Reporting:**

**Total Airflow Volumes in Cubic Feet Per Minute (CFM):** (CFM1 + CFM2 + CFM3...)

**Room Volume:** In Cubic Feet (CU.FT.) (L" x W" x H"/1728)

**AIR CHANGES/HOUR:** (CFM/CU.FT. x 60)



COMMENTS: N/A



**ROOM PRESSURIZATION & AIRFLOW DIRECTIONAL SMOKE PATTERN TEST**

**NIST TRACEABLE STANDARDS USED**

DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	CALIBRATION DUE
Manometer	TSI	9565P	9565P2307003	07 Feb 2026

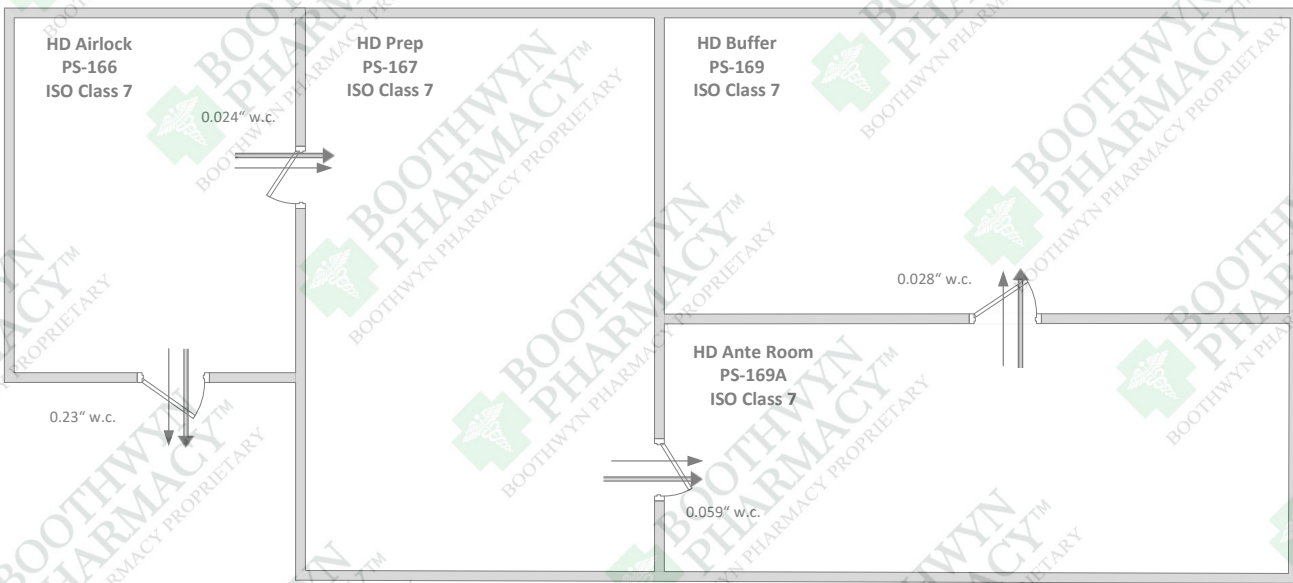
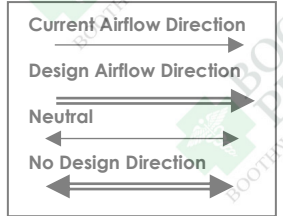
**Reporting:** Pressure - Inches of Water Column ("w.c.)

A visual smoke source is used to verify airflow direction by passing the smoke source around the entire perimeter of the doorway.

Readings taken on **09 Oct 2025 @ 1030**

**Monitor Field Performance Verification Chart**

HD Airlock to Pharmacy Monitor	0.025" w.c.
HD Airlock to HD Prep Room Monitor	0.025" w.c.
HD Ante Room to HD Prep Room Monitor	0.060" w.c.
HD Ante Room to HD Buffer Room Monitor	0.030" w.c.



ROOM PRESSURE CRITERIA
HD Airlock to Pharmacy > 0.020" w.c.
HD Airlock to HD Prep Room = 0.010" - 0.030" w.c.
HD Prep Room to HD Ante Room ≥ 0.010" w.c.
HD Ante Room to HD Buffer Room = 0.010 - 0.030" w.c.

COMMENTS: N/A



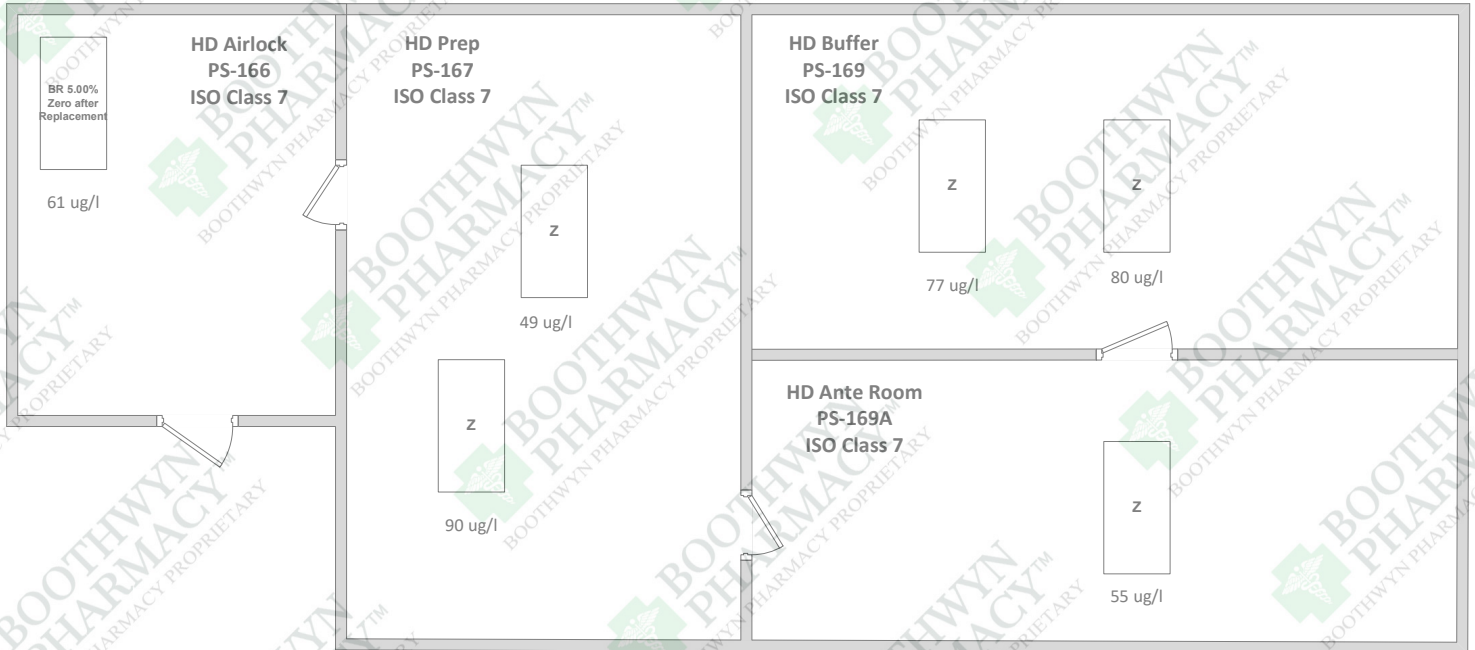
**HEPA FILTER INSTALLATION LEAK TEST**

\*A minimum of 10ug/L Laskin Nozzle of PAO (poly-alpha-olefin) introduced upstream to challenge the HEPA filters.  
 The HEPA filter and frame were scanned at a rate not to exceed 2" per second.  
 Measured upstream aerosol challenge is documented as ug/L.

**NIST TRACEABLE STANDARDS USED**

DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	CALIBRATION DUE
Photometer	Tec Services	PH-7	5156	17 Apr 2026

LEGEND			
/	Media Leakage	AR	After Repair
X	Frame Leakage	ZAR	Zero After Repair
BR	Before Repair	Z	Zero Leakage Detected



COMMENTS: HD Airlock filter was replaced.

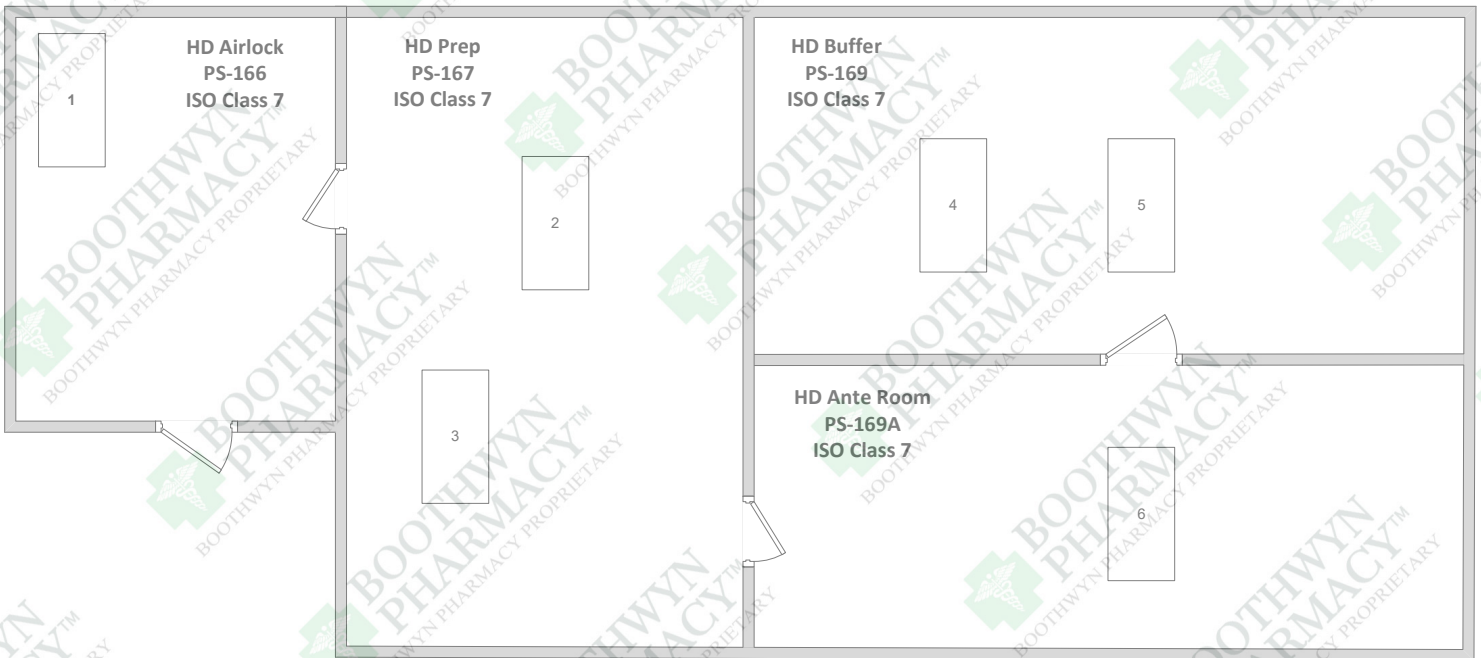


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**AEROSOL CHALLENGE INTRODUCTION LOCATION**

Smoke Detectors: No

Smoke Detectors were not disabled.

Smoke was introduced into ports next to the filters in each room. Filter # 3 smoke was introduced into flex duct in Mez above cleanroom.



COMMENTS: N/A



**AIRBORNE NON-VIABLE PARTICLE COUNTING**

NIST TRACEABLE STANDARDS USED

DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	CALIBRATION DUE
Particle Counter	Lighthouse	3100	230804736	29 Aug 2025

All samples 0.5 micron and larger are documented.

Particles are recorded in Particles per Cubic Meter (PPCM).

Particle Counts were sampled at 40" worksurface height.

Room Status: Dynamic

Gowning: Facemask, Hairnet, Overalls, Gloves, Booties

Tested per: ISO 14644-1:2015

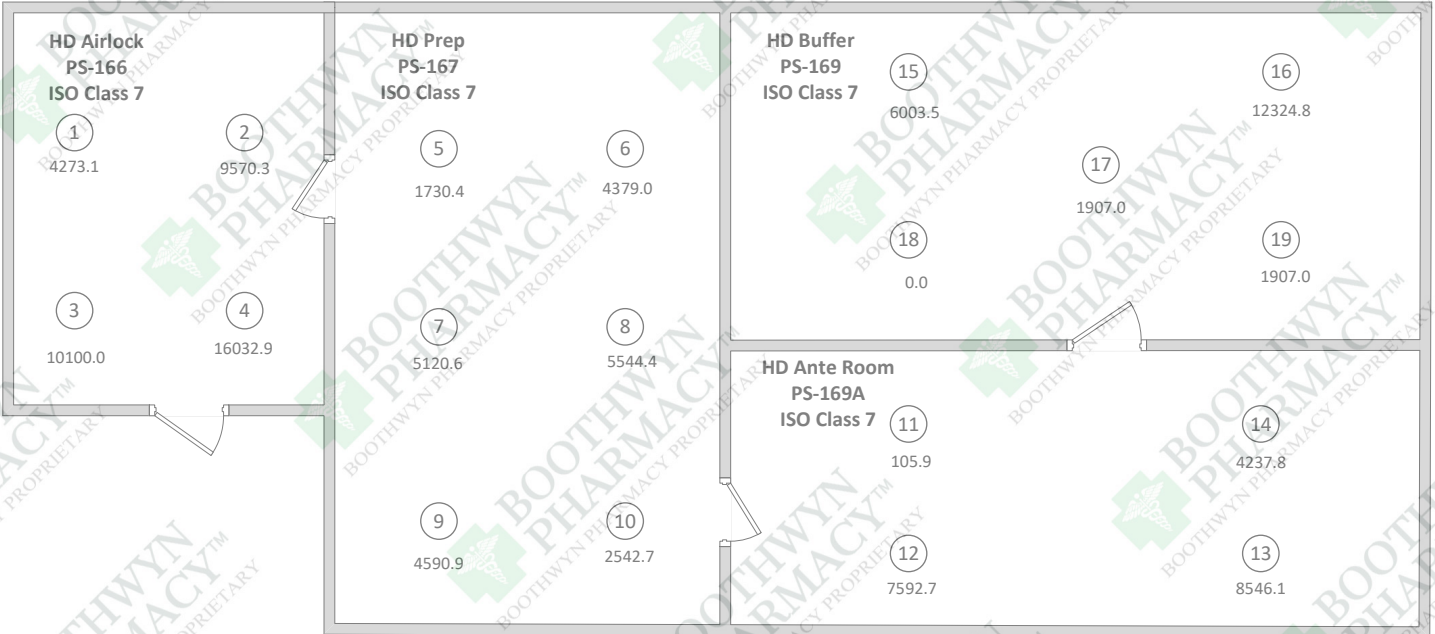
Minimum Sample Rate: 2 Liters

Sample Volume: 28.3 Liters

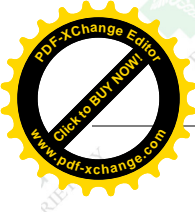
Sample Time: 1 Minute

Pharmacy Personnel in Room: 2

CEC Personnel in Room: 2



COMMENTS: N/A



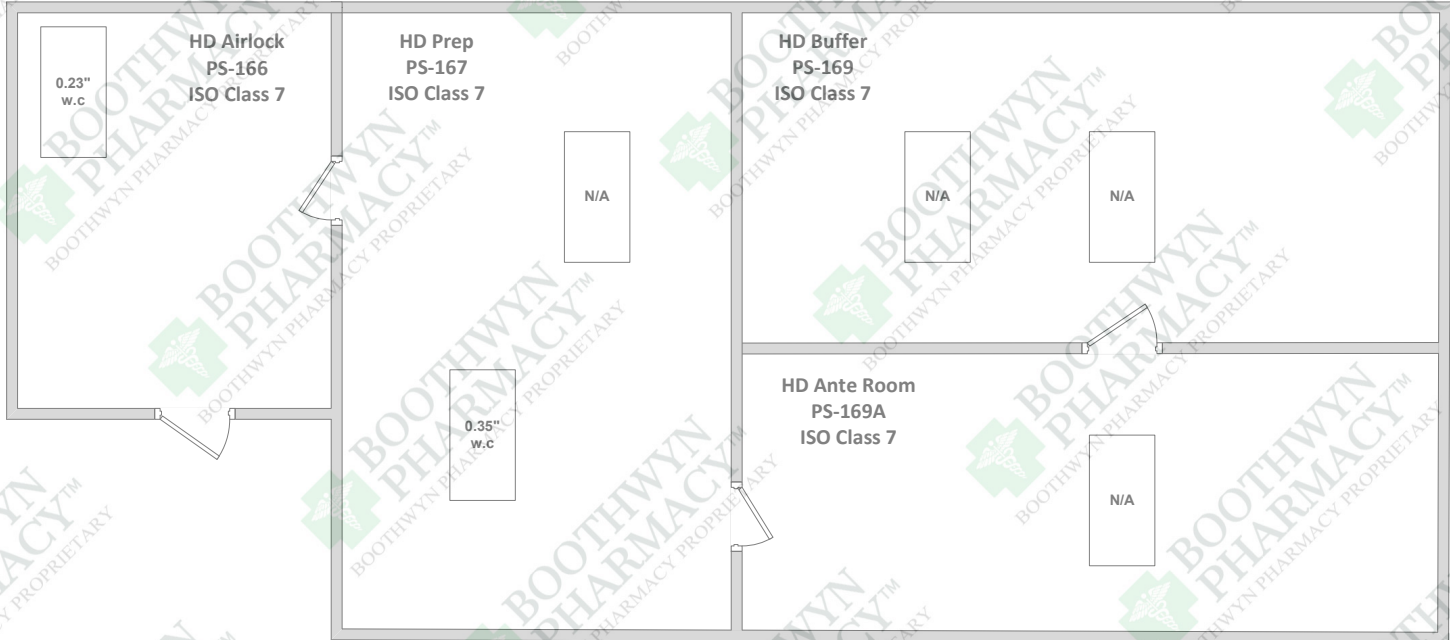
**FILTER DIFFERENTIAL PRESSURE**

*\*Indicated in inches of water column (w.c.).*

*Pressures were sampled in ports supplied by the filter manufacturer downstream of the filter.*

**NIST TRACEABLE STANDARDS USED**

DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	CALIBRATION DUE
Manometer	TSI	9565P	9565P2307003	07 Feb 2026



COMMENTS: N/A

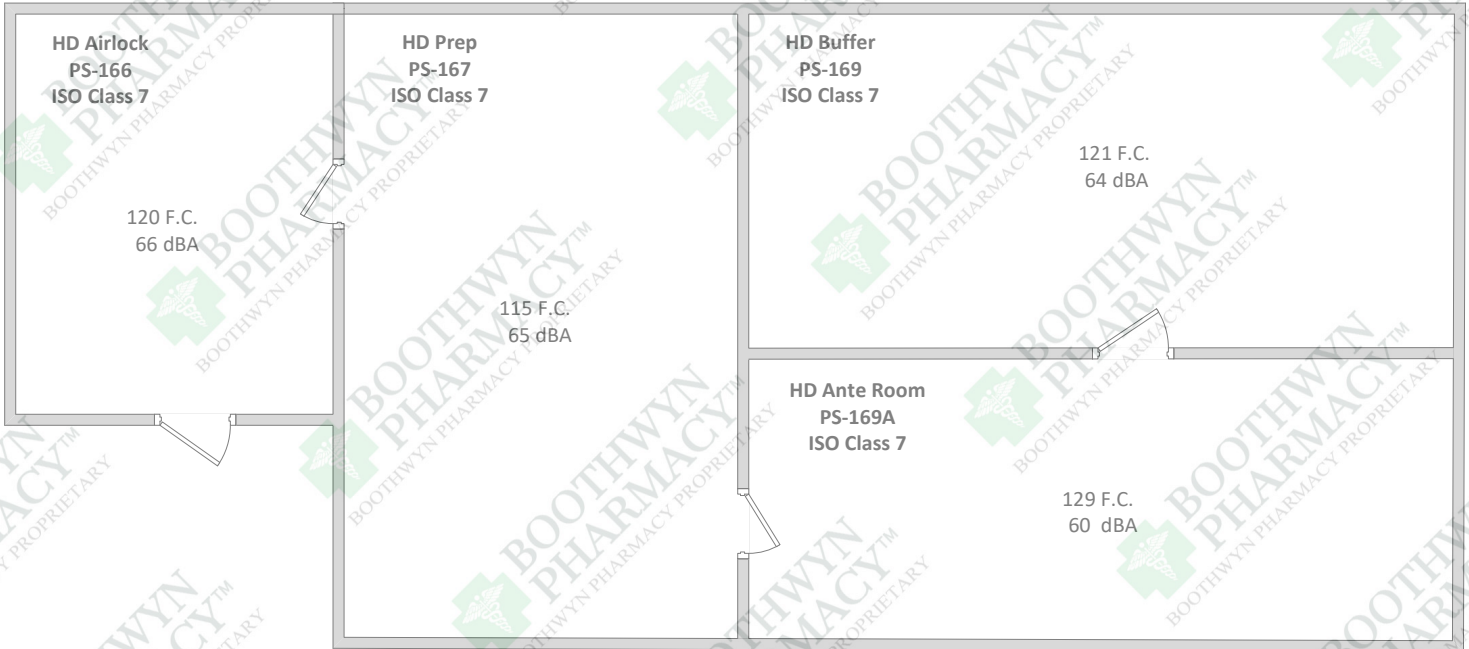


**LIGHT INSTENSITY AND SOUND LEVEL**

Lighting level was measured at 42" above the floor without a work surface. Noise level was measured at 5' above the floor.  
 Lighting Level Measurement: Foot Candle (F.C.) Noise Level Measurement: Decibels (dBA)

**NIST TRACEABLE STANDARDS USED**

DESCRIPTION	MANUFACTURER	MODEL #	SERIAL #	CALIBRATION DUE
Light Meter	Extech Instruments	401025	Z407888	21 Feb 2026
Sound Level Meter	Extech Instruments	407732	Z399647	16 Dec 2025



COMMENTS: N/A



**REPAIR PATCH TRACKING**

\*A HEPA filter must be replaced if the Total Repair is > 3.00% or if the lesser dimension of a repair is > 1.50".

FILTER ID	FILTER MEDIA AREA	REPAIR PATCH SIZE	% OF AREA	UPSTREAM/DOWNSTREAM	DATE REPAIRED	% TOTAL REPAIR
1	22.50 X 46.50 = 1046.25 sq. in.	0.00 X 0.00 = 0.00 sq. in.	0.00	N/A	N/A	0.00
2	22.50 X 46.50 = 1046.25 sq. in.	0.00 X 0.00 = 0.00 sq. in.	0.00	N/A	N/A	0.00
3	19.00 X 42.00 = 798.00 sq. in.	0.50 X 10.00 = 5.00 sq. in.	0.63	Downstream	17 Jan 2025	0.63
4	22.50 X 46.50 = 1046.25 sq. in.	0.00 X 0.00 = 0.00 sq. in.	0.00	N/A	N/A	0.00
5	22.50 X 46.50 = 1046.25 sq. in.	0.00 X 0.00 = 0.00 sq. in.	0.00	N/A	N/A	0.00
6	22.50 X 46.50 = 1046.25 sq. in.	0.00 X 0.00 = 0.00 sq. in.	0.00	N/A	N/A	0.00



HEPA FILTER HISTORICAL DATA

FILTER ID	MODEL #	S/N	INSTALLATION DATE	INITIAL VOLUME (CFM)	INITIAL DP ("w.c.)
1	H2145F99-BAAJCBJ	240722-18	30 Jul 2025	330 CFM	0.23" w.c.
2	N/A	N/A	N/A	N/A	N/A
3	N/A	N/A	16 Jan 2025	117 CFM	0.75" w.c.
4	N/A	N/A	N/A	N/A	N/A
5	N/A	N/A	N/A	N/A	N/A
6	N/A	N/A	N/A	N/A	N/A