

BAM Calibration

Office of Air Quality – Air monitoring Branch

Site/County: Terre Haute / Vigo AIRS Number: 18-167-0018 Performed by: EJH/JSL

Date: 12/10/24 Start Time: 11:47 End Time: 14:45

Last Cal: 11/28/23 Serial Number: M7457 Asset Tag: 495-29327

Audit Device Information:

FTS SN: 481798 Certification Date: 5/2/24 m: — b: —

Thermometer SN: 481798 Certification Date: 5/2/24

Barometer SN: 481798 Certification Date: 5/2/24

Audit Data:

Display BP: 747 mmhg Reference BP: 746.24 mmhg Pass or Fail (+/- 10 mmhg)

Display Temp: 5.0 °C Reference Temp: 4.75 °C Pass or Fail (+/- 2 degrees)

Flow Audit:

Ambient Temp: — °C + 273.15 = — Kelvin BP: — mmhg/760 = — atm

BAM Display: 16.70 LPM Observed Flow

Manometer Reading: — inches of Water

Reference Flow: 16.73 LPM

% Difference: -0.18% Pass if % Difference < 3% AD: 0.18%

Leak Check: 0.3 Pass if better than 1.5 LPM

Formulas and Conversions:

Pump Serial #: K0300334 Asset Tag: 495-29326

Temp Probe Serial #: 68901 Asset Tag: 495-27869 Heater Asset Tag #: 495-29492

Pump Changed or Rebuilt: No Down Tube Cleaned: yes Nozzle/Vane Cleaned: yes

Flow Controller Filter Changed: cleaned Date/Time Adjustment: yes Mode on Departure: NORMAL

Comments: _____

Calibration Equipment: TEMP REF 032613016 PRES REF 1913000189 FLOW REF 981113 5/30/24
 2/28/24 2/28/24 RH REF V4450247
 7/24/24

Calibration Data:

Target	BAM	Reference	Amb Temp	Inches of H ₂ O	Calibrated	% Difference
Ambient Temp	4.8	4.7	XXXXXXXXXX		4.7	XXXXXXXXXX
BP	746	744.8	XXXXXXXXXX		745	XXXXXXXXXX
Flow 1: 15.0	15.00	15.15	^{4.3} 277.45	5.40	15.15	-0.99%
Flow 2: 18.4	18.34	18.79	277.45	8.15	18.79	-2.39%
Flow 3: 16.7	16.78	16.88	^{3.8} 276.95	6.65	16.88	-0.59%
Filter Temp	23.9	24.7	XXXXXXXXXX		24.7	XXXXXXXXXX
Filter RH	22.6	23.6	XXXXXXXXXX		23.6	XXXXXXXXXX

Slope .4082 Intercept -.8150 Barometric Pressure 0.980 atm
 Post Cal Flow = BAM 16.70 REF 16.63 Post-Cal Leak Check = 0.50
 6.45 in H₂O, 277.65K QA: 0.42% QD: -0.42%

	BAM Output	Multimeter	Zeno Raw	Zeno Scaled
0.000				
0.100				
0.200				
0.300				
0.400				
0.500				
0.600				
0.700				
0.800				
0.900				
1.000				

Intercept Adjustment Required: NA

Reference Membrane Foil Span (ABS): OLD = 0.838 AVG = 0.853 % Diff = -1.76%

ABS Test 1: 859 2: 848 3: 852 Changed No

Background Zero: OLD = -0.0014

Change button battery? yes

Self-Test Pass: yes