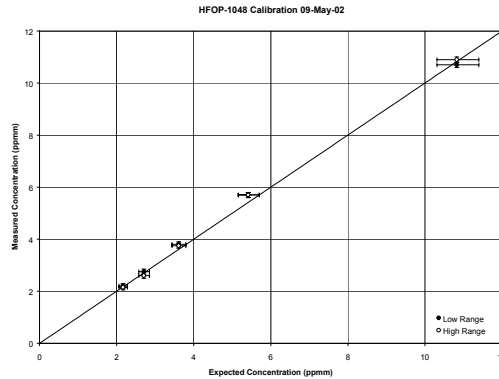


6. Calibration

The **GasFinder** is shipped already calibrated and does not require any calibration in the field.

The calibration of the **GasFinder** is done by passing a known concentration of gas through a test cell, which is placed in the path of the laser beam. Gases, which are very reactive or unstable, such as ammonia and hydrogen fluoride, are generated at the time of use with a permeation tube. The tube is placed in a temperature-controlled chamber and emits the calibration gas at a known rate.



A measured flow of inert dilution gas creates a concentration of gas which is traceable to NIST standards. The calibration data are stored in the instrument's software as a standard reference waveform.

During operation, the **GasFinder's** internal reference cell is compared with this stored waveform at frequent intervals. Any significant deviation generates a status code to alert the user to a potential calibration problem. The **GasFinder** software can be used to check the reference cell, and transfer the reference and calibration waveforms to a host PC to verify that the internal calibration system is functioning correctly.



Calibration Room



Test Cell