



COMMONWEALTH of VIRGINIA
DEPARTMENT OF FORENSIC SCIENCE

CALIBRATION LABORATORY
A Nationally Accredited Laboratory

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

CERTIFICATE OF INSTRUMENT ACCURACY

INSTRUMENT: Intox EC/IR II
SERIAL NUMBER: 010654
DATE CERTIFICATION METHOD PERFORMED: January 7, 2015
DATE RECERTIFICATION DUE: July 6, 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 ± 0.008 g/210 L
0.080 ± 0.004 g/210 L 0.250 ± 0.008 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 9th day of January, 2015 by Sarah E. Dersch

Handwritten signature of Teresa J. Brewster
Teresa J. Brewster, Notary Public



My commission expires: April 30, 2017

Department of Forensic Science
Breath Alcohol Section
Instrument Maintenance History
1/7/2014 To 1/7/2015

sed

Instrument Serial Number: 010654 As of 08-Jan-15

Maintenance Date	Certification Date	Technician Initials	Remarks
07-Jan-15	07-Jan-15	SED (24178)	REPLACED UPS BACK-UP BATTERY. CERTIFIED. REPLACED DRY GAS STANDARD.
23-Jul-14	23-Jul-14	SED (24178)	CERTIFIED.
06-Feb-14	06-Feb-14	DBH (21250)	CERTIFIED. REPLACED DRY GAS STANDARD.

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INTOX EC/IR II Quality Assurance Worksheet

Instrument Serial Number **010654** Worksheet Start Date **1/7/2015**

Location **Dahlgren**

Address **17497 Dahlgren Rd Building 232 Dahlgren VA 22448**

DFS Technician **Sarah Dersch** License No. **24178**

Laboratory On-Site

Site Specification: No detrimental environmental conditions exist.

Instrument Barometer (mm HG) **763** Reference Barometer (mm HG) **765**

Reference Barometer(RB)Serial # **009111** RB Calibration Due **5/19/2015**

Measurement Assurance Check

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.304
0.300	0.301	0.291	0.310	Sample 2	0.304
Precision		sample min	sample max	Sample 3	0.304
0		0.304	0.304		

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

Dry gas standard Lot No. (with tank no.) **AG407801-10**

- Replaced dry gas standard (+O-ring)
- Installed at Location
- Removed to DFS-Central

Supplies
Mouthpieces
Certificates of Analysis
Operator Worksheet
Other:



Notes:

REPLACED UPS BACK-UP BATTERY.

Instrument Serial Number

010654

Certification Date

1/7/2015

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	0.250
0.250	0.251	0.243	0.258	Sample 2	0.251
Precision		sample min	sample max	Sample 3	0.251
0.001		0.250	0.251		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.151
0.150	0.151	0.146	0.155	Sample 2	0.151
Precision		sample min	sample max	Sample 3	0.151
0		0.151	0.151		

Standard (sea level)	PA Target	minimum	maximum	Sample 1	0.081
0.080	0.080	0.077	0.083	Sample 2	0.080
Precision		sample min	sample max	Sample 3	0.081
0.001		0.080	0.081		

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	0.020
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

[Handwritten signature]

Date

1/8/15

Issuing Analyst

[Handwritten signature]
JPD

Date

1/8/15

nd



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 BERSCH, SARAH, E		AGENCY DFS Central Lab
DFS LICENSE NUMBER 24178	LICENSE EXPIRES 10/01/2016	DATE TEST CONDUCTED 01/07/2015
TEST EQUIPMENT NUMBER 010654		

RESULTS: TIME SAMPLE TAKEN 10:21 EST

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

Replaced UPS back up battery after conducting instrument test. 1/15/15

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

See



IntoxNet MIS Report

Report Generated 08 Jan 2015 at 09:24

Test Results

Instrument Serial Number 010654

Test # 000232 Subject Test

Test Location 1 Department of
Test Date 07 Jan 2015

Test Location 2 Forensic Science
Test Time 10:15
Remote/Local Local

Test Location 3
System Check Passed

Operator's Last Name DERSCH
Agency DFS Central Lab

Operator's First Name SARAH

Operator's Middle Initial E

Card Serial Number 124178

License Number 24178

Effective Date 10/01/2014

Expiration Date 10/01/2016

Subject's Last Name INSTRUMENT

Subject's First Name TEST

Subject's Middle Initial

Subject's Date of Birth 00/00/0000

Subject's Sex Male

Driver's License Number

Driver's License Expiration 00/00/0000

Driver's License State

Court Name DFS

End Date 07 Jan 2015 End Time 10:23

Result Time 10:21

Result Date 07 Jan 2015 Result 0.00

Data Type DIAG

Sample Value Pass

Sample Time 10:15

Data Type BLK

Sample Value 0.000

Sample Time 10:16

Data Type CHK

Sample Value 0.101

Sample Time 10:17

Data Type BLK

Sample Value 0.000

Sample Time 10:18

Data Type SUBJ

Sample Value 0.000

Sample Time 10:19

Data Type BLK

Sample Value 0.000

Sample Time 10:20

Data Type SUBJ

Sample Value 0.000

Sample Time 10:21

Data Type BLK

Sample Value 0.000

Sample Time 10:22

Standard Type Dry Gas Std

Standard Value 0.100

Standard Lot Number AG332301-11

Standard Expiration Date 11/19/2015

Tank Pressure 1115

Barometric Pressure 763 mmHg

Blow Sample Number 1 Blow Duration 4.40 sec

Blow Volume 1767 cc End-of-Blow Time 10:19

Blow Sample Number 2 Blow Duration 3.79 sec

Blow Volume 1863 cc End-of-Blow Time 10:21

Tamper Evident Stamp 492488eb

Test Status Code 0

Test Status Success

Intox EC/1R-11: Certification

fd

Department of Forensic Science

Serial Number: 010654 Test Number: 233
Test Date: 01/07/2015 Test Time: 10:31 EST

Technician Initials: *SED*

Dry Gas Target: 0.251

Lot Number: 1611425014-04 Exp Date: 07/05/2016

Tank Pressure: 360 psi Barometric Pressure: 763 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	10:31
BLK	0.000	10:32
CHK	0.250	10:33
BLK	0.000	10:34
CHK	0.251	10:35
BLK	0.000	10:37
CHK	0.251	10:38
BLK	0.000	10:39

Success

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

Certification Status: Continued

Intox EC/1R-11: Certification

SED

Department of Forensic Science

Serial Number: 010654 Test Number: 234

Test Date: 01/07/2015 Test Time: 10:41 EST

Technician Initials: *SED*

Dry Gas Target: 0.151

Lot Number: 0771315013-03 Exp Date: 05/01/2015

Tank Pressure: 115 psi Barometric Pressure: 763 mmHg

System Check: *Passed*

Test	g/210L	Time
DIAG	Pass	10:41
BLK	0.000	10:42
CHK	0.151	10:43
BLK	0.000	10:44
CHK	0.151	10:45
BLK	0.000	10:47
CHK	0.151	10:48
BLK	0.000	10:49

Success

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

Certification Status: Continued

SED

Intox EC/1R-11: Certification

Department of Forensic Science

Serial Number: 010654 Test Number: 235
Test Date: 01/07/2015 Test Time: 10:50 EST

Technician Initials: SED

Dry Gas Target: 0.080

Lot Number: 0771308012-03 Exp Date: 05/01/2015

Tank Pressure: 80 psi Barometric Pressure: 763 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	10:51
BLK	0.000	10:52
CHK	0.081	10:52
BLK	0.000	10:54
CHK	0.080	10:55
BLK	0.000	10:56
CHK	0.081	10:57
BLK	0.000	10:58

Success

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

Certification Status: Continued

SED

Intox EC/IR-II: Certification

Department of Forensic Science
Serial Number: 010654 Test Number: 236
Test Date: 01/07/2015 Test Time: 10:59 EST

Technician Initials: SED
System Check: Passed

Operator abort

Certification Status: Failure

Entered wrong expiration date for
the 0.020 g/210 L Standard.

1/7/15
SED

Aborted test in order to run the standard
with the correct expiration date.

1/7/15
SED

Intox EC/IR-11: Certification



Department of Forensic Science

Serial Number: 010654 Test Number: 237
Test Date: 01/07/2015 Test Time: 11:02 EST

Technician Initials: SED

Dry Gas Target: 0.020

Lot Number: 3441302011-01 Exp Date: 01/01/2016

Tank Pressure: 178 psi Barometric Pressure: 763 mmHg

System Check: Passed

Test	g/210L	Time
DIAG	Pass	11:02
BLK	0.000	11:03
CHK	0.019	11:04
BLK	0.000	11:05
CHK	0.019	11:06
BLK	0.000	11:07
CHK	0.020	11:08
BLK	0.000	11:09

Success

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

Certification Status: Success

red

Intox EC/1R-11: Accuracy Check

Department of Forensic Science

Serial Number: 010654 Test Number: 238

Test Date: 01/07/2015 Test Time: 11:13 EST

Dry Gas Target: 0.301

Lot Number: AG428003-03 Exp Date: 10/07/2016

Tank Pressure: 149 psi Barometric Pressure: 763 mmHg

System Check: Passed

Test	g/210L	Time
BLK	0.000	11:13
CHK	0.304	11:14
BLK	0.000	11:16
CHK	0.304	11:17
BLK	0.000	11:18
CHK	0.304	11:19

Test Status: Success

Calibration CRC: 76AE544A

Intox EC/IR-11: Accuracy Check

Ind

Department of Forensic Science

Serial Number: 010654 Test Number: 239
Test Date: 01/07/2015 Test Time: 11:24 EST
Dry Gas Target: 0.100
Lot Number: AG407801-10 Exp Date: 03/19/2016
Tank Pressure: 340 psi Barometric Pressure: 763 mmHg
System Check: *Passed*

Test	g/210L	Time
BLK	0.000	11:24
CHK	0.100	11:25
BLK	0.000	11:27
CHK	0.100	11:28
BLK	0.000	11:29
CHK	0.100	11:30

Test Status: *Success*

Calibration CRC: 76AE544A

jed



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 10/01/2016	DATE TEST CONDUCTED 01/07/2015
TEST EQUIPMENT NUMBER 010654		

RESULTS: TIME SAMPLE TAKEN 11:39 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



IntoxNet MIS Report

Report Generated 08 Jan 2015 at 09:24

Red

Test Results

Instrument Serial Number 010654

Test # 000240 **Subject Test**

Test Location 1 Department of
Test Date 07 Jan 2015

Test Location 2 Forensic Science
Test Time 11:32
Remote/Local Local

Test Location 3
System Check Passed

Operator's Last Name DERSCH
Agency DFS Central Lab

Operator's First Name SARAH

Operator's Middle Initial E

Card Serial Number 124178

License Number 24178

Effective Date 10/01/2014

Expiration Date 10/01/2016

Subject's Last Name INSTRUMENT

Subject's First Name TEST

Subject's Middle Initial

Subject's Date of Birth 00/00/0000

Subject's Sex Male

Driver's License Number

Driver's License Expiration 00/00/0000

Driver's License State

Court Name DFS

End Date 07 Jan 2015 **End Time** 11:40

Result Time 11:39

Result Date 07 Jan 2015 **Result** 0.00

Data Type DIAG

Sample Value Pass

Sample Time 11:32

Data Type BLK

Sample Value 0.000

Sample Time 11:33

Data Type CHK

Sample Value 0.100

Sample Time 11:34

Data Type BLK

Sample Value 0.000

Sample Time 11:35

Data Type SUBJ

Sample Value 0.000

Sample Time 11:36

Data Type BLK

Sample Value 0.000

Sample Time 11:37

Data Type SUBJ

Sample Value 0.000

Sample Time 11:39

Data Type BLK

Sample Value 0.000

Sample Time 11:40

Standard Type Dry Gas Std

Standard Value 0.100

Standard Lot Number AG407801-10

Standard Expiration Date 03/19/2016

Tank Pressure 335

Barometric Pressure 763 mmHg

Blow Sample Number 1 **Blow Duration** 4.11 sec

Blow Volume 1749 cc **End-of-Blow Time** 11:36

Blow Sample Number 2 **Blow Duration** 4.30 sec

Blow Volume 1674 cc **End-of-Blow Time** 11:39

Tamper Evident Stamp f737da6e

Test Status Code 0

Test Status Success