

# MERCURY MONITORING TOOLKIT



US EPA Method 30B

DETERMINATION OF TOTAL  
VAPOR PHASE MERCURY  
EMISSIONS FROM COAL-FIRED  
COMBUSTION SOURCES USING  
CARBON SORBENT TRAPS



## METHOD

The US EPA's method 30B is designed as a reference method for determination of mercury emission with stack gases. The method uses sorbent traps to capture total mercury from stack gas. Method 30B with different sorbent traps also enables mercury speciation measurement. Method 30B is widely used for regulatory CEMM verification and for national and international research programs, including UNEP mercury projects.

The US EPA's Mercury Measurement Toolkit is designed for efficient and cost-effective on-site determination of total and speciated mercury emissions in accordance with method 30B. The Toolkit enables onsite mercury determination in all kinds of solid and liquid samples as well.

## ADVANTAGES

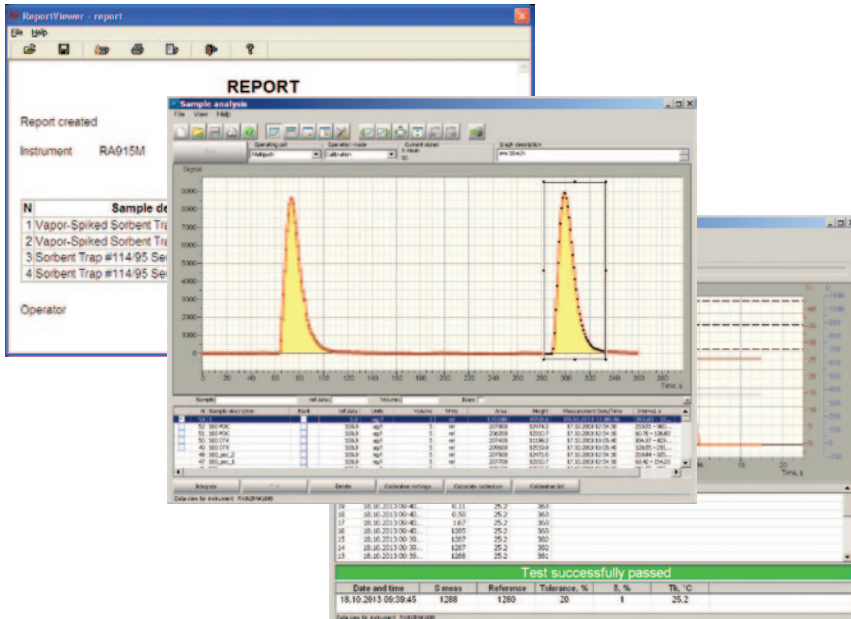
- Low detection limit
- Easy to use, maintain, and transport
- No special requirements for site preparation
- Versatility: analyses of stack gas, coal, ash, sludge, waste water
- On site analyses and results
- No cylinders with compressed oxygen or any other gas
- User-friendly software
- Low operating and maintenance costs



## DESIGN

Mercury Monitoring Toolkit comprises a sampling probe and metering console (1), sorbent traps (2), and analytical system based on direct Zeeman mercury analyzer (3) with RAPID software (4).

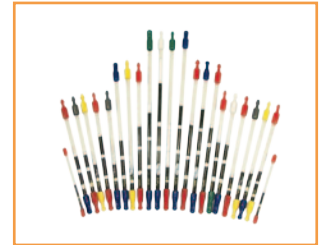
The Toolkit is used for the mercury determination in coal, fly and bottom ash, gypsum, waste water, flue gas, and other effluents.



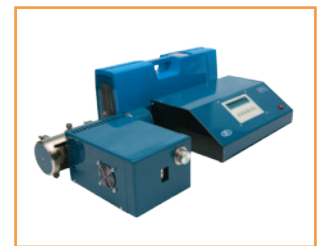
4



1



2



3

## ANALYTICAL SPECS

- Wide dynamic measurement range: 0.5 to 50,000 ng mercury absolute
- Direct analysis according to ASTM method D6722-11
- Includes the quality assurance and quality control requirements built in the method
- Analysis time is 1–10 minutes per sample

## CALIBRATION

Multipoint calibration protocol complies with the EPA Performance Based Criteria Method.

Set of NIST traceable standards.

**LUMEX**  
INSTRUMENTS

The information and specifications in this publication are subject to change without notice.

**Lumex Instruments Canada**  
0890278 B.C. Ltd.  
Unit 207, 31510 Gill Ave.,  
Silver Creek Industrial Park  
Mission, B.C., V4S0A1, Canada  
Phone: +1 604-820-8085  
+1 866-233-6057  
E-mail:  
sales@lumexinstruments.com  
[www.lumexinstruments.com](http://www.lumexinstruments.com)

**Lumex Analytics GmbH**  
Naher str., 8  
24558 Wakendorf II, Germany  
Tel.: +49 (0) 4535 297-756  
Fax: +49 (0) 4535 297-783  
E-mail: info@lumexanalytics.de  
[www.lumexanalytics.de](http://www.lumexanalytics.de)

**Lumex-Marketing LLC**  
pr. Obukhovskoy Oborony, 70,  
bldg. 2, St. Petersburg 192029,  
Russia  
Tel.: +7 (812) 718-5390  
Fax: +7 (812) 718-5399  
E-mail: sales@lumex.ru  
Post address:  
BOX 1234, St. Petersburg,  
190000, Russia  
[www.lumex.ru](http://www.lumex.ru)

**Beijing Lumex Analytical  
Equipment Co. Ltd.**  
Level 19, Tower E2, Oriental  
Plaza, 1 East Chang An Avenue,  
Dong Cheng District,  
Beijing 100738, China  
Tel.: +86 (10) 6412-9525  
Fax: +86 (10) 6242-3844  
E-mail:  
lumexcn@lumex.com.cn  
[www.lumexcn.com](http://www.lumexcn.com)

