

Thermo Scientific Model 81i Calibrator Certification Report

Mar-13

Certification Date: _____

Location: Candidate
Franklin, MA
 Device: 81i Calibrator
 S/N: DEMO SAMPLE

ID: Reference
 S/N: Vendor Prime

As Found Data:

As Left Data:

Candidate User Information		Candidate User Generator Certification					Reference Generator
		Certification Values		Certifications Uncertainties			Uncertainties
Setpoint	Value	Setpoint	Certified	1 σ	2 σ	Expanded	Expanded
$\mu\text{g}/\text{scm}$	$\mu\text{g}/\text{scm}$	$\mu\text{g}/\text{scm}$	$\mu\text{g}/\text{scm}$	$\mu\text{g}/\text{scm}$	$\mu\text{g}/\text{scm}$	2 σ , %	2 σ , %
2.7	2.42	2.7	2.79	0.0065	0.1039	3.72%	1.98%
5.7	5.33	5.7	5.62	0.1055	0.2098	3.73%	1.79%
8.1	7.66	8.1	8.14	0.1094	0.2189	2.59%	1.25%

At each concentration level, the results of the bracketing certification procedure are acceptable if the expanded uncertainty of the elemental mercury generator concentration, calculated in accordance with Section 6.3 in the Interim EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators, does not exceed 5.0 percent of the certified value, or is not more than 2.0 percent above the Vendor Prime uncertainty at the closest set point, whichever is less restrictive. (Source Interim EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators: Section 6.4)

Protocol applies only to Hg monitoring system span values greater than or equal to 5.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). (Source Interim EPA Traceability Protocol for Qualification and Certification of Elemental Mercury Gas Generators: Section 1.0)

This document certifies that the above instrument has been calibrated and tested in accordance with Thermo Fisher Scientific procedure conducted under the conditions noted with standards, which are certified traceable to the National Institute of Standards and Technology (NIST). This Calibration Certificate may not be reproduced expect in full, without written permissions from Thermo Fisher Scientific. The results of this report relate only to the instrument tested and calibrated as identified on this certificate.

Calibration

Certification