

# 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 100368 Analyst Brandi Barnett Start Date 9/16/2015

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 2/5/17
- 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 9/17/15 14110 Level 0.100 Exp 05/01/16

1. Simulator S/N DR4162 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 1350 Level 0.100 Exp 3/9/17

1. Simulator S/N DR4178 Date Calibrated 1/19/2015

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 9/17/15

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100368  
-----

Date: 09/16/2015  
Time: 10:55:55

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 = 46.6°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.57 V PASSED  
(0.94 V - 2.20 V)  
Cooler Voltage = 1.76 V PASSED  
(1.06 V - 2.46 V)  
Bias Voltage = 79 V PASSED  
(47 V - 111 V)  
Chopper Freq = 561 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 29.2 in

PUMP INFO

Flow Rate = 4.711 L/M PASSED  
(3.500 L/M - 6.500 L/M)

DETECTOR INFO

PUMP ON PASSED  
(0.001 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 = 0.075 0.12% (0.00% - 4.00%) PASSED

Technician Screen

-----  
DATAMASTER dmt: 100368  
-----

Date: 09/16/2015  
Time: 11:02 AM

Temperatures (°C)  
Sample Cell: 48.7°C  
Breath Tube: 46.4°C

Current Barometer 29.2 in  
Volume (Ltr) 1.58

Settings  
Lamp: 1.62 V  
Bias: 79 V  
Cooler: 1.76 V  
Chopper: 560 Hz

Voltages (V)  
Flow: 1.07 V  
Detector: -0.064 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100368  
-----

Date: 09/14/2015  
Time: 14:09:33

OPERATOR NAME:  
BRANDI BARNETT  
CERTIFICATE #: 7038

Ca = 0.1000  
CAL = 0.944301    0.800 <= CAL < 1.200  
b1 = 0.0004    0.0000 <= b1 < 0.0040  
b2 = 0.0058    0.0010 <= b2 < 0.0100  
b3 = 0.0001    0.0000 <= b3 < 0.0040  
Xq = 0.0748    0.0500 <= Xq < 0.2000  
a21 = 1.179289    1.050 <= a21 < 1.300  
a31 = 0.425043    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100368

Date: 09/16/2015  
Time: 11:03:14

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

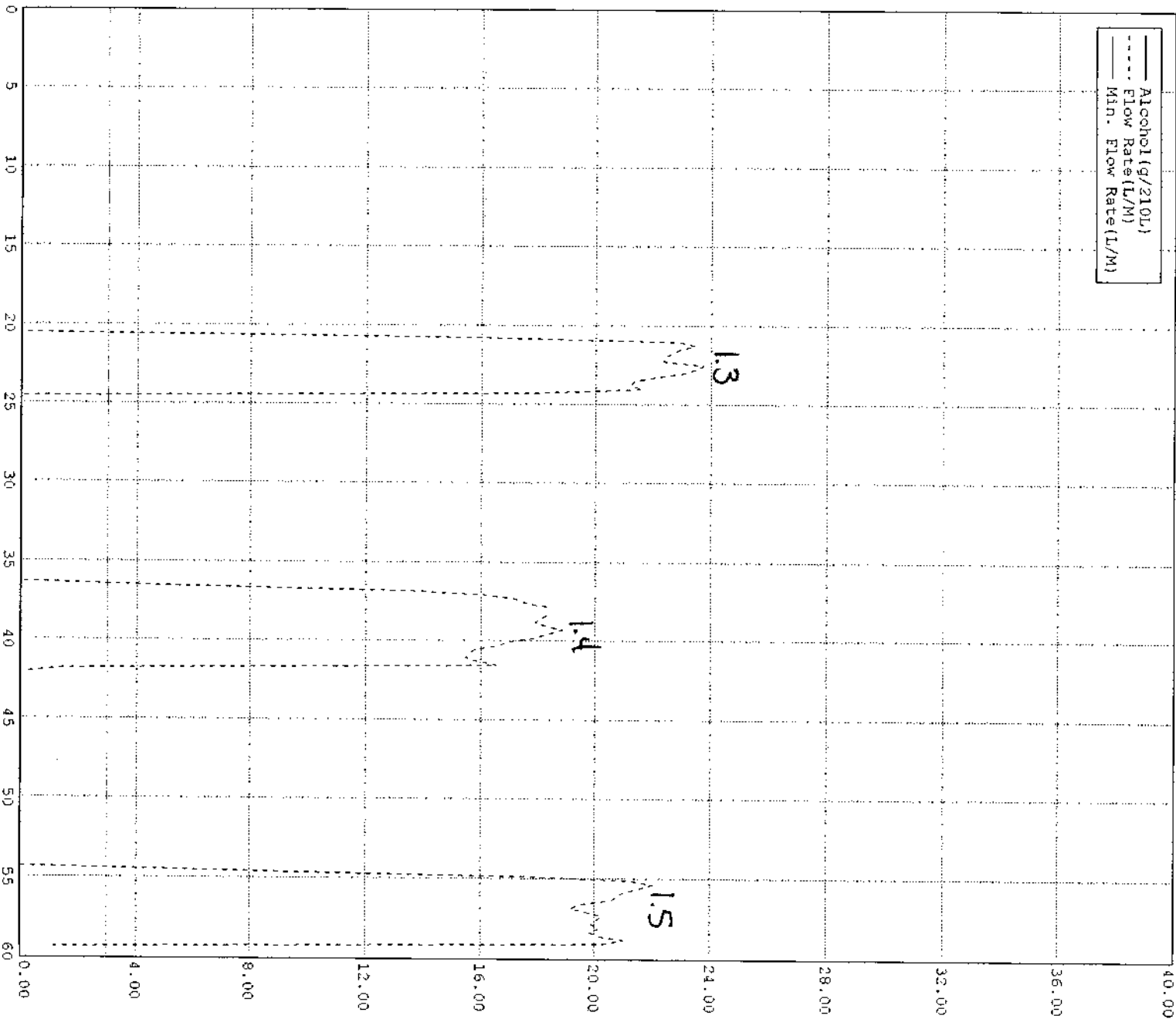
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.22: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:04
BLANK TEST	0.000	11:04
INTERNAL STANDARD	VERIFIED	11:04
EXTERNAL STANDARD	0.077	11:04
BLANK TEST	0.000	11:05
SUBJECT SAMPLE (Vol=1.55L)	0.000	11:06
BLANK TEST	0.000	11:07
EXTERNAL STANDARD	0.077	11:07
BLANK TEST	0.000	11:08

BMB



LINEARITY CHECK

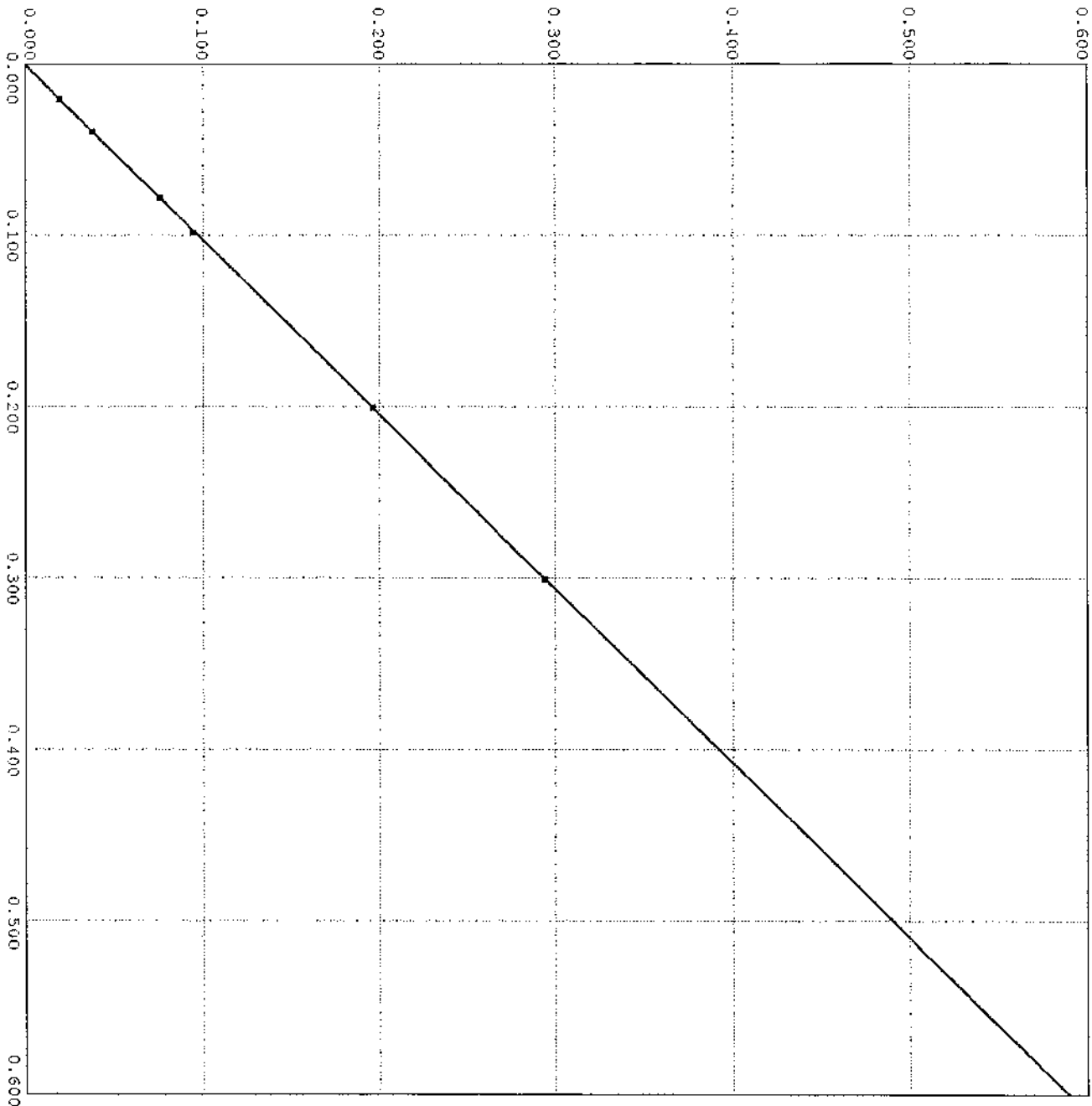
Alaska Department of Public Safety  
DATAMASTER dmt: 100368

Date: 09/16/2015  
Time: 12:36:08

SUPERVISOR NAME:  
BRANDI BARRETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0388	0.0004
0.078	0.0768	0.0004
0.098	0.0954	0.0005
0.200	0.1972	0.0004
0.300	0.2950	0.0007

SLOPE = 0.983139  
R<sup>2</sup> = 0.999973



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
DATAMASTER dmt: 100368

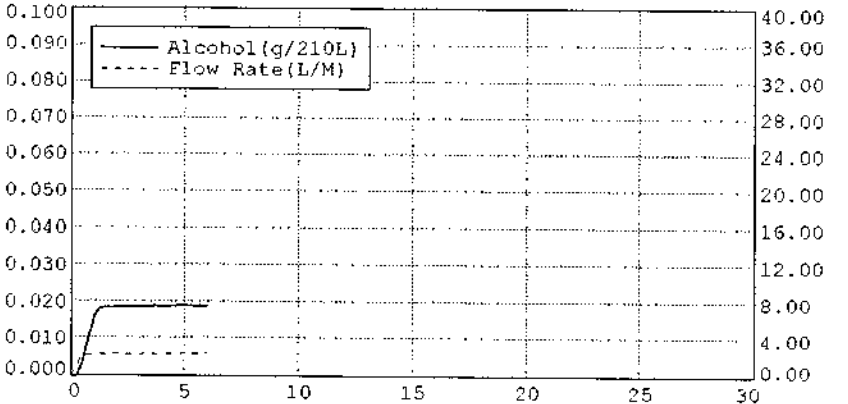
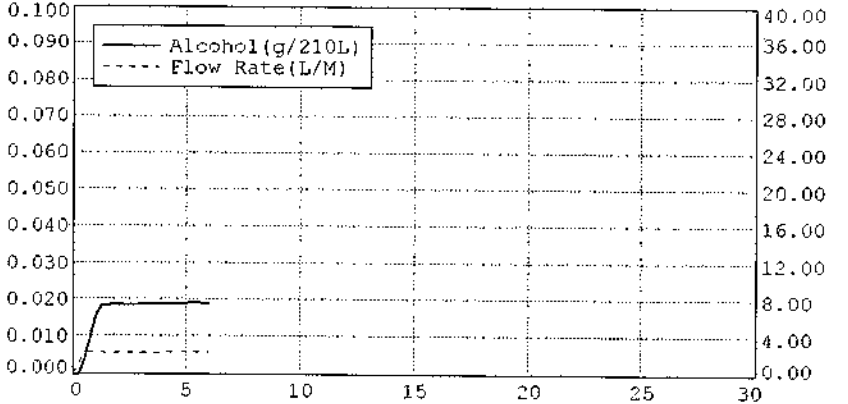
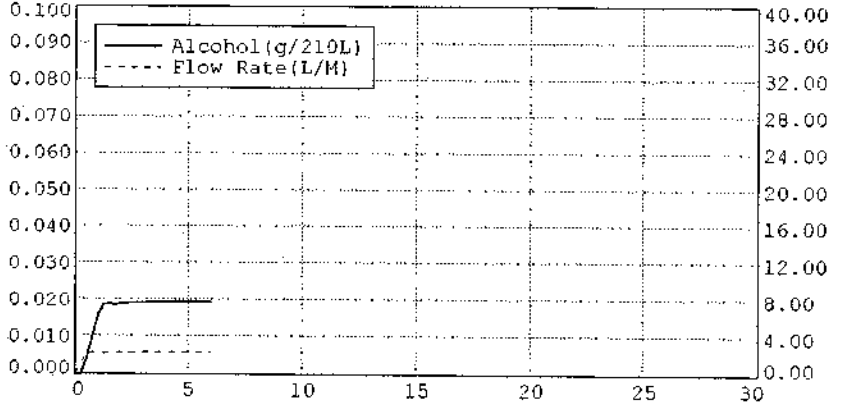
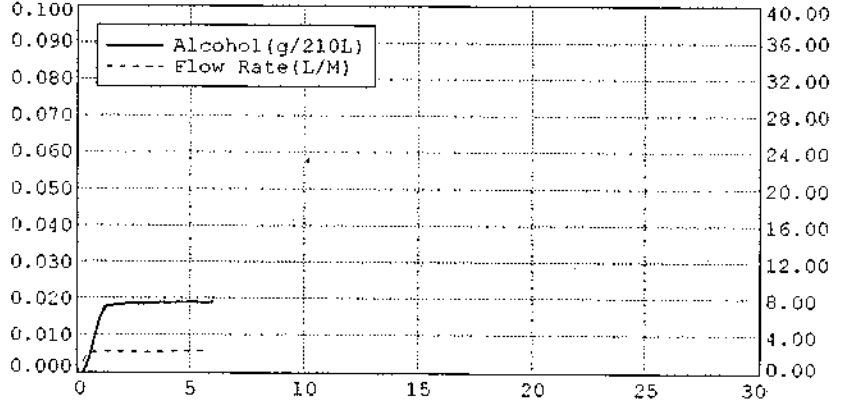
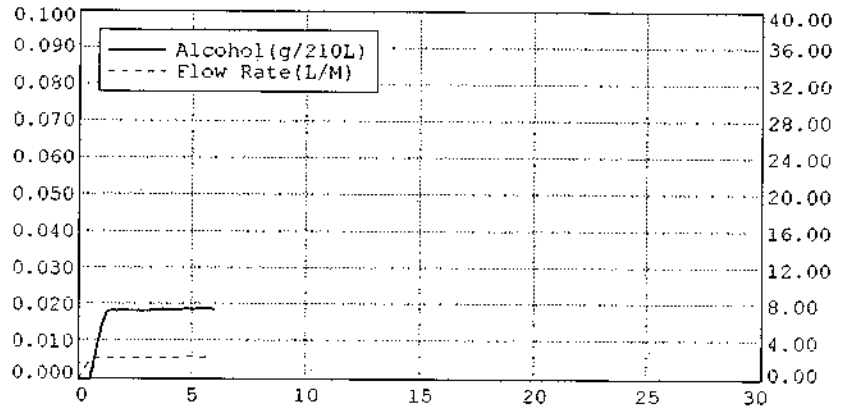
Date: 09/16/2015  
Time: 12:37:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
TARGET AT 29.20: 0.020  
LOT #: 02915020A2  
EXPIRATION: 03/05/2017  
TANK PRESSURE: 372 psi

BLANK TEST	0.000	12:38
INTERNAL STANDARD	VERIFIED	12:38
EXTERNAL STANDARD	0.020	12:39
BLANK TEST	0.000	12:40
EXTERNAL STANDARD	0.020	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.020	12:41
BLANK TEST	0.000	12:42
EXTERNAL STANDARD	0.020	12:42
BLANK TEST	0.000	12:43
EXTERNAL STANDARD	0.020	12:43
BLANK TEST	0.000	12:44

Average = 0.0200  
Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100368

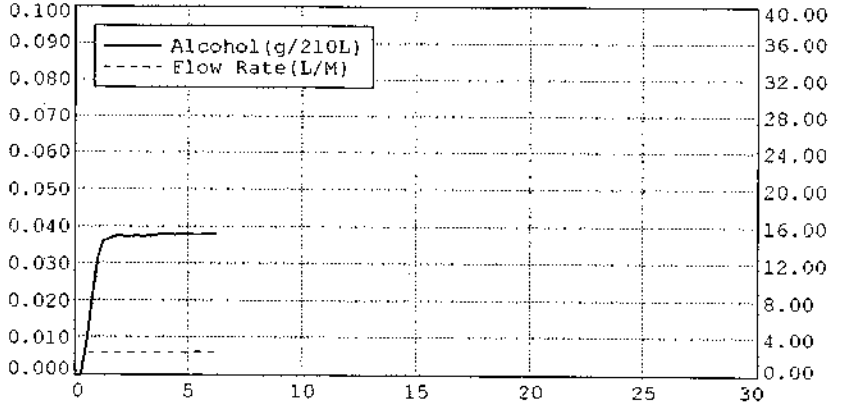
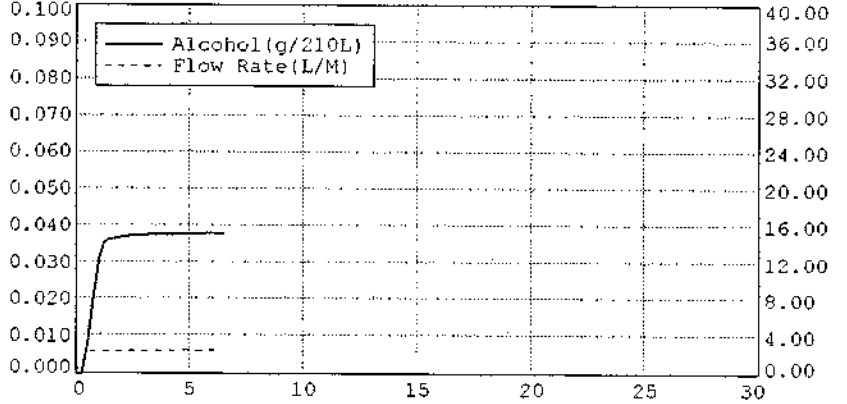
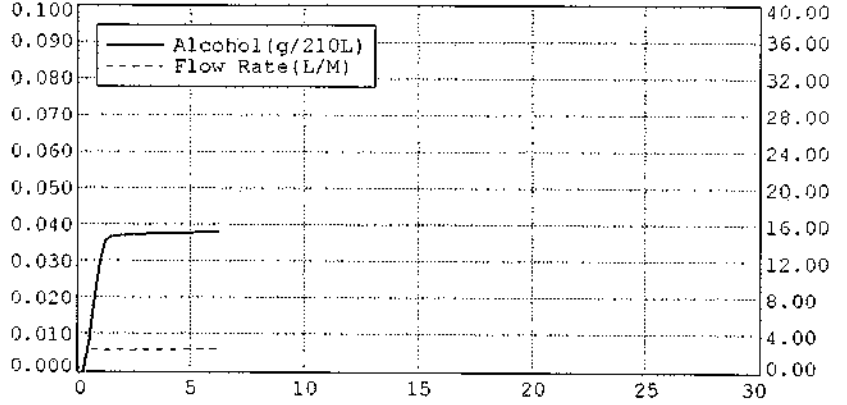
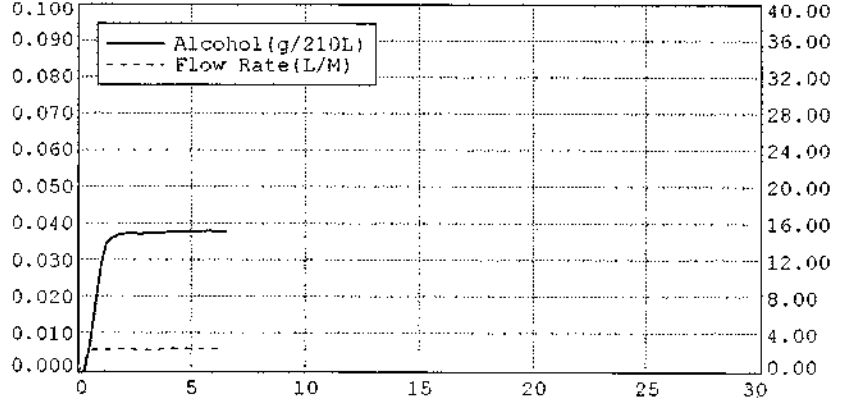
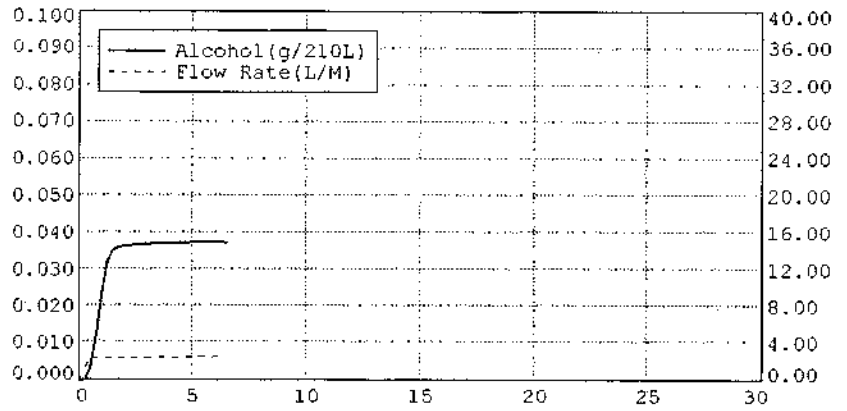
Date: 09/16/2015  
 Time: 12:46:56

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.20: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 460 psi

BLANK TEST	0.000	12:47
INTERNAL STANDARD	VERIFIED	12:48
EXTERNAL STANDARD	0.038	12:48
BLANK TEST	0.000	12:49
EXTERNAL STANDARD	0.039	12:49
BLANK TEST	0.000	12:50
EXTERNAL STANDARD	0.039	12:50
BLANK TEST	0.000	12:51
EXTERNAL STANDARD	0.039	12:51
BLANK TEST	0.000	12:52
EXTERNAL STANDARD	0.039	12:52
BLANK TEST	0.000	12:53

Average = 0.0388  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100368

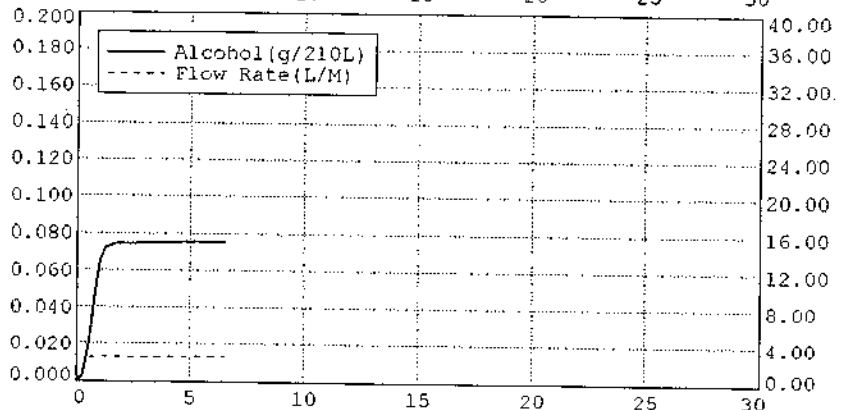
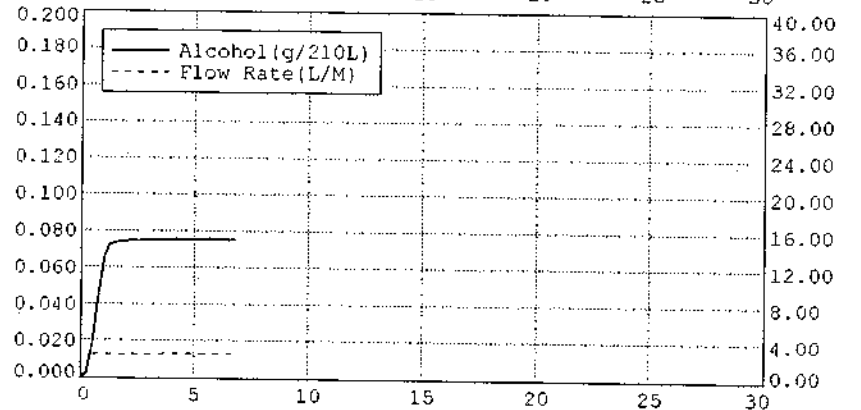
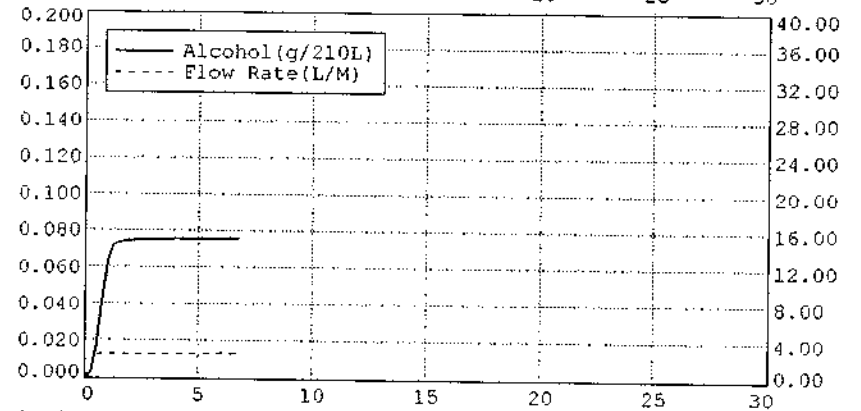
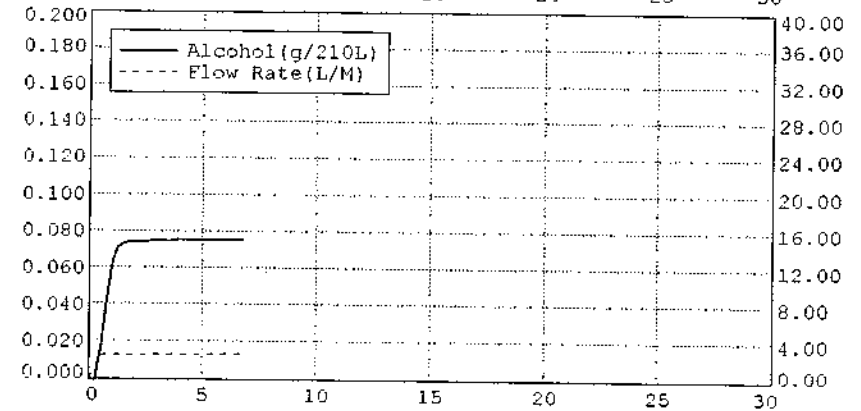
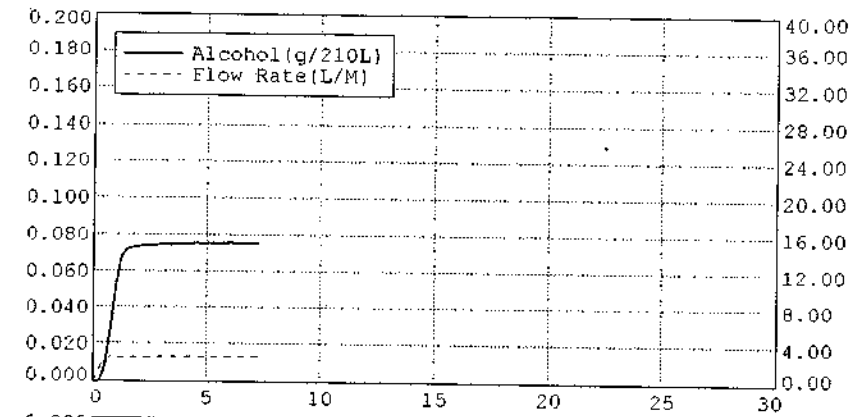
Date: 09/16/2015  
 Time: 12:55:03

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.20: 0.078  
 LOT #: ~~01305000A2~~ **0315080A2** *BMB 9/22/15*  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 911 psi

BLANK TEST	0.000	12:56
INTERNAL STANDARD	VERIFIED	12:56
EXTERNAL STANDARD	0.077	12:56
BLANK TEST	0.000	12:57
EXTERNAL STANDARD	0.076	12:57
BLANK TEST	0.000	12:58
EXTERNAL STANDARD	0.077	12:58
BLANK TEST	0.000	12:59
EXTERNAL STANDARD	0.077	13:00
BLANK TEST	0.000	13:00
EXTERNAL STANDARD	0.077	13:01
BLANK TEST	0.000	13:02

Average = 0.0768  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100368

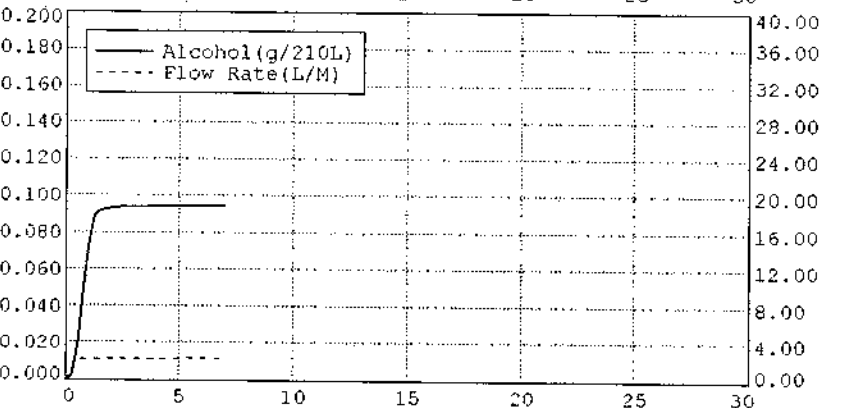
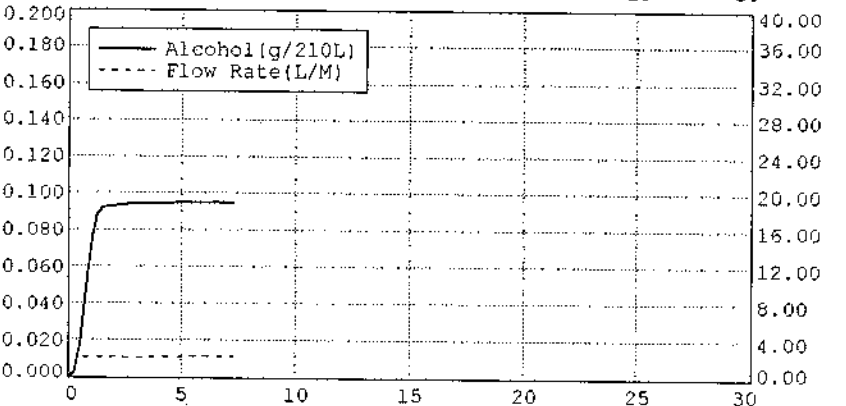
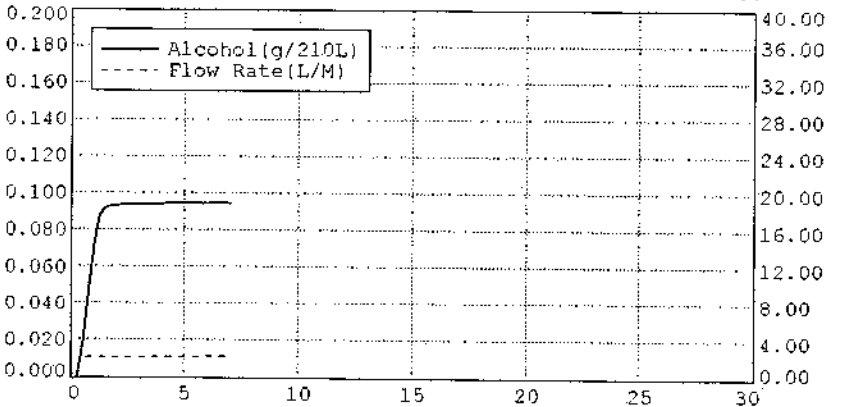
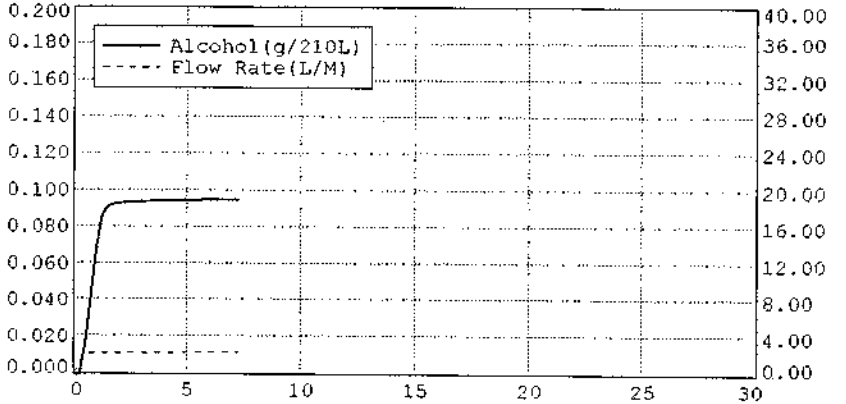
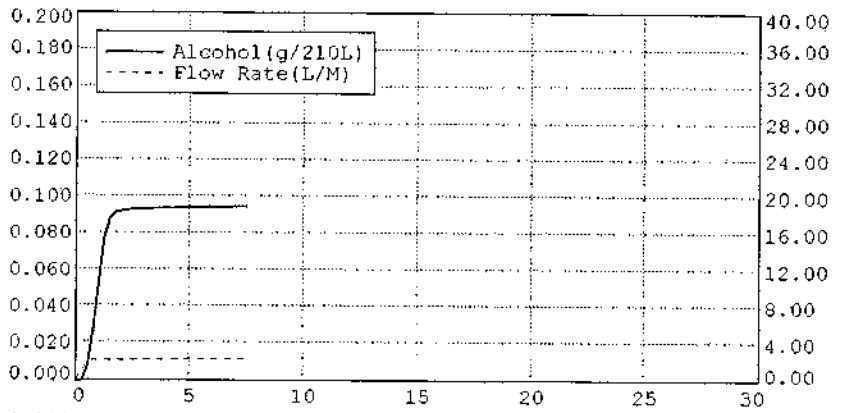
Date: 09/16/2015  
 Time: 13:19:58

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.20: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 312 psi

BLANK TEST	0.000	13:21
INTERNAL STANDARD	VERIFIED	13:21
EXTERNAL STANDARD	0.095	13:21
BLANK TEST	0.000	13:22
EXTERNAL STANDARD	0.095	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.096	13:23
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.096	13:25
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.095	13:26
BLANK TEST	0.000	13:27

Average = 0.0954  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100368

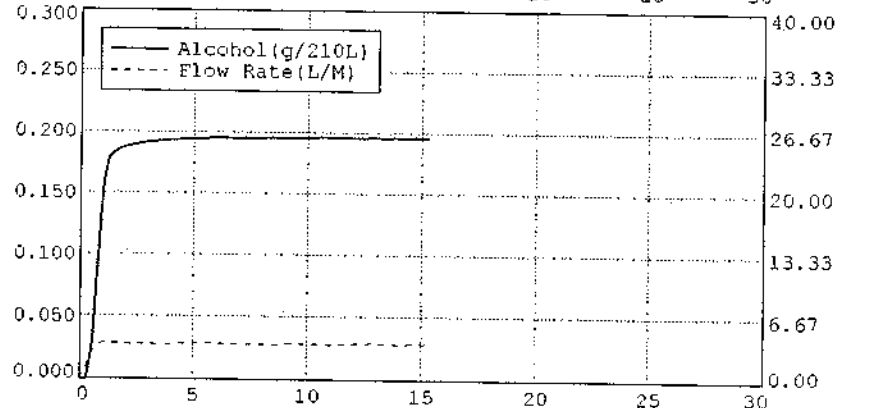
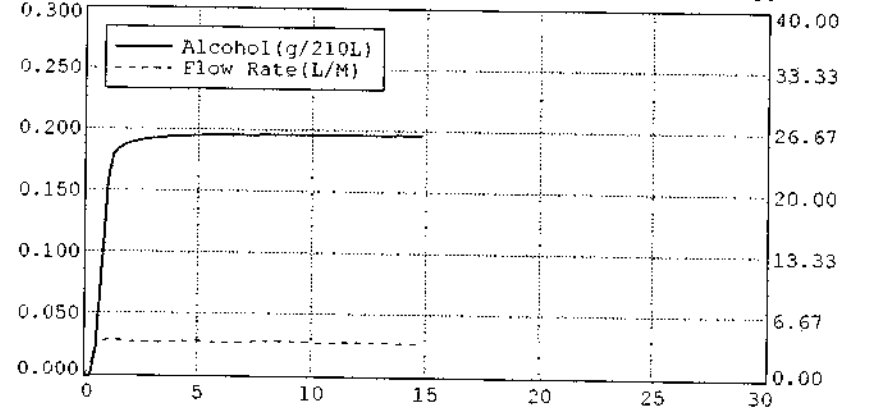
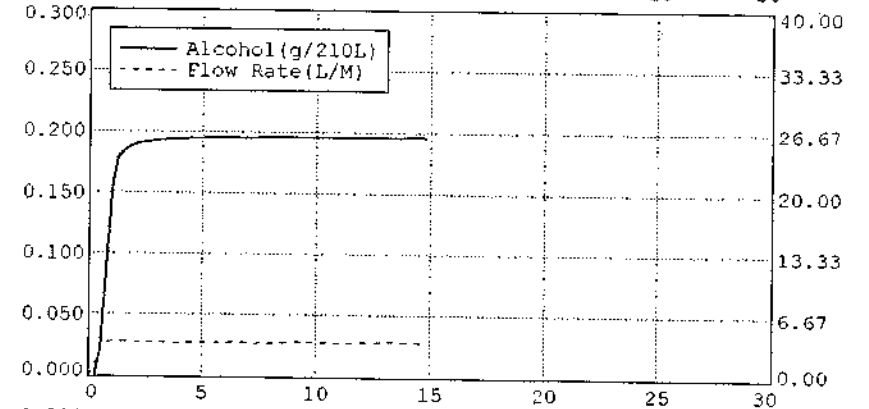
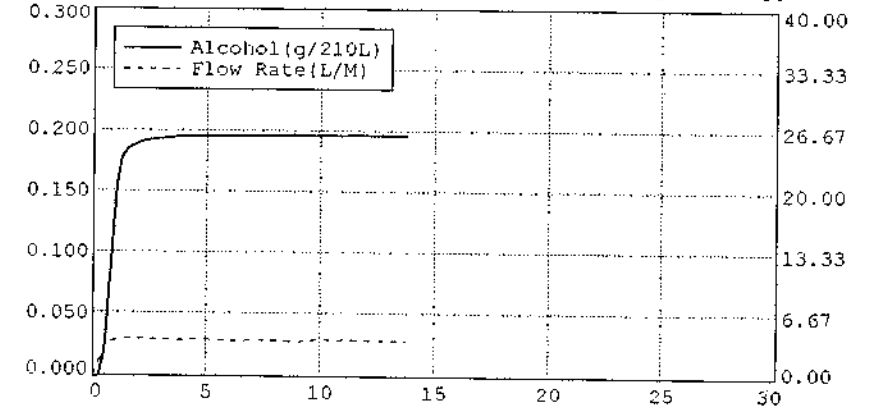
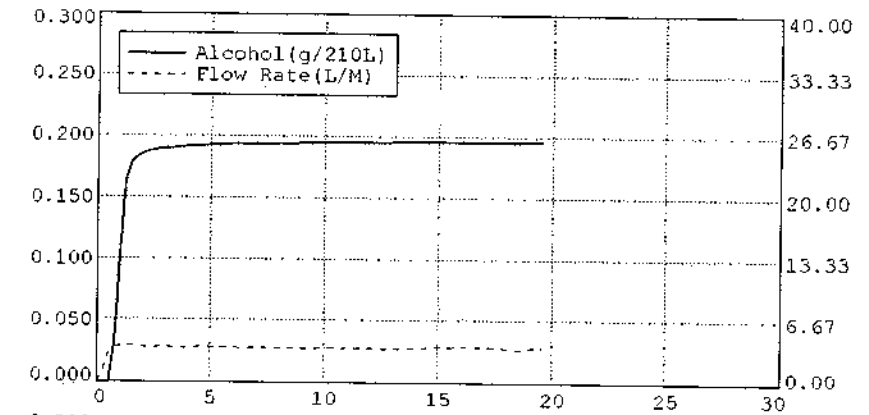
Date: 09/16/2015  
 Time: 13:30:41

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:32
INTERNAL STANDARD	VERIFIED	13:32
EXTERNAL STANDARD	0.197	13:32
BLANK TEST	0.000	13:33
EXTERNAL STANDARD	0.197	13:34
BLANK TEST	0.000	13:35
EXTERNAL STANDARD	0.197	13:35
BLANK TEST	0.000	13:36
EXTERNAL STANDARD	0.198	13:36
BLANK TEST	0.000	13:37
EXTERNAL STANDARD	0.197	13:37
BLANK TEST	0.000	13:38

Average = 0.1972  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100368

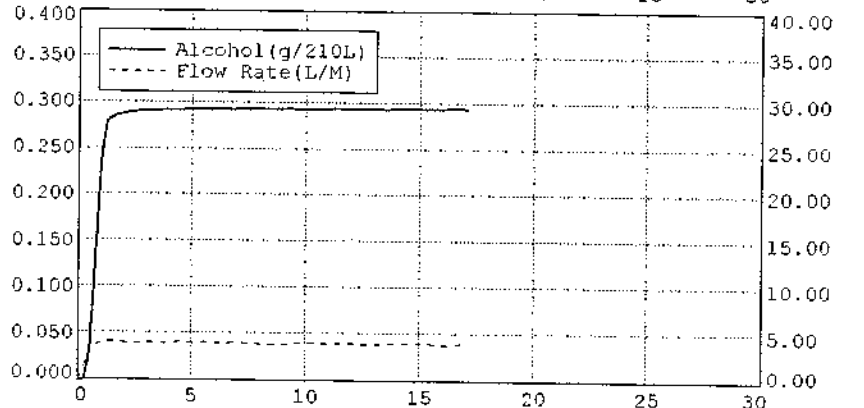
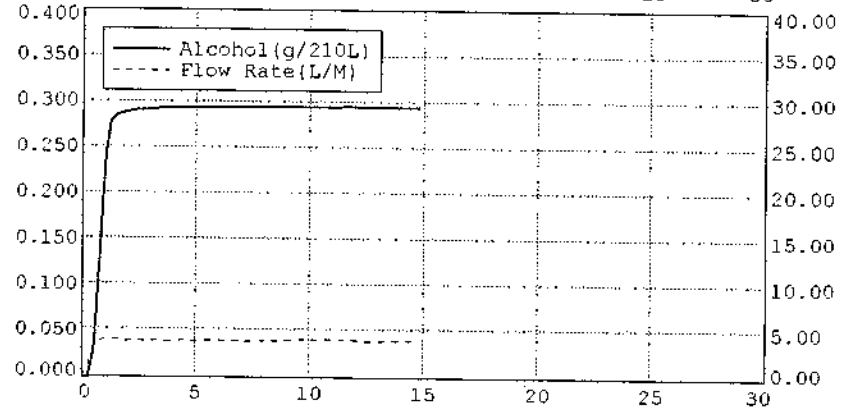
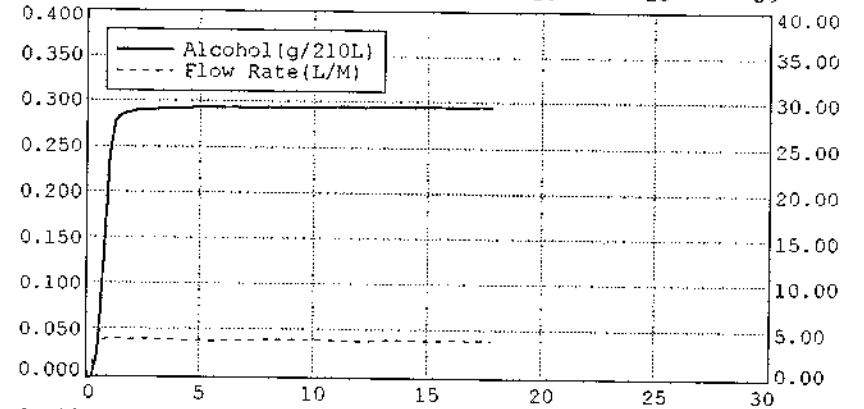
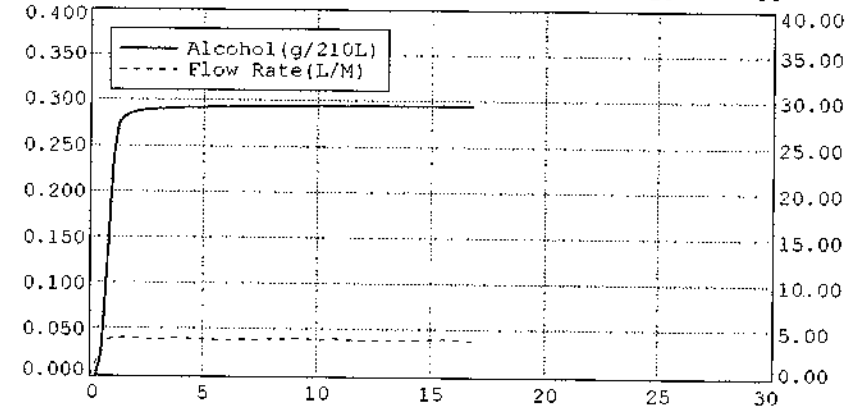
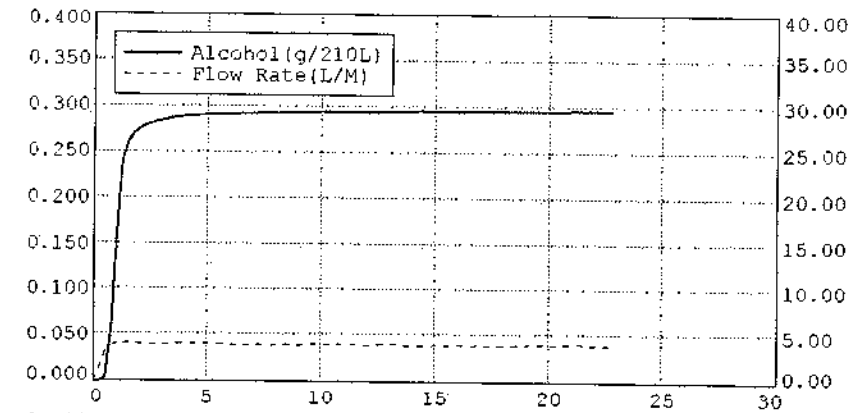
Date: 09/16/2015  
 Time: 13:40:54

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:42
INTERNAL STANDARD	VERIFIED	13:42
EXTERNAL STANDARD	0.296	13:42
BLANK TEST	0.000	13:43
EXTERNAL STANDARD	0.295	13:44
BLANK TEST	0.000	13:45
EXTERNAL STANDARD	0.295	13:45
BLANK TEST	0.000	13:46
EXTERNAL STANDARD	0.294	13:46
BLANK TEST	0.000	13:47
EXTERNAL STANDARD	0.295	13:48
BLANK TEST	0.000	13:49

Average = 0.2950  
 Std Dev = 0.0007



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100368

Date: 09/17/2015  
Time: 09:04:40

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

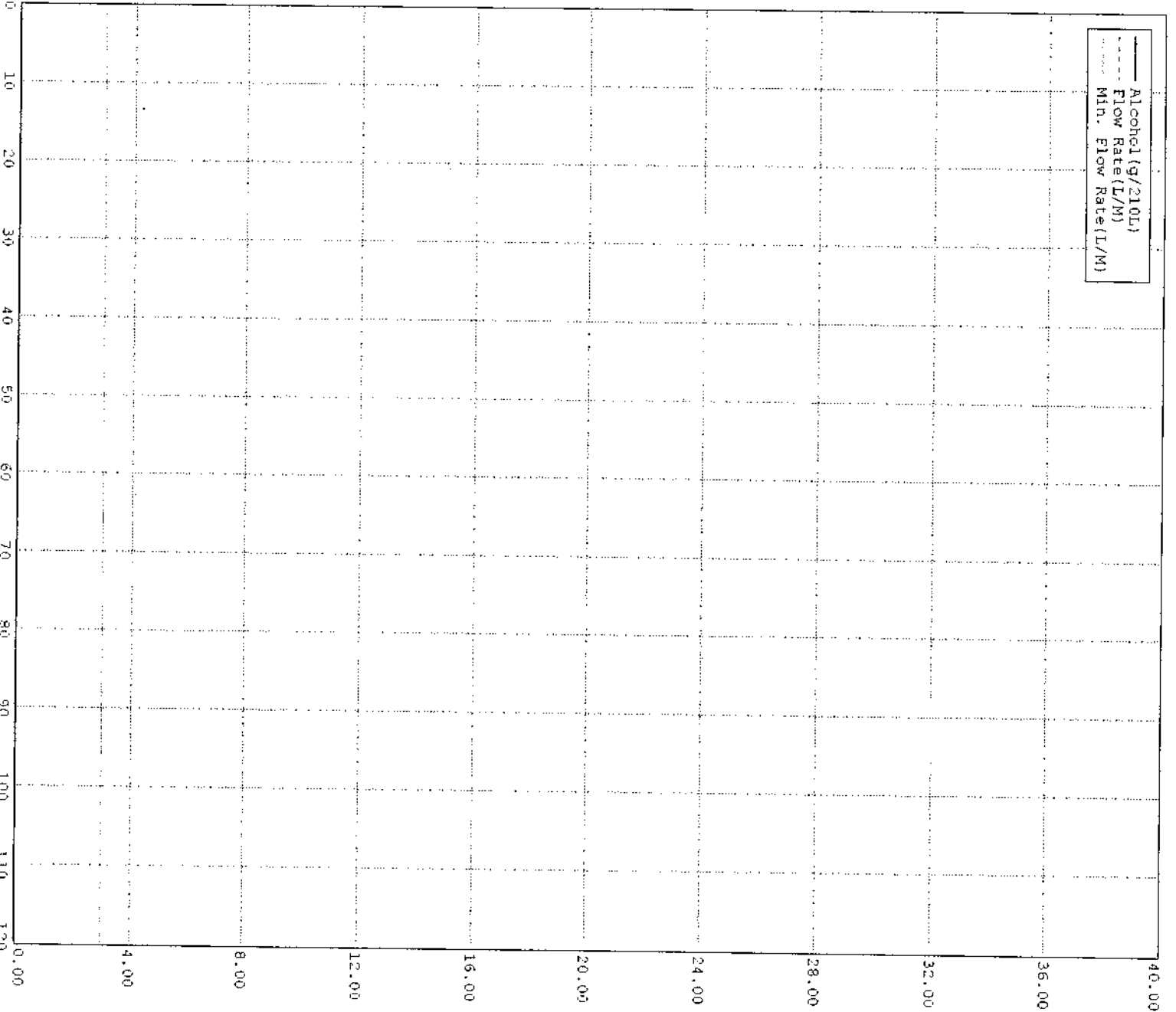
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.02: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:07
BLANK TEST	0.000	09:08
INTERNAL STANDARD	VERIFIED	09:08
EXTERNAL STANDARD	0.076	09:08
BLANK TEST	0.000	09:09
SUBJECT SAMPLE	INCOMPLETE	09:11

*BBMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmc: 100368

Date: 09/17/2015  
Time: 09:13:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

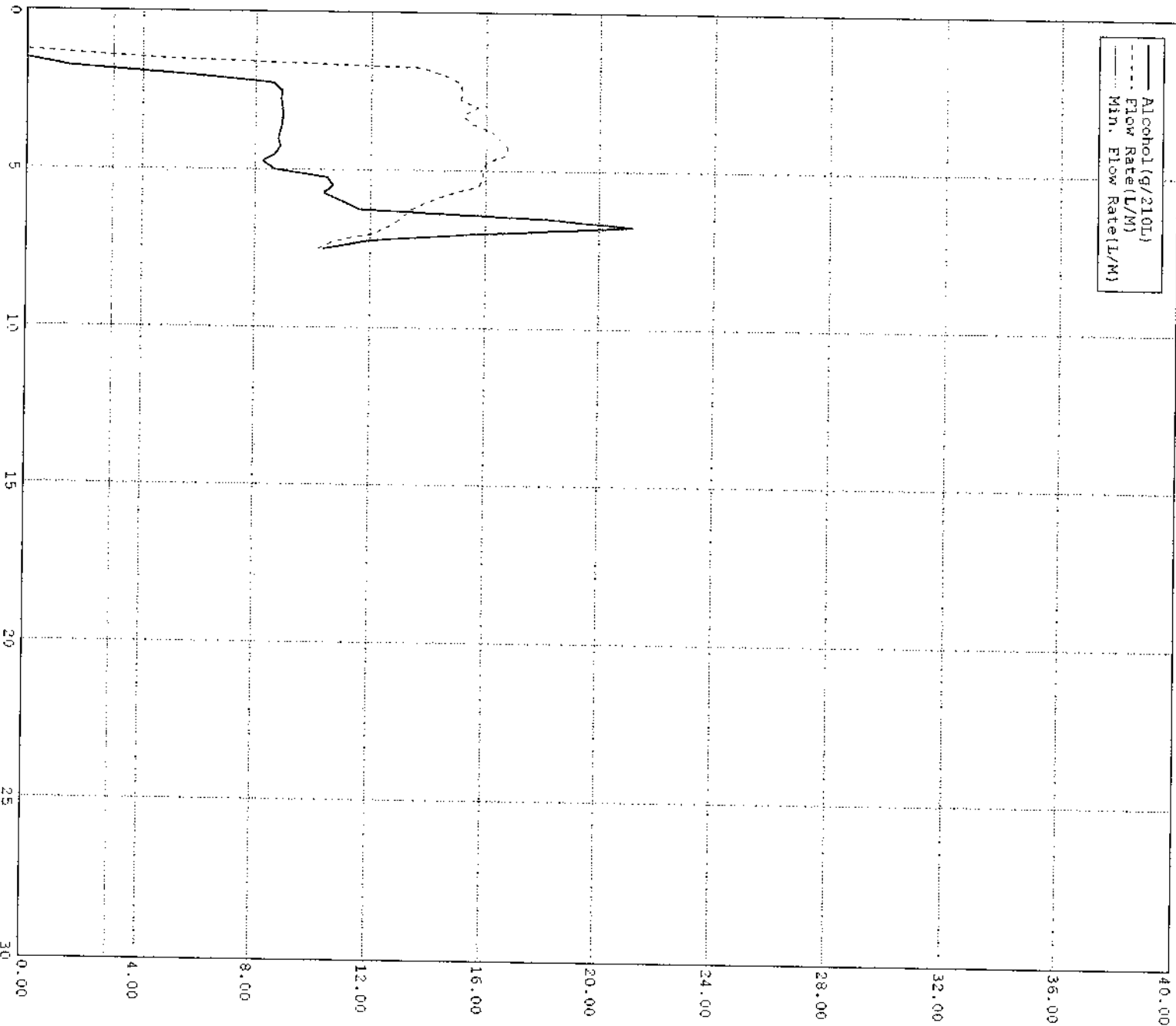
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.01: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:14
BLANK TEST	0.000	09:14
INTERNAL STANDARD	VERIFIED	09:14
EXTERNAL STANDARD	0.077	09:15
BLANK TEST	0.000	09:15
SUBJECT SAMPLE	INVALID	09:16

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100368

Date: 09/17/2015  
Time: 12:02:39

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 29.01: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:03
BLANK TEST	0.000	12:04
INTERNAL STANDARD	VERIFIED	12:04
Xg = 0.076 (1.04%)		
EXTERNAL STANDARD	0.076	12:04
X[1] = 0.0763 (-0.0010)	(0.0013)	
BLANK TEST	0.000	12:05
SUBJECT SAMPLE	XXX	12:05
X[1] = 0.1020 (-0.0148)	(-0.0008)	

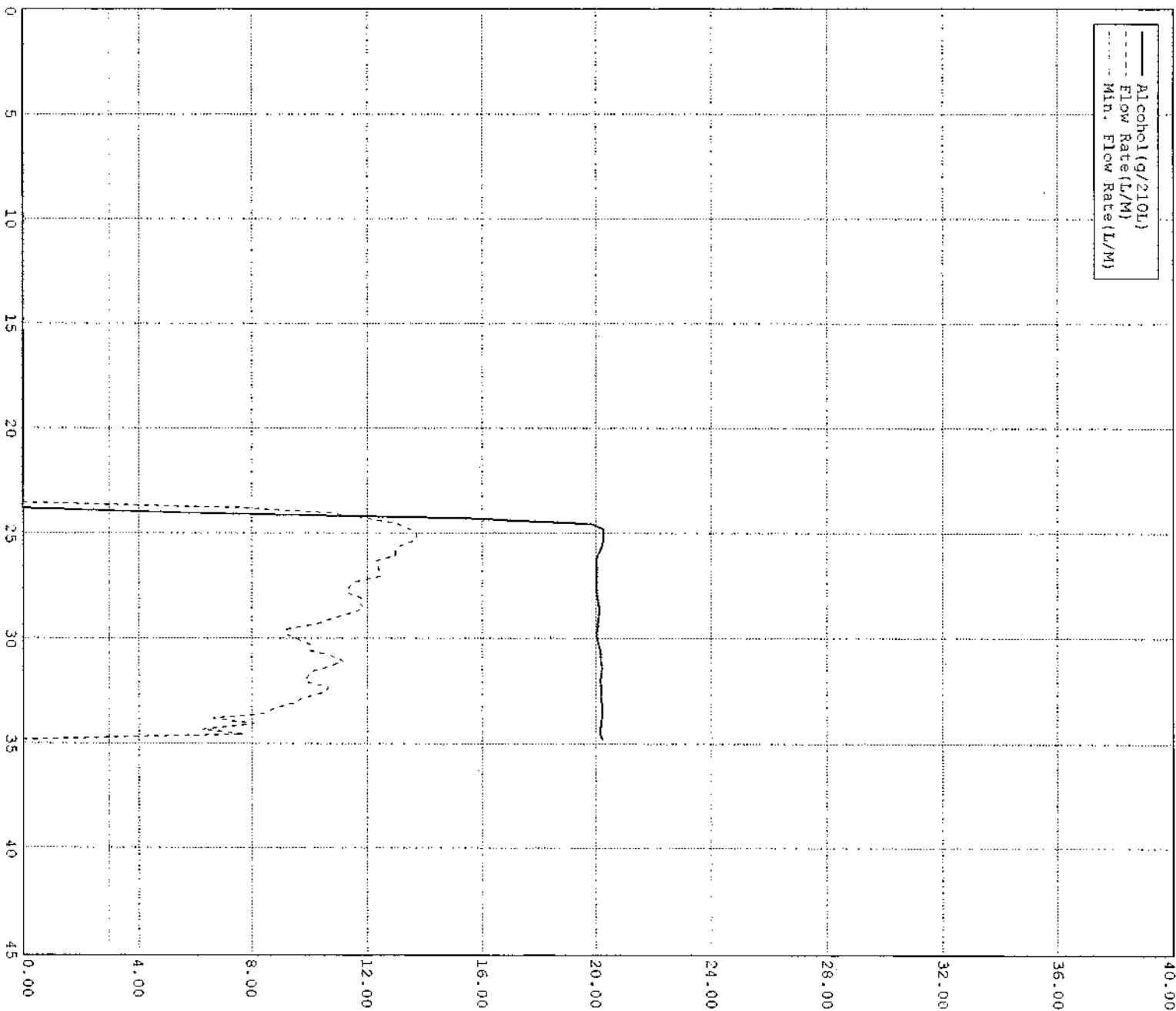
Interference Detected

Filter 2: Avg: -0.0011

Filter 3: Avg: 0.0013

BMB  
9/18/15

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100368

Date: 09/17/2015  
Time: 12:09:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

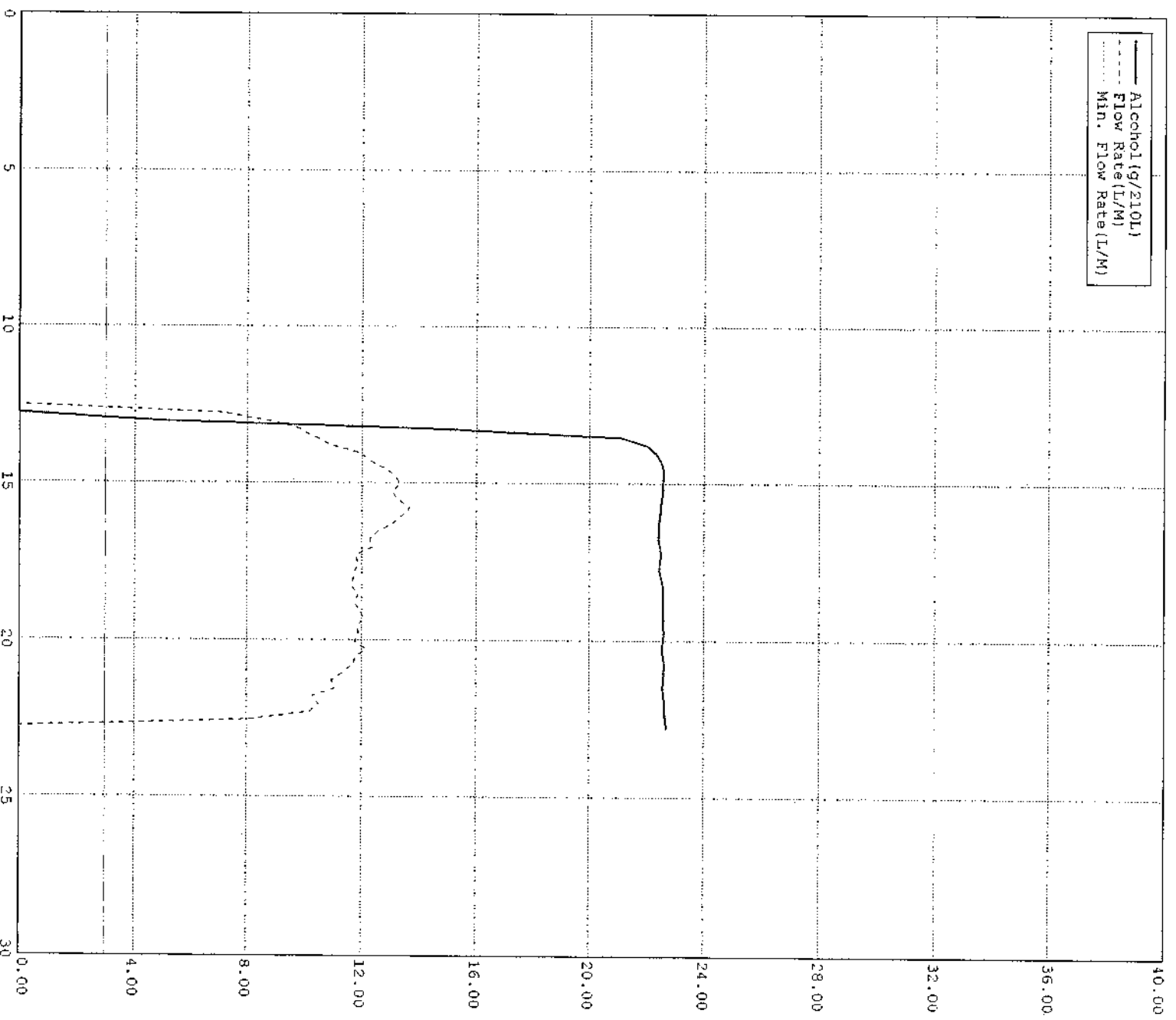
DEPT/AGENCY:  
INTERFERENCE ISOPROPYL  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.01: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:11
BLANK TEST	0.000	12:11
INTERNAL STANDARD	VERIFIED	12:11
Xq = 0.075 (0.70%)		
EXTERNAL STANDARD	0.076	12:11
X[1] = 0.0764 (-0.0012)	(0.0011)	
BLANK TEST	0.000	12:12
SUBJECT SAMPLE	XXX	12:12
X[1] = 0.1140 (-0.0254)	(0.0003)	

Interference Detected

DMB





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100368

Date: 09/17/2015  
Time: 09:40:24

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

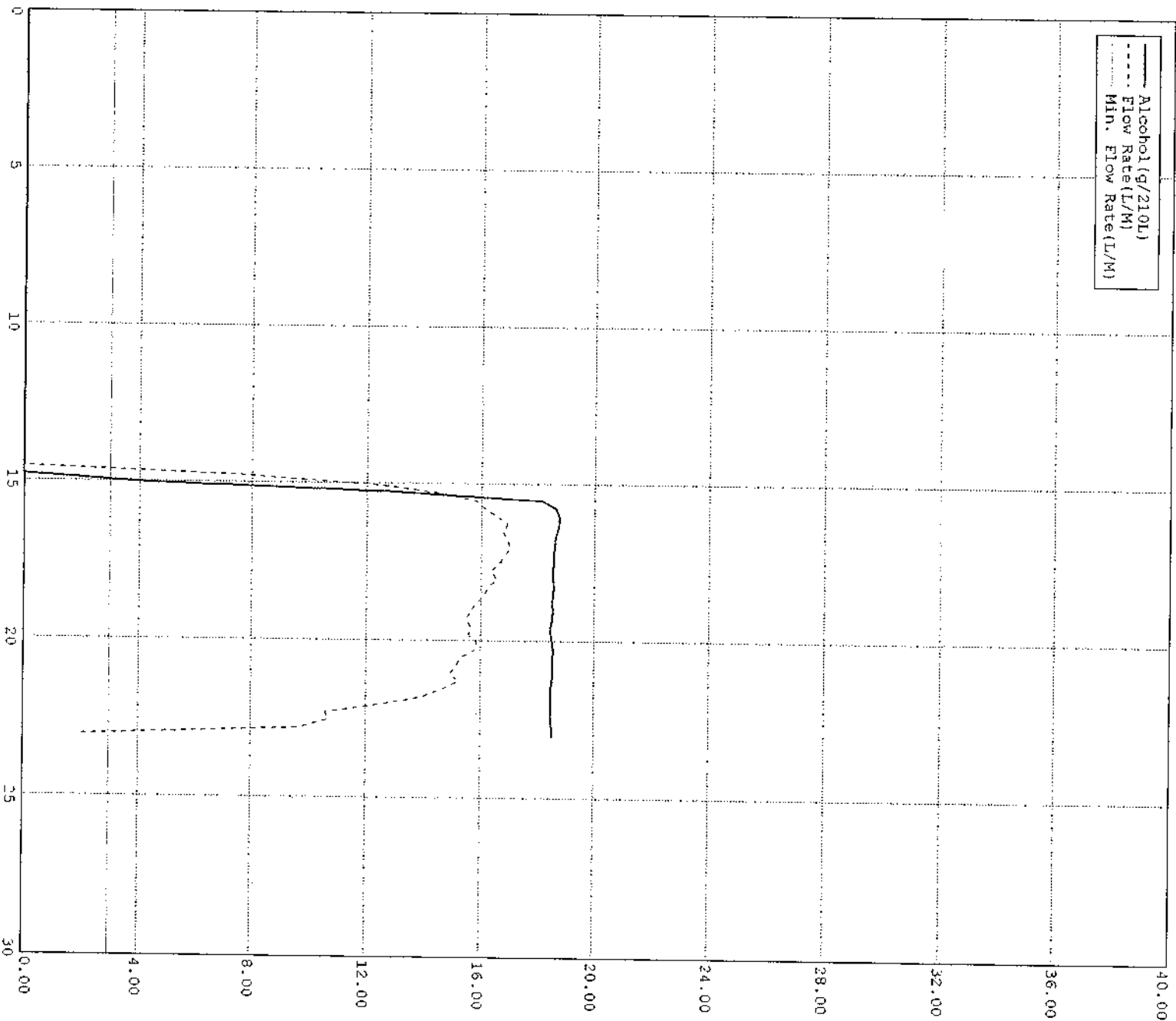
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.04: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:41
BLANK TEST	0.000	09:41
INTERNAL STANDARD	VERIFIED	09:42
Xq = 0.075 (0.35%)		
EXTERNAL STANDARD	0.077	09:42
X[1] = 0.076 (-0.0012)	(0.0019)	
BLANK TEST	0.000	09:43
SUBJECT SAMPLE (Vol=2.05L)	0.093	09:43
X[1] = 0.0937 (-0.0003)	(-0.0005)	
BLANK TEST	0.000	09:44
EXTERNAL STANDARD	0.076	09:44
X[1] = 0.0761 (-0.0009)	(0.0010)	
BLANK TEST	0.000	09:45

*BRN*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100368

Date: 09/17/2015  
Time: 09:30:08

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

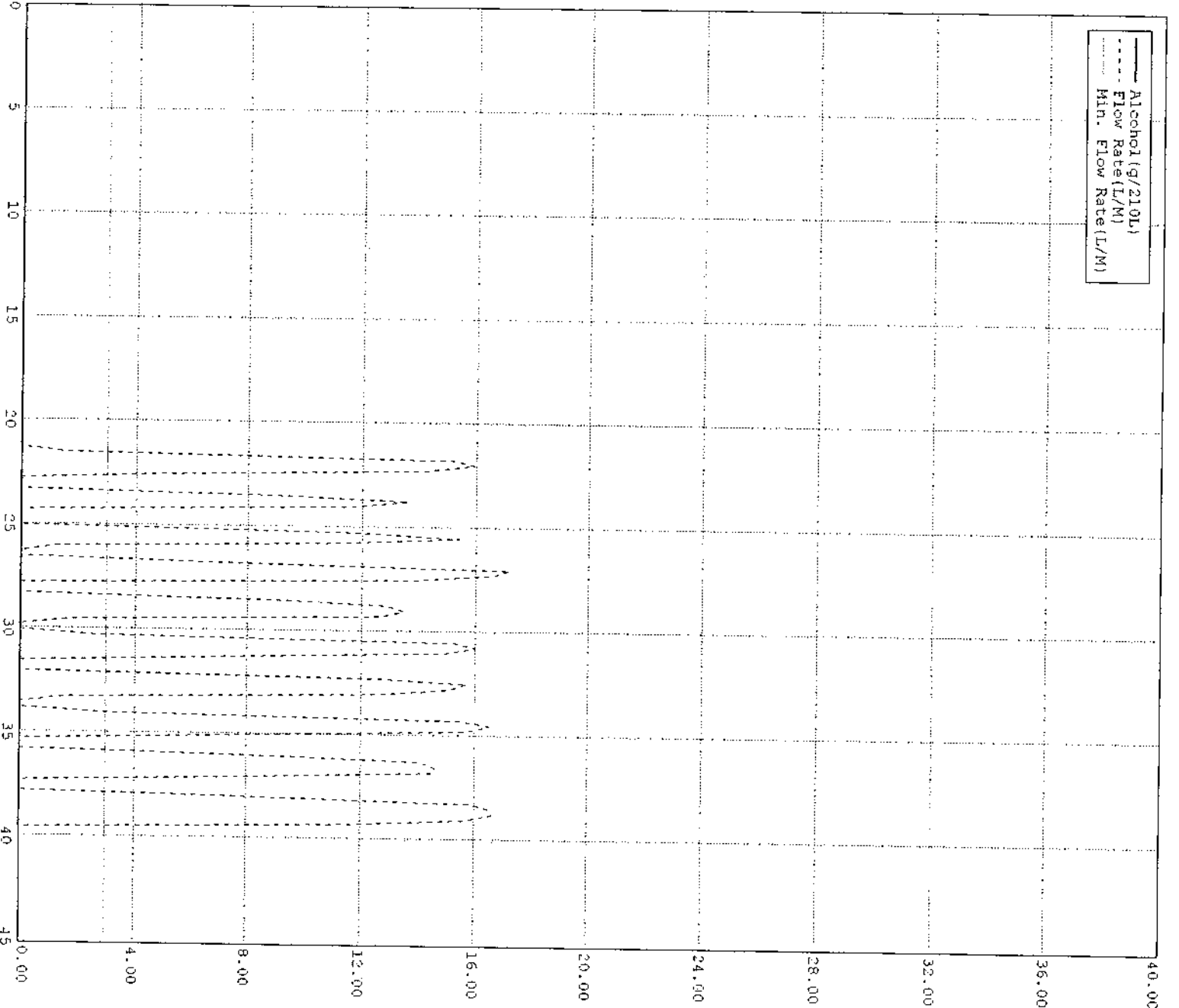
DEPT/AGENCY:  
EXCEEDED ATTEMPTS  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.03: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:31
BLANK TEST	0.000	09:31
INTERNAL STANDARD	VERIFIED	09:31
EXTERNAL STANDARD	0.076	09:31
BLANK TEST	0.000	09:32
SUBJECT SAMPLE	XXX	09:33

Maximum Attempts Exceeded

*BMB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100368

Date: 09/17/2015  
Time: 09:18:17

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

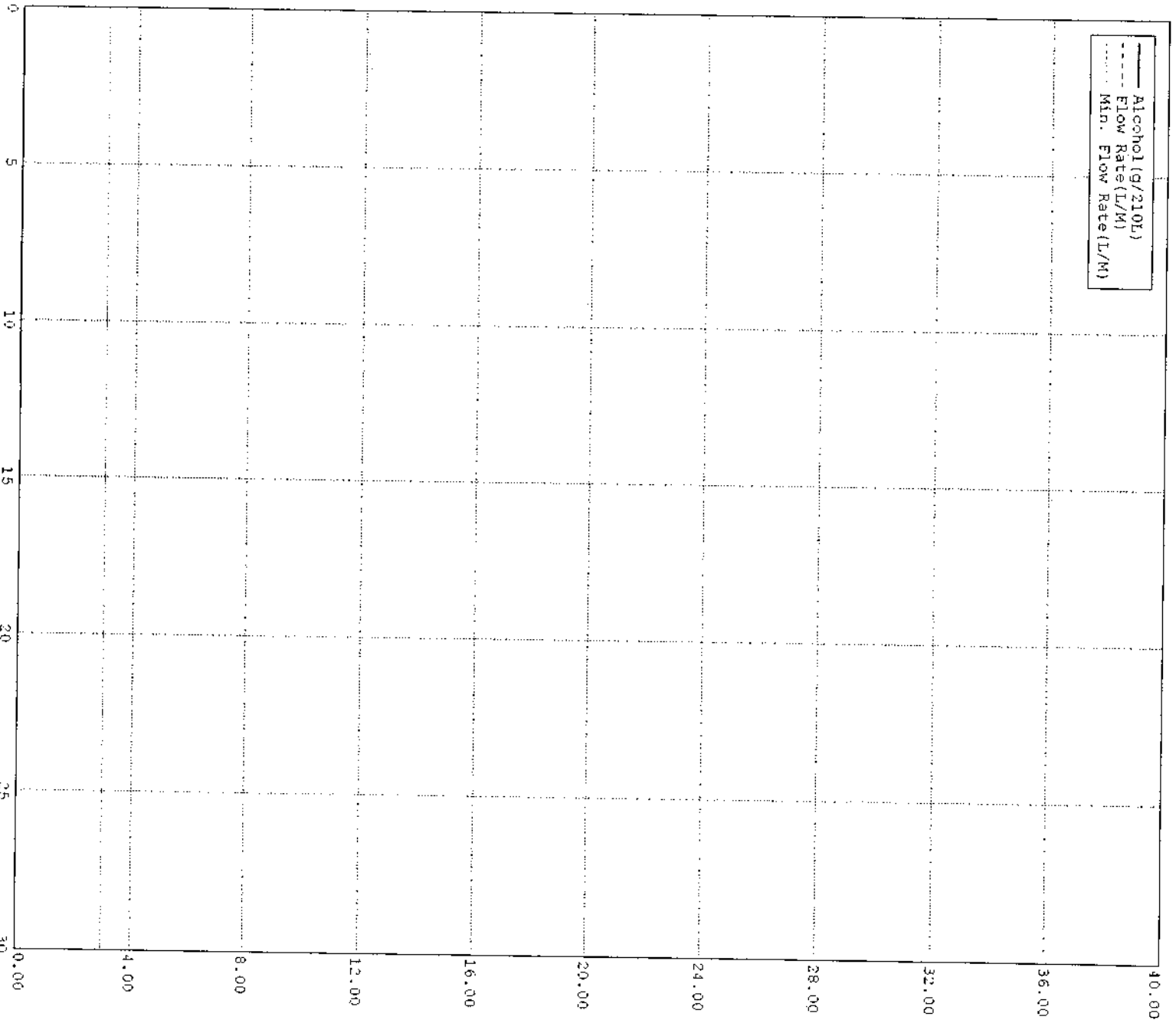
EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.03: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	09:22
BLANK TEST	0.000	09:22
INTERNAL STANDARD	VERIFIED	09:23
EXTERNAL STANDARD	0.077	09:23
BLANK TEST	0.000	09:24

RPI DETECTED

BOMB

Alcohol(g/210L)  
Flow Rate(L/M)  
Min. Flow Rate(L/M)



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100368

Date: 09/17/2015  
Time: 12:30:09

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 29.01: 0.078  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	12:31
BLANK TEST	0.000	12:31
INTERNAL STANDARD	VERIFIED	12:31
EXTERNAL STANDARD	0.077	12:31
BLANK TEST	0.000	12:32
SUBJECT SAMPLE (Vol=2.20L)	0.000	12:33
BLANK TEST	0.000	12:34
EXTERNAL STANDARD	0.077	12:34
BLANK TEST	0.000	12:35

BRB

