



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: 010473
CERTIFICATION DATE: January 30, 2014
DATE RECERTIFICATION DUE: July 29, 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 Sarah E. Dersch]

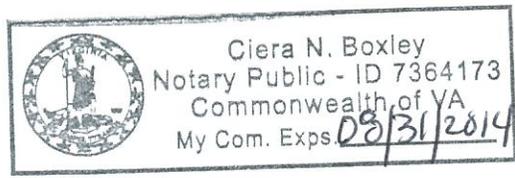
Sarah E. Dersch
Forensic Scientist

CITY OF RICHMOND
COMMONWEALTH OF VIRGINIA

The foregoing was acknowledged before me this 15th day of February, 2014 by Sarah E. Dersch

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

My commission expires: August 31, 2014



msk

ged

**Department of Forensic Science
Breath Alcohol Section
Instrument Maintenance History
1/1/1990 To 2/4/2014**

Instrument Serial Number: 010473 **As of 04-Feb-14**

Maintenance Date	Certification Date	Technician Initials	Remarks
30-Jan-14	30-Jan-14	SED (24178)	CERTIFIED. REPLACED DRY GAS STANDARD.
14-Aug-13	14-Aug-13	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE. CALIBRATED AND CERTIFIED. REPLACED DRY GAS STANDARD.
27-Feb-13	27-Feb-13	MMB (26417)	CERTIFIED. REPLACED DRY GAS STANDARD.
07-Sep-12	07-Sep-12	HMS (18910)	CERTIFIED
28-Mar-12	28-Mar-12	HMS (18910)	CERTIFIED, REPLACED DRY GAS STANDARD.
20-Oct-11	20-Oct-11	HMS (18910)	CERTIFIED
05-May-11	05-May-11	HMS (18910)	REPLACED PRINTER RIBBON, CERTIFIED
24-Nov-10	24-Nov-10	HMS (18910)	REPLACED DRY GAS STANDARD, CERTIFIED
17-Jun-10	17-Jun-10	HMS (18910)	CERTIFIED
29-Dec-09	29-Dec-09	RJP (22428)	REPLACED DRY GAS STANDARD. CERTIFIED
29-Oct-09	29-Oct-09	NMJ (22392)	CERTIFIED.
14-Aug-09	14-Aug-09	NMJ (22392)	REPLACED TANK TOP LID, CERTIFIED.
26-Mar-09	26-Mar-09	DBH (21250)	FIRMWARE/SOFTWARE UPGRADE, CERTIFIED.
06-Nov-08	06-Nov-08	DBH (21250)	CERTIFIED.
20-Oct-08	20-Oct-08	NMJ (22392)	CALIBRATED, CERTIFIED AND ACCEPTED.

gwt

INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number **010473** Worksheet Start Date **1/30/2014**
 Location **Shenandoah Co SO**
 Address **109 W Court St, Woodstock, VA 22664**
 DFS Technician **Sarah Dersch** License No. **24178**

Laboratory On-Site

Site Specification: No detrimental environmental conditions exist.

Instrument Barometer (mm HG) **749** Reference Barometer (mm HG) **750**
 Reference Barometer(RB)Serial # **009111** RB Calibration Due **5/23/2014**

Measurement Assurance Check

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.300	0.295	0.286	0.303	0.298	0.298	0.298
Precision		sample min	sample max			
0		0.298	0.298			

Standard (sea level)	PA Target	minimum	maximum	Sample 1	Sample 2	Sample 3
0.100	0.098	0.095	0.101	0.098	0.098	0.098
Precision		sample min	sample max			
0		0.098	0.098			

Dry gas standard Lot No. (with tank no.) **AG316301-03**

Replaced dry gas standard (+O-ring)

Installed at Location

Removed to DFS-Central

Supplies
 Mouthpieces **50**
 Certificates of Analysis **25**
 Operator Worksheet
 Other:

Notes:

Instrument Serial Number

010473

Certification Date

1/30/2014

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	0.248
0.250	0.246	0.238	0.253	Sample 2	0.248
Precision		sample min	sample max	Sample 3	0.247
0.001		0.247	0.248		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.148
0.150	0.148	0.143	0.152	Sample 2	0.148
Precision		sample min	sample max	Sample 3	0.148
0		0.148	0.148		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.079
0.080	0.079	0.076	0.082	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



Date

2/4/14

Issuing Analyst



Date

2/4/14

sed

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010473 Test Number: 1008
Test Date: 01/30/2014 Test Time: 11:44 EST

Technician Initials: *SED*

Dry Gas Target: 0.246

Lot Number: 0651225015-02 Exp Date: 04/01/2014

Tank Pressure: 350 psi Barometric Pressure: 749 mmHg
System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	11:45
BLK	0.000	11:45
CHK	0.248	11:46
BLK	0.000	11:48
CHK	0.248	11:49
BLK	0.000	11:51
CHK	0.247	11:52
BLK	0.000	11:54

Success

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

Certification Status: Continued

Intox EC/IR-II: Certification

SA

Department of Forensic Science

Serial Number: 010473 Test Number: 1009
Test Date: 01/30/2014 Test Time: 11:56 EST

Technician Initials: *SED*

Dry Gas Target: *0.148*

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

Tank Pressure: *772 psi* Barometric Pressure: *749 mmHg*

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	11:56
BLK	0.000	11:57
CHK	0.148	11:58
BLK	0.000	12:00
CHK	0.148	12:01
BLK	0.000	12:03
CHK	0.148	12:04
BLK	0.000	12:06

Success

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

Certification Status: Continued

sed

Intox EC/IR-II: Certification

Department of Forensic Science

Serial Number: 010473 Test Number: 1010
Test Date: 01/30/2014 Test Time: 12:09 EST

Technician Initials: SED

Dry Gas Target: 0.148

Lot Number: 06512080I2-01 Exp Date: 04/01/2014

Tank Pressure: 924 psi Barometric Pressure: 749 mmHg
System Check: Passed

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

Out of tolerance

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

Certification Status: Failure

Typed in standard value of 0.150 g/210L instead
of 0.080 g/210L. 1/30/14 sed

Intox EC/IR-II: Certification

Department of Forensic Science
Serial Number: 010473 Test Number: 1011
Test Date: 01/30/2014 Test Time: 12:13 EST

Technician Initials: SED
Dry Gas Target: 0.079
Lot Number: 0651208012-01 Exp Date: 04/01/2014
Tank Pressure: 924 psi Barometric Pressure: 749 mmHg
System Check: Passed

Test	g/210L	Time
DIAG	Pass	12:13
BLK	0.000	12:14
CHK	0.079	12:15
BLK	0.000	12:16
CHK	0.079	12:17
BLK	0.000	12:19
CHK	0.079	12:20
BLK	0.000	12:21

Success

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

Certification Status: Continued

Intox EC/IR-II: Certification

SED

Department of Forensic Science

Serial Number: 010473 Test Number: 1012
Test Date: 01/30/2014 Test Time: 12:23 EST

Technician Initials: *SED*

Dry Gas Target: 0.020

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

Tank Pressure: 61 psi Barometric Pressure: 749 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	12:23
BLK	0.000	12:24
CHK	0.019	12:25
BLK	0.000	12:26
CHK	0.019	12:27
BLK	0.000	12:28
CHK	0.019	12:29
BLK	0.000	12:30

Success

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

Certification Status: Success

Intox EC/IR-II: Accuracy Check

Sid

Department of Forensic Science

Serial Number: 010473 Test Number: 1013

Test Date: 01/30/2014 Test Time: 12:33 EST

Dry Gas Target: 0.295

Lot Number: AG321804-04 Exp Date: 08/06/2015

Tank Pressure: 379 psi Barometric Pressure: 748 mmHg

System Check: *Passed*

Test	g/210L	Time
BLK	0.000	12:35
CHK	0.298	12:35
BLK	0.000	12:38
CHK	0.298	12:39
BLK	0.000	12:41
CHK	0.298	12:42

Test Status: *Success*

Calibration CRC: 3E9258A2

Intox EC/IR-II: Accuracy Check

Sed

Department of Forensic Science

Serial Number: 010473 Test Number: 1014
Test Date: 01/30/2014 Test Time: 12:46 EST
Dry Gas Target: 0.098
Lot Number: AG316301-03 Exp Date: 06/12/2015
Tank Pressure: 575 psi Barometric Pressure: 748 mmHg
System Check: Passed

Test	g/210L	Time
BLK	0.000	12:46
CHK	0.098	12:47
BLK	0.000	12:49
CHK	0.098	12:50
BLK	0.000	12:52
CHK	0.098	12:53

Test Status: Success

Calibration CRC: 3E9258A2

Sid



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF FORENSIC SCIENCE

CERTIFICATE OF BLOOD ALCOHOL ANALYSIS
AS DETERMINED BY A CHEMICAL TEST OF THE ACCUSED'S BREATH

NAME OF ACCUSED INSTRUMENT, TEST,	NAME OF COURT DFS
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BREATH ANALYSIS

SAMPLE EXAMINED AND TEST CONDUCTED BY DERSCH, SARAH, E		AGENCY DFS Central Lab
DFS LICENSE NUMBER 24178	LICENSE EXPIRES 10/01/2014	DATE TEST CONDUCTED 01/30/2014
TEST EQUIPMENT NUMBER 010473		

RESULTS: TIME SAMPLE TAKEN 13:01 EST

SAMPLE'S ALCOHOL CONTENT 0.00 GRAMS PER 210 LITERS OF BREATH

ATTEST:

I CERTIFY THAT THE ABOVE IS AN ACCURATE RECORD OF THE TEST CONDUCTED; THAT THE TEST WAS CONDUCTED WITH THE TYPE OF EQUIPMENT AND IN ACCORDANCE WITH THE METHODS APPROVED BY THE DEPARTMENT OF FORENSIC SCIENCE; THAT THE TEST WAS CONDUCTED IN ACCORDANCE WITH THE DEPARTMENT'S SPECIFICATIONS; THAT PRIOR TO ADMINISTRATION OF THE TEST THE ACCUSED WAS ADVISED OF HIS RIGHT TO OBSERVE THE PROCESS AND SEE THE BLOOD ALCOHOL READING ON THE EQUIPMENT USED TO PERFORM THE BREATH TEST, AND THAT I POSSESS A VALID LICENSE TO CONDUCT SUCH TEST, GIVEN UNDER MY HAND THIS _____ DAY OF _____, 20_____.

BREATH TEST OPERATOR

I HAVE RECEIVED A COPY OF THIS CERTIFICATE OF ANALYSIS _____ SUBJECT'S SIGNATURE

SUBJECT REFUSED TO SIGN FOR COPY OF CERTIFICATE OF ANALYSIS _____ OPERATOR'S SIGNATURE