



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: 010564
CERTIFICATION DATE: February 24, 2014
DATE RECERTIFICATION DUE: August 23, 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.

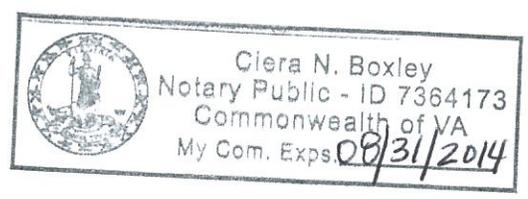
[Signature]
Sarah E. Dersch
Forensic Scientist

CITY OF RICHMOND
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 5th day of March, 2014 by Sarah E. Dersch

[Signature: Ciera N. Boxley]
Ciera N. Boxley, Notary Public

My commission expires: August 31, 2014



**Department of Forensic Science  
Breath Alcohol Section  
Instrument Maintenance History  
1/1/1990 To 2/24/2014**

*HMS  
sed*

**Instrument Serial Number: 010564**

**As of 24-Feb-14**

<b>Maintenance Date</b>	<b>Certification Date</b>	<b>Technician Initials</b>	<b>Remarks</b>
24-Feb-14	24-Feb-14	HMS (18910)	REPAIRED REGULATOR, CERTIFIED
23-Jan-14	21-Aug-13	HMS (18910)	REPLACED DRY GAS STANDARD.
21-Aug-13	21-Aug-13	HMS (18910)	FIRMWARE/SOFTWARE UPGRADE, CALIBRATED AND CERTIFIED.
05-Mar-13	05-Mar-13	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
11-Sep-12	11-Sep-12	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
26-Mar-12	26-Mar-12	SED (24178)	CERTIFIED. REPLACED DRY GAS STANDARD.
04-Oct-11	04-Oct-11	HMS (18910)	REPLACED DRY GAS STANDARD, CERTIFIED
18-Apr-11	18-Apr-11	HMS (18910)	CERTIFIED
21-Jan-11	30-Sep-10	RJP (22428)	REPLACED DRY GAS STANDARD.
30-Sep-10	30-Sep-10	RJP (22428)	CERTIFIED.
27-May-10	27-May-10	RJP (22428)	REPLACED DRY GAS STANDARD. CALIBRATED AND CERTIFIED.
08-Apr-10	08-Apr-10	RJP (22428)	REPLACED PRINTER. REPLACED DRY GAS STANDARD. CERTIFIED
20-Oct-09	20-Oct-09	RJP (22428)	REPLACED DRY GAS STANDARD. CERTIFIED.
05-May-09	05-May-09	RJP (22428)	FIRMWARE/SOFTWARE UPGRADE. CALIBRATED AND CERTIFIED.
11-Dec-08	11-Dec-08	RJP (22428)	CERTIFIED.
20-Nov-08	20-Nov-08	NMJ (22392)	CALIBRATED, CERTIFIED AND ACCEPTED.

*HMS*  
*Red*

# INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number **010564** Worksheet Start Date **2/24/2014**  
Location **DFS-Central**  
Address **[Redacted]**  
DFS Technician **Heather Stanton** License No. **18910**

Laboratory  On-Site

Site Specification: No detrimental environmental conditions exist.

Instrument Barometer (mm HG) **754** Reference Barometer (mm HG) **756**

Reference Barometer(RB)Serial # **009113** RB Calibration Due **5/8/2014**

### Measurement Assurance Check

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	<b>0.298</b>
0.300	0.298	0.289	0.306	<b>Sample 2</b>	<b>0.298</b>
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	<b>0.298</b>
0		0.298	0.298		

<b>Standard (sea level)</b>	<b>PA Target</b>	<b>minimum</b>	<b>maximum</b>	<b>Sample 1</b>	<b>0.099</b>
0.100	0.099	0.096	0.102	<b>Sample 2</b>	<b>0.099</b>
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>	<b>Sample 3</b>	<b>0.099</b>
0		0.099	0.099		

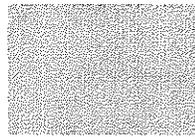
Dry gas standard Lot No. (with tank no.) **AG227501-30**

Replaced dry gas standard (+O-ring)

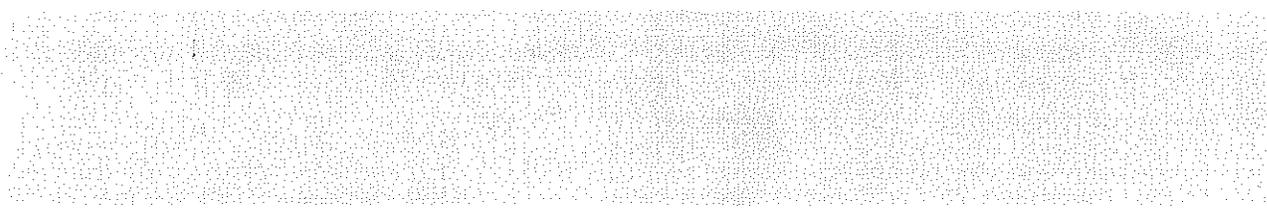
Installed at Location

Removed to DFS-Central

Supplies  
Mouthpieces  
Certificates of Analysis  
Operator Worksheet  
Other:



Notes:



Instrument Serial Number

010564

Certification Date

2/24/2014

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	Sample 2	Sample 3
0.250	0.248	0.240	0.255	0.246	0.246	0.245
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0.001		0.245	0.246			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.150	0.149	0.144	0.153	0.148	0.148	0.148
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.148	0.148			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.080	0.079	0.076	0.082	0.079	0.079	0.079
<b>Precision</b>		<b>sample min</b>	<b>sample max</b>			
0		0.079	0.079			

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

*Heath W. Stach*

Date

*2/24/14*

Issuing Analyst

*Jed*

Date

*2/28/14*

*mmb*

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

*HMS*  
*rel*

Department of Forensic Science  
Serial Number: 010564      Test Number: 1052  
Test Date: 02/24/2014      Test Time: 13:57 EST

Technician Initials: *HMS*  
Dry Gas Target: 0.248  
Lot Number: 07713250I4-02      Exp Date: 05/01/2015  
Tank Pressure: 644 psi      Barometric Pressure: 754 mmHg  
System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	13:58
BLK	0.000	13:58
CHK	0.246	13:59
BLK	0.000	14:01
CHK	0.246	14:01
BLK	0.000	14:03
CHK	0.245	14:04
BLK	0.000	14:05

**Success**

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

Certification Status: Continued

HMS  
Jed

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

*Department of Forensic Science*

Serial Number: 010564      Test Number: 1053  
Test Date: 02/24/2014      Test Time: 14:08 EST

Technician Initials: HMS

Dry Gas Target: 0.149

Lot Number: 2951215012-02      Exp Date: 11/01/2014  
Tank Pressure: 129 psi      Barometric Pressure: 754 mmHg  
System Check: Passed

Test	g/210L	Time
DIAG	Pass	14:08
BLK	0.000	14:09
CHK	0.148	14:10
BLK	0.000	14:11
CHK	0.148	14:12
BLK	0.000	14:13
CHK	0.148	14:14
BLK	0.000	14:16

**Success**

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

Certification Status: Continued

HMS  
fd

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

*Department of Forensic Science*

Serial Number: 010564      Test Number: 1054  
Test Date: 02/24/2014      Test Time: 14:17 EST

Technician Initials: HMS

Dry Gas Target: 0.079

Lot Number: 07713080I2-04      Exp Date: 05/01/2015

Tank Pressure: 218 psi      Barometric Pressure: 754 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	14:18
BLK	0.000	14:18
CHK	0.079	14:19
BLK	0.000	14:20
CHK	0.079	14:21
BLK	0.000	14:23
CHK	0.079	14:23
BLK	0.000	14:25

**Success**

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

Certification Status: Continued

HMS  
rd

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

*Department of Forensic Science*

Serial Number: 010564      Test Number: 1055  
Test Date: 02/24/2014      Test Time: 14:26 EST

Technician Initials: HMS

Dry Gas Target: 0.020

Lot Number: 0771302011-04      Exp Date: 05/01/2015  
Tank Pressure: 203 psi      Barometric Pressure: 754 mmHg  
System Check: Passed

Test	g/210L	Time
DIAG	Pass	14:26
BLK	0.000	14:27
CHK	0.019	14:28
BLK	0.000	14:29
CHK	0.019	14:30
BLK	0.000	14:31
CHK	0.019	14:32
BLK	0.000	14:33

**Success**

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

Certification Status: Success

HMS  
jed

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

*Department of Forensic Science*

Serial Number: 010564      Test Number: 1056

Test Date: 02/24/2014      Test Time: 14:36 EST

Dry Gas Target: 0.298

Lot Number: AG322702-05      Exp Date: 08/15/2015

Tank Pressure: 433 psi      Barometric Pressure: 754 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	14:37
CHK	0.298	14:37
BLK	0.000	14:39
CHK	0.298	14:40
BLK	0.000	14:42
CHK	0.298	14:43

Test Status: *Success*

Calibration CRC: D990C62B

AMS  
RAC

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

*Department of Forensic Science*

Serial Number: 010564      Test Number: 1057

Test Date: 02/24/2014      Test Time: 14:58 EST

Dry Gas Target: 0.099

Lot Number: AG227501-30      Exp Date: 10/01/2014

Tank Pressure: 909 psi      Barometric Pressure: 754 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	14:59
CHK	0.099	15:00
BLK	0.000	15:01
CHK	0.099	15:02
BLK	0.000	15:03
CHK	0.099	15:04

Test Status: *Success*

Calibration CRC: D990C62B

AMS  
Jed

INSTRUMENT, TEST,

DFS

STANTON, HEATHER, M

DFS Central Lab

18910

10/01/2014

02/24/2014

010564

02/24/2014

15:15 EST

0.00

