

# 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 100672 Analyst Brandi Barnett Start Date 7/23/15

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 09214080A3 Exp 5/1/16
- 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 01/19/15
- vi. 0.300g/210L Mnf Guth Lot 14270 Exp 12/2/14
  - 1. Simulator S/N SD1200 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 01/19/15
- ii. Isopropanol - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N SD1176 Date Calibrated 01/20/15
- iii. Negative Control - Mnf Guth Lot 15050 Level 0.100 Exp 3/9/17
  - 1. Simulator S/N DR4178 Date Calibrated 01/19/15

e. RFI

- 6. Verify stylus is calibrated
- 7. Reset Options
- 8. Clear Memory

- 9. Verification of Calibration
- 10. Non-Drinking Subject Test (attached)
- 11. Upload
- 13. Remove tank prior to shut down

End Date 7/24/15

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100672

Date: 07/23/2015  
Time: 09:59:49

VERSIONS

DMT: 3.01  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.9°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 46.7°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 2.05 V PASSED  
(1.24 V - 2.90 V)  
Cooler Voltage = 1.94 V PASSED  
(1.18 V - 2.74 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 544 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.1 in

PUMP INFO

Flow Rate = 4.668 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 = 0.11A 1.25% (0.00% - 4.00%) PASSED

Technician Screen

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DATAMASTER dmt: 100672  
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Date: 07/23/2015  
Time: 10:04 AM

Temperatures (°C)  
Sample Cell: 48.9°C  
Breath Tube: 47.3°C

Current Barometer 29.4 in  
Volume (Ltr) 1.53

Settings  
Lamp: 2.13 V  
Bias: 80 V  
Cooler: 1.99 V  
Chopper: 543 Hz

Voltages (V)  
Flow: 1.06 V  
Detector: -0.050 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100672  
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Date: 05/01/2015  
Time: 10:18:11

OPERATOR NAME:  
CHARLES FOSTER  
CERTIFICATE #: 7734

Ca = 0.1000  
CAL = 0.967817    0.800 <= CAL < 1.200  
b1 = 0.0010    0.0000 <= b1 < 0.0040  
b2 = 0.0054    0.0010 <= b2 < 0.0100  
b3 = 0.0009    0.0000 <= b3 < 0.0040  
Xq = 0.1129    0.0500 <= Xq < 0.2000  
a21 = 1.142605    1.050 <= a21 < 1.300  
a31 = 0.554374    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100672

Date: 07/23/2015  
Time: 10:05:06

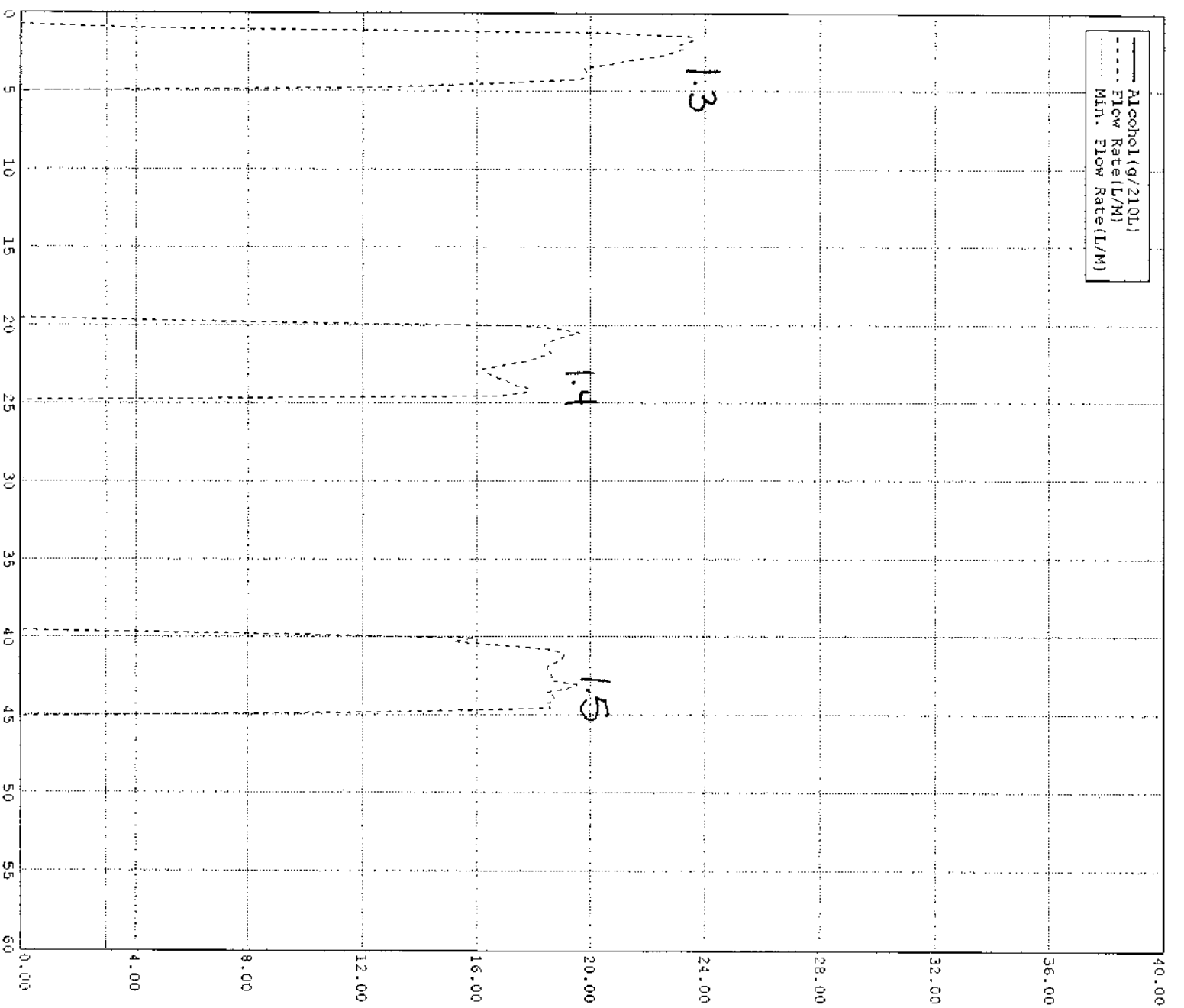
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX  
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.37: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	10:07
BLANK TEST	0.000	10:07
INTERNAL STANDARD	VERIFIED	10:08
EXTERNAL STANDARD	0.076	10:08
BLANK TEST	0.000	10:09
SUBJECT SAMPLE (Vol=1.55L)	0.000	10:10
BLANK TEST	0.000	10:10
EXTERNAL STANDARD	0.076	10:11
BLANK TEST	0.000	10:12

*BMB*



LINEARITY CHECK

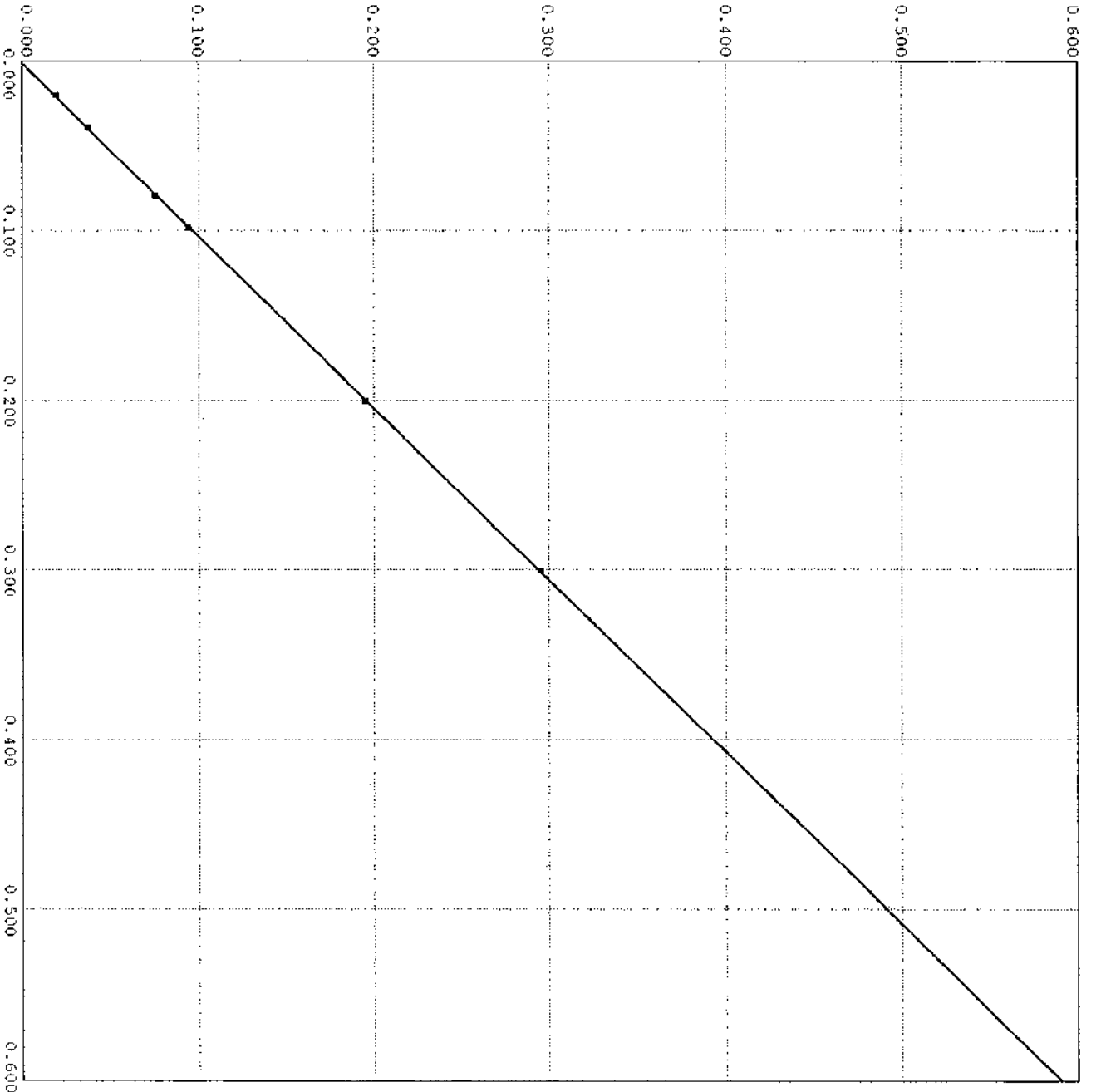
Alaska Department of Public Safety  
DATAMASTER dmt: 100672

Date: 07/23/2015  
Time: 10:35:43

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0198	0.0004
0.039	0.0384	0.0005
0.079	0.0762	0.0008
0.098	0.0952	0.0004
0.200	0.1958	0.0004
0.300	0.2960	0.0012

SLOPE = 0.986569  
R<sup>2</sup> = 0.999932



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100672

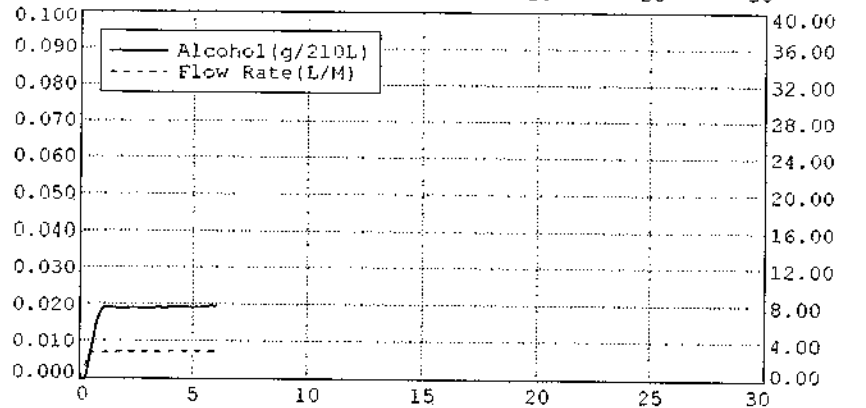
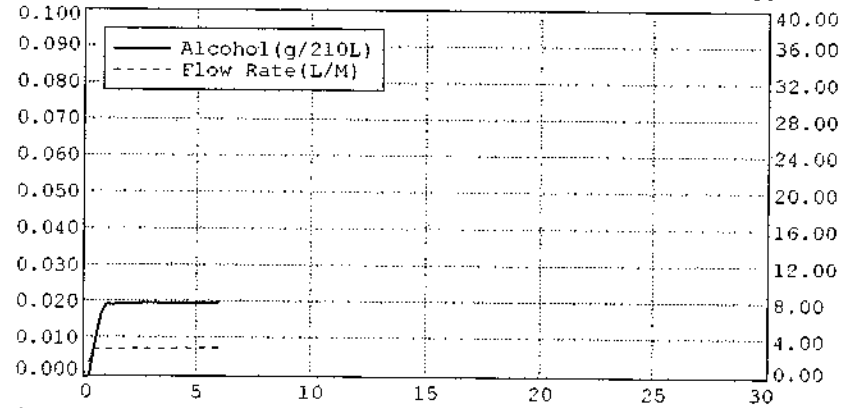
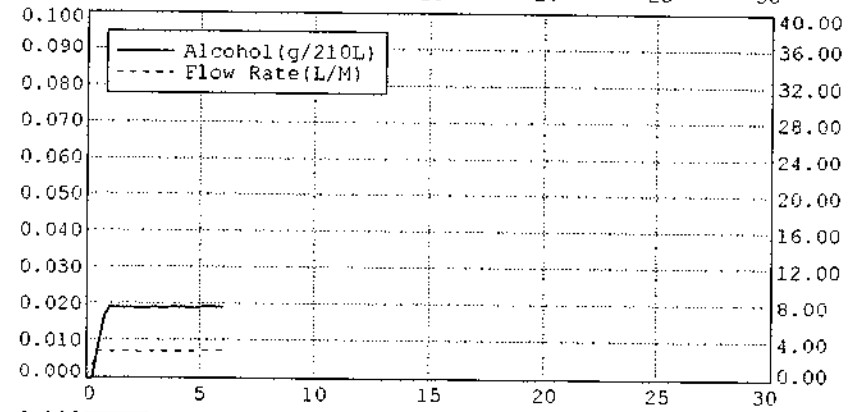
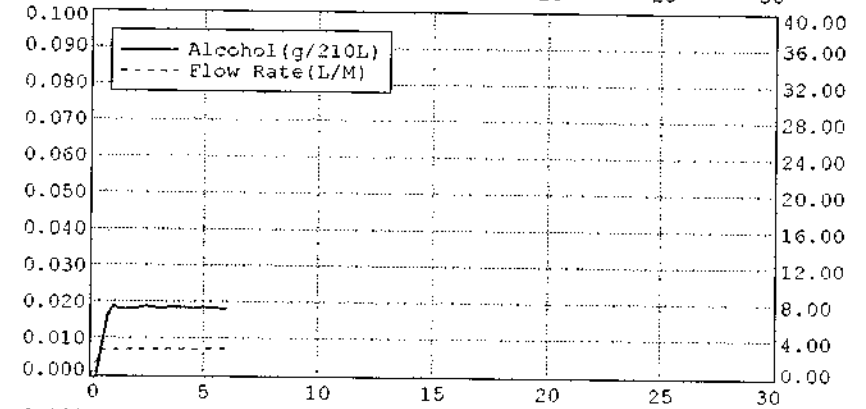
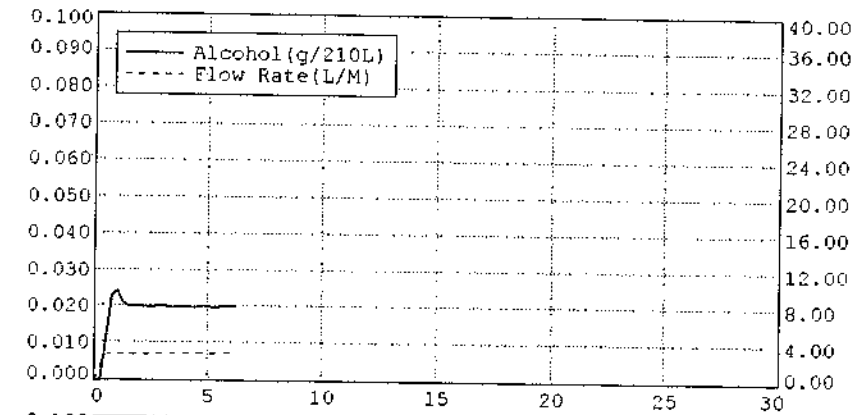
Date: 07/23/2015  
 Time: 10:35:45

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.37: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 721 psi

BLANK TEST	0.000	10:36
INTERNAL STANDARD	VERIFIED	10:37
EXTERNAL STANDARD	0.020	10:37
BLANK TEST	0.000	10:38
EXTERNAL STANDARD	0.019	10:38
BLANK TEST	0.000	10:39
EXTERNAL STANDARD	0.020	10:39
BLANK TEST	0.000	10:40
EXTERNAL STANDARD	0.020	10:40
BLANK TEST	0.000	10:41
EXTERNAL STANDARD	0.020	10:41
BLANK TEST	0.000	10:42

Average = 0.0198  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100672

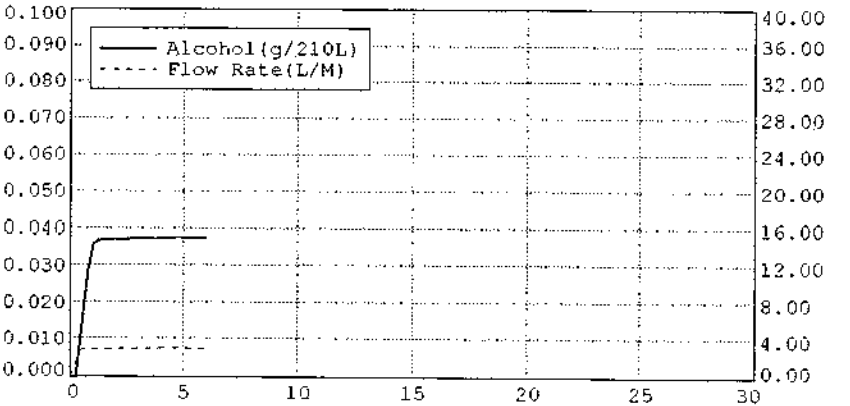
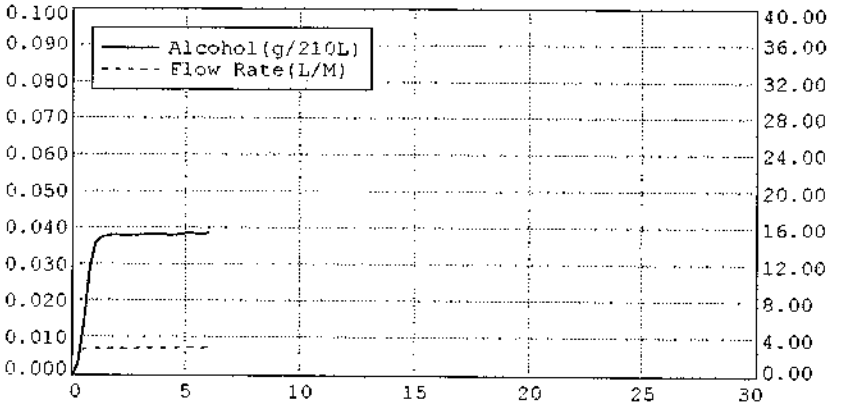
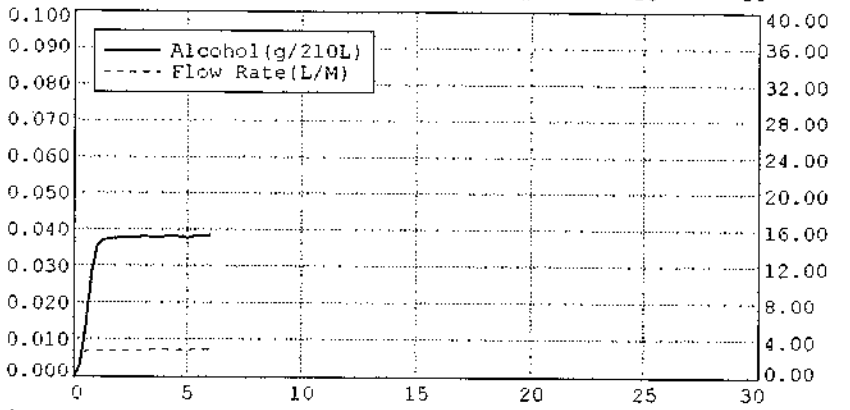
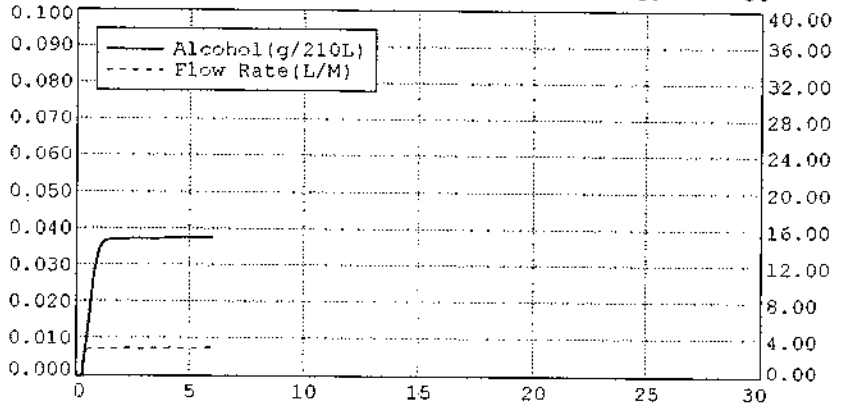
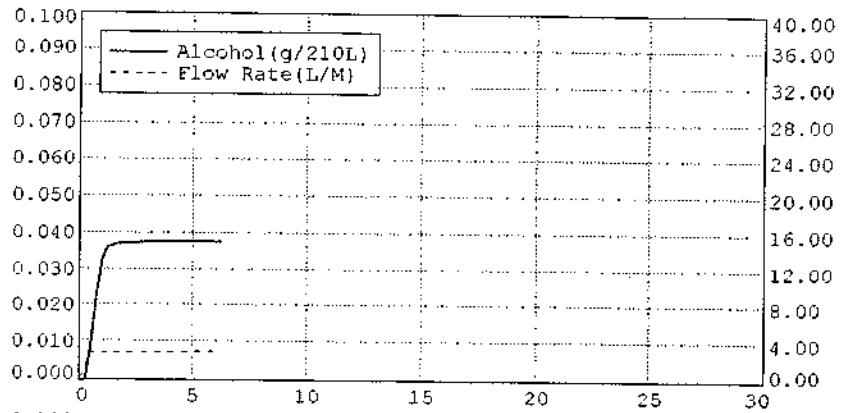
Date: 07/23/2015  
 Time: 10:44:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.37: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 836 psi

BLANK TEST	0.000	10:45
INTERNAL STANDARD	VERIFIED	10:45
EXTERNAL STANDARD	0.038	10:46
BLANK TEST	0.000	10:46
EXTERNAL STANDARD	0.038	10:47
BLANK TEST	0.000	10:48
EXTERNAL STANDARD	0.039	10:48
BLANK TEST	0.000	10:49
EXTERNAL STANDARD	0.039	10:49
BLANK TEST	0.000	10:50
EXTERNAL STANDARD	0.038	10:50
BLANK TEST	0.000	10:51

Average = 0.0384  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100672

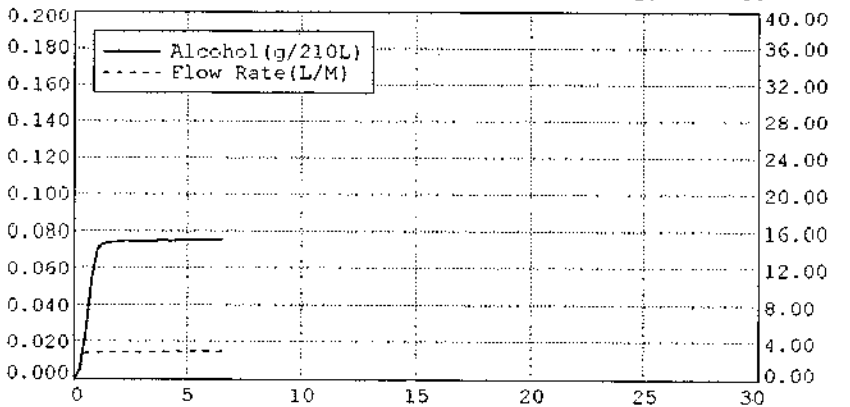
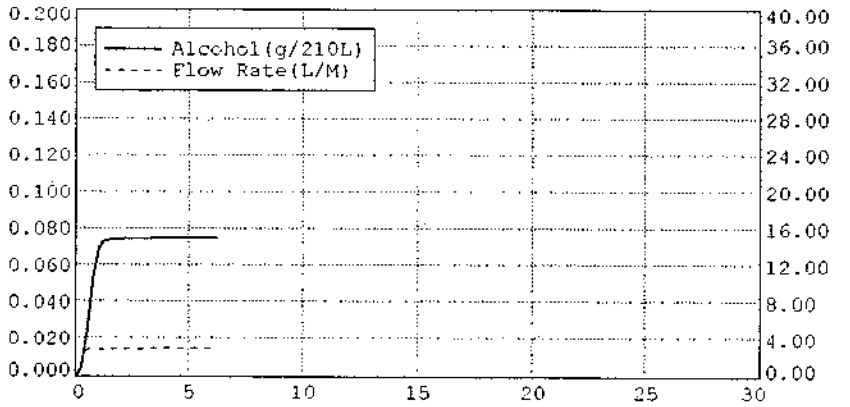
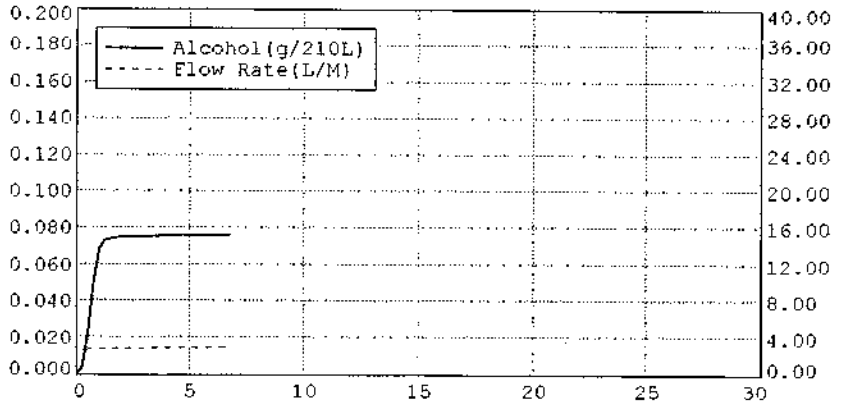
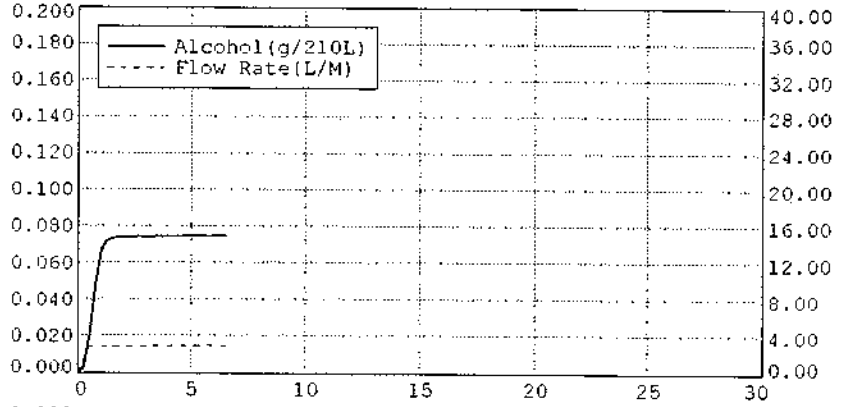
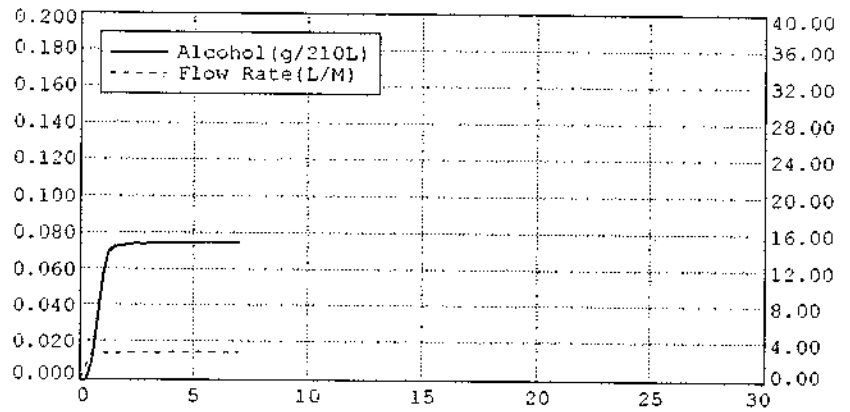
Date: 07/23/2015  
 Time: 12:46:29

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.37: 0.079  
 LOT #: 09214080A3  
 EXPIRATION: 05/01/2016  
 TANK PRESSURE: 750 psi

BLANK TEST	0.000	12:48
INTERNAL STANDARD	VERIFIED	12:48
EXTERNAL STANDARD	0.076	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.075	12:49
BLANK TEST	0.000	12:50
EXTERNAL STANDARD	0.077	12:51
BLANK TEST	0.000	12:51
EXTERNAL STANDARD	0.076	12:52
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.077	12:53
BLANK TEST	0.000	12:54

Average = 0.0762  
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100672

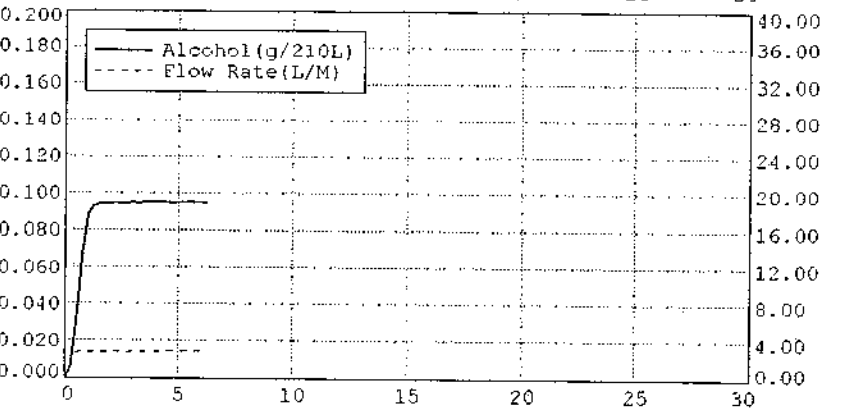
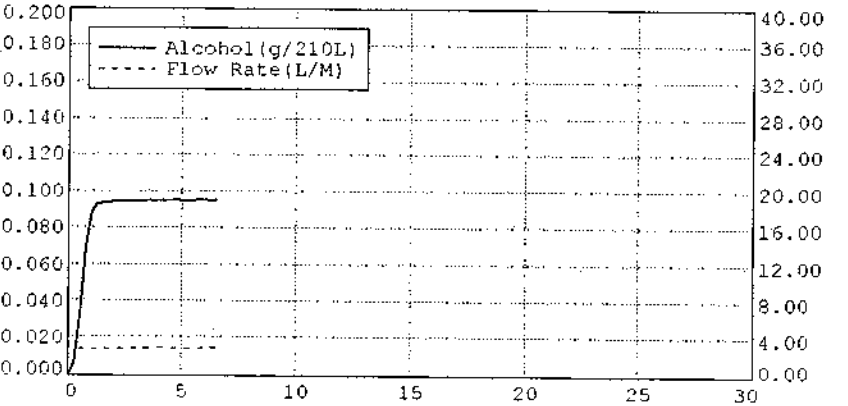
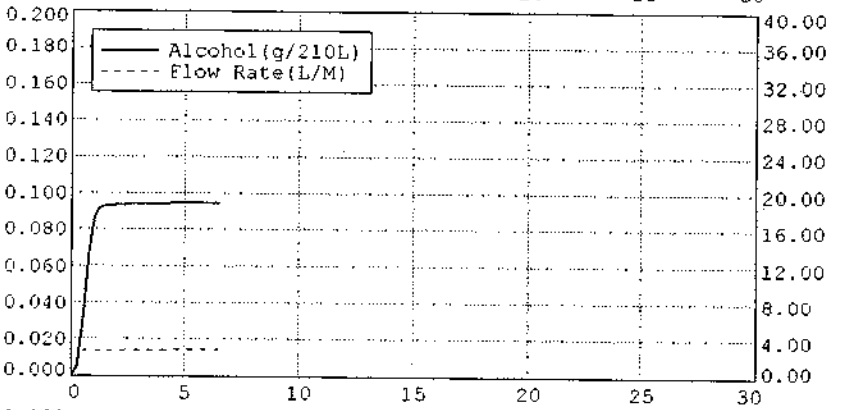
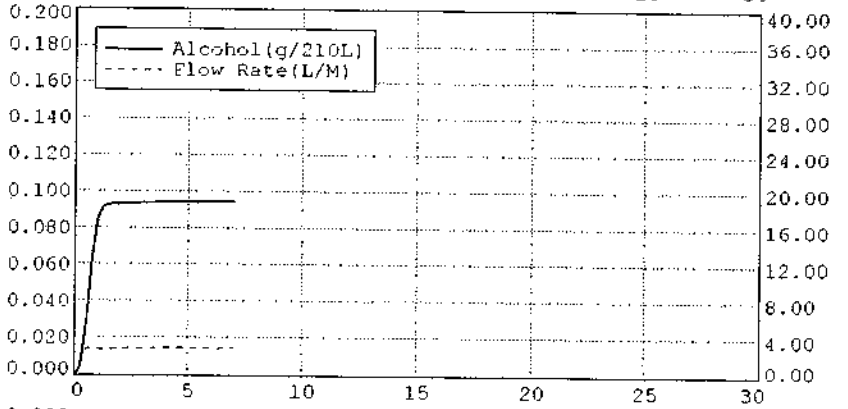
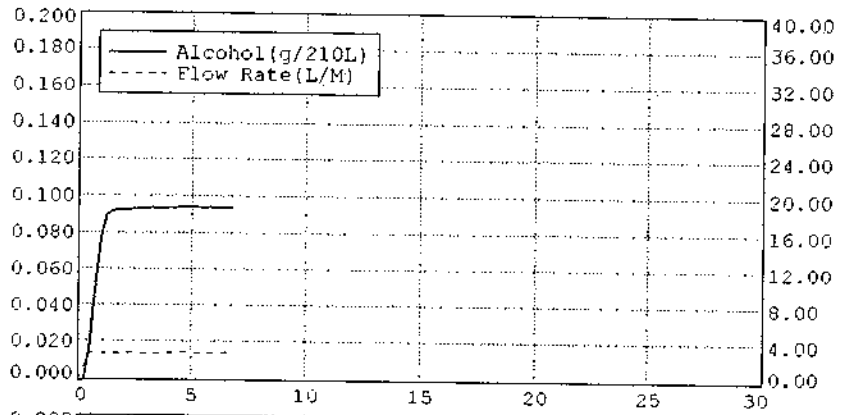
Date: 07/23/2015  
 Time: 12:59:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.39: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 707 psi

BLANK TEST	0.000	13:01
INTERNAL STANDARD	VERIFIED	13:01
EXTERNAL STANDARD	0.095	13:01
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.095	13:02
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.095	13:03
BLANK TEST	0.000	13:04
EXTERNAL STANDARD	0.095	13:04
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.096	13:05
BLANK TEST	0.000	13:06

Average = 0.0952  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

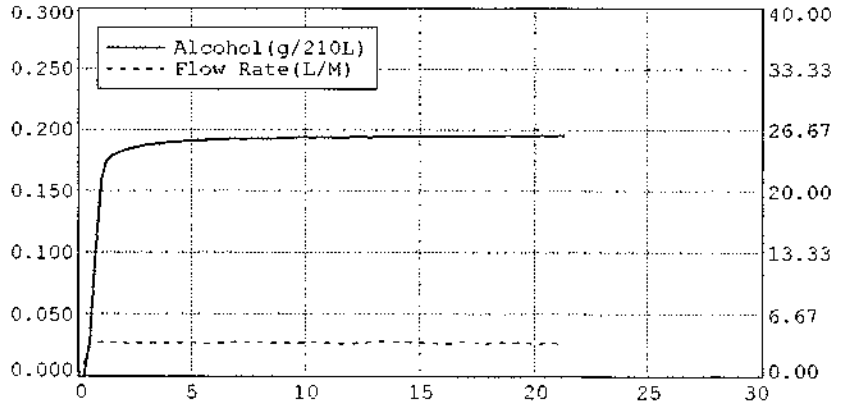
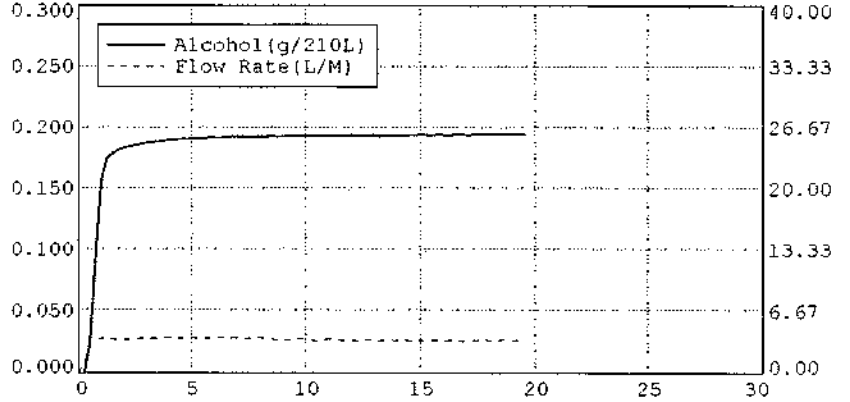
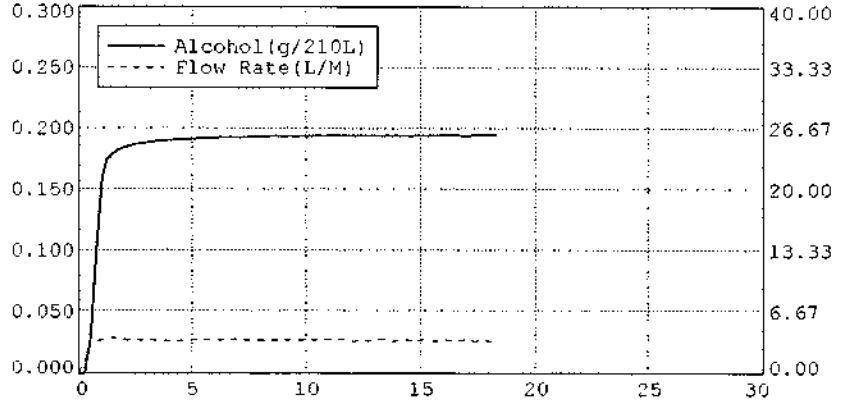
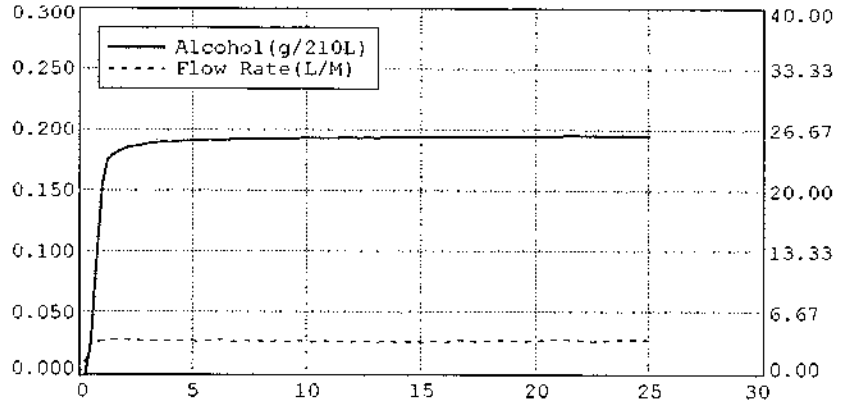
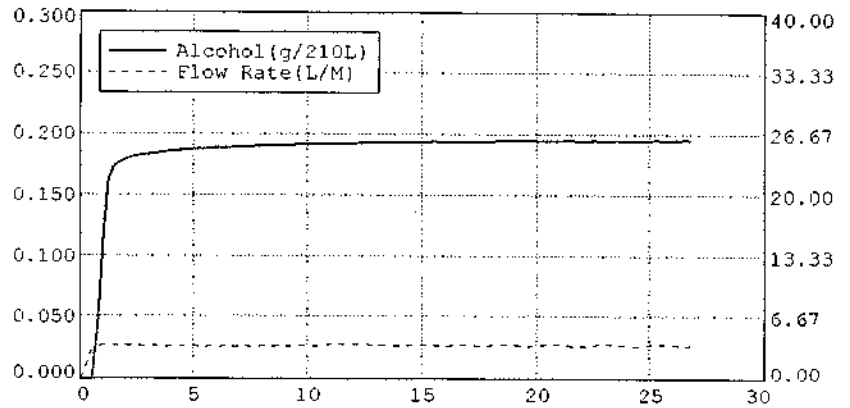
Alaska Department of Public Safety  
 DATAMASTER dmt: 100672

Date: 07/23/2015  
 Time: 13:07:39

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

BLANK TEST	0.000	13:08
INTERNAL STANDARD	VERIFIED	13:09
EXTERNAL STANDARD	0.196	13:09
BLANK TEST	0.000	13:10
EXTERNAL STANDARD	0.196	13:11
BLANK TEST	0.000	13:12
EXTERNAL STANDARD	0.196	13:12
BLANK TEST	0.000	13:13
EXTERNAL STANDARD	0.195	13:13
BLANK TEST	0.000	13:14
EXTERNAL STANDARD	0.196	13:15
BLANK TEST	0.000	13:16

Average = 0.1958  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

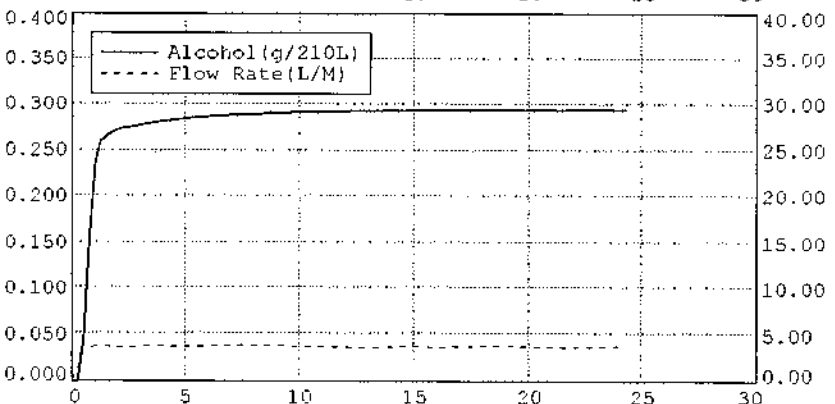
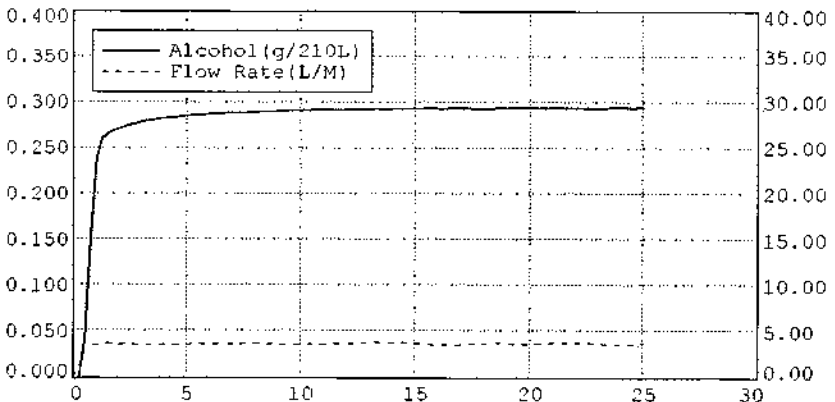
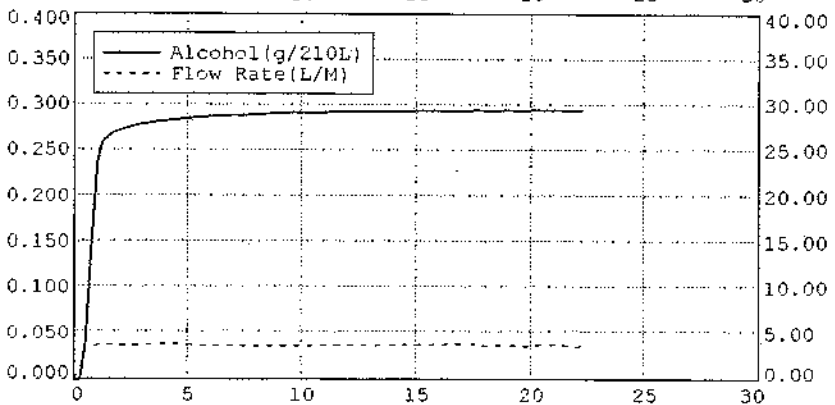
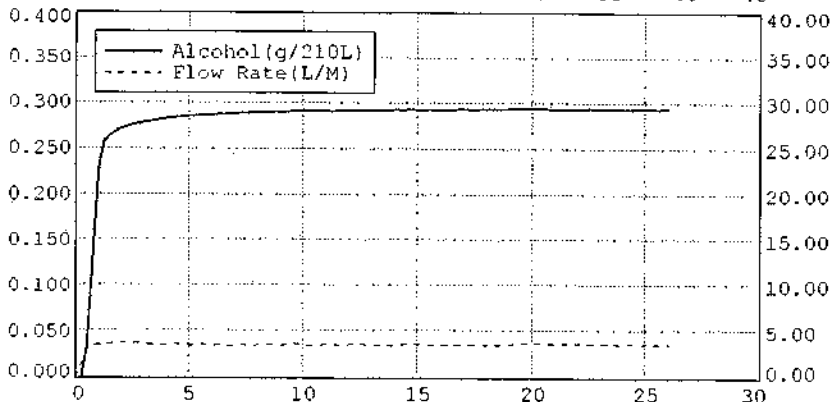
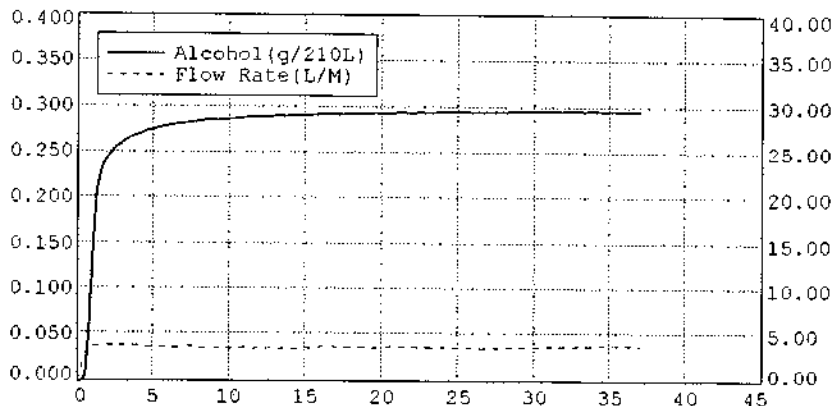
Alaska Department of Public Safety  
 DATAMASTER dmt: 100672

Date: 07/23/2015  
 Time: 13:18:47

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

BLANK TEST	0.000	13:19
INTERNAL STANDARD	VERIFIED	13:20
EXTERNAL STANDARD	0.298	13:20
BLANK TEST	0.000	13:21
EXTERNAL STANDARD	0.296	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.295	13:23
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.296	13:25
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.295	13:26
BLANK TEST	0.000	13:27

Average = 0.2960  
 Std Dev = 0.0012



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100672

Date: 07/23/2015  
Time: 13:33:48

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

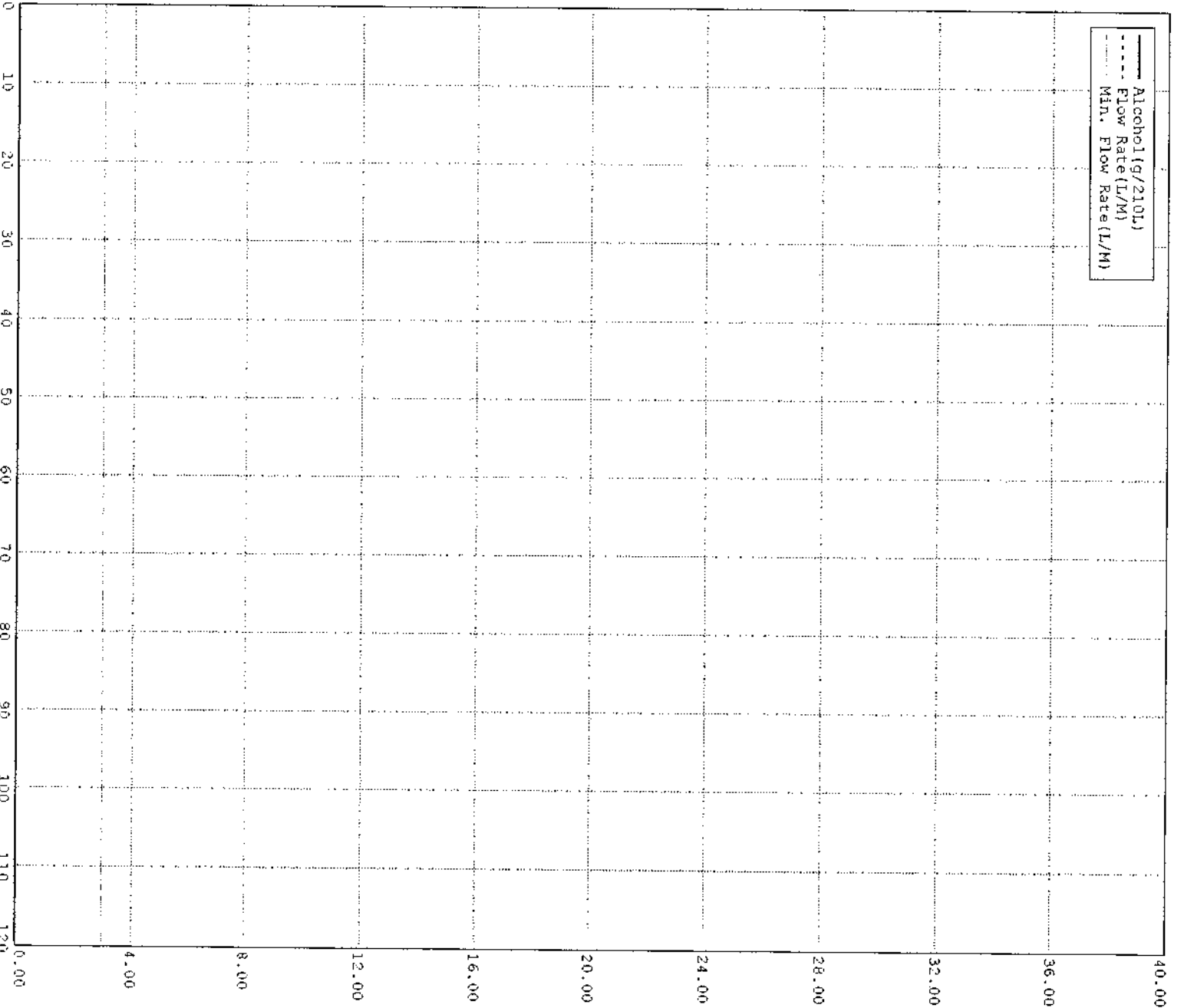
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.37: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	13:46
BLANK TEST	0.000	13:46
INTERNAL STANDARD	VERIFIED	13:46
EXTERNAL STANDARD	0.076	13:46
BLANK TEST	0.000	13:47
SUBJECT SAMPLE	INCOMPLETE	13:49

*BSMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100672

Date: 07/23/2015  
Time: 13:52:33

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

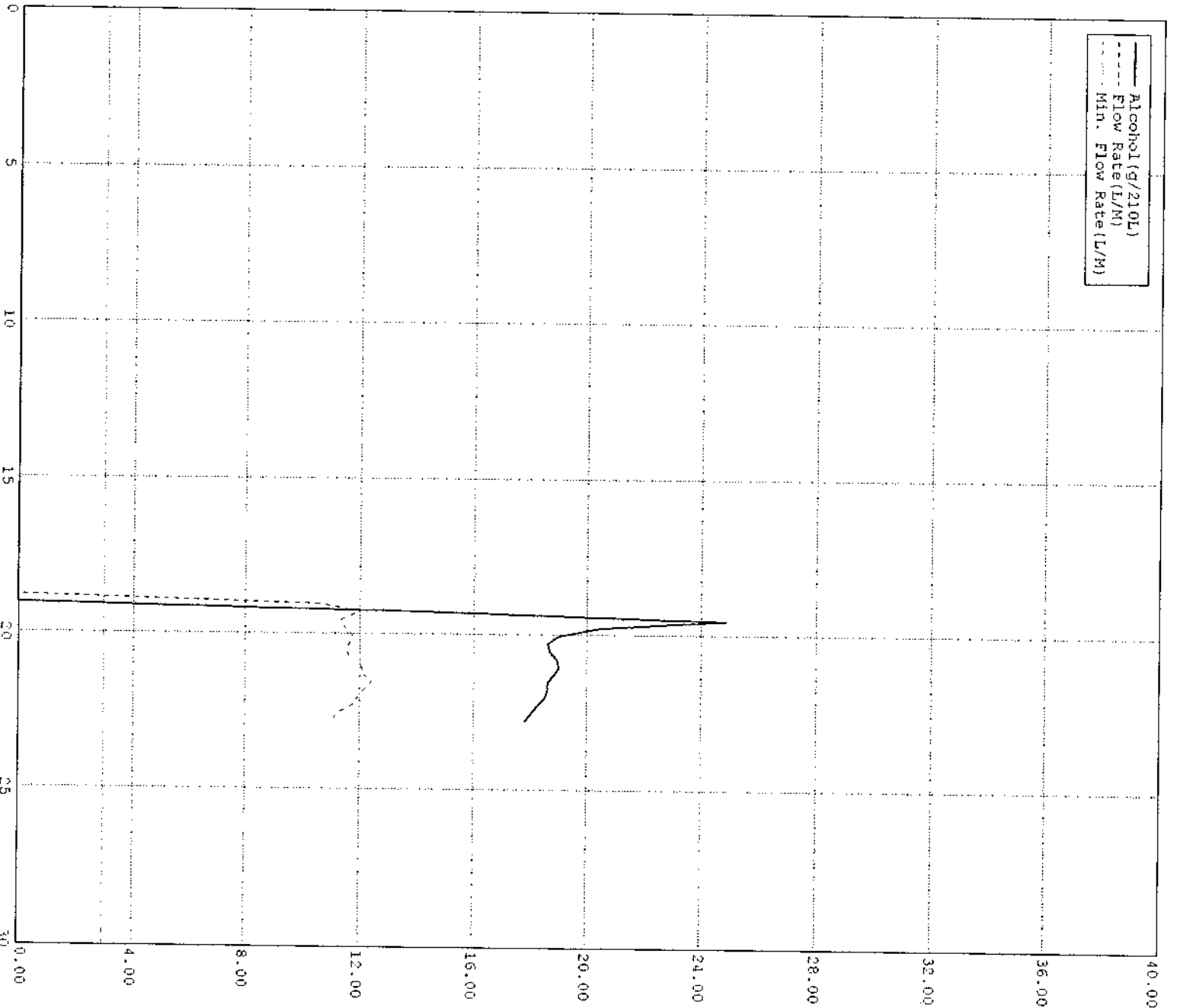
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.38: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	13:54
BLANK TEST	0.000	13:54
INTERNAL STANDARD	VERIFIED	13:54
EXTERNAL STANDARD	0.075	13:54
BLANK TEST	0.000	13:55
SUBJECT SAMPLE	INVALID	13:56

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmr: 100672

Date: 07/23/2015  
Time: 14:26:22

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

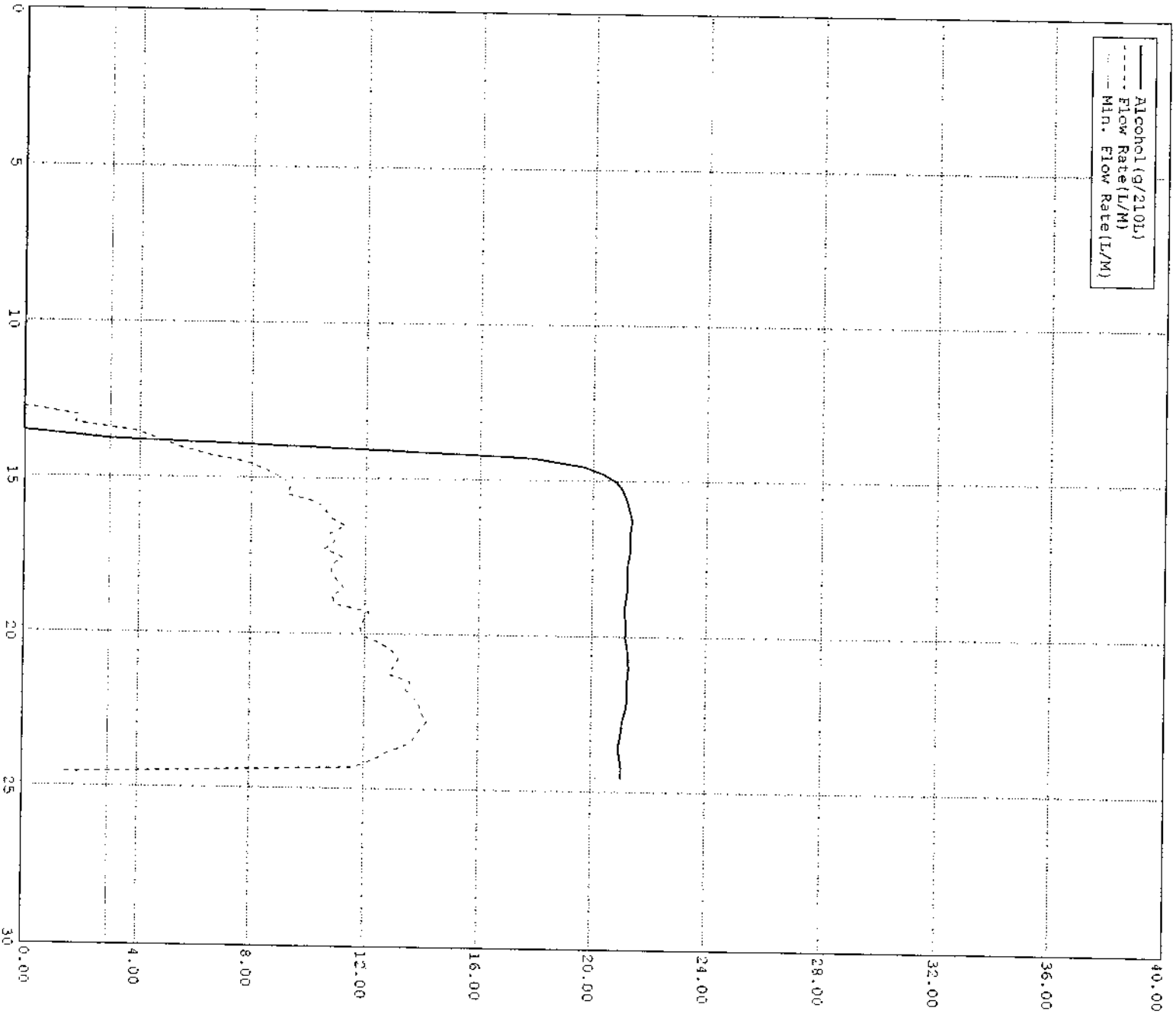
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.38: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	14:27
BLANK TEST	0.000	14:27
INTERNAL STANDARD	VERIFIED	14:27
Xq = 0.112 (0.63%)		
EXTERNAL STANDARD	0.075	14:27
X[1] = 0.0754 (0.0013)	(0.0041)	
BLANK TEST	0.000	14:28
SUBJECT SAMPLE	XXX	14:29
X[1] = 0.1055 (-0.0156)	(0.0025)	

Interference Detected

Filter 2 Avg = 0.0010  
Filter 3 Avg = 0.0032  
BMB 7/27/15

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100672

Date: 07/23/2015  
Time: 14:33:58

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

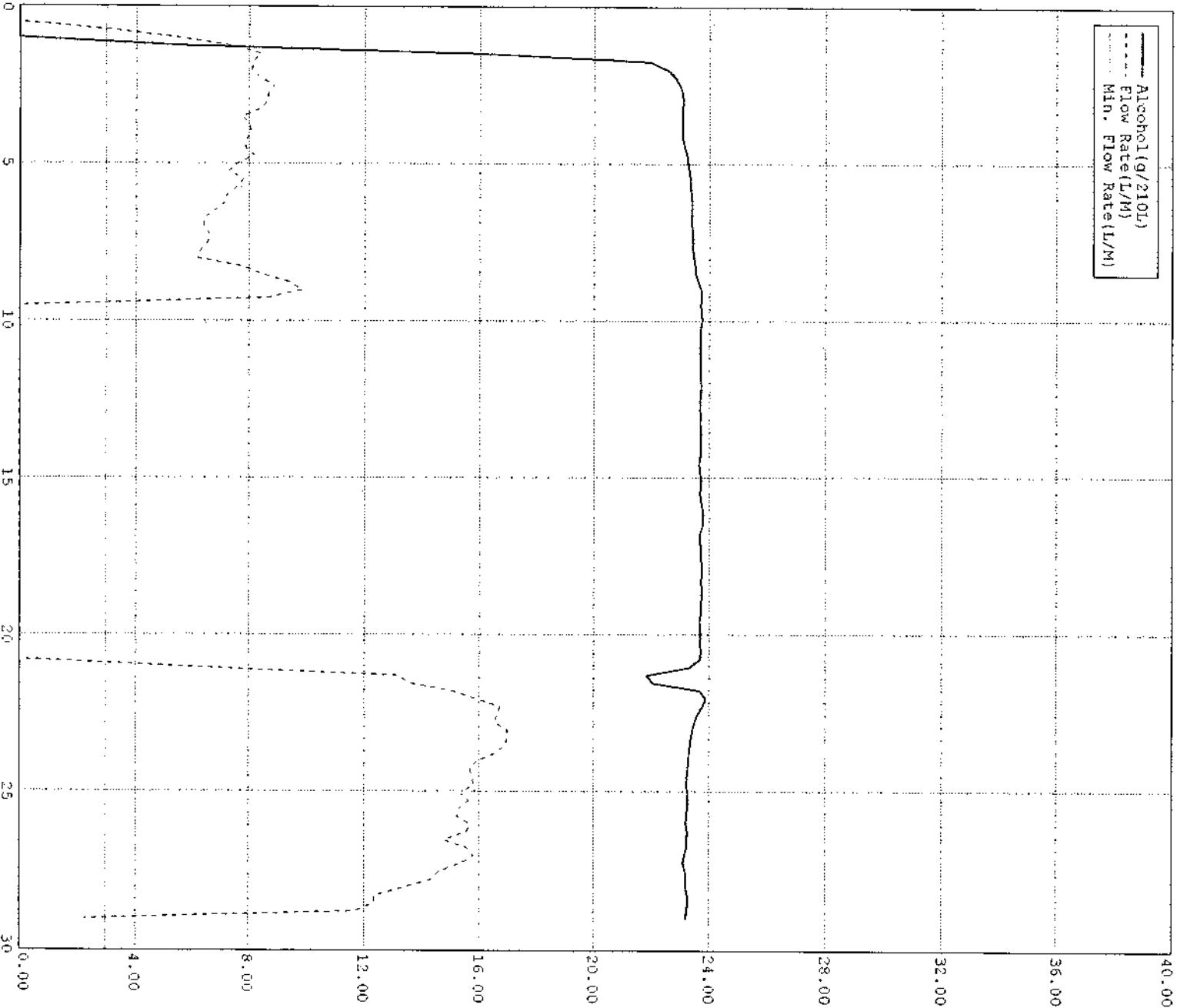
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.37: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	14:35
BLANK TEST	0.000	14:35
INTERNAL STANDARD	VERIFIED	14:35
Xq = 0.112 (1.02%)	0.075	14:35
EXTERNAL STANDARD	X[1] = 0.0753 (0.0008)	(0.0036)
BLANK TEST	0.000	14:36
SUBJECT SAMPLE	X[1] = 0.1166 (-0.0191)	(0.0019)

Interference Detected

*BBMB*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100672

Date: 07/23/2015  
Time: 14:41:36

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

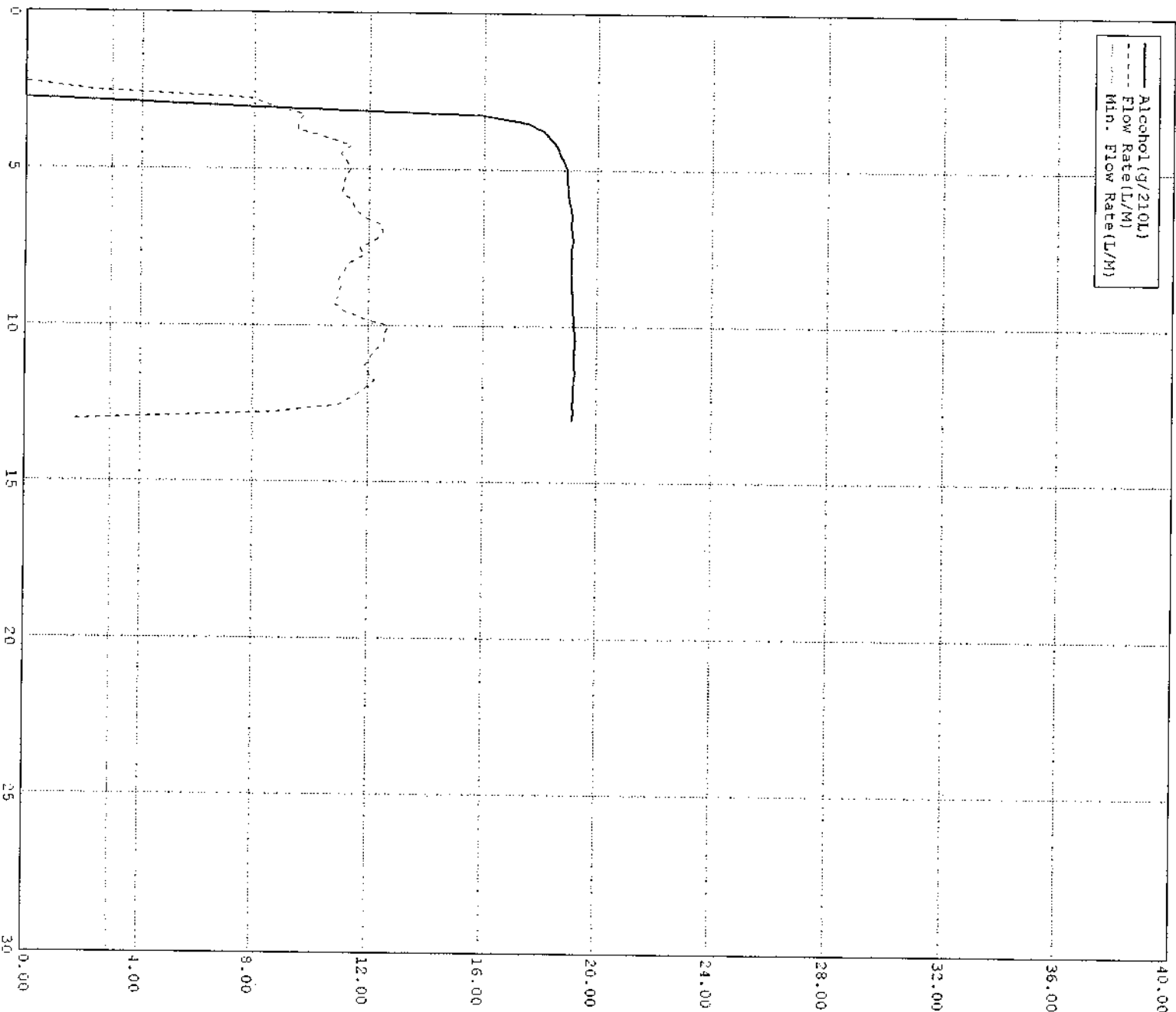
OPERATOR NAME:  
BRANDI BARRETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.38: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	14:45
BLANK TEST	0.000	14:45
INTERNAL STANDARD	VERIFIED	14:46
Xq = 0.113 (0.088)		
EXTERNAL STANDARD	0.076	14:46
X[1] = 0.0760 (0.0010)	(0.0029)	
BLANK TEST	0.000	14:47
SUBJECT SAMPLE (Vol=1.92L)	0.096	14:47
X[1] = 0.0962 (0.0017)	(0.0012)	
BLANK TEST	0.000	14:48
EXTERNAL STANDARD	0.076	14:48
X[1] = 0.0761 (0.0007)	(0.0022)	
BLANK TEST	0.000	14:49

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DAYMASTER dmc: 100672

Date: 07/23/2015  
Time: 15:40:26

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

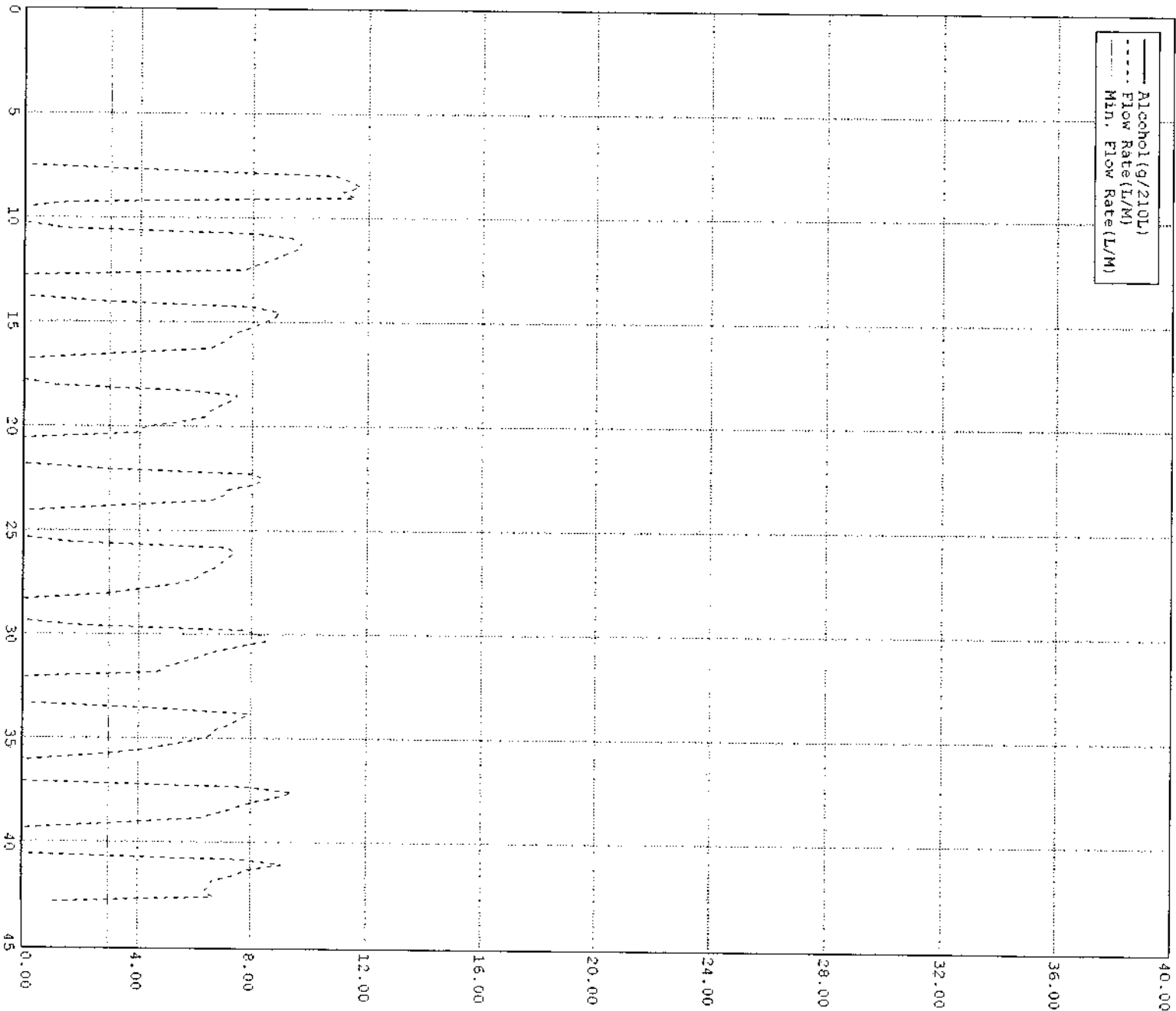
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.37: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	15:42
BLANK TEST	0.000	15:42
INTERNAL STANDARD	VERIFIED	15:42
EXTERNAL STANDARD	0.076	15:43
BLANK TEST	0.000	15:44
SUBJECT SAMPLE	XXX	15:44

Maximum Attempts Exceeded

BRB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100672

Date: 07/23/2015  
Time: 15:46:53

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

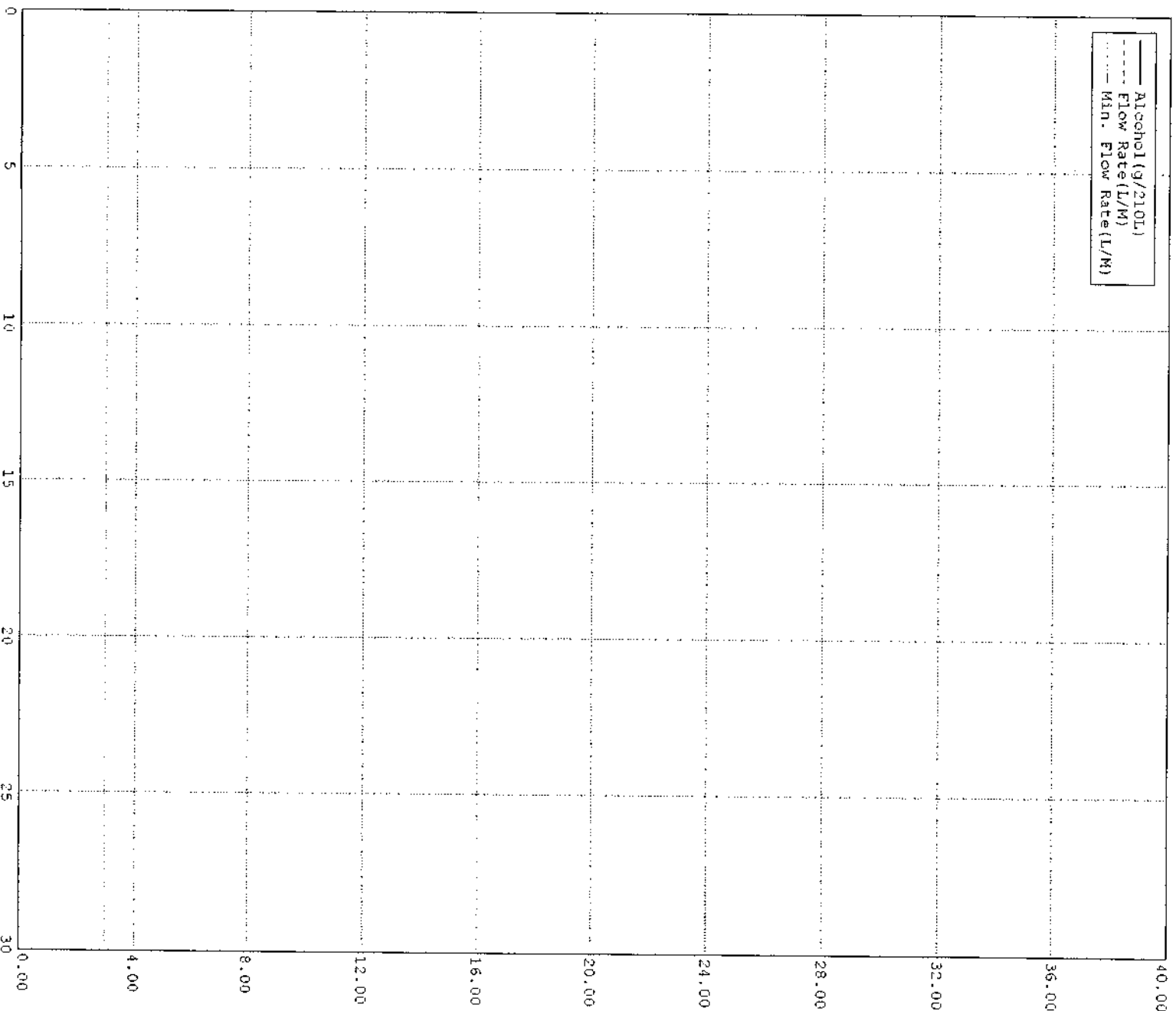
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.38: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK PASSED 15:48  
BLANK TEST 0.000 15:48  
INTERNAL STANDARD VERIFIED 15:48  
EXTERNAL STANDARD 0.076 15:48  
BLANK TEST 0.000 15:49  
RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100672

Date: 07/23/2015  
Time: 16:04:03

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.39: 0.079  
LOT #: 09214080A3  
EXPIRATION: 05/01/2016

DIAGNOSTIC CHECK	PASSED	16:05
BLANK TEST	0.000	16:05
INTERNAL STANDARD	VERIFIED	16:05
EXTERNAL STANDARD	0.077	16:05
BLANK TEST	0.000	16:06
SUBJECT SAMPLE (Vol=2.24L)	0.000	16:07
BLANK TEST	0.000	16:08
EXTERNAL STANDARD	0.077	16:08
BLANK TEST	0.000	16:09

*BBMB*

