

Property & inspection details

Address
12 Example Close, Neath, SA11 1AA
Date
1 May 2026
Assessment Type
HMO — add-on to monthly monitoring visit

Report Ref
VCT-SAMPLE-IAQ-01
Inspector
Dean Sedgebeer
Equipment
CO2/VOC meter, calibrated hygrometer, thermometer

MODERATE — ELEVATED CO2 AND RH IN BEDROOMS — ACTION RECOMMENDED

1 Room-by-Room IAQ Readings

Room	CO2 ppm	VOC mg/m ³	RH %	Temp °C	Status
Living room	720	0.21	52.1	19.2	GOOD
Kitchen	890	0.38	58.4	18.8	GOOD
Bedroom 1	1180	0.31	68.9	16.2	ELEVATED
Bedroom 2	1340	0.29	72.3	15.8	ELEVATED
Bedroom 3	1050	0.25	65.1	17.1	MODERATE
Bathroom	780	0.18	76.8	14.9	HIGH RH
Hallway	840	0.22	64.2	16.8	MODERATE

Target: CO2 below 1000ppm | VOC below 0.5 mg/m³ | RH 40 to 60% | Temp 18 to 21°C in occupied rooms

2 Ventilation Assessment

- PASS** Kitchen extractor functional — Vents externally — adequate
- ADVISORY** Bathroom extractor functional — Present but underperforming — recommend service
- FAIL** Trickle vents present — habitable rooms — Absent on all bedroom windows — contributing to elevated CO2 and RH
- FAIL** Adequate background ventilation — Insufficient across upper floor

3 Findings and Recommendations

Summary:

Bedroom CO2 readings of 1180ppm and 1340ppm are elevated above the 1000ppm target, indicating inadequate background ventilation overnight when rooms are occupied. Relative humidity in bedrooms ranged from 65.1% to 72.3% — above the 60% comfort threshold and approaching the 70% condensation risk level. The bathroom recorded 76.8% RH at 14.9°C — the highest risk combination in the property. The primary cause is the absence of trickle vents on all bedroom windows. This is a low-cost intervention that would significantly reduce both CO2 and RH levels across the upper floor.

- PRIORITY** Install trickle vents in all bedroom windows — estimated cost £15 to £30 per window
- PRIORITY** Service or replace bathroom extractor fan — recommend humidistat model
- ADVISORY** Consider positive input ventilation (PIV) unit for whole-house background ventilation

Welsh Legislation Reference

- Renting Homes (Wales) Act 2016 s.91** — Poor air quality can constitute an FFHH failure
- HHSRS (Wales) Regulations 2006** — Excess damp and poor ventilation are defined HHSRS hazard categories
- BESA TR19 / BS EN 13779** — Indoor air quality benchmarks — CO2 below 1000ppm, VOC below 0.5mg/m³