

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

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

Version: DMCEF 2015 R1  
Status: Active

Instrument S/N 100406 Analyst Brandi Barnett Start Date 9/30/15

1. Diagnostic Test (attached)  Internal Standard value  $\leq 3.00\%$  Yes

1. Voltage Checks

a. Adjust voltages, if needed

i. Lamp (2.6V Maximum)

ii. Bias

iii. Cooler (2.0V Maximum)

iv. Chopper Frequency

v. Detector Voltage (-0.100V to 0.100V)

b. Set RFI

c. Adjust barometer reading to match NIST traceable barometer

d. Adjust volume setting, if needed (1.5L +/- 0.1L)

e. Print Technician Screen (attached)

2. Print Calibration Factors (attached)

3. Volume Test - Minimum 1.5 L (1.3L to 1.7L)

4. Linearity Test (attached)

a. Levels Used

i. 0.020g/210L Mnf ILMO Lot 02915020A2 Exp 3/5/17

ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17

iii. 0.080g/210L Mnf ILMO Lot 01315080A2 Exp 2/6/17

iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17

v. 0.200g/210L Mnf Guth Lot 15130 Exp 5/11/17

1. Simulator S/N DR4162 Date Calibrated 1/19/15

vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/2/16

1. Simulator S/N DR6267 Date Calibrated 1/20/15

5. Functional Tests (attached)

a. Incomplete

b. Invalid

c. Interference

d. Exceeded attempts

i. Acetone - Mnf Guth Lot 14110 Level 0.100 Exp 5/1/16

1. Simulator S/N DR4163 Date Calibrated 1/19/15

ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17

1. Simulator S/N SD1176 Date Calibrated 1/20/15

iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17

1. Simulator S/N DR4178 Date Calibrated 1/19/15

e. RFI

6. Verify stylus is calibrated

9. Verification of Calibration

7. Reset Options

10. Non-Drinking Subject Test (attached)

8. Clear Memory

11. Upload

13. Remove tank prior to shut down

End Date 10/1/15

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100406  
-----

Date: 09/30/2015  
Time: 08:51:33

VERSIONS

DMT: 3.01  
PIC: 3.02  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.0°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.0°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.76 V PASSED  
(1.09 V - 2.55 V)  
Cooler Voltage = 1.76 V PASSED  
(1.06 V - 2.46 V)  
Bias Voltage = 80 V PASSED  
(47 V - 111 V)  
Chopper Freq = 534 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.4 in

PUMP INFO

Flow Rate = 5.272 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  
(0.002 V <= 0.010 V)

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD

Xq = 0.103 2.09% PASSED  
(0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100406  
-----

Date: 09/30/2015  
Time: 9:20 AM

Temperatures (°C)

Sample Cell: 49.1°C  
Breath Tube: 45.3°C

Current Barometer 29.4 in  
Volume (Ltr) 1.55

Settings

Lamp: 1.79 V  
Bias: 80 V  
Cooler: 1.76 V  
Chopper: 528 Hz

Voltages (V)

Flow: 1.07 V  
Detector: 0.034 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100406  
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Date: 10/05/2011  
Time: 09:07:21

Ca = 0.1000  
CAL = 0.988221    0.800 <= CAL < 1.200  
b1 = 0.0007    0.0000 <= b1 < 0.0040  
b2 = 0.0060    0.0010 <= b2 < 0.0100  
b3 = 0.0003    0.0000 <= b3 < 0.0040  
Xq = 0.1008    0.0500 <= Xq < 0.2000  
a21 = 1.202874    1.050 <= a21 < 1.300  
a31 = 0.480296    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100406

Date: 09/30/2015  
Time: 09:22:31

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

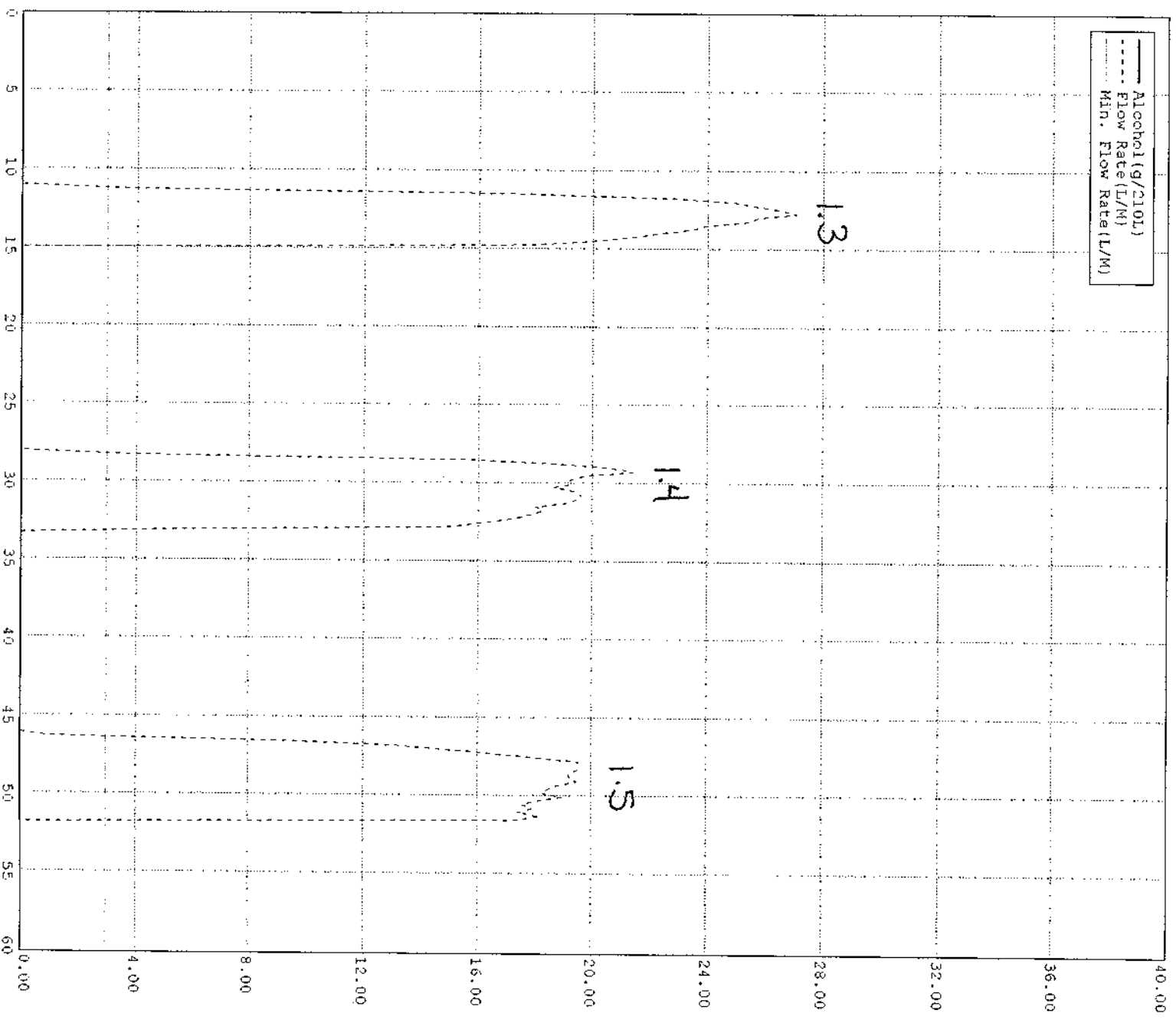
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
MINIMUM VOLUME  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.41: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:23
BLANK TEST	0.000	09:23
INTERNAL STANDARD	VERIFIED	09:23
EXTERNAL STANDARD	0.079	09:24
BLANK TEST	0.000	09:24
SUBJECT SAMPLE (Vol=1.54L)	0.000	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.079	09:27
BLANK TEST	0.000	09:27

*BMB*



LINEARITY CHECK

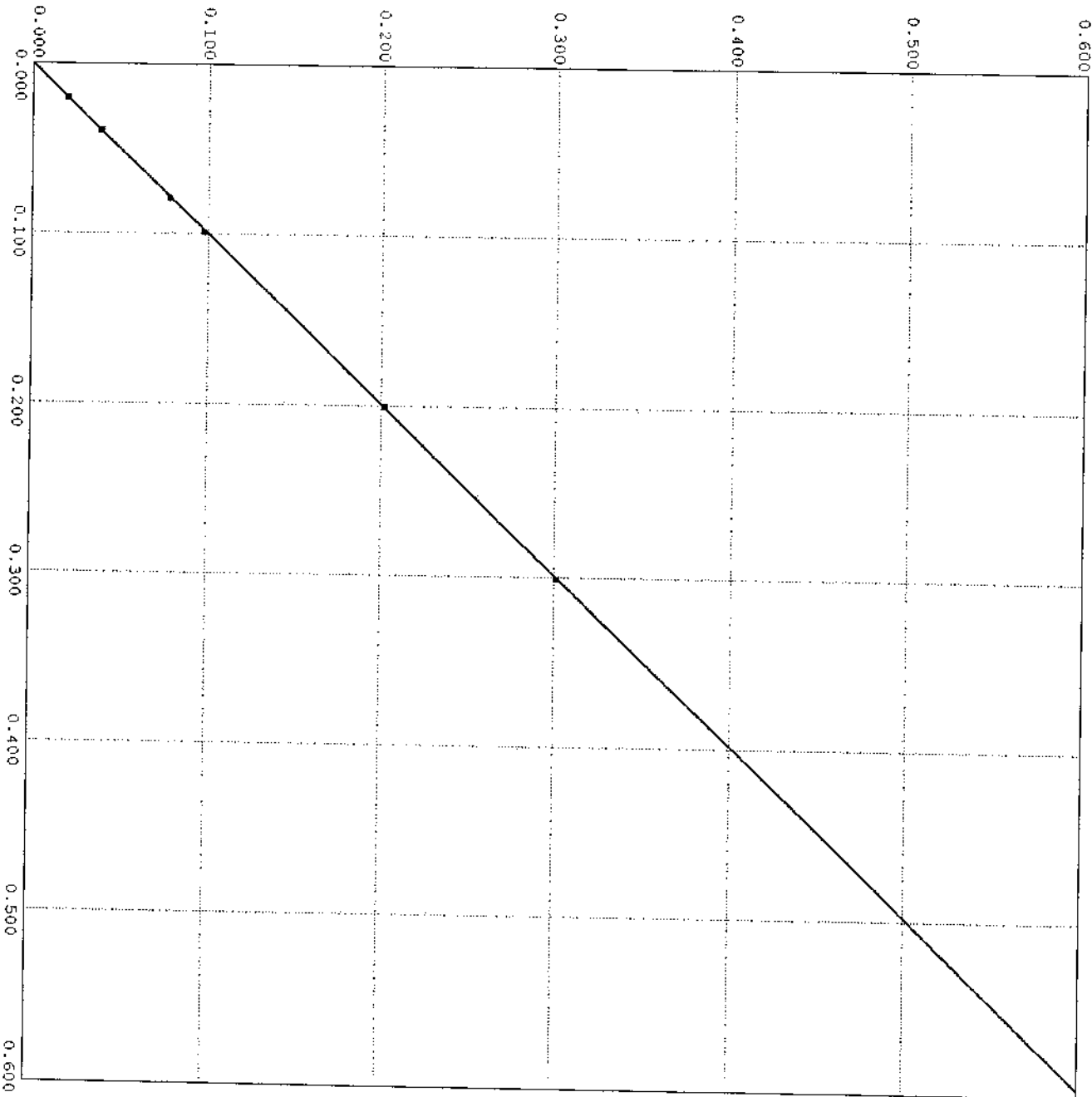
Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 09/30/2015  
Time: 10:07:17

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0208	0.0004
0.039	0.0400	0.0000
0.079	0.0790	0.0000
0.099	0.0986	0.0005
0.200	0.2030	0.0000
0.300	0.3020	0.0012

SLOPE = 1.007474  
R<sup>2</sup> = 0.999918



*BMB*

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

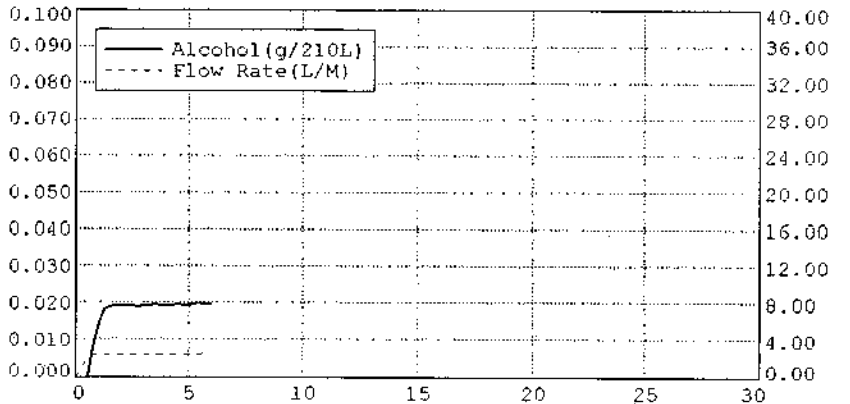
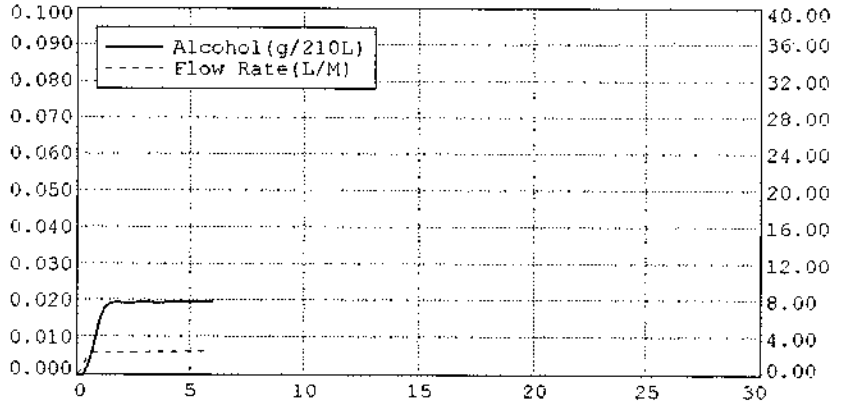
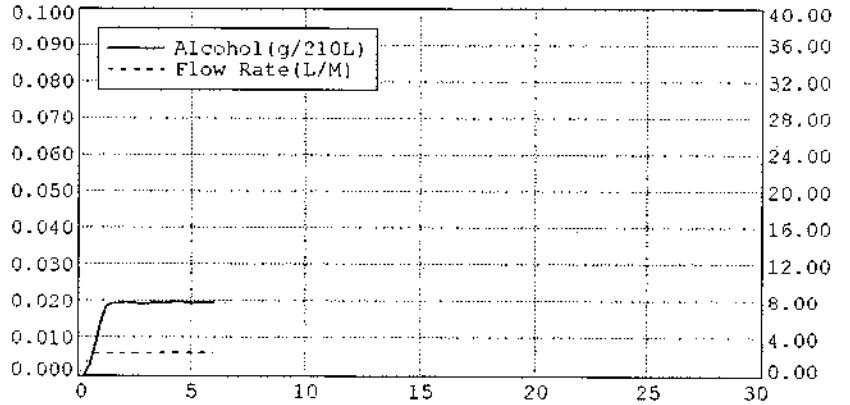
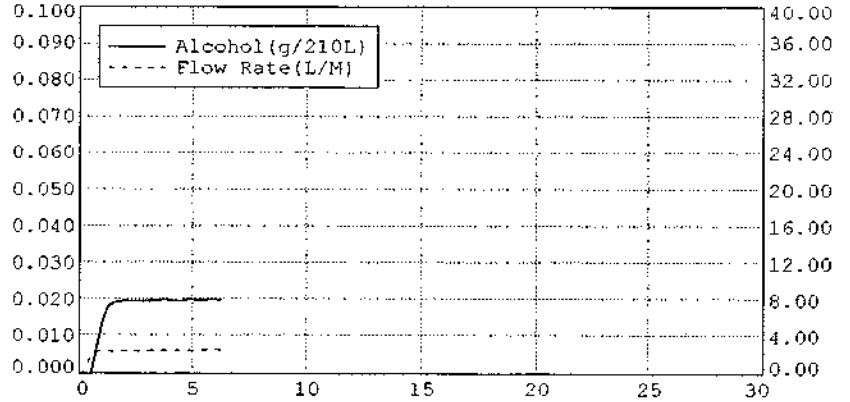
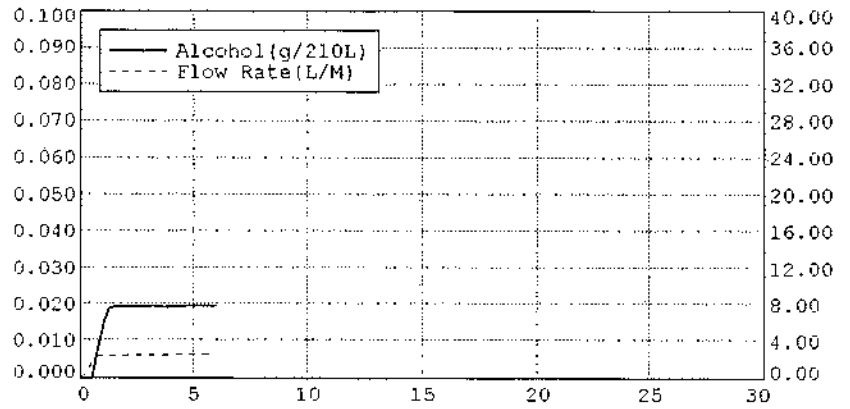
Date: 09/30/2015  
 Time: 10:07:19

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.46: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 270 psi

BLANK TEST	0.000	10:08
INTERNAL STANDARD	VERIFIED	10:08
EXTERNAL STANDARD	0.020	10:08
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.021	10:09
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.021	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.021	10:12
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.021	10:13
BLANK TEST	0.000	10:14

Average = 0.0208  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

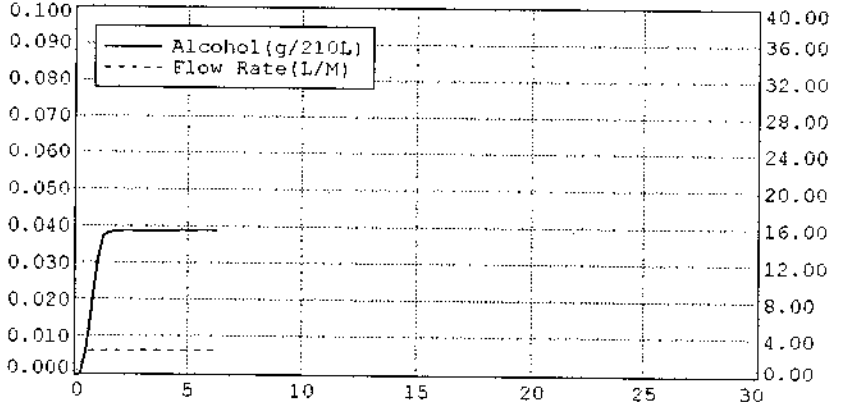
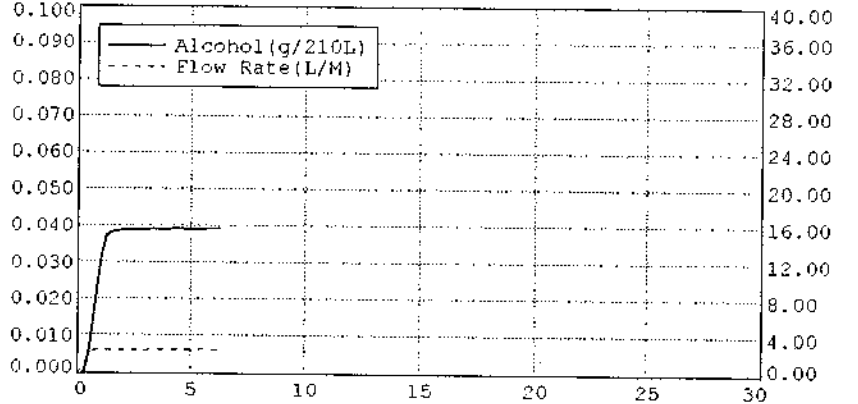
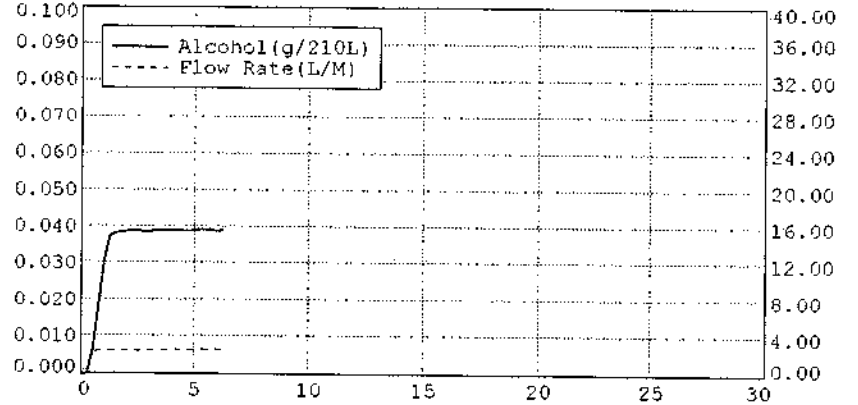
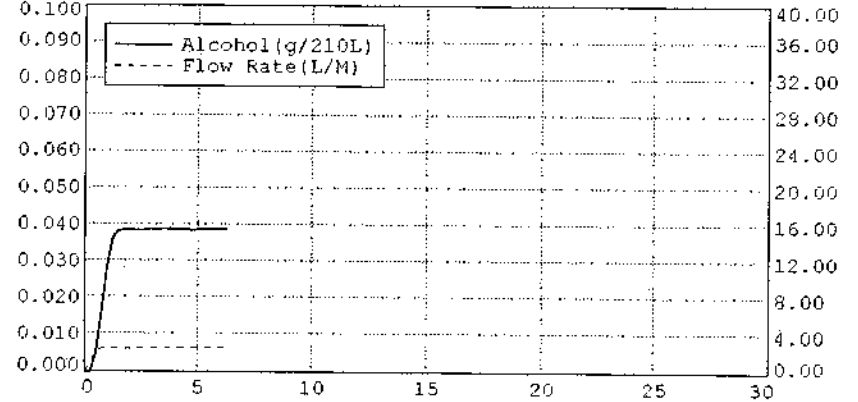
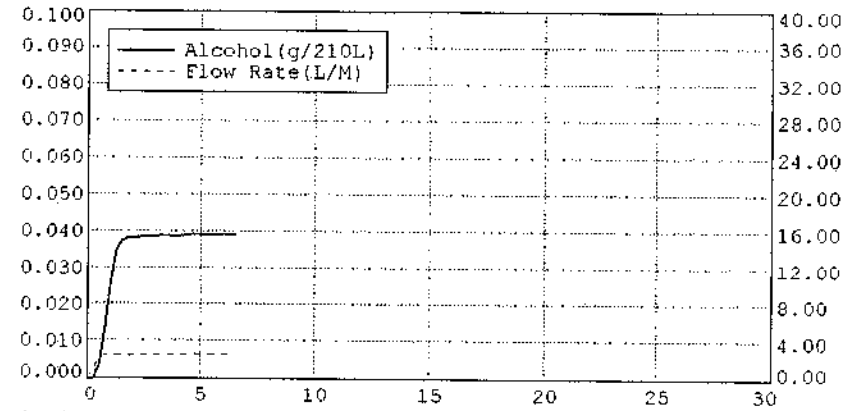
Date: 09/30/2015  
 Time: 10:18:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.46: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 365 psi

BLANK TEST	0.000	10:19
INTERNAL STANDARD	VERIFIED	10:19
EXTERNAL STANDARD	0.040	10:19
BLANK TEST	0.000	10:20
EXTERNAL STANDARD	0.040	10:20
BLANK TEST	0.000	10:21
EXTERNAL STANDARD	0.040	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.040	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.040	10:24
BLANK TEST	0.000	10:25

Average = 0.0400  
 Std Dev = 0.0000





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dat: 100406

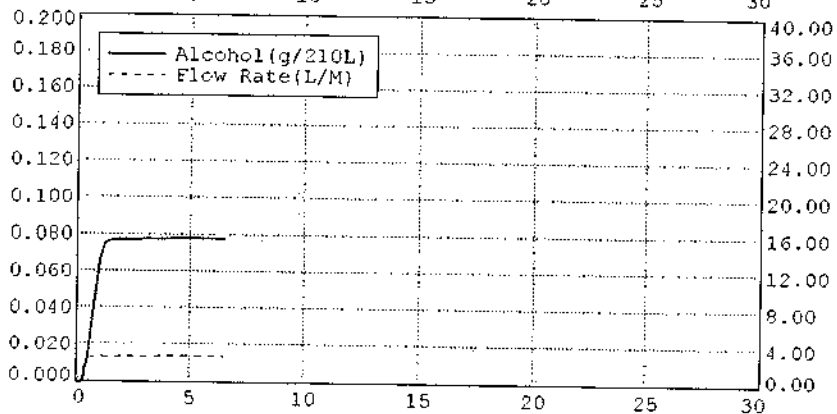
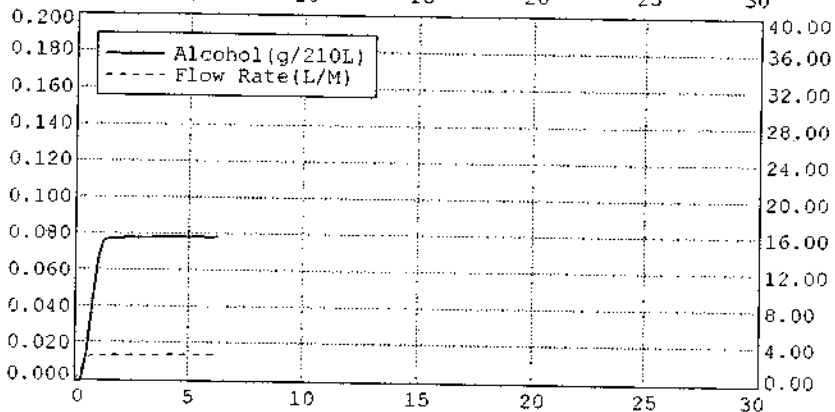
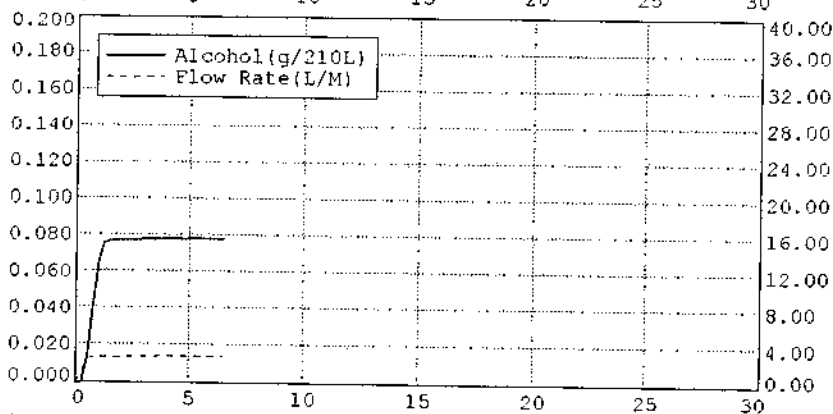
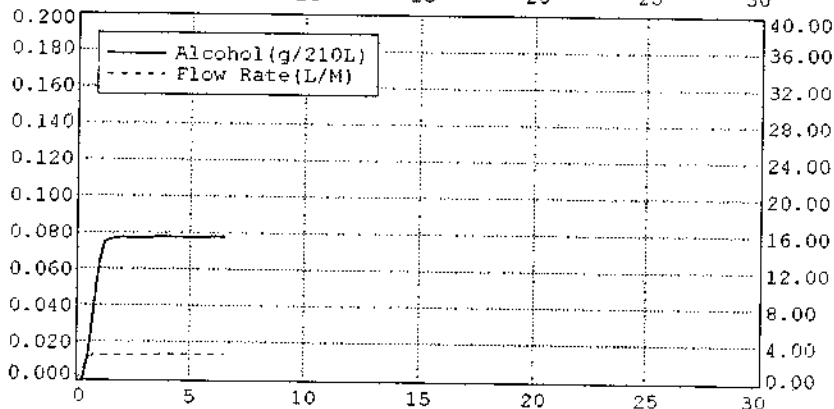
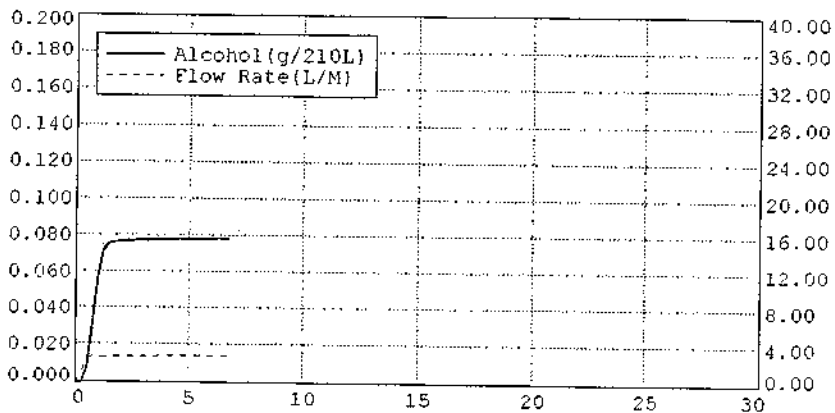
Date: 09/30/2015  
 Time: 10:26:59

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.46: 0.079  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 781 psi

BLANK TEST	0.000	10:28
INTERNAL STANDARD	VERIFIED	10:28
EXTERNAL STANDARD	0.079	10:28
BLANK TEST	0.000	10:29
EXTERNAL STANDARD	0.079	10:29
BLANK TEST	0.000	10:30
EXTERNAL STANDARD	0.079	10:30
BLANK TEST	0.000	10:31
EXTERNAL STANDARD	0.079	10:31
BLANK TEST	0.000	10:32
EXTERNAL STANDARD	0.079	10:33
BLANK TEST	0.000	10:33

Average = 0.0790  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

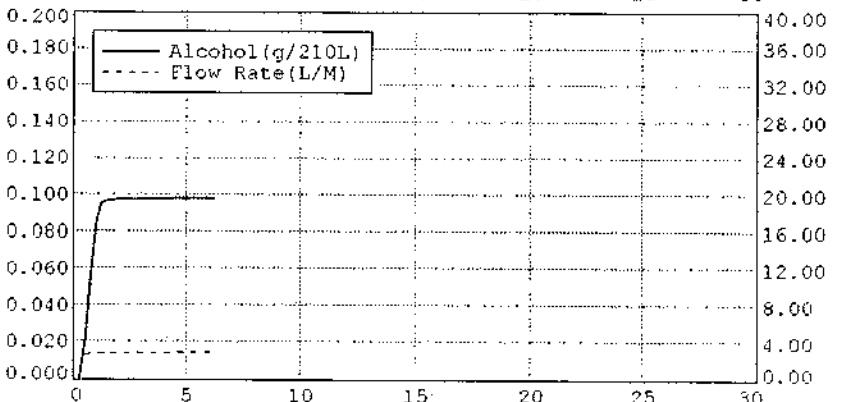
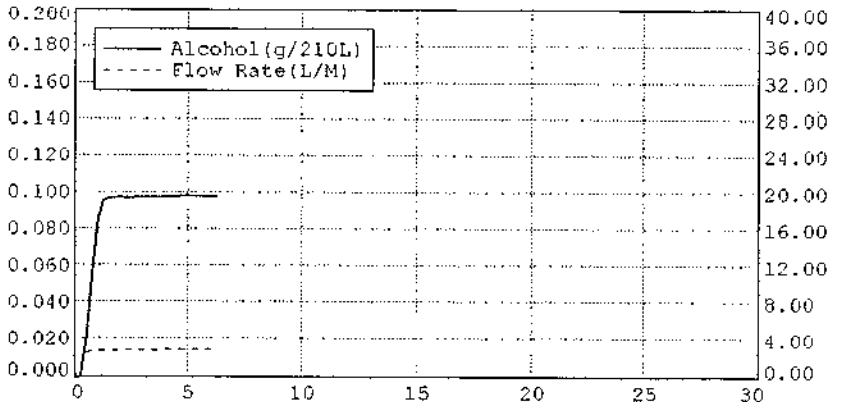
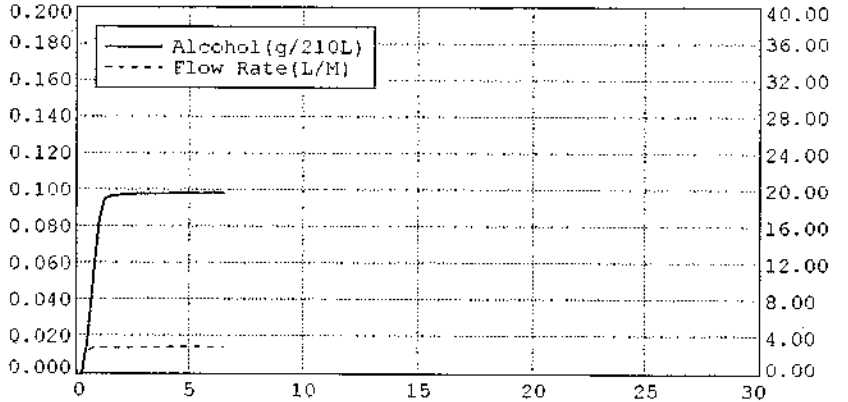
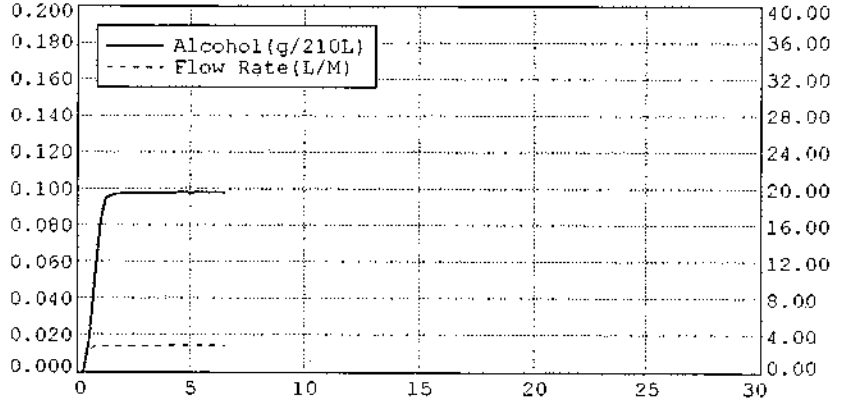
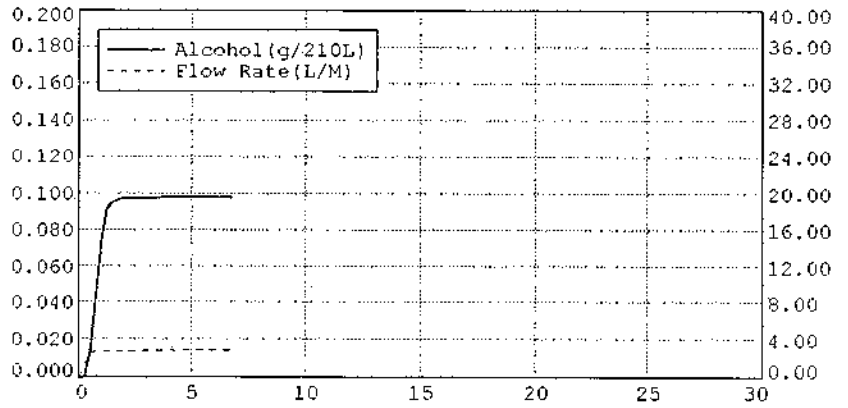
Date: 09/30/2015  
 Time: 10:40:27

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.48: 0.099  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 1055 psi

BLANK TEST	0.000	10:41
INTERNAL STANDARD	VERIFIED	10:41
EXTERNAL STANDARD	0.099	10:41
BLANK TEST	0.000	10:42
EXTERNAL STANDARD	0.099	10:43
BLANK TEST	0.000	10:43
EXTERNAL STANDARD	0.099	10:44
BLANK TEST	0.000	10:45
EXTERNAL STANDARD	0.098	10:45
BLANK TEST	0.000	10:46
EXTERNAL STANDARD	0.098	10:46
BLANK TEST	0.000	10:47

Average = 0.0986  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

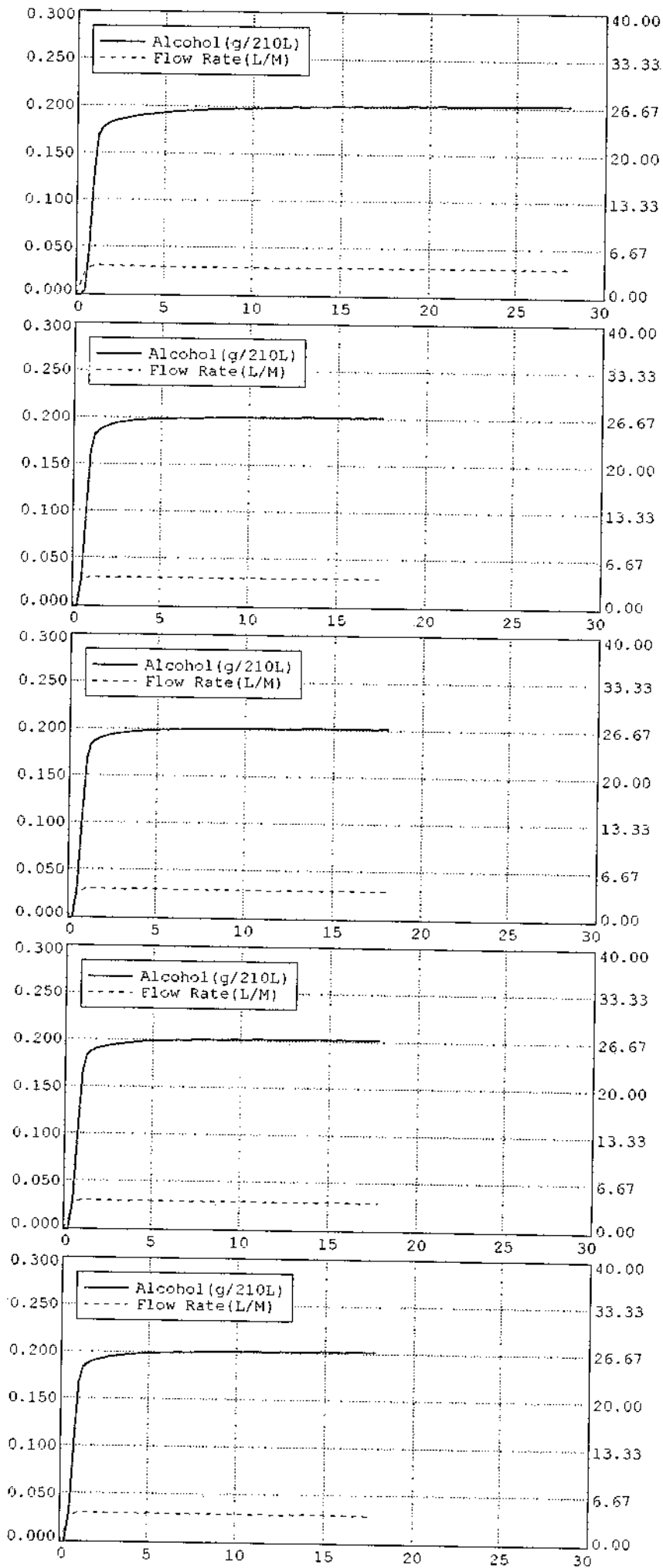
Date: 09/30/2015  
 Time: 10:48:23

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: GUTH 15130  
 EXPIRATION: 05/11/2017

BLANK TEST	0.000	10:49
INTERNAL STANDARD	VERIFIED	10:49
EXTERNAL STANDARD	0.203	10:50
BLANK TEST	0.000	10:51
EXTERNAL STANDARD	0.203	10:51
BLANK TEST	0.000	10:52
EXTERNAL STANDARD	0.203	10:52
BLANK TEST	0.000	10:53
EXTERNAL STANDARD	0.203	10:54
BLANK TEST	0.000	10:55
EXTERNAL STANDARD	0.203	10:55
BLANK TEST	0.000	10:56

Average = 0.2030  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

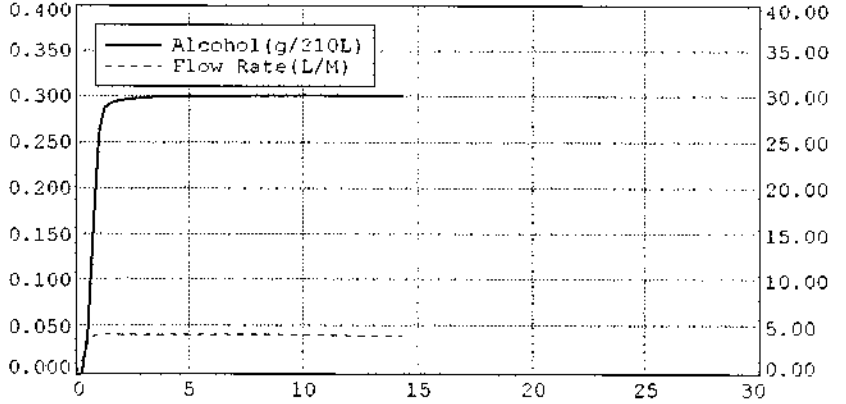
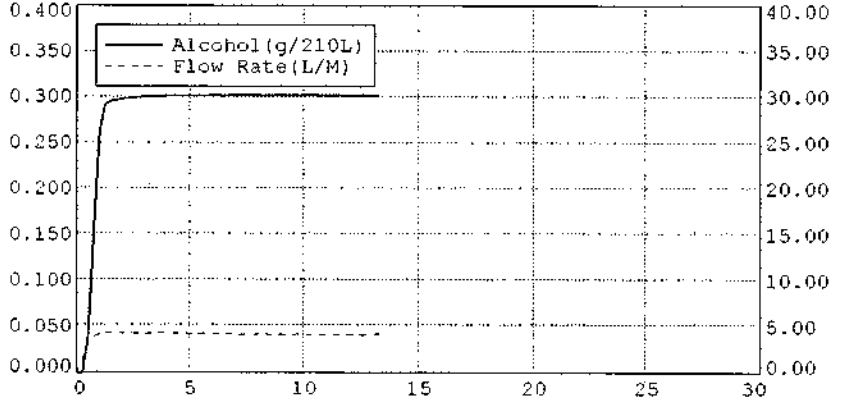
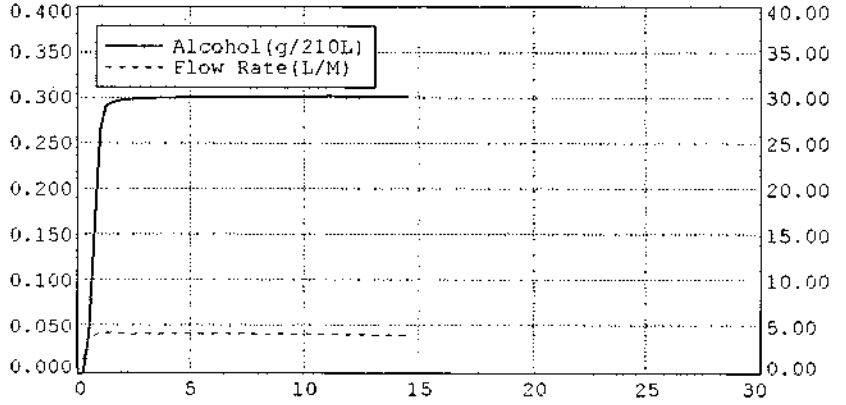
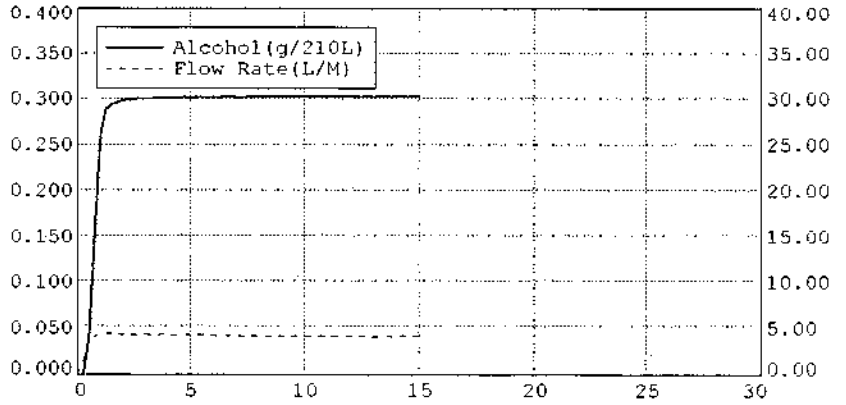
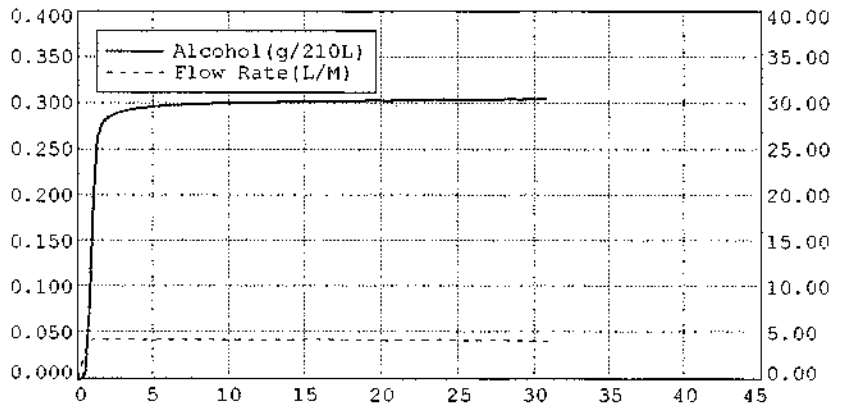
Date: 09/30/2015  
 Time: 10:57:55

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: GUTH 14270  
 EXPIRATION: 12/02/2016

BLANK TEST	0.000	10:59
INTERNAL STANDARD	VERIFIED	10:59
EXTERNAL STANDARD	0.304	10:59
BLANK TEST	0.000	11:00
EXTERNAL STANDARD	0.302	11:01
BLANK TEST	0.000	11:02
EXTERNAL STANDARD	0.302	11:02
BLANK TEST	0.000	11:03
EXTERNAL STANDARD	0.301	11:03
BLANK TEST	0.000	11:04
EXTERNAL STANDARD	0.301	11:04
BLANK TEST	0.000	11:05

Average = 0.3020  
 Std Dev = 0.0012



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100406

Date: 09/30/2015  
Time: 13:08:07

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

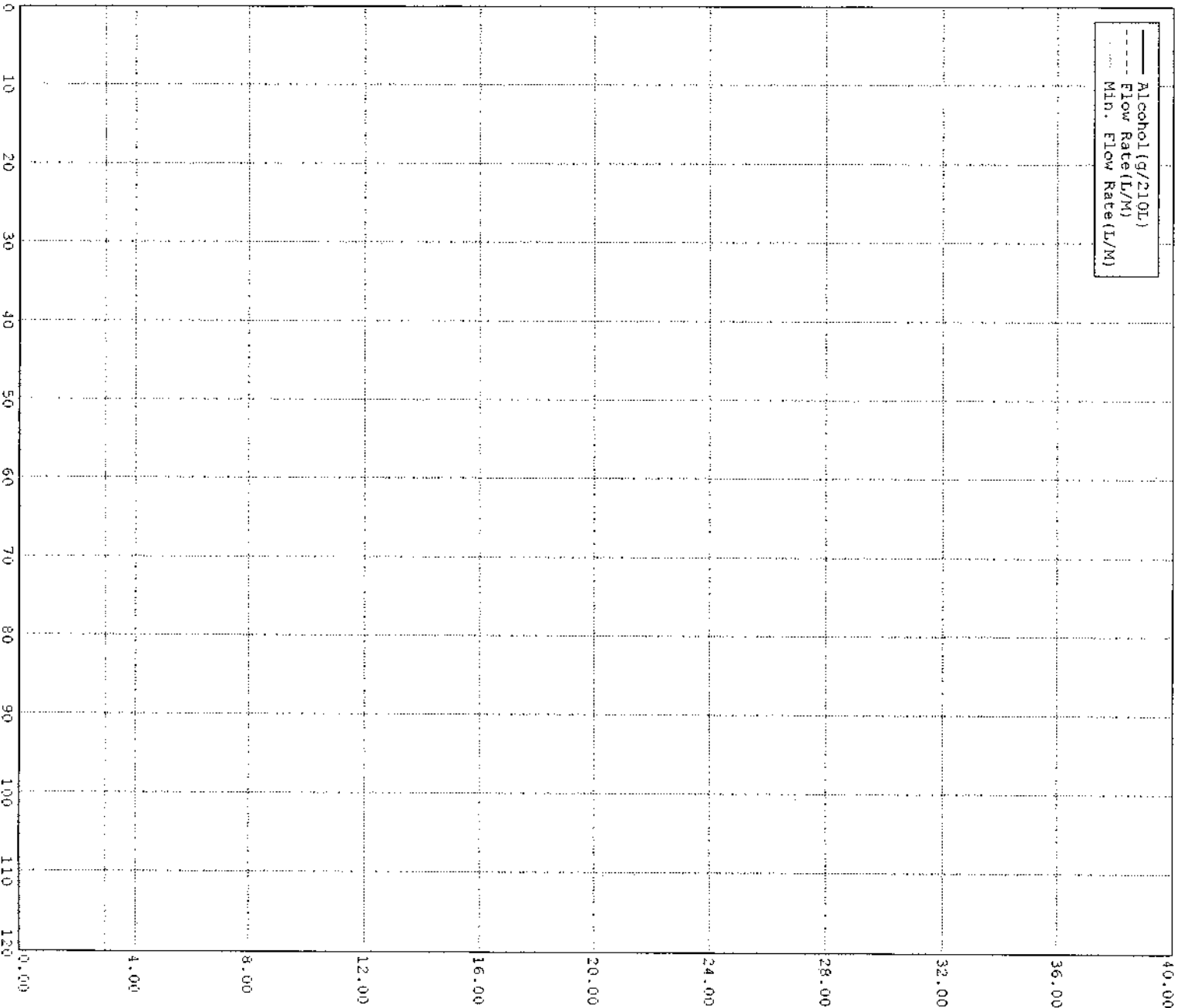
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INCOMPLETE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.59: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:09
BLANK TEST	0.000	13:09
INTERNAL STANDARD	VERIFIED	13:09
EXTERNAL STANDARD	0.079	13:09
BLANK TEST	0.000	13:10
SUBJECT SAMPLE	INCOMPLETE	13:12

*Handwritten signature: BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 09/30/2015  
Time: 13:16:24

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

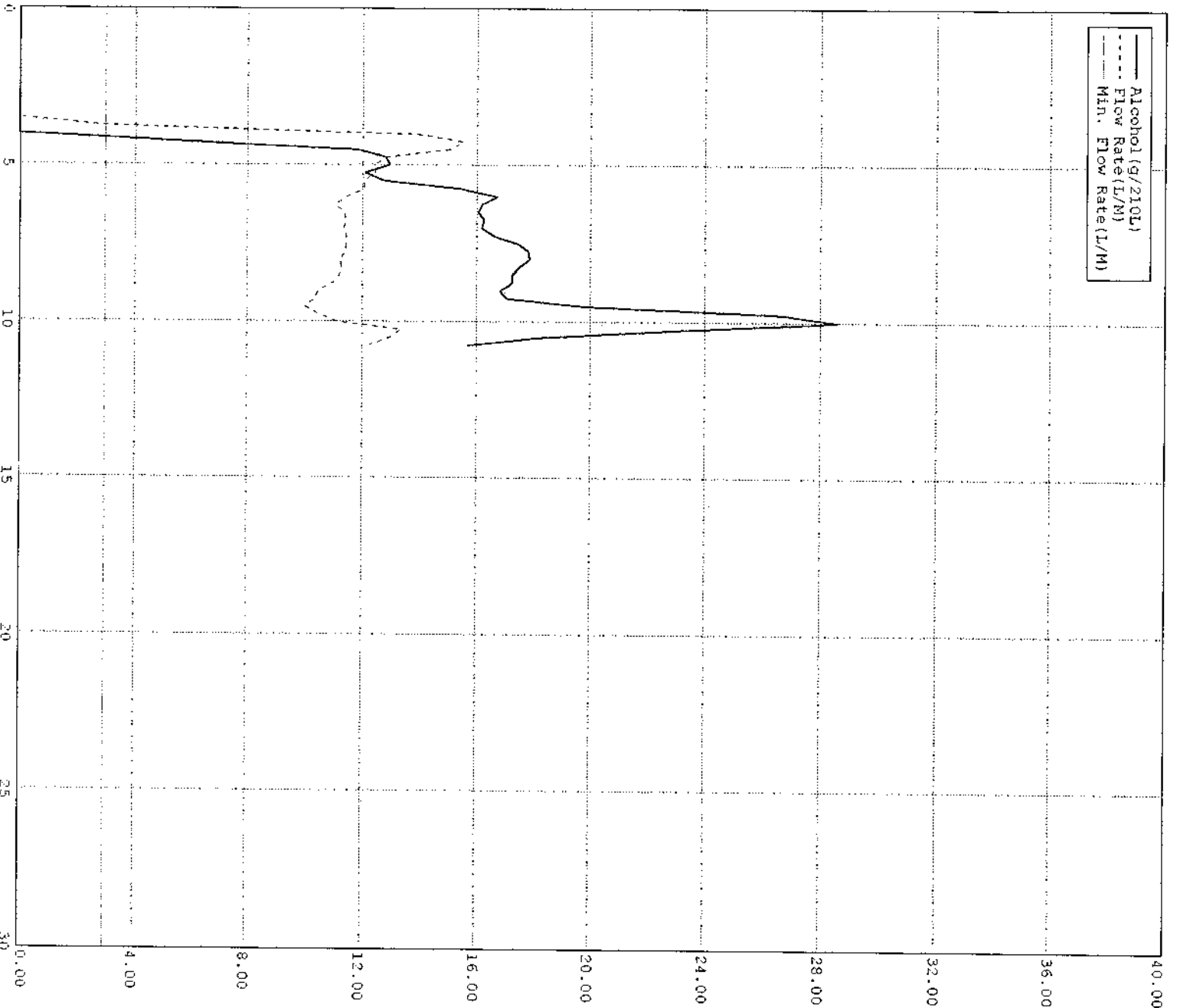
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INVALID KNOWN MOUTH ALCOHOL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.59: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:19
BLANK TEST	0.000	13:19
INTERNAL STANDARD	VERIFIED	13:19
EXTERNAL STANDARD	0.079	13:19
BLANK TEST	0.000	13:20
SUBJECT SAMPLE	INVALID	13:21

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 09/30/2015  
Time: 13:54:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INTERFERENCE ACEFONE  
CASE/REPORT: XXXX  
TEST TYPE: TEST

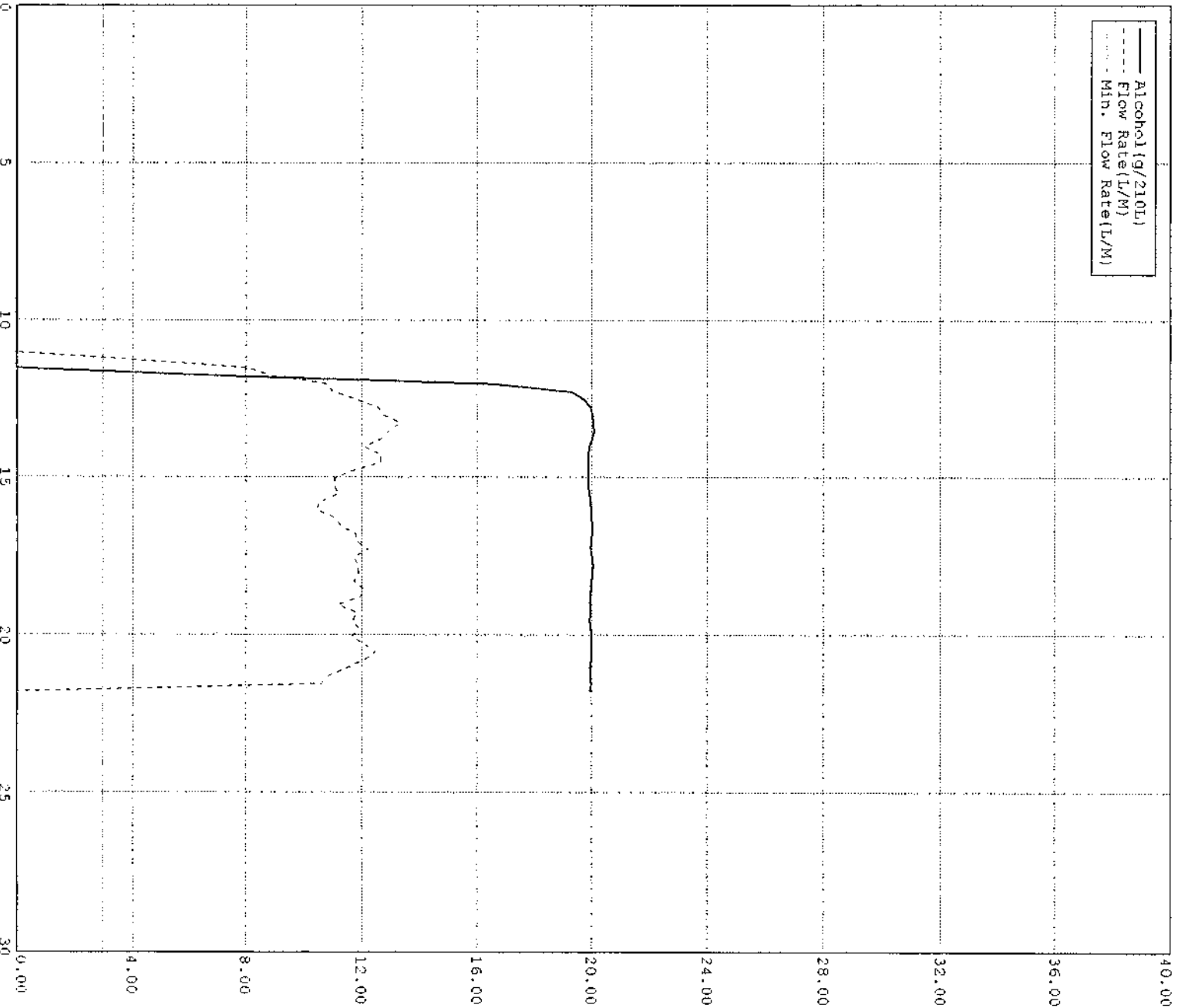
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.62: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:55
BLANK TEST	0.000	13:55
INTERNAL STANDARD	VERIFIED	13:55
Xg = 0.104 (2.708)		
EXTERNAL STANDARD	0.079	13:55
X[1] = 0.0793 (-0.0003)	(0.0035)	
BLANK TEST	0.000	13:56
SUBJECT SAMPLE	XXX	13:56
X[1] = 0.0998 (-0.0125)	(0.0009)	

Interference Detected

Filter 2 Avg: 0.0001  
Filter 3 Avg: 0.0036  
BMB 10/1/15

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100406

Date: 09/30/2015  
Time: 14:00:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

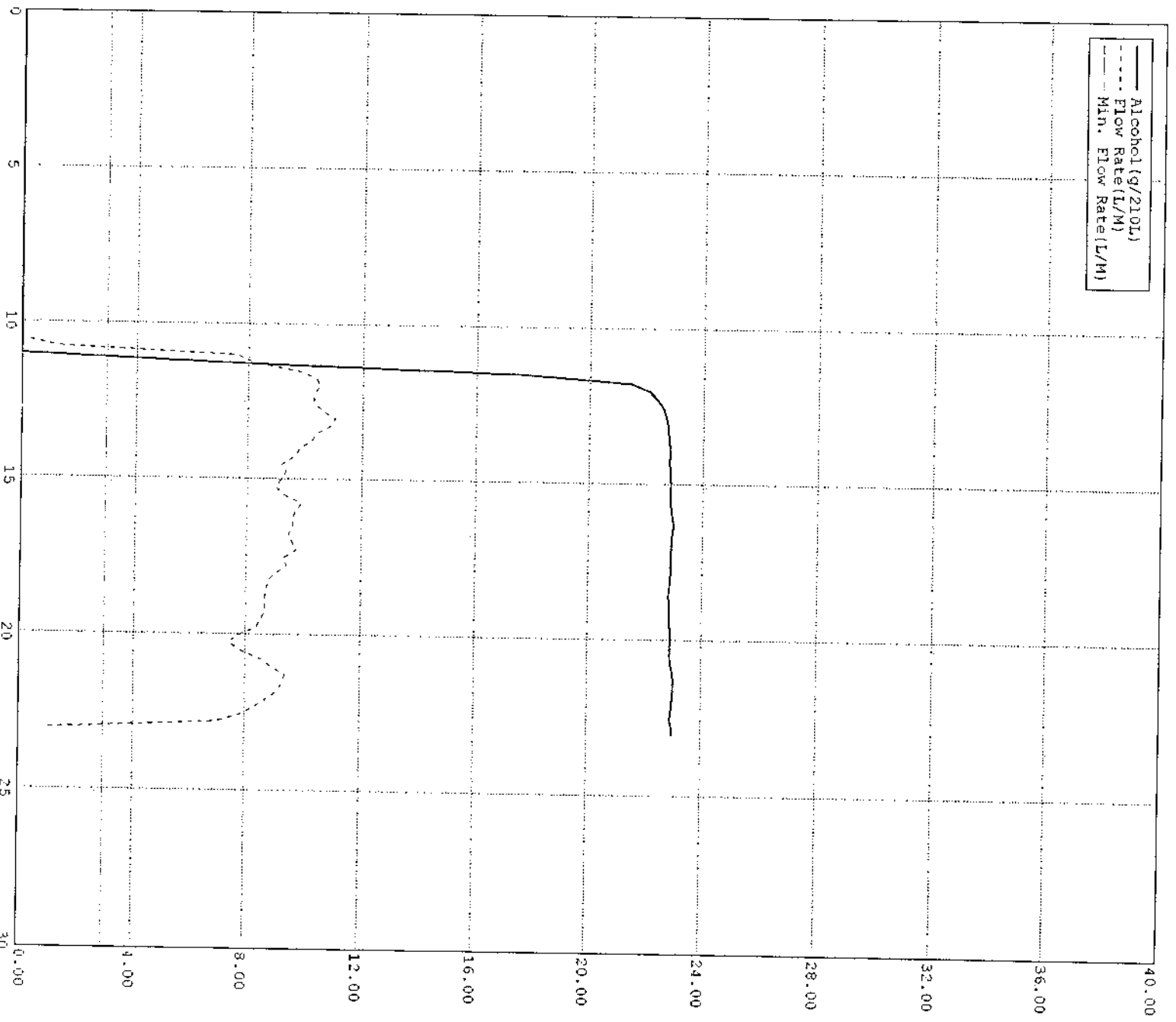
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOF #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK  
BLANK TEST PASSED 14:03  
INTERNAL STANDARD 0.000 14:03  
Xg = 0.104 (2.70%) VERIFIED 14:03  
EXTERNAL STANDARD 0.080 14:03  
X[1] = 0.0795 (0.0005) (0.0036)  
BLANK TEST 0.000 14:04  
SUBJECT SAMPLE XXX 14:05  
X[1] = 0.1150 (-0.0244) (0.0029)

Interference Detected

BNB





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 09/30/2015  
Time: 14:08:52

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

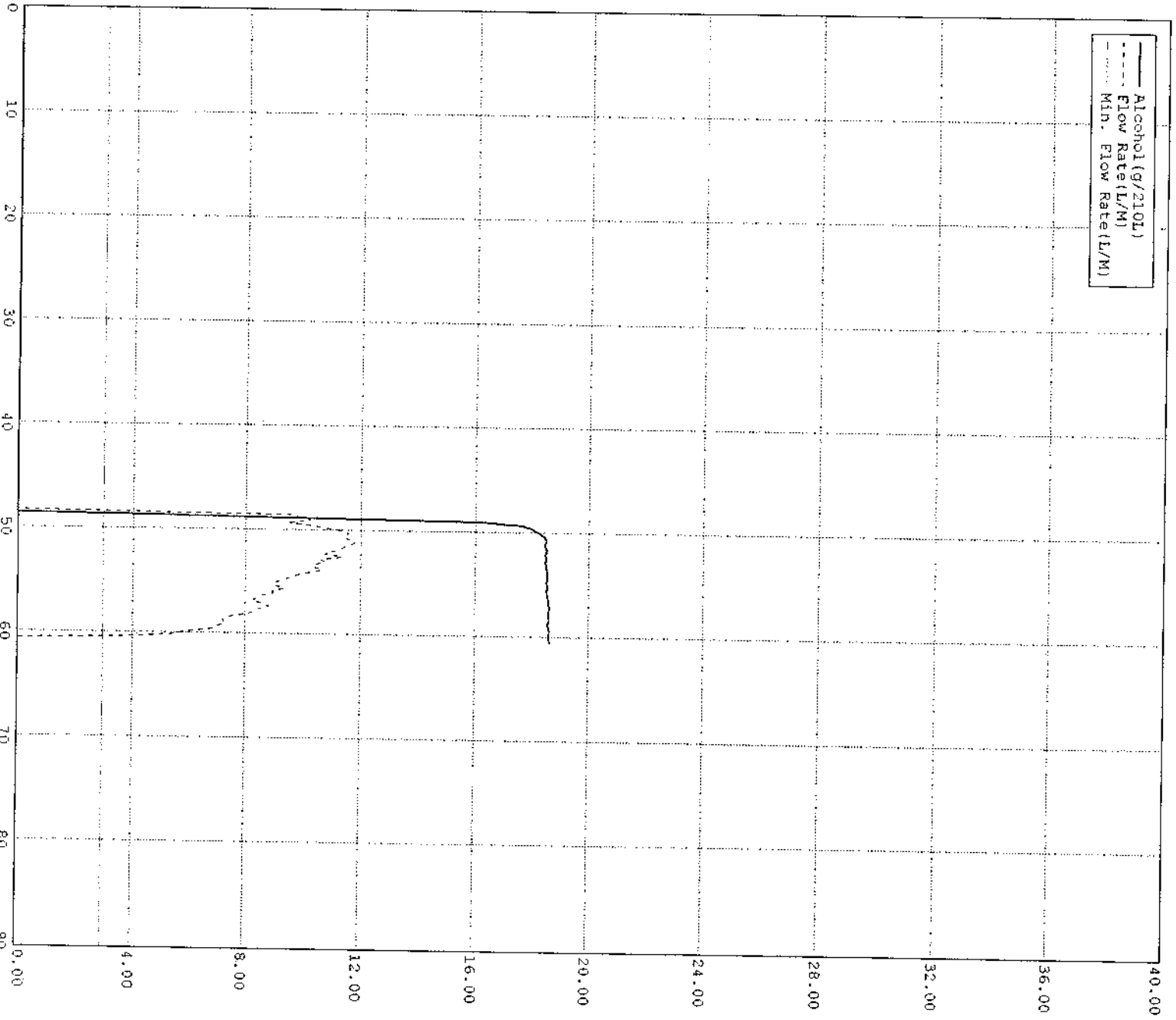
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
INTERFERENCE NEGATIVE CONTROL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.63: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:12
BLANK TEST	0.000	14:12
INTERNAL STANDARD	VERIFIED	14:12
Xq = 0.104 (2.70%)	0.080	14:12
EXTERNAL STANDARD	X[1] = 0.0797 (0.0000)	(0.0036)
BLANK TEST	0.000	14:13
SUBJECT SAMPLE (Vol=1.88L)	0.093	14:14
X[1] = 0.0934 (-0.0001)	(0.0011)	
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.079	14:16
X[1] = 0.0792 (0.0000)	(0.0035)	
BLANK TEST	0.000	14:17

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 09/30/2015  
Time: 13:27:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

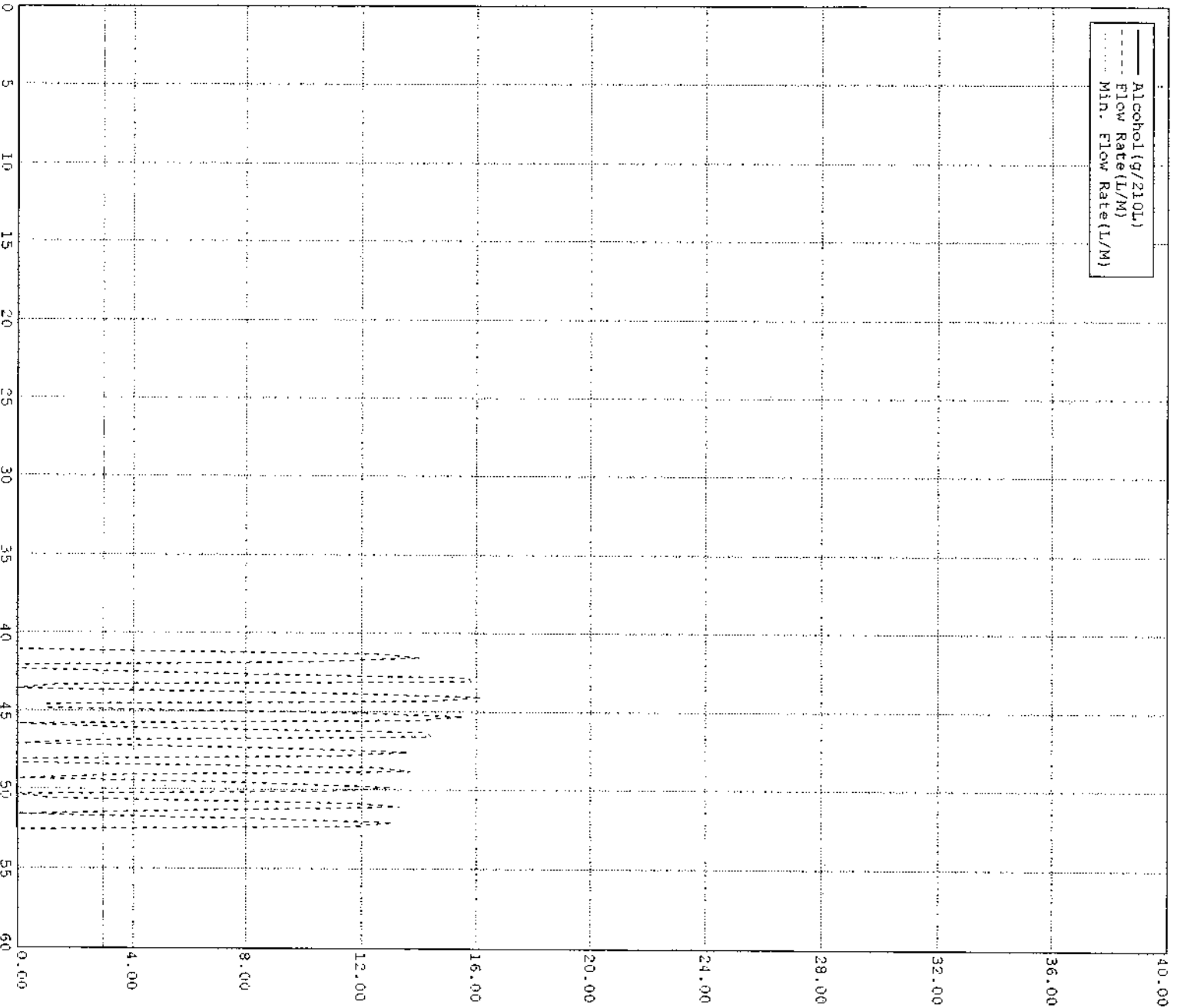
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.60: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:29
BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
EXTERNAL STANDARD	0.079	13:29
BLANK TEST	0.000	13:30
SUBJECT SAMPLE	XXX	13:31

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 09/30/2015  
Time: 13:35:12

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

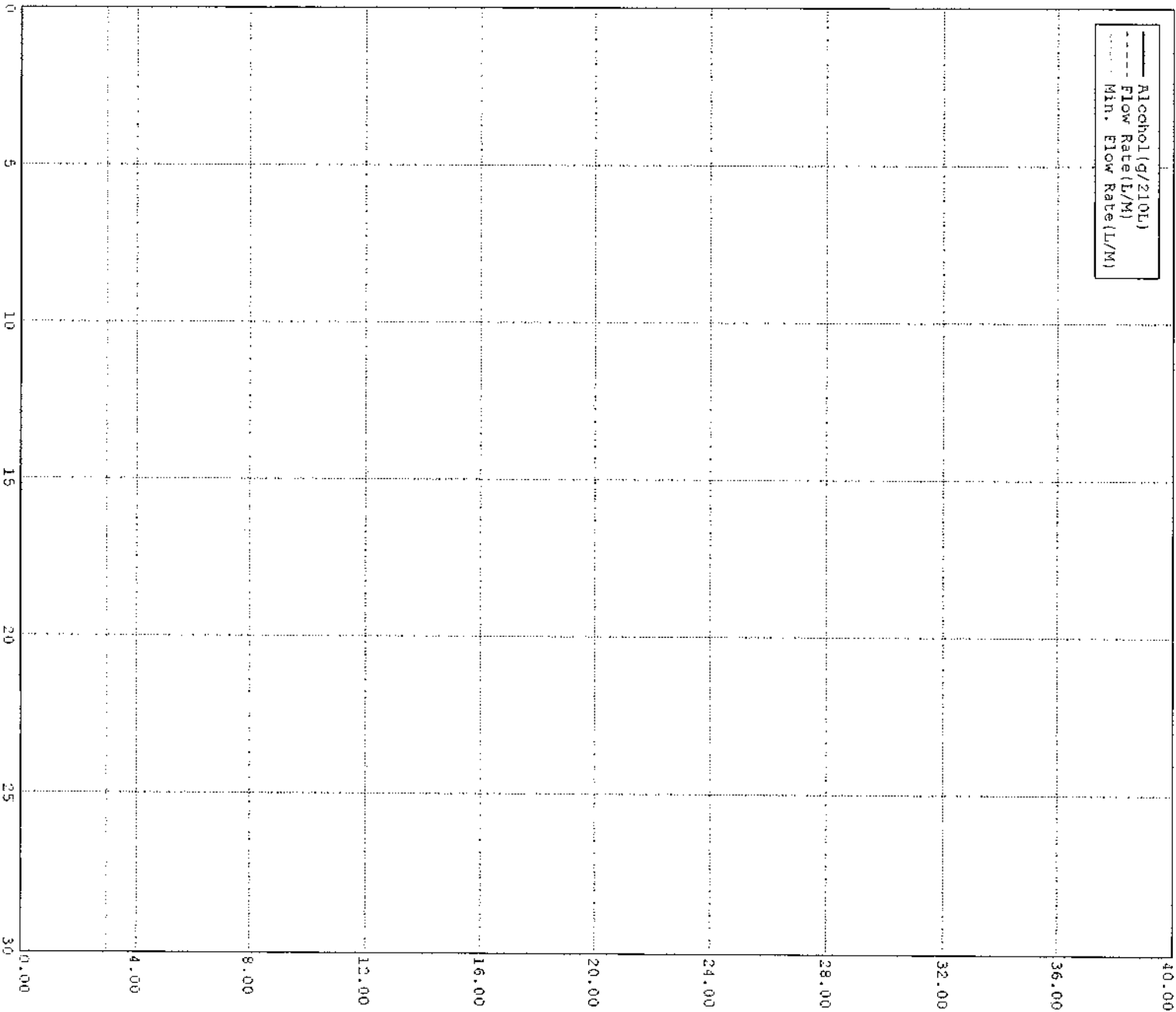
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.61: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:41
BLANK TEST	0.000	13:41
INTERNAL STANDARD	VERIFIED	13:41
EXTERNAL STANDARD	0.080	13:41
BLANK TEST	0.000	13:42

RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dml: 100406

Date: 09/30/2015  
Time: 14:44:37

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

DEPT/AGENCY:  
NON DRINKING SUBJECT TEST  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.65: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:45
BLANK TEST	0.000	14:46
INTERNAL STANDARD	VERIFIED	14:46
EXTERNAL STANDARD	0.080	14:46
BLANK TEST	0.000	14:47
SUBJECT SAMPLE (Vol=2.15L)	0.000	14:47
BLANK TEST	0.000	14:48
EXTERNAL STANDARD	0.080	14:48
BLANK TEST	0.000	14:49

BNB

