

# Alaska Scientific Crime Detection Laboratory

## DataMaster Evaluation Form

Issued: 7/10/2015  
Effective: 7/10/2015

Version: DMEF2015 R0  
Status: Active

Instrument # 100347

Date: 10/31/16

Analyst: Colleen O'Byrne

1. Reason for instrument evaluation

Removed from service for gas flow errors.

2. Visual Inspection

3. Troubleshooting/Repair

Gas flow errors seen in the field on the last 3 out of 4 tests prior to being removed from service. Tank pri ~ 800. ✓

Ran VOC/supervisor tests on 3 different external standard tanks. One tank was drained when left in the instrument for 5 days.

Replaced regulator + o-ring on regulator and ran evaluation VOC successfully. ✓

4. VOC (attached)

5. Internal Standard value  $\leq 3.00\%$  Yes  No

6. Verify software version

Return to Factory for Repair

Ready For Calibration

Ready For Certification

# VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100347

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 11/02/2016

## External Standard Test Values

## Diagnostic Check

### EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.21: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017  
TANK PRESSURE: 729 psi

VERSIONS  
DMT: 3.02  
PIC: 3.02  
Modem: 2.6  
Questions: 2.2

### TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 47.9°C PASSED  
(38.0°C - 50.0°C)

### SETTINGS

Lamp Voltage = 2.39 V PASSED  
(1.34 V - 3.12 V)  
Cooler Voltage = 1.97 V PASSED  
(1.13 V - 2.65 V)  
Bias Voltage = 80 V PASSED  
(47 V - 111 V)  
Chopper Freq = 551 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.2 in

### PUMP INFO

Flow Rate = 4.135 L/M PASSED  
(3.500 L/M - 6.500 L/M)

### DETECTOR INFO

PUMP ON PASSED  
(0.002 V <= 0.010 V)  
PUMP OFF PASSED  
(0.003 V <= 0.010 V)

### FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

### INTERNAL STANDARD

Xq = 0.091 1.04% (0.00% - 4.00%) PASSED

BLANK TEST 0.000 14:59  
INTERNAL STANDARD VERIFIED 14:59  
Xq = 0.091 (1.23%)  
EXTERNAL STANDARD 0.075 14:59  
X[1] = 0.0754 (-0.0023) (0.0019)  
BLANK TEST 0.000 15:00  
EXTERNAL STANDARD 0.076 15:00  
X[1] = 0.0761 (-0.0012) (0.0018)  
BLANK TEST 0.000 15:01  
EXTERNAL STANDARD 0.076 15:02  
X[1] = 0.0763 (-0.0008) (0.0017)  
BLANK TEST 0.000 15:02  
EXTERNAL STANDARD 0.076 15:03  
X[1] = 0.0762 (-0.0012) (0.0010)  
BLANK TEST 0.000 15:04  
EXTERNAL STANDARD 0.077 15:04  
X[1] = 0.0766 (-0.0019) (0.0024)  
BLANK TEST 0.000 15:05

Average = 0.0760  
Std Dev = 0.0007

Test #1 729 psi

SUPERVISOR TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100347

Date: 11/02/2016  
 Time: 15:21:59

SUPERVISOR NAME:  
 COLLEEN S OBRYANT  
 OPERATOR'S #: 6237

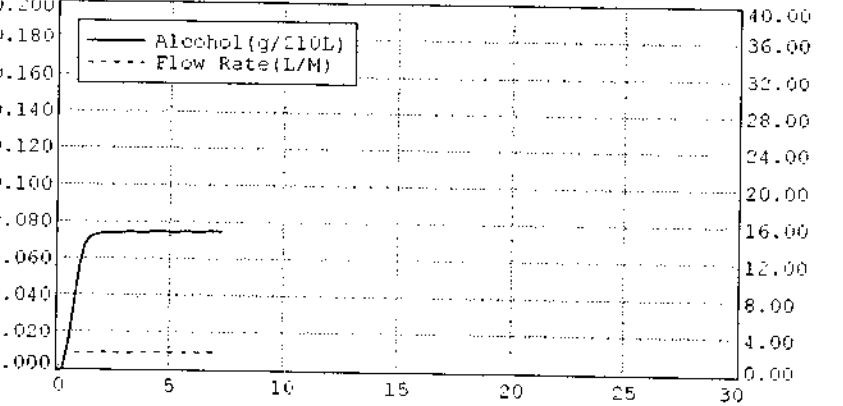
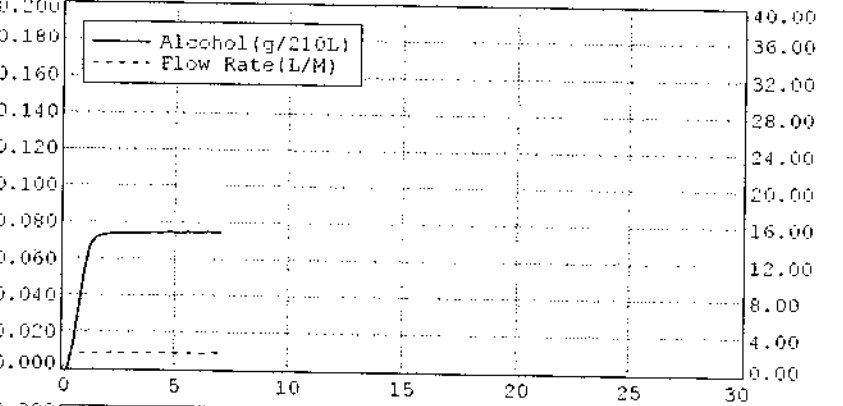
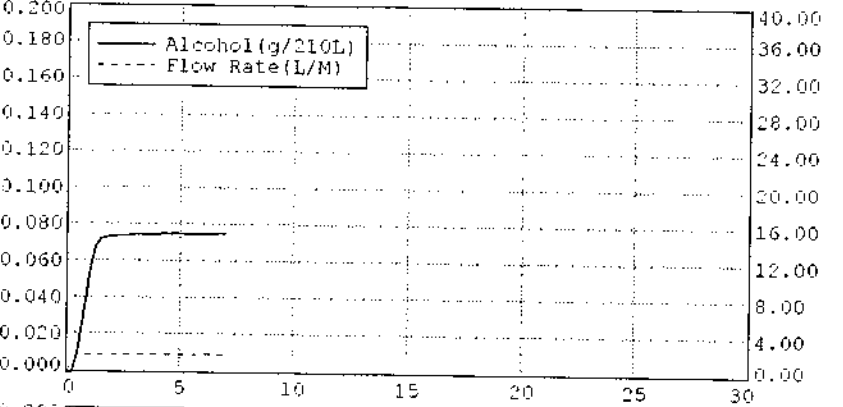
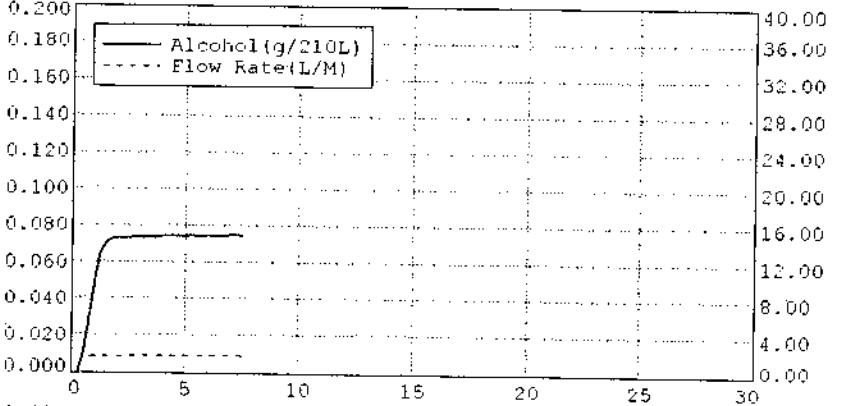
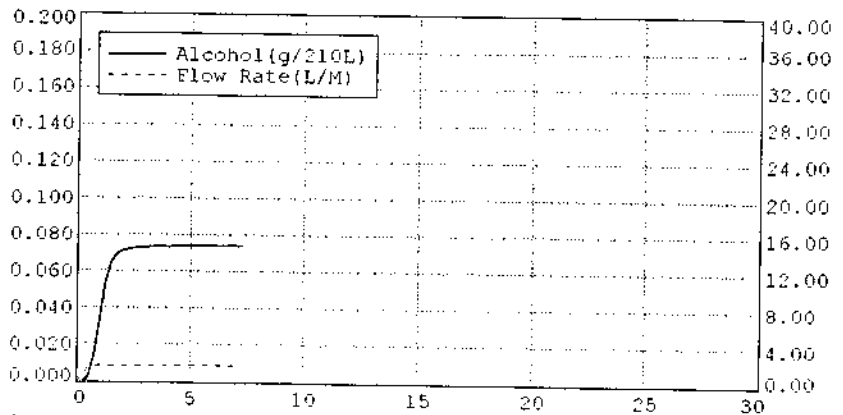
EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.20: 0.078  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 722 psi

BLANK TEST	0.000	15:23
INTERNAL STANDARD	VERIFIED	15:23
EXTERNAL STANDARD	0.076	15:23
BLANK TEST	0.000	15:24
EXTERNAL STANDARD	0.076	15:24
BLANK TEST	0.000	15:25
EXTERNAL STANDARD	0.076	15:25
BLANK TEST	0.000	15:26
EXTERNAL STANDARD	0.077	15:26
BLANK TEST	0.000	15:27
EXTERNAL STANDARD	0.076	15:27
BLANK TEST	0.000	15:28

Average = 0.0762  
 Std Dev = 0.0004

*Test #2 722psi*



**SUPERVISOR TEST**

Alaska Department of Public Safety  
 DATAMASTER dmt: 100347

Date: 11/02/2016  
 Time: 15:30:14

SUPERVISOR NAME:  
 COLLEEN S OBRYANT  
 OPERATOR'S #: 6237

**EXTERNAL STANDARD INFORMATION**

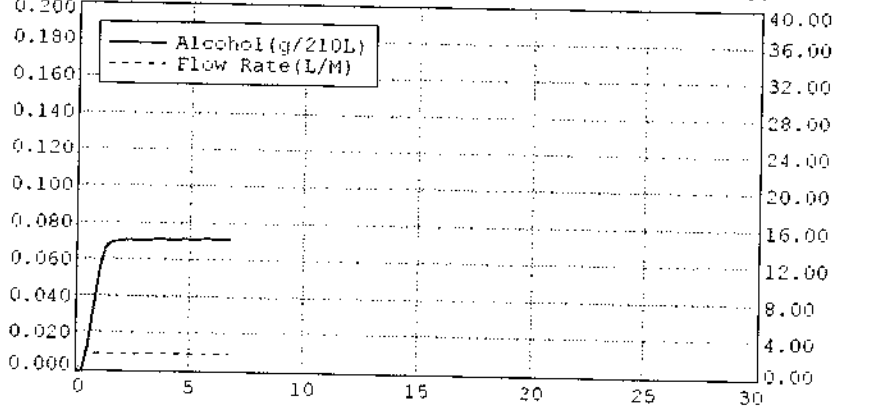
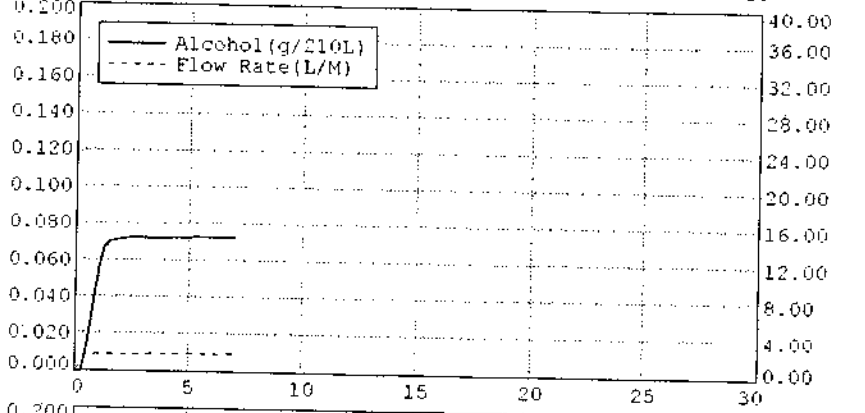
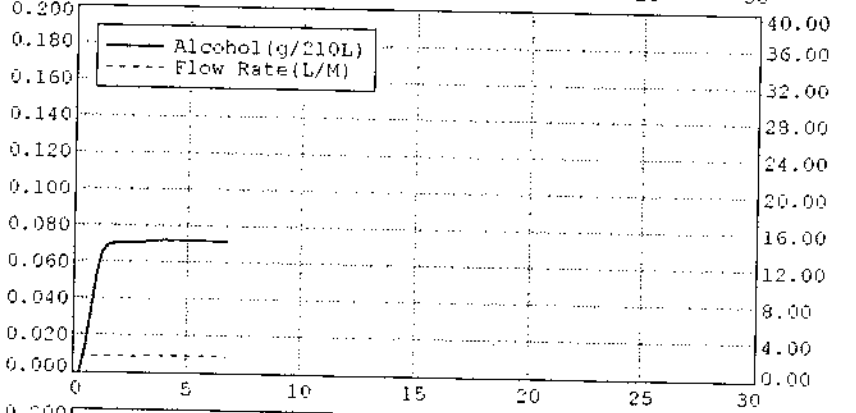
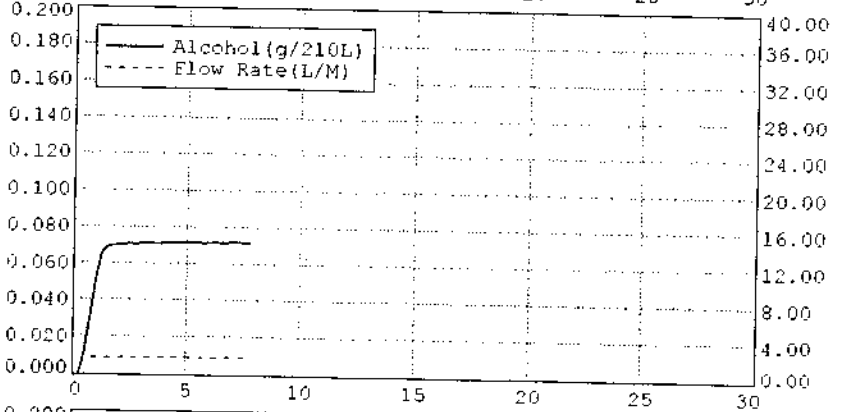
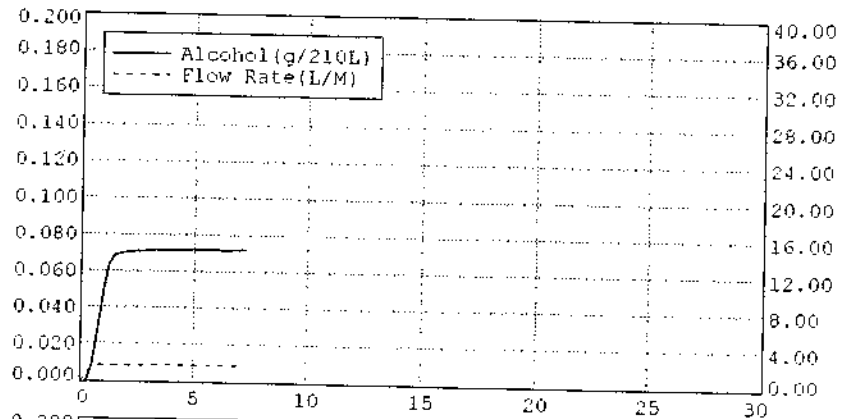
NOMINAL: 0.080  
 TARGET AT 29.20: 0.078  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 632 psi

BLANK TEST	0.000	15:31
INTERNAL STANDARD	VERIFIED	15:31
EXTERNAL STANDARD	0.074	15:31
BLANK TEST	0.000	15:32
EXTERNAL STANDARD	0.073	15:32
BLANK TEST	0.000	15:33
EXTERNAL STANDARD	0.073	15:33
BLANK TEST	0.000	15:34
EXTERNAL STANDARD	0.074	15:35
BLANK TEST	0.000	15:35
EXTERNAL STANDARD	0.073	15:36
BLANK TEST	0.000	15:37

Average = 0.0734  
 Std Dev = 0.0005

*Test #3 &*

*psi { 632 starting  
 576 ending*



**SUPERVISOR TEST**

Alaska Department of Public Safety  
 DATAMASTER dmt: 100347

Date: 11/02/2016  
 Time: 15:38:29

SUPERVISOR NAME:  
 COLLEEN S OBRYAN  
 OPERATOR'S #: 6237

**EXTERNAL STANDARD INFORMATION**

NOMINAL: 0.080  
 TARGET AT 29.19: 0.078  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 576 psi

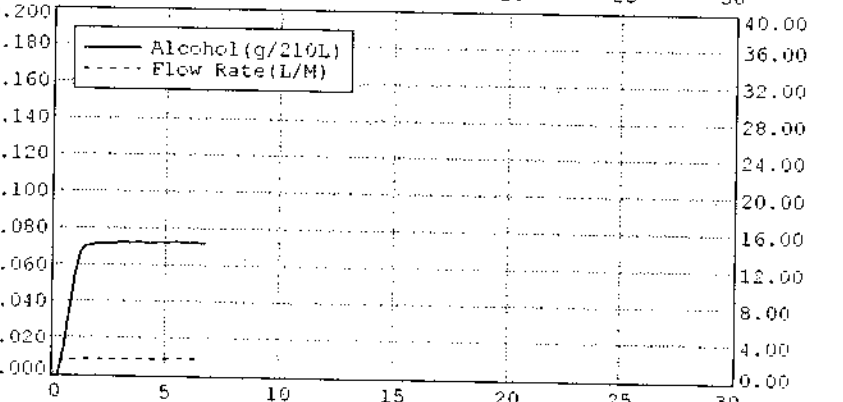
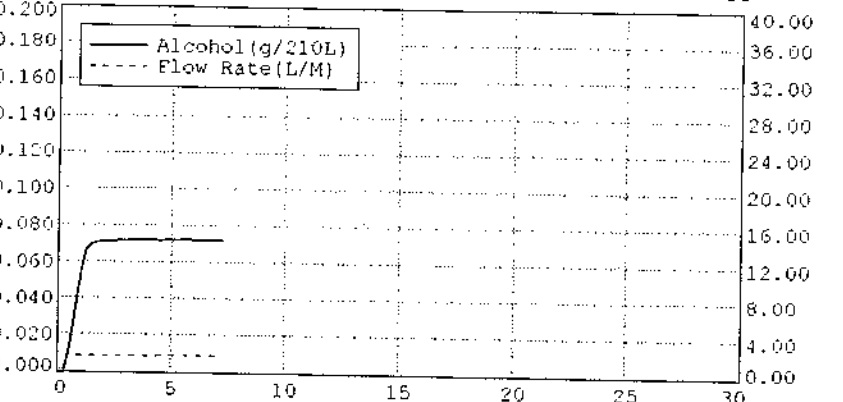
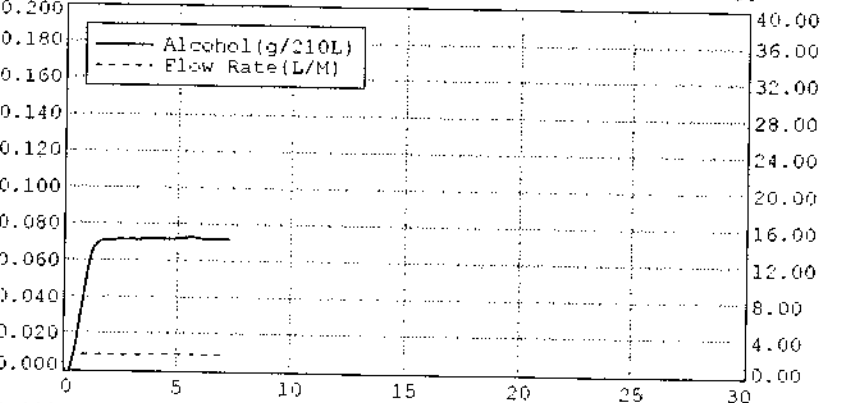
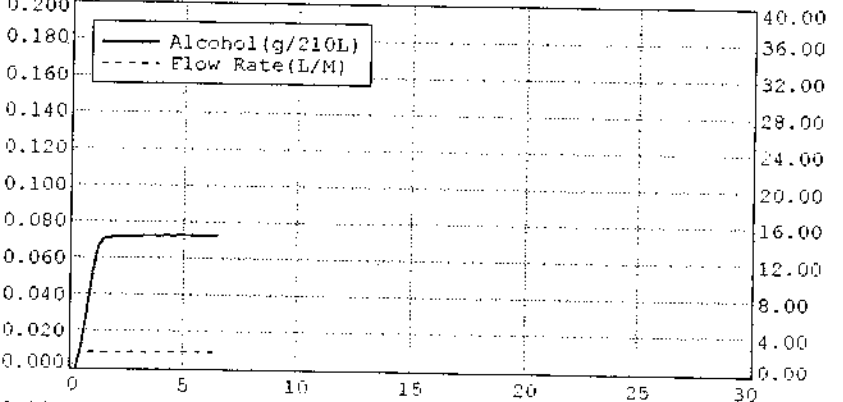
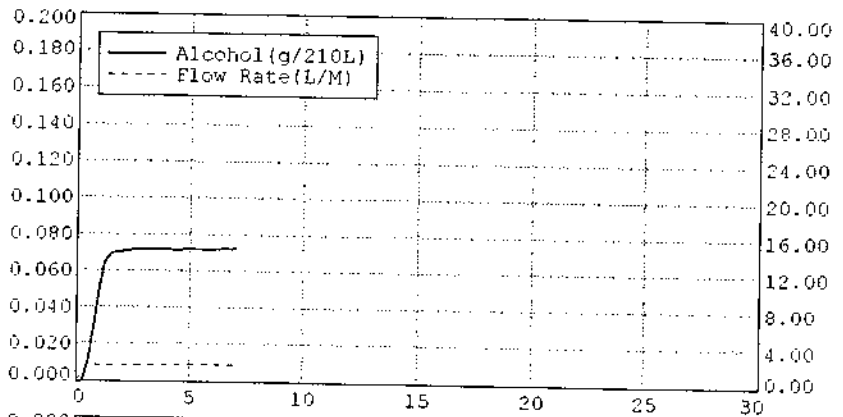
BLANK TEST	0.000	15:39
INTERNAL STANDARD	VERIFIED	15:39
EXTERNAL STANDARD	0.074	15:39
BLANK TEST	0.000	15:40
EXTERNAL STANDARD	0.074	15:40
BLANK TEST	0.000	15:41
EXTERNAL STANDARD	0.073	15:42
BLANK TEST	0.000	15:42
EXTERNAL STANDARD	0.074	15:43
BLANK TEST	0.000	15:44
EXTERNAL STANDARD	0.074	15:44
BLANK TEST	0.000	15:45

Average = 0.0738  
 Std Dev = 0.0004

*Test #4*

*psi { 576 starting  
 { 526 ending*

*Tank left in the DMT  
 for 5 days and had  
 Ops upon return.*



# VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100347

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 11/07/2016

## External Standard Test Values

### EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 28.99: 0.078  
LOT #: AG608504  
EXPIRATION: 03/25/2018  
TANK PRESSURE: 722 psi

BLANK TEST	0.000	09:30
INTERNAL STANDARD	VERIFIED	09:30
EXTERNAL STANDARD	0.076	09:30
BLANK TEST	0.000	09:31
EXTERNAL STANDARD	0.077	09:32
BLANK TEST	0.000	09:32
EXTERNAL STANDARD	0.076	09:33
BLANK TEST	0.000	09:34
EXTERNAL STANDARD	0.076	09:34
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.076	09:35
BLANK TEST	0.000	09:36

Average = 0.0762  
Std Dev = 0.0004

## Diagnostic Check

VERSIONS  
DMT: 3.02  
PIC: 3.02  
Modem: 2.6  
Questions: 2.2

### TEMPERATURES

Sample Chamber = 48.8°C PASSED  
Breath Tube = 48.0°C PASSED

### PUMP INFO

Flow Rate = 4.151 L/M PASSED

### DETECTOR INFO

PUMP ON PASSED  
PUMP OFF PASSED

### FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED

Test #5 (post regulator  
change) 08/11/16

# VERIFICATION OF CALIBRATION REPORT

of DataMaster dmt Breath Test Instrument

State of Alaska

Serial #: 100347

Scientific Crime Detection Laboratory - Statewide Breath Alcohol Program

Date: 11/07/2016

## External Standard Test Values

### EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 28.95: 0.077  
LOT #: AG608504  
EXPIRATION: 03/25/2018  
TANK PRESSURE: 675 psi

BLANK TEST	0.000	11:52
INTERNAL STANDARD	VERIFIED	11:52
Xq = 0.091 (1.04%)		
EXTERNAL STANDARD	0.076	11:52
X[1] = 0.0764 (-0.0025) (0.0002)		
BLANK TEST	0.000	11:53
EXTERNAL STANDARD	0.077	11:53
X[1] = 0.0766 (-0.0010) (-0.0006)		
BLANK TEST	0.000	11:54
EXTERNAL STANDARD	0.076	11:54
X[1] = 0.0757 (-0.0021) (-0.0006)		
BLANK TEST	0.000	11:55
EXTERNAL STANDARD	0.076	11:55
X[1] = 0.0756 (-0.0016) (0.0000)		
BLANK TEST	0.000	11:56
EXTERNAL STANDARD	0.076	11:57
X[1] = 0.0763 (-0.0014) (0.0000)		
BLANK TEST	0.000	11:57

Average = 0.0762  
Std Dev = 0.0004

## Diagnostic Check

VERSIONS  
DMT: 3.02  
PIC: 3.02  
Modem: 2.6  
Questions: 2.2

### TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 47.8°C PASSED  
(36.0°C - 50.0°C)

### SETTINGS

Lamp Voltage = 2.38 V PASSED  
(1.34 V - 3.12 V)  
Cooler Voltage = 1.98 V PASSED  
(1.13 V - 2.65 V)  
Bias Voltage = 80 V PASSED  
(47 V - 111 V)  
Chopper Freq = 535 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.0 in

### PUMP INFO

Flow Rate = 4.273 L/M PASSED  
(3.500 L/M - 6.500 L/M)

### DETECTOR INFO

PUMP ON PASSED  
(0.003 V <= 0.010 V)  
PUMP OFF PASSED  
(0.002 V <= 0.010 V)

### FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

### INTERNAL STANDARD

Xq = 0.091 1.42% (0.00% - 4.00%) PASSED