



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: 010559
CERTIFICATION DATE: January 22, 2014
DATE RECERTIFICATION DUE: July 21, 2014

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.

Handwritten signature of Michelle M. Billeter

Michelle M. Billeter
Forensic Scientist

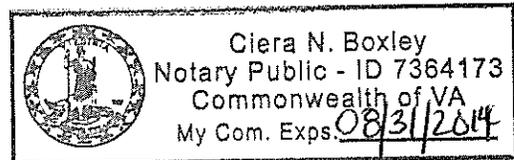
CITY OF RICHMOND
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 3rd day of February, 2014 by Michelle M. Billeter

Handwritten signature of Ciera N. Boxley
Ciera N. Boxley, Notary Public

My commission expires: August 31, 2014

msk



MMB
012914

**Department of Forensic Science
Breath Alcohol Section
Instrument Maintenance History
1/1/1990 To 1/29/2014**

Instrument Serial Number: 010559

As of 29-Jan-14

Maintenance Date	Certification Date	Technician Initials	Remarks
22-Jan-14	22-Jan-14	MMB (26417)	REPLACED AND TESTED FUEL CELL MODULE. CALIBRATED AND CERTIFIED.
19-Dec-11	19-Dec-11	HMS (18910)	ADJUSTED AND TESTED SET SOLENOID, ADJUSTED AND TESTED SAMPLE SOLENOID, CERTIFIED
25-Feb-10	25-Feb-10	DBH (21250)	ADJUSTED AND TESTED SET SOLENOID, CERTIFIED
16-Apr-09	16-Apr-09	DBH (21250)	CERTIFIED.
14-Apr-09	14-Apr-09	NMJ (22392)	FIRMWARE/SOFTWARE UPGRADE, CERTIFIED.
12-Feb-09	12-Feb-09	RJP (22428)	CALIBRATED, CERTIFIED AND ACCEPTED.

mmB

INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number **010559** Worksheet Start Date **1/21/2014**
 Location **DFS**
 Address **[Redacted]**
 DFS Technician **Michelle Billeter** License No. **26417**

Laboratory On-Site

Site Specification: No detrimental environmental conditions exist.

Instrument Barometer (mm HG) **763** Reference Barometer (mm HG) **765**
 Reference Barometer(RB)Serial # **009110** RB Calibration Due **5/30/2014**

Measurement Assurance Check

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.300	0.301	0.291	0.310	0.300	0.299	0.299
Precision		sample min	sample max			
0.001		0.299	0.300			

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

Dry gas standard Lot No. (with tank no.) **AG217702-21**

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

Notes: Replaced and tested fuel cell module. Date:
 01/21/14 Time: 15:36 Pressure: 1115 psi
 Date: 01/22/14 Time: 15:41 Pressure: 1115 psi

Instrument Serial Number

010559

Certification Date

1/22/2014

Calibrated

Certified

Measurement Assurance Check

Instrument Test

Troubleshooting/Maintenance Worksheet Completed

(Successful completion denotes satisfactory condition of the item.)

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.251
0.250	0.250	0.242	0.257	Sample 2	0.249
Precision		sample min	sample max	Sample 3	0.249
0.002		0.249	0.251		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.149
0.150	0.150	0.145	0.154	Sample 2	0.149
Precision		sample min	sample max	Sample 3	0.148
0.001		0.148	0.149		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.079
0.080	0.080	0.077	0.083	Sample 2	0.079
Precision		sample min	sample max	Sample 3	0.079
0		0.079	0.079		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.019
0.020	0.020	0.017	0.023	Sample 2	0.019
Precision		sample min	sample max	Sample 3	0.019
0		0.019	0.019		

All measurements are in g/210L

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

DFS Technician

Michelle Bellis

Date

1/23/14

Issuing Analyst

Michelle Bellis

Date

1/23/14

MSK

MMB

Intox EC/IR-II: Calibration

Department of Forensic Science

Serial Number: 010559 Test Number: 271

Test Date: 01/23/2014 Test Time: 09:14 EST

Dry Gas Target: 0.100

Lot Number: 0651210013-01 Exp Date: 04/01/2014

Tank Pressure: 816 psi Barometric Pressure: 762 mmHg

System Check: Passed

Test	g/210L	Time
BLK	0.000	09:15
CAL	0.100	09:16

Test Status: Success

Calibration CRC: 0E4D81ED

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010559 Test Number: 272
Test Date: 01/23/2014 Test Time: 09:30 EST

Technician Initials: MMB

Dry Gas Target: 0.250

Lot Number: 0651225015-02 Exp Date: 04/01/2014
Tank Pressure: 494 psi Barometric Pressure: 761 mmHg

Test	g/210L	Time
DIAG	Pass	09:30
BLK	0.000	09:31
CHK	0.251	09:32
BLK	0.000	09:33
CHK	0.249	09:34
BLK	0.000	09:35
CHK	0.249	09:35
BLK	0.000	09:36

Success

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

Certification Status: Continued

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010559 Test Number: 273
Test Date: 01/23/2014 Test Time: 09:46 EST

Technician Initials: MMB

Dry Gas Target: 0.150

Lot Number: 0651215014-04 Exp Date: 04/01/2014

Tank Pressure: 914 psi Barometric Pressure: 761 mmHg

Test	g/210L	Time
DIAG	Pass	09:47
BLK	0.000	09:48
CHK	0.149	09:48
BLK	0.000	09:49
CHK	0.149	09:50
BLK	0.000	09:51
CHK	0.148	09:52
BLK	0.000	09:53

Success

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

Certification Status: Continued

mmb

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010559 Test Number: 274
Test Date: 01/23/2014 Test Time: 10:06 EST

Technician Initials: MNE

Dry Gas Target: 0.080

Lot Number: 0651208012-01 Exp Date: 04/01/2014

Tank Pressure: 1036 psi Barometric Pressure: 762 mmHg

Test	g/210L	Time
DIAG	Pass	10:07
BLK	0.000	10:08
CHK	0.079	10:08
BLK	0.000	10:09
CHK	0.079	10:10
BLK	0.000	10:11
CHK	0.079	10:12
BLK	0.000	10:13

Success

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

Certification Status: Continued

Intox EC/IR-II: Certification*Department of Forensic Science*Serial Number: 010559 Test Number: 275
Test Date: 01/23/2014 Test Time: 10:15 EST

Technician Initials: MMB

Dry Gas Target: 0.020

Lot Number: 0651202011-07 Exp Date: 04/01/2014

Tank Pressure: 110 psi Barometric Pressure: 762 mmHg

Test	g/210L	Time
DIAG	Pass	10:15
BLK	0.000	10:16
CHK	0.019	10:17
BLK	0.000	10:18
CHK	0.019	10:19
BLK	0.000	10:20
CHK	0.019	10:20
BLK	0.000	10:21

Success

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

Certification Status: Success

Intox EC/IR-II: Accuracy Check*Department of Forensic Science*

Serial Number: 010559 Test Number: 276

Test Date: 01/23/2014 Test Time: 10:25 EST

Dry Gas Target: 0.301

Lot Number: AG321004-04 Exp Date: 08/06/2015

Tank Pressure: 482 psi Barometric Pressure: 762 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	10:26
CHK	0.300	10:26
BLK	0.000	10:28
CHK	0.299	10:29
BLK	0.000	10:30
CHK	0.299	10:31

Test Status: *Success*

Calibration CRC: 9E4081ED

Intox EC/IR-II: Accuracy Check

Department of Forensic Science

Serial Number: 010559 Test Number: 277

Test Date: 01/23/2014 Test Time: 10:34 EST

Dry Gas Target: 0.100

Lot Number: AG217702-21 Exp Date: 06/25/2014

Tank Pressure: 129 psi Barometric Pressure: 762 mmHg

System Check: Passed

Test	g/210L	Time
BLK	0.000	10:34
CHK	0.100	10:35
BLK	0.000	10:37
CHK	0.100	10:37
BLK	0.000	10:39
CHK	0.100	10:39

Test Status: Success

Calibration CRC: 9E4D81ED

INSTRUMENT, TEST,

DFS

BILLETTER, MICHELLE, M

OPS Central Lab

26417

10/01/2014

01/23/2014

010559

01/23/2014

11:23 EST

0.00