



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF FORENSIC SCIENCE

CENTRAL LABORATORY  
A Nationally Accredited Laboratory

700 NORTH 5TH STREET  
RICHMOND, VIRGINIA 23219  
(804) 786-6971

### CERTIFICATE OF INSTRUMENT ACCURACY

INSTRUMENT: Intox EC/IR II  
 SERIAL NUMBER: 010546  
 CERTIFICATION DATE: September 8, 2014  
 DATE RECERTIFICATION DUE: March 7, 2015

The above listed instrument was found to meet all requirements for accuracy and performance established by the Department of Forensic Science as required by §9.1-1101 (B)(3). Measurement traceability is established through the use of reference materials supplied by an ISO/IEC 17025:2005 accredited calibration laboratory.

Estimation of Uncertainty of Measurement:

0.020 ± 0.004 g/210 L	0.150 ± 0.007 g/210 L
0.080 ± 0.004 g/210 L	0.250 ± 0.007 g/210 L

The Uncertainty of Measurement is reported at the 99.73% level of confidence and a coverage factor of k=3. The estimation of the Uncertainty of Measurement is calculated for the Certification process only.

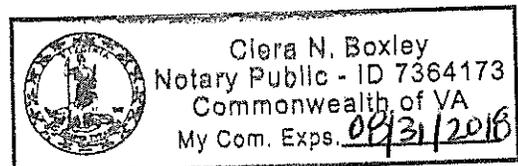
Michelle M. Billeter  
Forensic Scientist

CITY OF RICHMOND  
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 8th day of September, 2014 by Michelle M. Billeter

Ciera N. Boxley  
Ciera N. Boxley, Notary Public

My commission expires: August 31, 2018



msk

DBH  
mmB

**Department of Forensic Science  
Breath Alcohol Section  
Instrument Maintenance History  
1/1/1990 To 9/8/2014**

**Instrument Serial Number: 010546**

**As of 08-Sep-14**

<b>Maintenance Date</b>	<b>Certification Date</b>	<b>Technician Initials</b>	<b>Remarks</b>
08-Sep-14	08-Sep-14	DBH (21250)	CERTIFIED.
24-Jun-14	14-Mar-14	HMS (18910)	REPLACED DRY GAS STANDARD.
14-Mar-14	14-Mar-14	HMS (18910)	CERTIFIED
25-Sep-13	25-Sep-13	DBH (21250)	CERTIFIED.
10-Sep-13	10-Sep-13	HMS (18910)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED, REPLACED DRY GAS STANDARD.
16-Apr-13	16-Apr-13	DBH (21250)	CERTIFIED. REPLACED DRY GAS STANDARD.
10-Dec-12	10-Dec-12	HMS (18910)	CERTIFIED
19-Oct-12	19-Oct-12	HMS (18910)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED.
18-Oct-10	18-Oct-10	HMS (18910)	CERTIFIED
09-Sep-10	07-May-10	HMS (18910)	REPLACED DRY GAS STANDARD.
07-May-10	07-May-10	HMS (18910)	CERTIFIED
12-Nov-09	12-Nov-09	NMJ (22392)	REPLACED DRY GAS STANDARD, CERTIFIED.
05-Jun-09	05-Jun-09	HMS (18910)	FIRMWARE/SOFTWARE UPGRADE, CERTIFIED.
28-Jan-09	28-Jan-09	HMS (18910)	CERTIFIED.
22-Jan-09	22-Jan-09	HMS (18910)	CERTIFIED.
08-Dec-08	08-Dec-08	HMS (18910)	CALIBRATED, CERTIFIED AND ACCEPTED.

DBH  
mmB

# INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number **010546** Worksheet Start Date **9/8/2014**  
 Location **DFS-Central**  
 Address **737 N 5th St Richmond VA 23219**  
 DFS Technician **Donald Hall** License No. **21250**

Laboratory  On-Site

Site Specification: No detrimental environmental conditions exist.

Instrument Barometer (mm HG) **759** Reference Barometer (mm HG) **761**  
 Reference Barometer(RB)Serial # **009109** RB Calibration Due **7/28/2015**

### Measurement Assurance Check

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.300	0.300	0.291	0.309	0.303	0.303	0.302
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0.001		0.302	0.303			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.100	0.100	0.097	0.103	0.101	0.101	0.101
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.101	0.101			

Dry gas standard Lot No. (with tank no.) **AG226201-26**

- Replaced dry gas standard (+O-ring)
  - Installed at Location
  - Removed to DFS-Central
- Supplies  
 Mouthpieces  
 Certificates of Analysis  
 Operator Worksheet  
 Other:



Notes:

[Large shaded area for notes]

Instrument Serial Number

010546

Certification Date

9/8/2014

Calibrated

Certified

Measurement Assurance Check

*DBH* 9/8/14  
 Instrument Test

Troubleshooting/Maintenance Worksheet Completed

(Successful completion denotes satisfactory condition of the item.)

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.252
0.250	0.250	0.242	0.257	<b>Sample 2</b>	0.251
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.250
0.002		0.250	0.252		

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.152
0.150	0.150	0.145	0.154	<b>Sample 2</b>	0.152
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.152
0		0.152	0.152		

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.080
0.080	0.080	0.077	0.083	<b>Sample 2</b>	0.080
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.080
0		0.080	0.080		

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	0.020
0.020	0.020	0.017	0.023	<b>Sample 2</b>	0.019
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	0.020
0.001		0.019	0.020		

All measurements are in g/210L

Estimation of Uncertainty of Measurement and traceability records are located within the Breath Alcohol Section

DFS Technician *Donald B Hall* Date 9/8/14

Issuing Analyst *Michele Bellotti* Date 9/8/14

*ASK*

DBH  
mmB

**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010546      Test Number: 2453  
Test Date: 09/08/2014      Test Time: 08:57 EDT

Technician Initials: DBH

Dry Gas Target: 0.250

Lot Number: 07713250I4-01      Exp Date: 05/01/2015

Tank Pressure: 571 psi      Barometric Pressure: 759 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	08:57
BLK	0.000	08:58
CHK	0.252	08:59
BLK	0.000	09:00
CHK	0.251	09:01
BLK	0.000	09:02
CHK	0.250	09:03
BLK	0.000	09:05

**Success**

Standard Value (at sea level): 0.250 g/210L

Certification Status: Continued

DBH  
mmB

**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010546      Test Number: 2454  
Test Date: 09/08/2014      Test Time: 09:07 EDT

Technician Initials: DBH

Dry Gas Target: 0.150

Lot Number: 29512150I2-04      Exp Date: 11/01/2014

Tank Pressure: 61 psi      Barometric Pressure: 759 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	09:08
BLK	0.000	09:08
CHK	0.152	09:09
BLK	0.000	09:11
CHK	0.152	09:11
BLK	0.000	09:13
CHK	0.152	09:13
BLK	0.000	09:15

**Success**

Standard Value (at sea level): 0.150 g/210L

Certification Status: Continued

DBH  
mmB

**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010546      Test Number: 2455  
Test Date: 09/08/2014      Test Time: 09:17 EDT

Technician Initials: DBH

Dry Gas Target: 0.080

Lot Number: 34413080I2-02      Exp Date: 01/01/2016

Tank Pressure: 571 psi      Barometric Pressure: 759 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	09:18
BLK	0.000	09:19
CHK	0.080	09:19
BLK	0.000	09:21
CHK	0.080	09:21
BLK	0.000	09:23
CHK	0.080	09:23
BLK	0.000	09:25

**Success**

Standard Value (at sea level): 0.080 g/210L

Certification Status: Continued

DBH  
mmB

**Intox EC/IR-II: Certification**

*Department of Forensic Science*

Serial Number: 010546      Test Number: 2456  
Test Date: 09/08/2014      Test Time: 09:27 EDT

Technician Initials: DBH

Dry Gas Target: 0.020

Lot Number: 0771302011-03      Exp Date: 05/01/2015

Tank Pressure: 786 psi      Barometric Pressure: 759 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	09:28
BLK	0.000	09:29
CHK	0.020	09:29
BLK	0.000	09:31
CHK	0.019	09:31
BLK	0.000	09:33
CHK	0.020	09:33
BLK	0.000	09:35

**Success**

Standard Value (at sea level): 0.020 g/210L

Certification Status: Success

DBH  
mmB

**Intox EC/IR-II: Accuracy Check**

*Department of Forensic Science*

Serial Number: 010546      Test Number: 2457

Test Date: 09/08/2014      Test Time: 09:37 EDT

Dry Gas Target: 0.300

Lot Number: AG421201-06      Exp Date: 07/31/2016

Tank Pressure: 213 psi      Barometric Pressure: 759 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	09:38
CHK	0.303	09:39
BLK	0.000	09:40
CHK	0.303	09:41
BLK	0.000	09:43
CHK	0.302	09:44

Test Status: *Success*

Calibration CRC: F6D4DC45

06/17  
mmB

**Intox EC/IR-II: Accuracy Check**

*Department of Forensic Science*

Serial Number: 010546      Test Number: 2458

Test Date: 09/08/2014      Test Time: 09:46 EDT

Dry Gas Target: 0.100

Lot Number: AG226201-26      Exp Date: 09/18/2014

Tank Pressure: 120 psi      Barometric Pressure: 759 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	09:46
CHK	0.101	09:47
BLK	0.000	09:49
CHK	0.101	09:50
BLK	0.000	09:51
CHK	0.101	09:52

Test Status: *Success*

Calibration CRC: F6D4DC45

DBH  
mmB

INSTRUMENT, TEST,

DFS

HALL, DONALD, B

DFS Central Lab

21250

10/01/2014

09/08/2014

010546

09/08/2014

10:00 EDT

0.00

