

# 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 100380 Analyst Brandi Barnett Start Date 9/28/16

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 9/28/16 <sup>9/28/16</sup> ~~3/5/17~~
- ii. 0.040g/210L Mnf ILMO Lot 02915040A3 Exp 3/5/17
- iii. 0.080g/210L Mnf Aigas Lot AG608504 Exp 3/25/18
- 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 DR6267 Date Calibrated 3/3/16
- vi. 0.300g/210L Mnf Guth Lot 15170 Exp 7/20/17
  - 1. Simulator S/N DR4176 Date Calibrated 3/3/16

5. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts

- i. Acetone - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
  - 1. Simulator S/N DR4162 Date Calibrated 3/2/16
- ii. Isopropanol - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
  - 1. Simulator S/N DR4163 Date Calibrated 3/2/16
- iii. Negative Control - Mnf Guth Lot 15220 Level 0.100 Exp 9/28/17
  - 1. Simulator S/N SD1200 Date Calibrated 3/3/16

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 9/29/16

DIAGNOSTIC RECORD

Alaska Department of Public Safety  
DATAMASTER dmt: 100380

Date: 09/28/2016  
Time: 10:41:24

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.6°C PASSED  
(44.0°C - 52.0°C)  
Breath Tube = 45.5°C PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage = 1.58 V PASSED  
(0.97 V - 2.25 V)  
Cooler Voltage = 1.56 V PASSED  
(0.95 V - 2.23 V)  
Bias Voltage = 80 V PASSED  
(48 V - 112 V)  
Chopper Freq = 541 Hz PASSED  
(475 Hz - 575 Hz)  
Barometer = 30.3 in

PUMP INFO

Flow Rate = 5.567 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 = 0.086 0.72% (0.00% - 4.00%) PASSED

Technician Screen

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DATAMASTER dmt: 100380  
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Date: 09/28/2016  
Time: 10:48 AM

Temperatures (°C)  
Sample Cell: 49.1°C  
Breath Tube: 45.2°C

Current Barometer 30.1 in  
Volume (Ltr) 1.51

Settings  
Lamp: 1.63 V  
Bias: 80 V  
Cooler: 1.59 V  
Chopper: 529 Hz

Voltages (V)  
Flow: 1.04 V  
Detector: -0.008 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100380  
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Date: 03/04/2011  
Time: 10:42:19

Ca	=	0.1000		
CAL	=	0.981773	0.800	<= CAL < 1.200
b1	=	0.0000	0.0000	<= b1 < 0.0040
b2	=	0.0046	0.0010	<= b2 < 0.0100
b3	=	0.0000	0.0000	<= b3 < 0.0040
Xq	=	0.0849	0.0500	<= Xq < 0.2000
a21	=	1.212608	1.050	<= a21 < 1.300
a31	=	0.452285	0.300	<= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100380

Date: 09/28/2016  
Time: 10:50:18

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

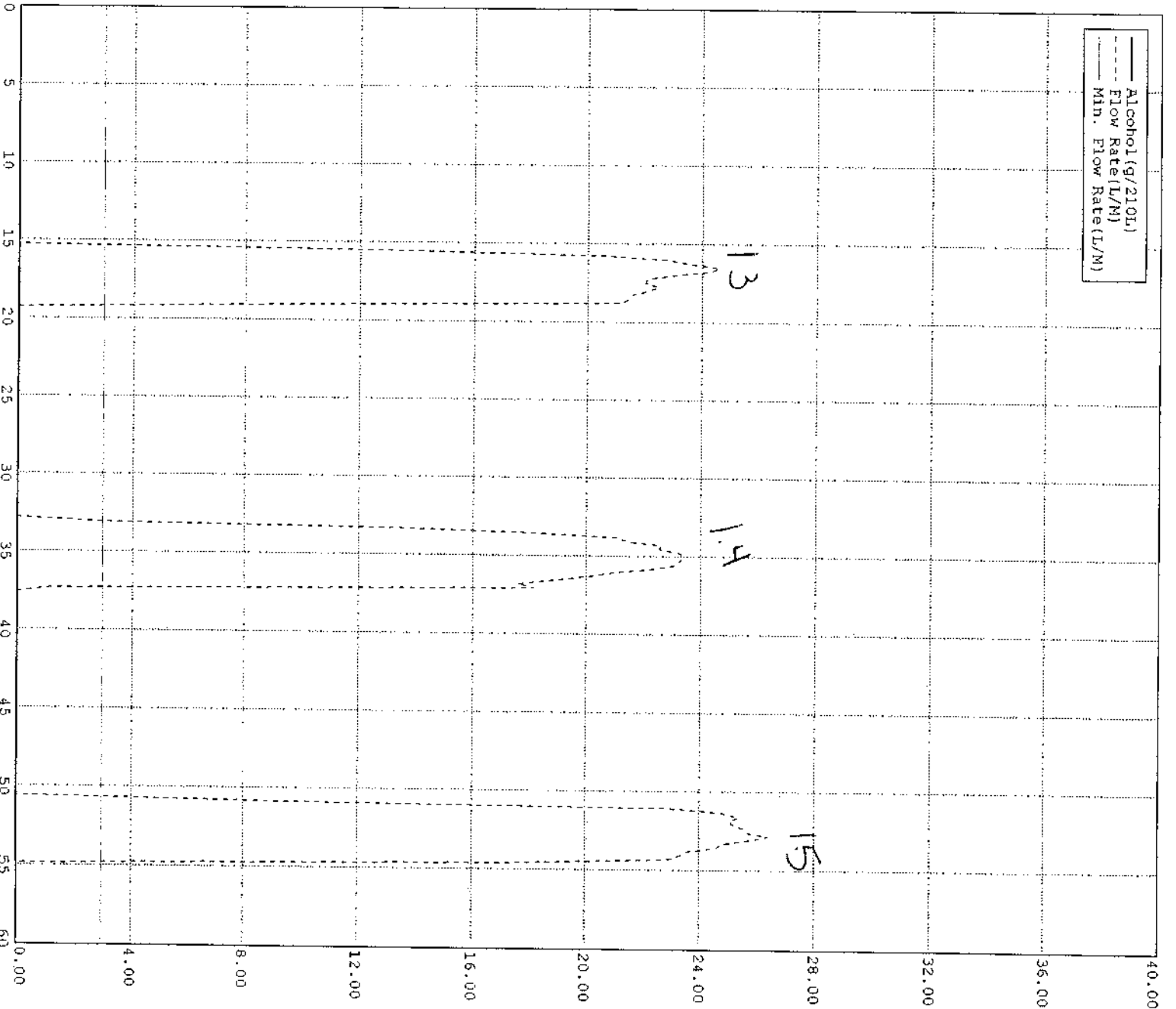
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.15: 0.081  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:53
BLANK TEST	0.000	10:53
INTERNAL STANDARD	VERIFIED	10:54
EXTERNAL STANDARD	0.081	10:54
BLANK TEST	0.000	10:55
SUBJECT SAMPLE (Vol=1.55L)	0.000	10:56
BLANK TEST	0.000	10:57
EXTERNAL STANDARD	0.081	10:57
BLANK TEST	0.000	10:58

*BBMB*



LINEARITY CHECK

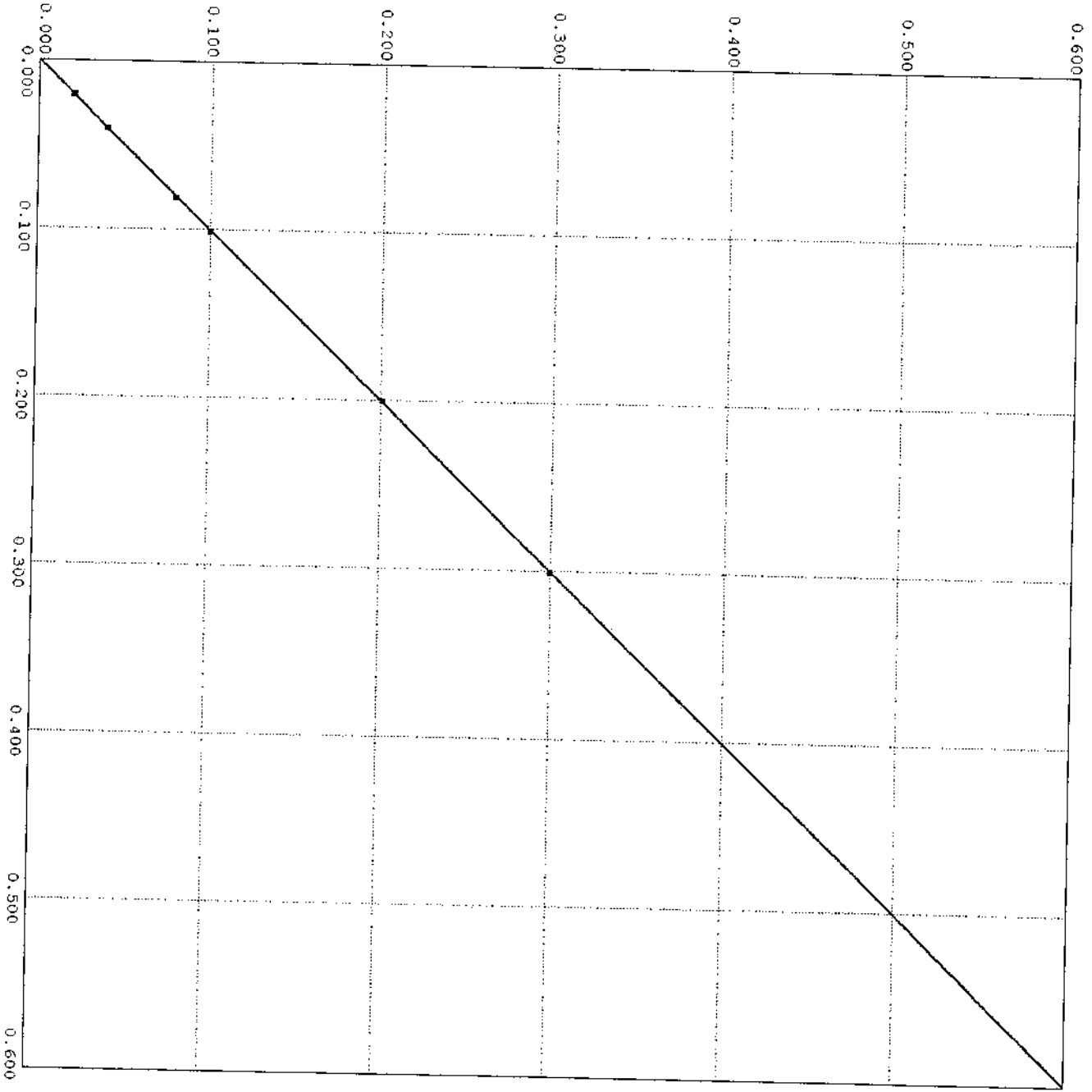
Alaska Department of Public Safety  
DATAMASTER dmt: 100380

Date: 09/28/2016  
Time: 13:58:44

SUPERVISOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

TARGET	AVERAGE	STD. DEV.
0.020	0.0210	0.0000
0.040	0.0408	0.0004
0.081	0.0808	0.0004
0.101	0.1010	0.0000
0.200	0.2018	0.0004
0.300	0.3004	0.0005

SLOPE = 1.000805  
R<sup>2</sup> = 0.999954



BMB

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100380

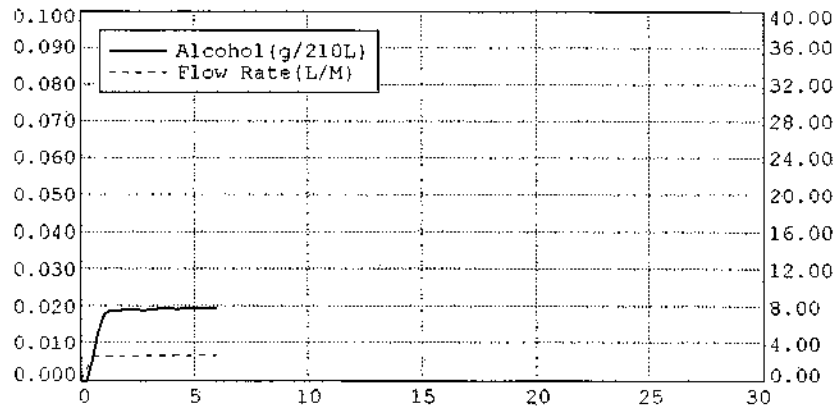
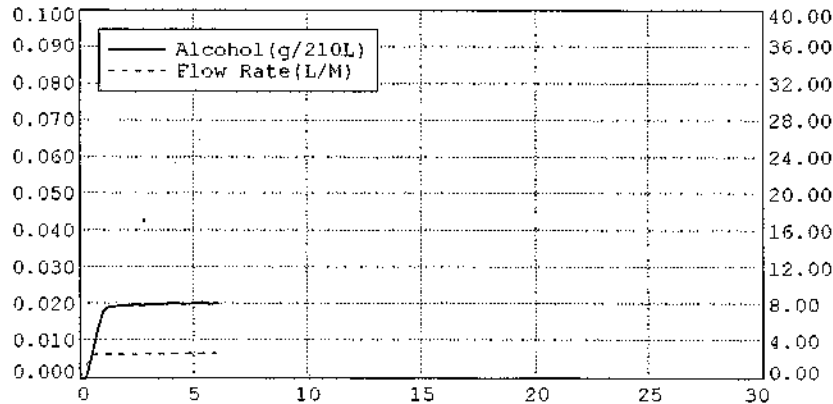
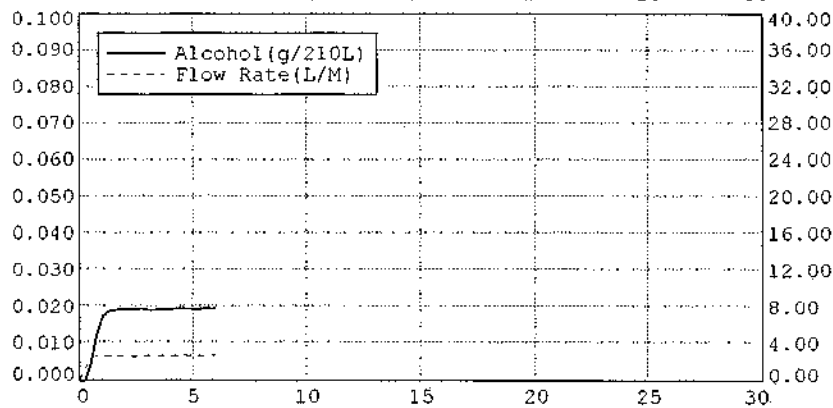
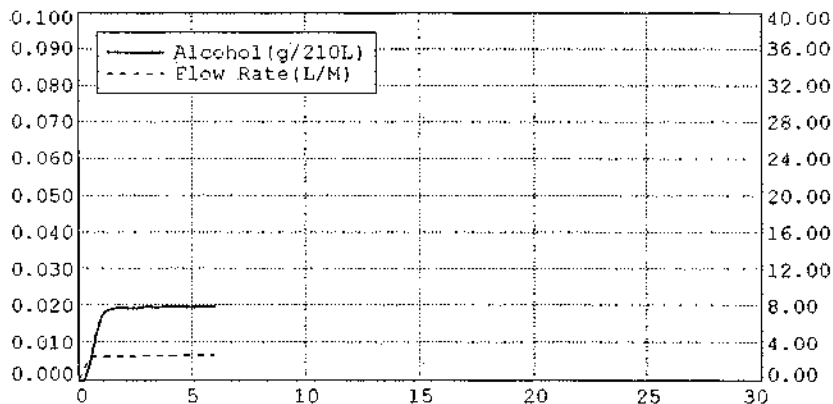
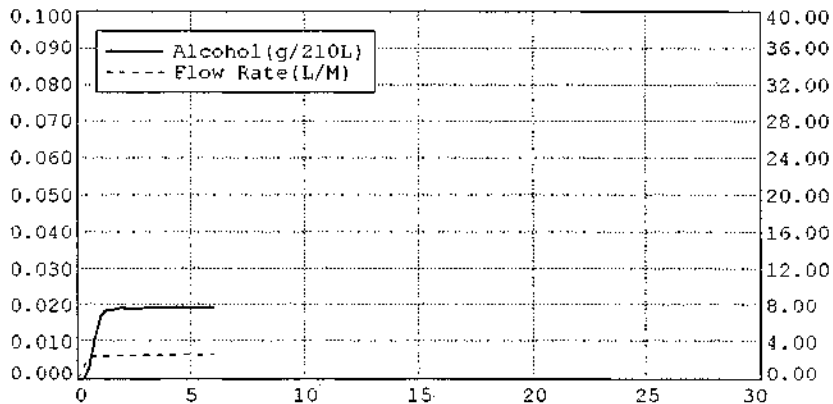
Date: 09/28/2016  
 Time: 13:58:46

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 30.15: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 337 psi

BLANK TEST	0.000	14:00
INTERNAL STANDARD	VERIFIED	14:00
EXTERNAL STANDARD	0.021	14:00
BLANK TEST	0.000	14:01
EXTERNAL STANDARD	0.021	14:01
BLANK TEST	0.000	14:02
EXTERNAL STANDARD	0.021	14:02
BLANK TEST	0.000	14:03
EXTERNAL STANDARD	0.021	14:03
BLANK TEST	0.000	14:04
EXTERNAL STANDARD	0.021	14:04
BLANK TEST	0.000	14:05

Average = 0.0210  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100380

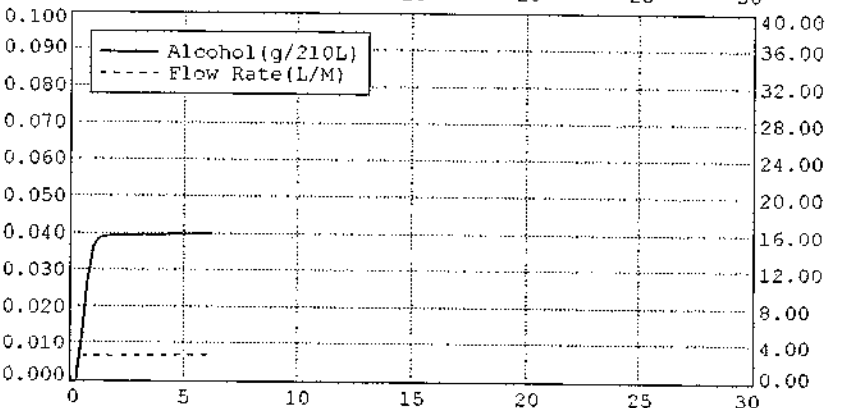
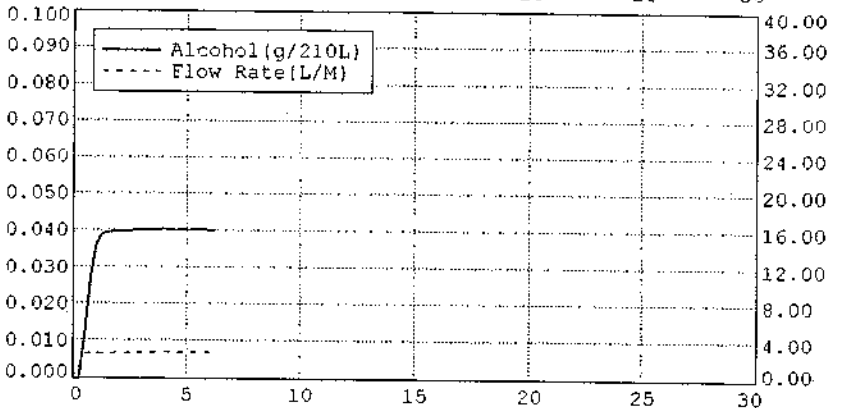
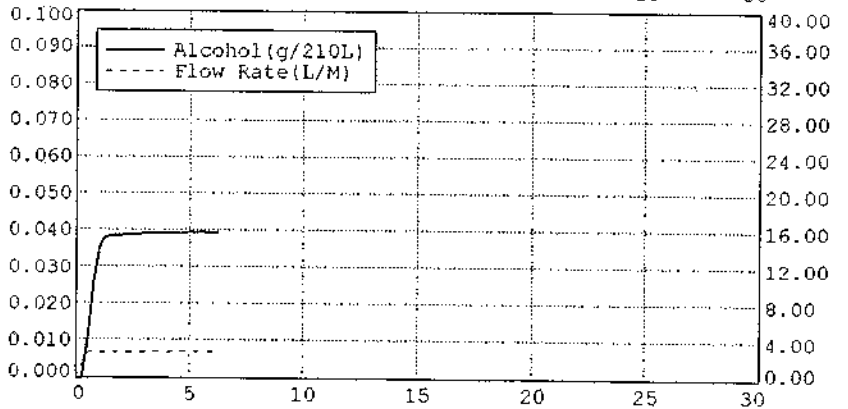
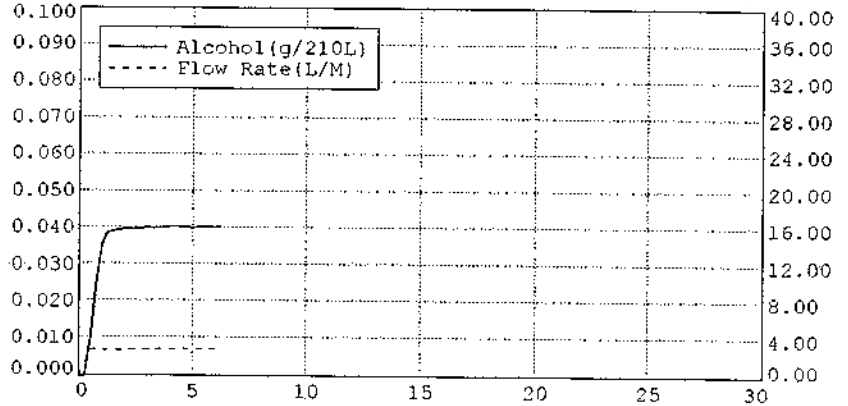
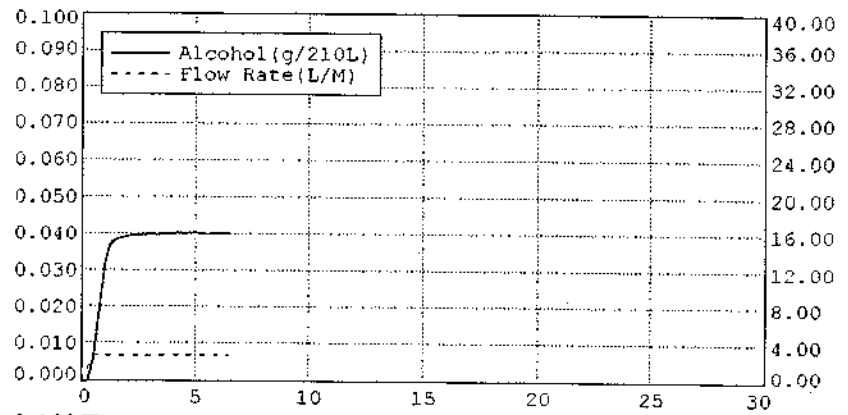
Date: 09/28/2016  
 Time: 14:09:42

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 30.15: 0.040  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 867 psi

BLANK TEST	0.000	14:11
INTERNAL STANDARD	VERIFIED	14:11
EXTERNAL STANDARD	0.041	14:11
BLANK TEST	0.000	14:12
EXTERNAL STANDARD	0.041	14:12
BLANK TEST	0.000	14:13
EXTERNAL STANDARD	0.040	14:13
BLANK TEST	0.000	14:14
EXTERNAL STANDARD	0.041	14:14
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.041	14:15
BLANK TEST	0.000	14:16

Average = 0.0408  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100380

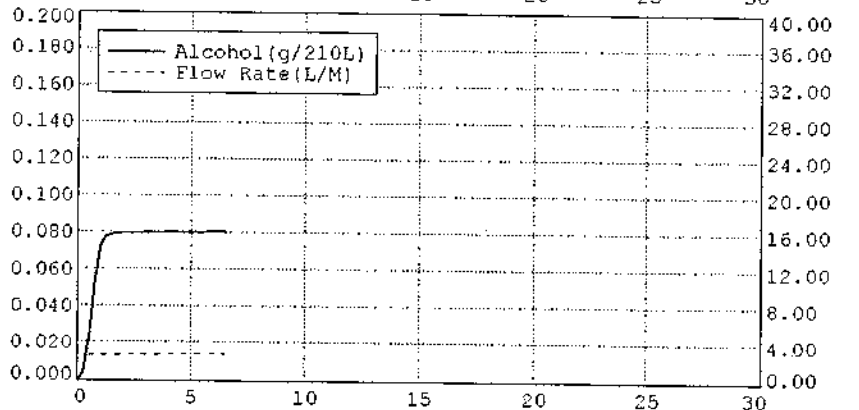
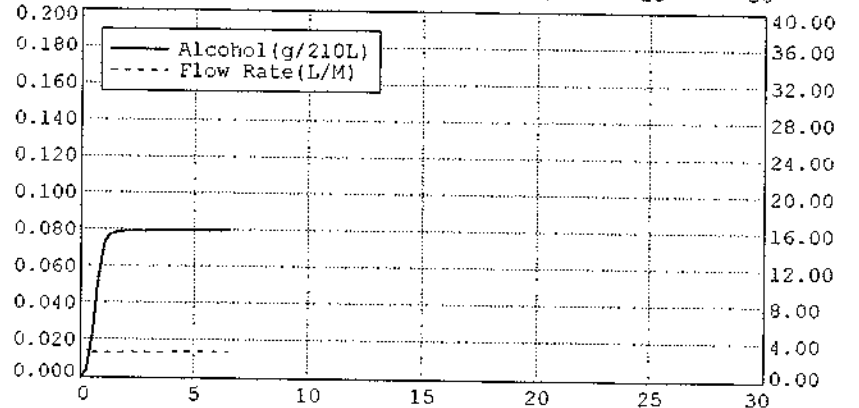
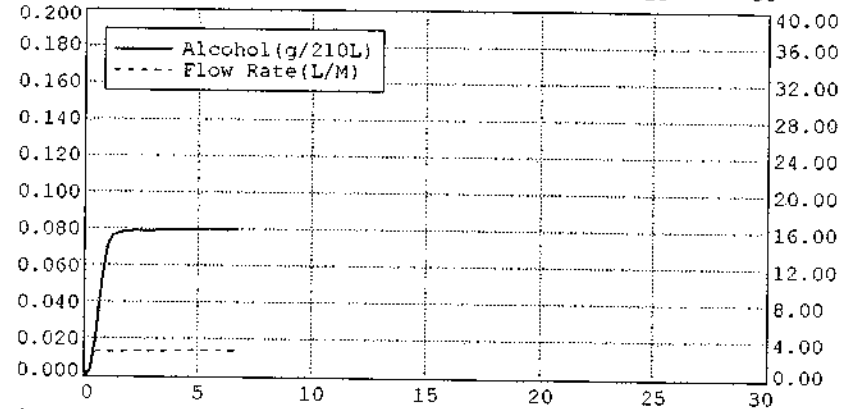
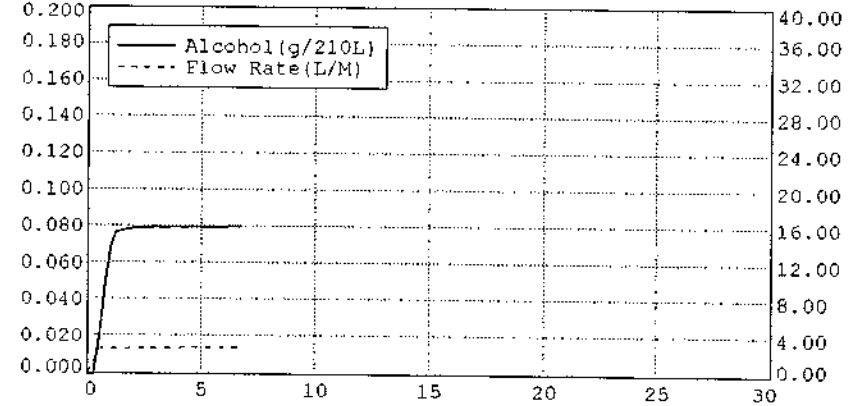
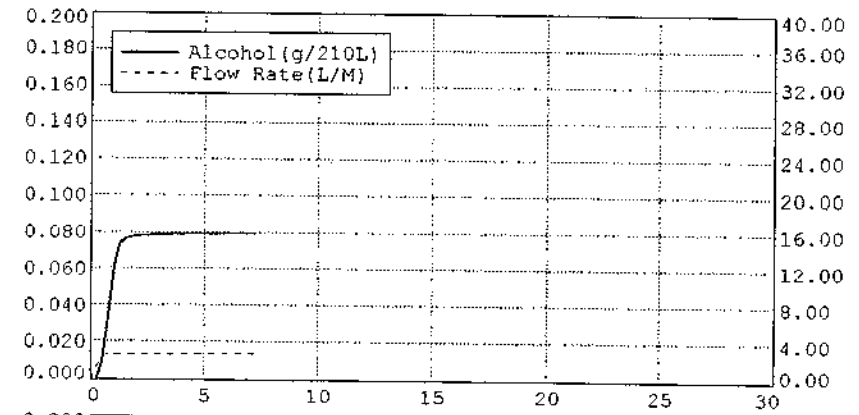
Date: 09/28/2016  
 Time: 14:21:44

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 30.16: 0.081  
 LOT #: AG608504  
 EXPIRATION: 03/25/2018  
 TANK PRESSURE: 838 psi

BLANK TEST	0.000	14:22
INTERNAL STANDARD	VERIFIED	14:22
EXTERNAL STANDARD	0.081	14:23
BLANK TEST	0.000	14:24
EXTERNAL STANDARD	0.080	14:24
BLANK TEST	0.000	14:25
EXTERNAL STANDARD	0.081	14:25
BLANK TEST	0.000	14:26
EXTERNAL STANDARD	0.081	14:26
BLANK TEST	0.000	14:27
EXTERNAL STANDARD	0.081	14:27
BLANK TEST	0.000	14:28

Average = 0.0808  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100380

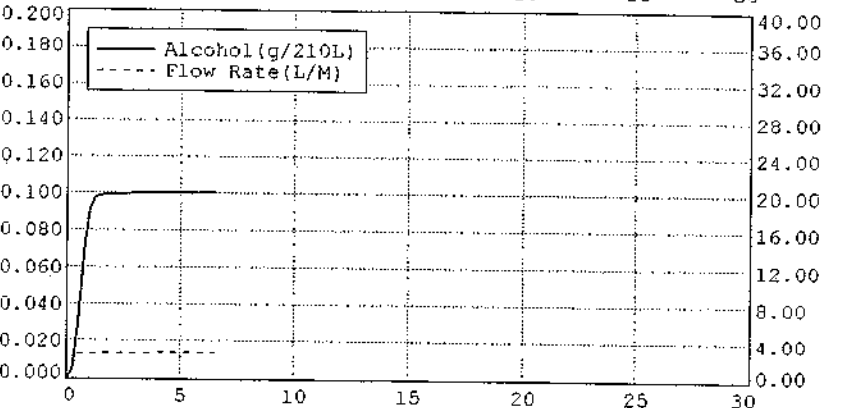
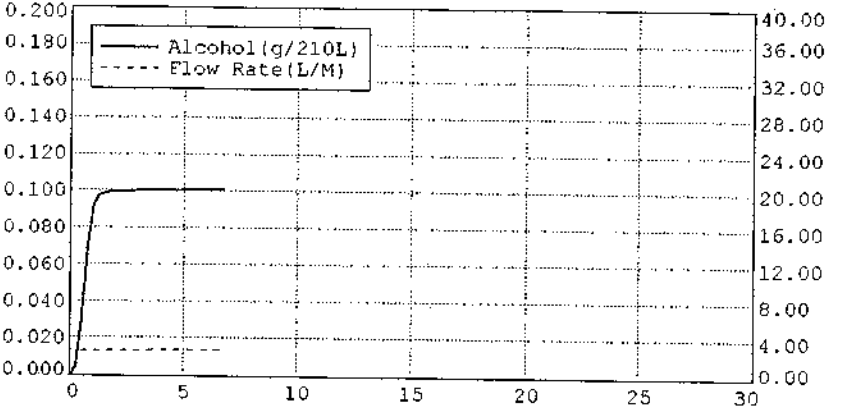
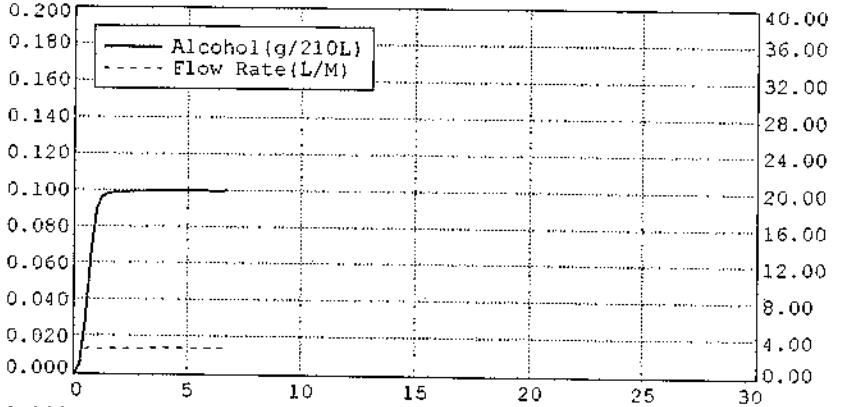
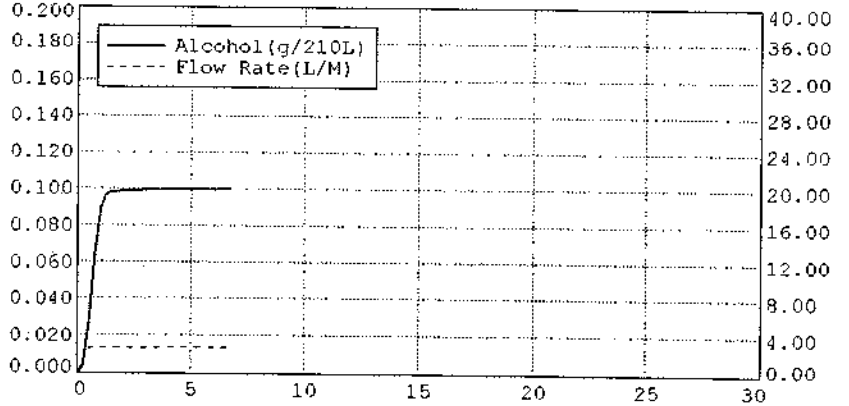
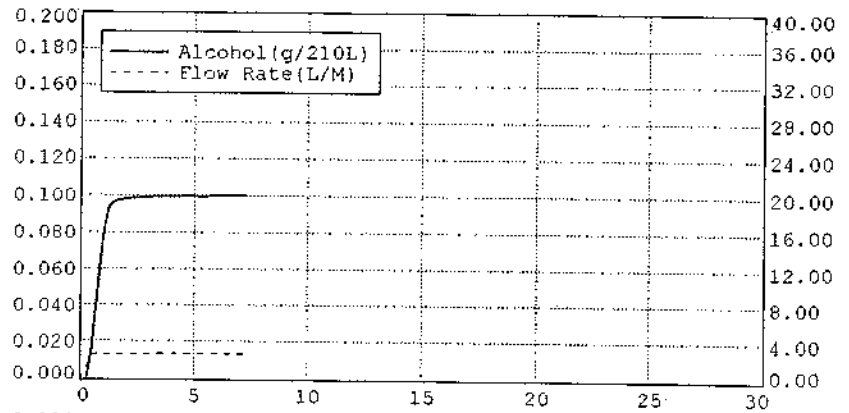
Date: 09/28/2016  
 Time: 14:34:33

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 30.15: 0.101  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 944 psi

BLANK TEST	0.000	14:35
INTERNAL STANDARD	VERIFIED	14:35
EXTERNAL STANDARD	0.101	14:35
BLANK TEST	0.000	14:36
EXTERNAL STANDARD	0.101	14:37
BLANK TEST	0.000	14:37
EXTERNAL STANDARD	0.101	14:38
BLANK TEST	0.000	14:39
EXTERNAL STANDARD	0.101	14:39
BLANK TEST	0.000	14:40
EXTERNAL STANDARD	0.101	14:40
BLANK TEST	0.000	14:41

Average = 0.1010  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 5

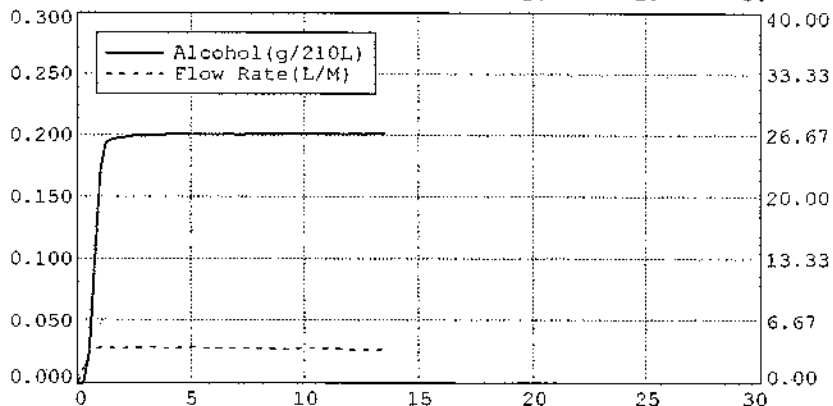
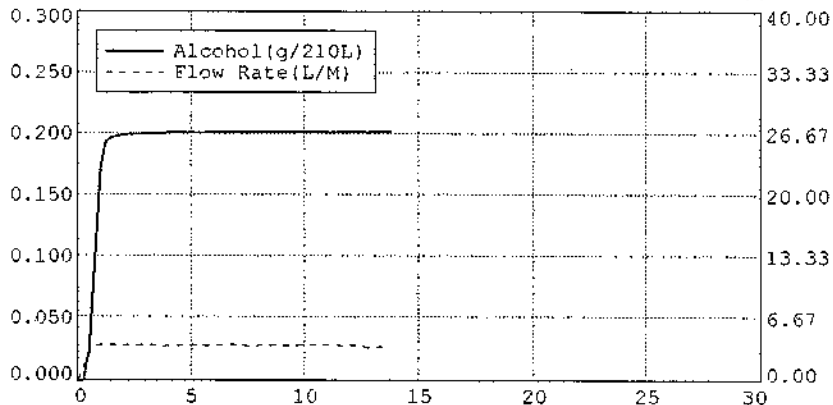
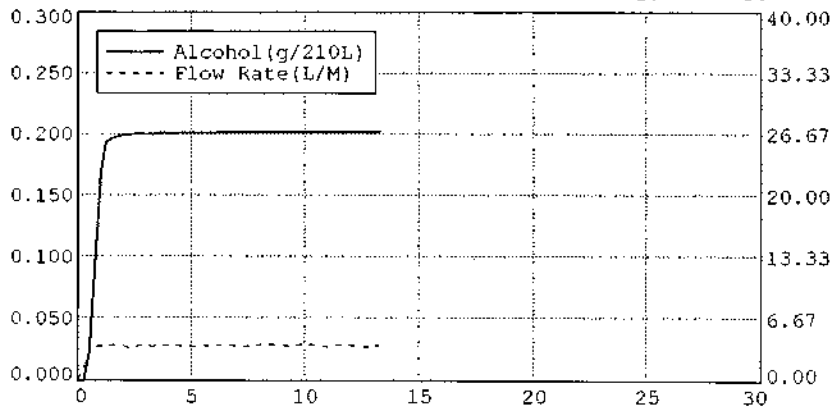
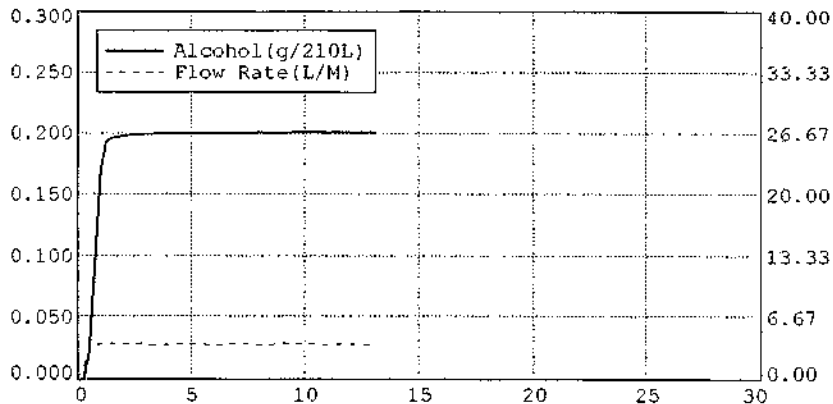
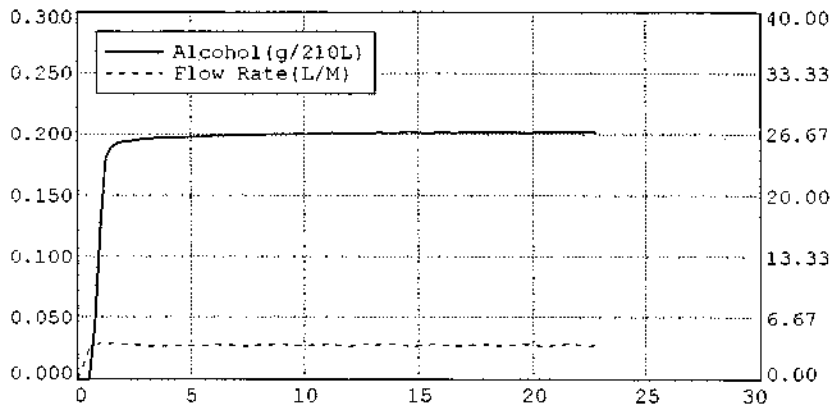
Alaska Department of Public Safety  
 DATAMASTER dmt: 100380

Date: 09/28/2016  
 Time: 14:43:54

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

BLANK TEST	0.000	14:45
INTERNAL STANDARD	VERIFIED	14:45
EXTERNAL STANDARD	0.202	14:45
BLANK TEST	0.000	14:46
EXTERNAL STANDARD	0.201	14:46
BLANK TEST	0.000	14:47
EXTERNAL STANDARD	0.202	14:48
BLANK TEST	0.000	14:49
EXTERNAL STANDARD	0.202	14:49
BLANK TEST	0.000	14:50
EXTERNAL STANDARD	0.202	14:50
BLANK TEST	0.000	14:51

Average = 0.2018  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
DATAMASTER dmt: 100380

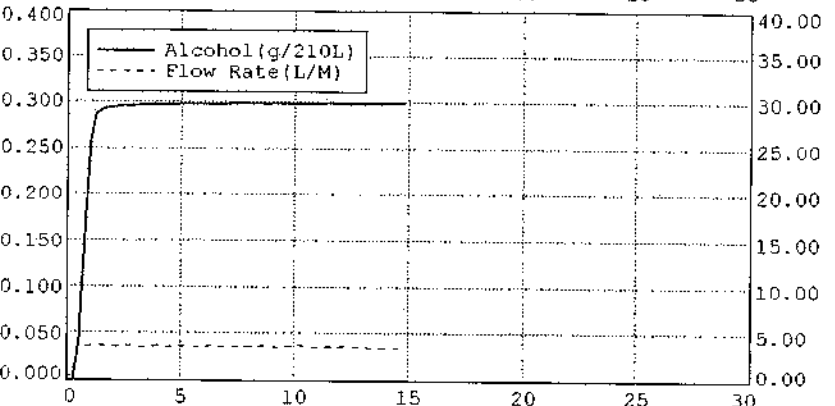
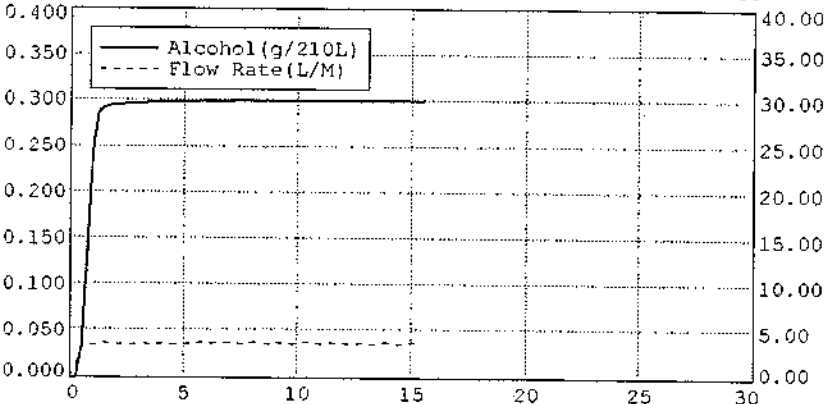
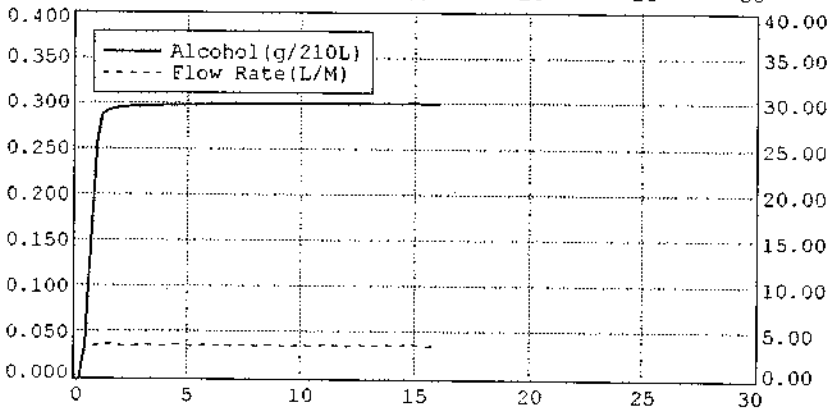
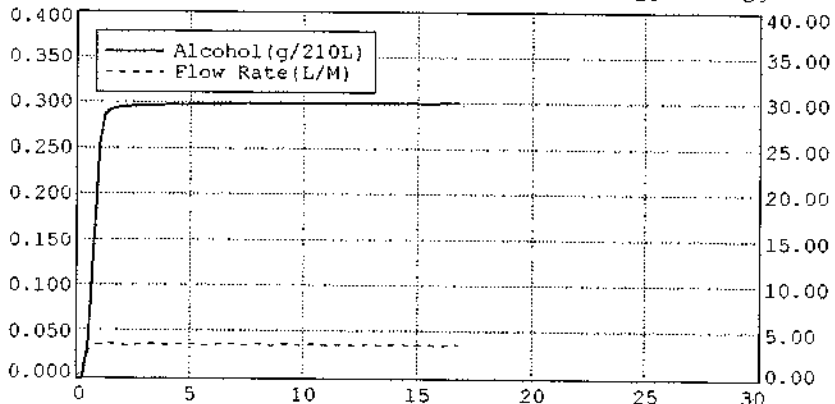
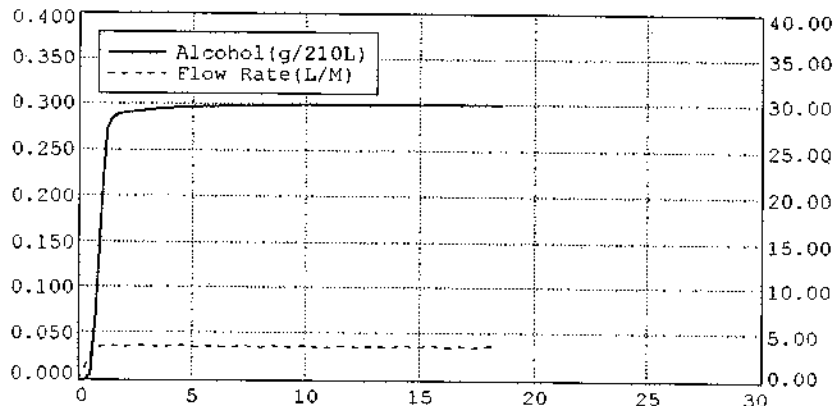
Date: 09/28/2016  
Time: 14:52:29

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
LOT #: GUTH 15170  
EXPIRATION: 07/20/2017

BLANK TEST	0.000	14:54
INTERNAL STANDARD	VERIFIED	14:54
EXTERNAL STANDARD	0.301	14:55
BLANK TEST	0.000	14:55
EXTERNAL STANDARD	0.301	14:56
BLANK TEST	0.000	14:57
EXTERNAL STANDARD	0.300	14:57
BLANK TEST	0.000	14:58
EXTERNAL STANDARD	0.300	14:58
BLANK TEST	0.000	14:59
EXTERNAL STANDARD	0.300	15:00
BLANK TEST	0.000	15:01

Average = 0.3004  
Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAWASTER dnt: 100380

Date: 09/29/2016  
Time: 09:48:34

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

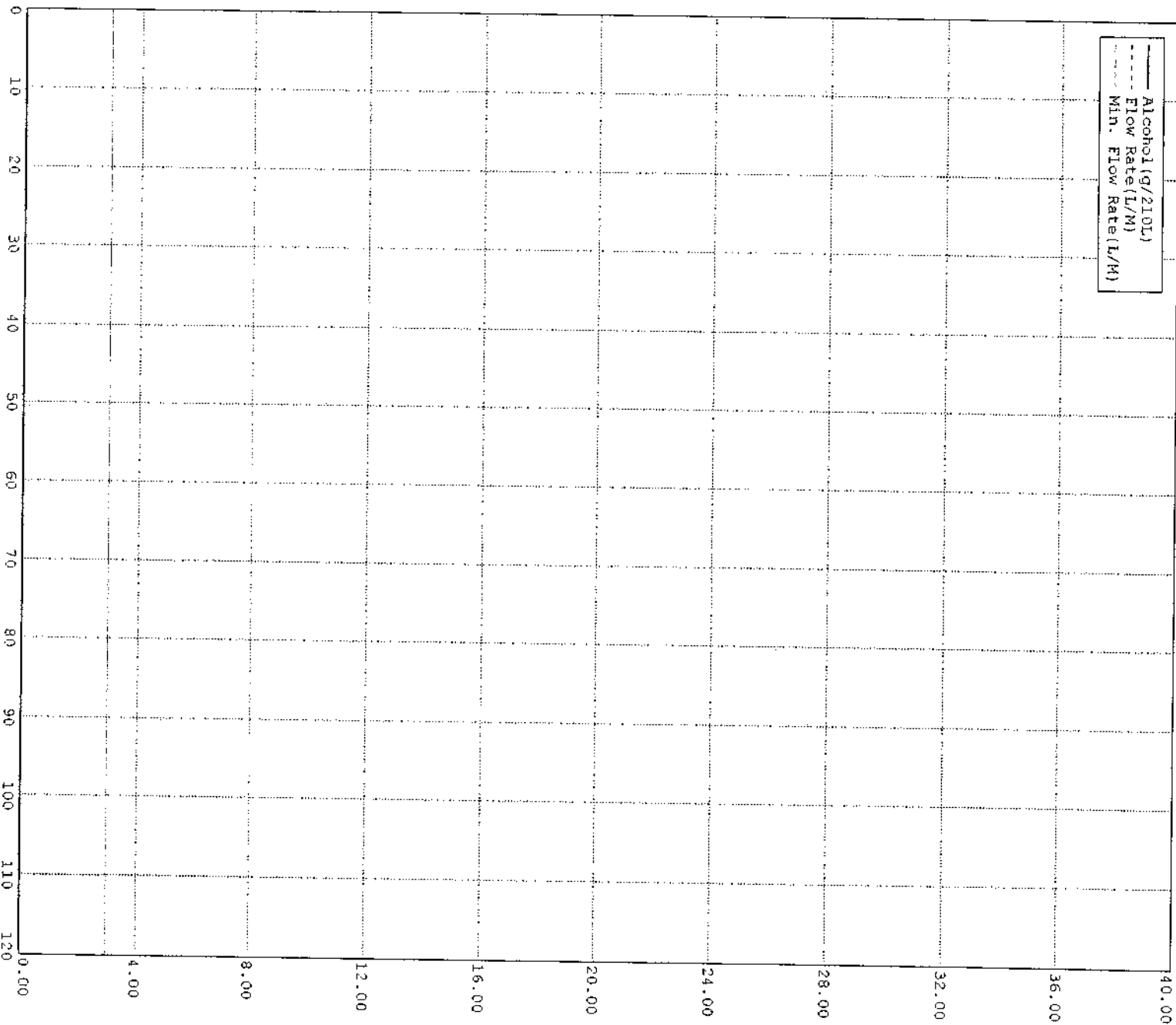
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.30: 0.081  
LOF #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	09:49
BLANK TEST	0.000	09:49
INTERNAL STANDARD	VERIFIED	09:49
EXTERNAL STANDARD	0.081	09:50
BLANK TEST	0.000	09:51
SUBJECT SAMPLE	INCOMPLETE	09:53

*BBB*



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100380

Date: 09/29/2016  
Time: 10:16:38

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 30.30: 0.081  
LOF #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:21
BLANK TEST	0.000	10:21
INTERNAL STANDARD	VERIFIED	10:21
EXTERNAL STANDARD	0.082	10:21
BLANK TEST	0.000	10:22
SUBJECT SAMPLE	INVALID	10:23

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100380

Date: 09/29/2016  
Time: 12:44:02

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 30.32: 0.081  
LOT #: AG608504  
EXPIRATION: 03/25/2018

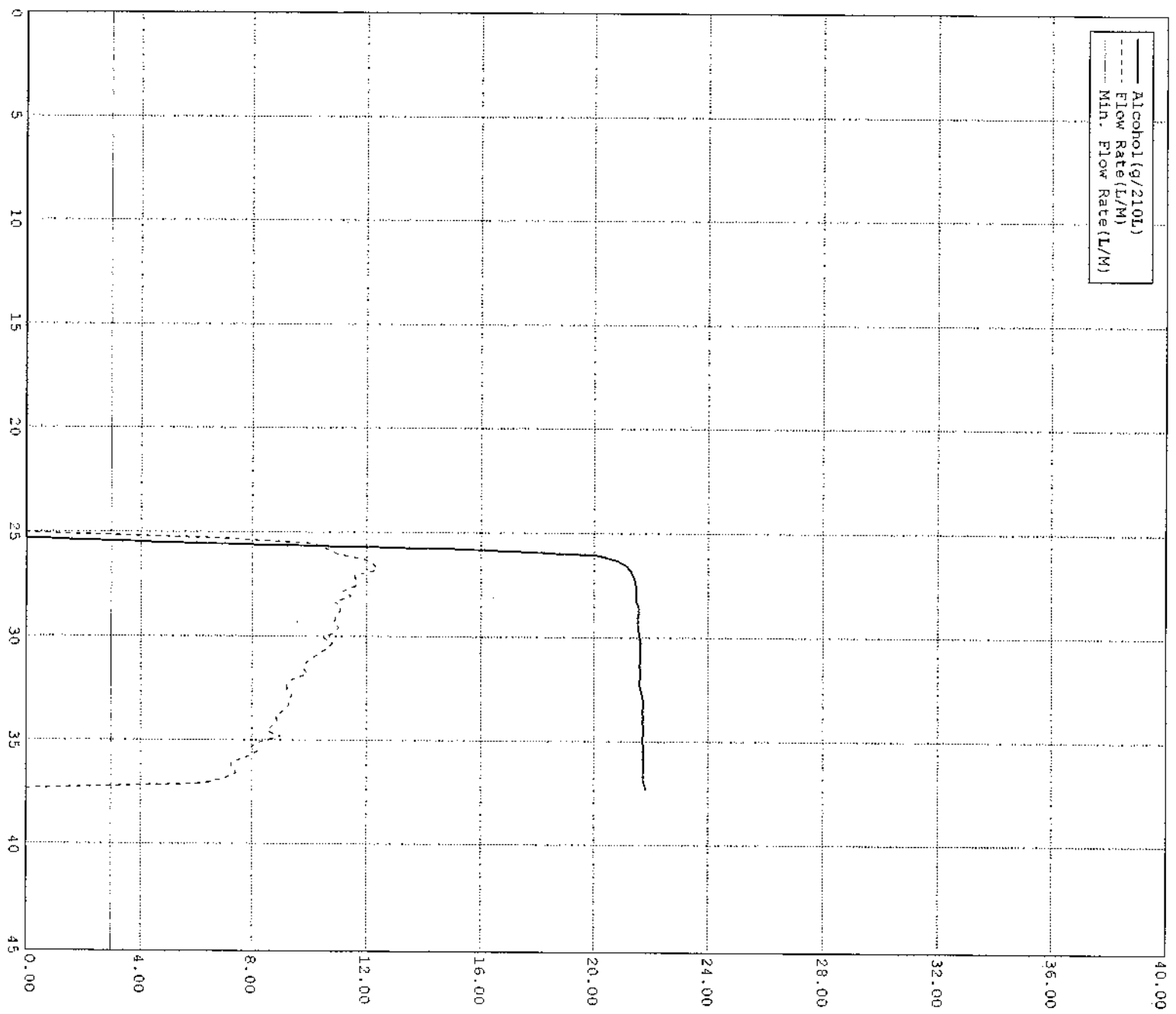
DIAGNOSTIC CHECK	PASSED	12:45
BLANK TEST	0.000	12:45
INTERNAL STANDARD	VERIFIED	12:45
Xq = 0.085 (0.51%)		
EXTERNAL STANDARD	0.082	12:45
X[1] = 0.0816 (0.0007) (-0.0001)		
BLANK TEST	0.000	12:46
SUBJECT SAMPLE	XXX	12:47
X[1] = 0.1097 (-0.0140) (-0.0012)		

Interference Detected

Filter 2 Avg: 0.0002  
Filter 3 Avg: -0.0002

BWB 9/30/16  
9/29/16  
BWB 9/29/16

BWB



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100380

Date: 09/29/2016  
Time: 12:51:54

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

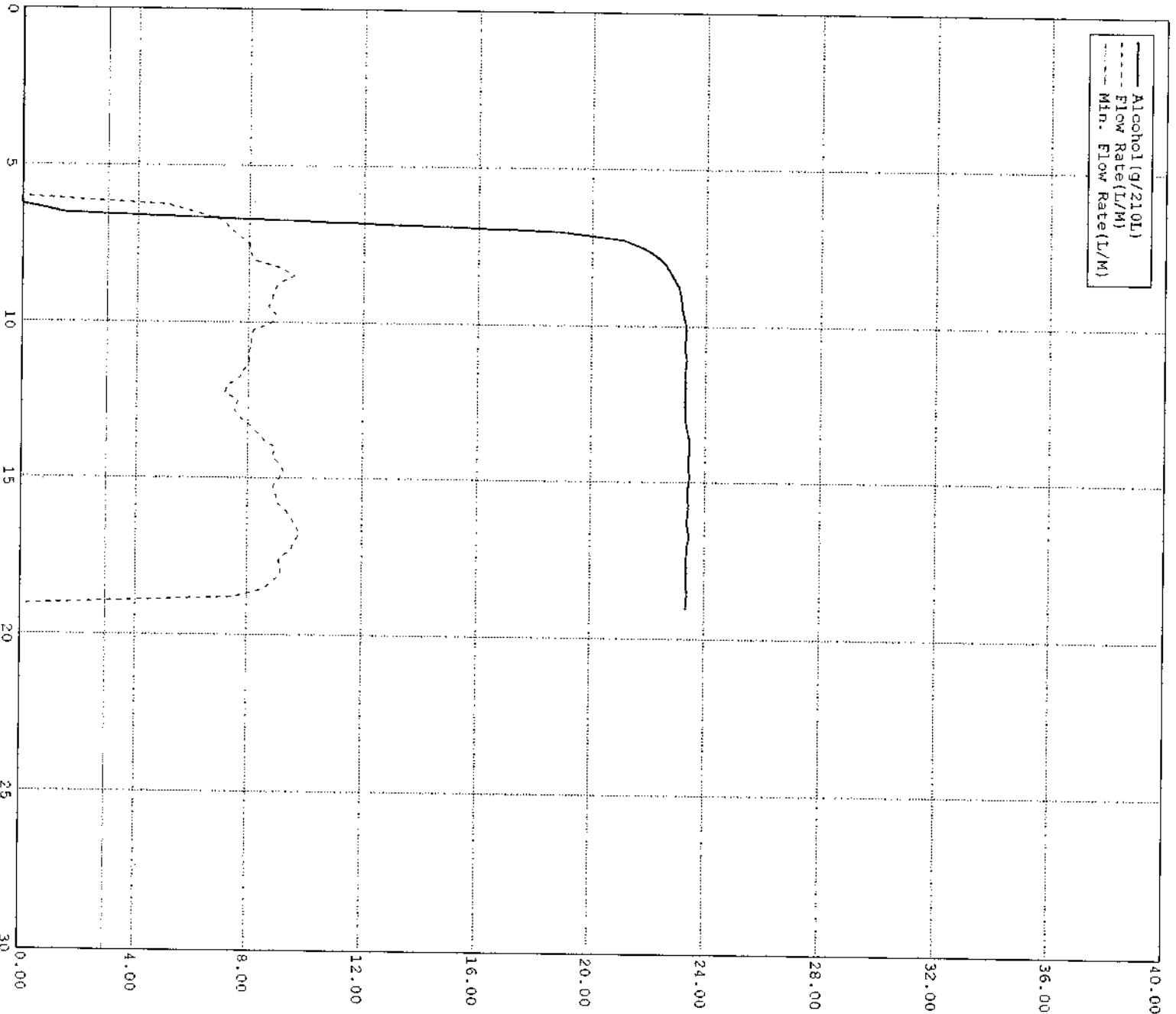
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.32: 0.081  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	12:54
BLANK TEST	0.000	12:54
INTERNAL STANDARD	VERIFIED	12:54
Xq = 0.085 (0.62%)		
EXTERNAL STANDARD	0.082	12:55
X[1] = 0.0821 (0.0000)	(-0.0007)	
BLANK TEST	0.000	12:55
SUBJECT SAMPLE	XXX	12:56
X[1] = 0.1174 (-0.0284)	(-0.0025)	

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100380

Date: 09/29/2016  
Time: 13:00:09

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

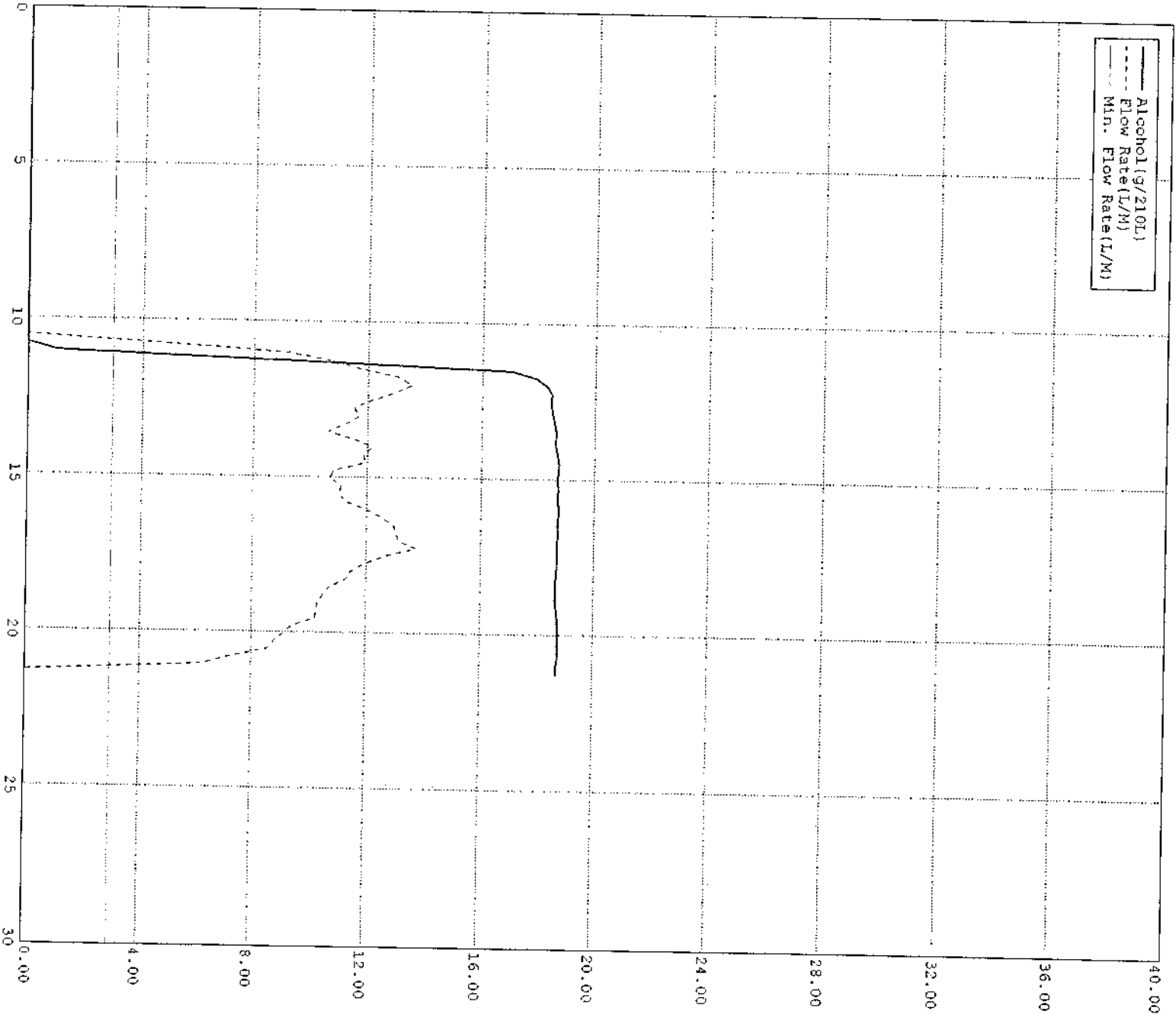
OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.32: 0.081  
LOF #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:01
BLANK TEST	0.000	13:01
INTERNAL STANDARD	VERIFIED	13:01
Xg = 0.085 (0.21%)		
EXTERNAL STANDARD	0.081	13:01
X[1] = 0.0810 (0.0000) (-0.0001)		
BLANK TEST	0.000	13:02
SUBJECT SAMPLE (Vol=1.93L)	0.094	13:02
X[1] = 0.0946 (-0.0010) (-0.0019)		
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.081	13:04
X[1] = 0.0812 (0.0017) (0.0002)		
BLANK TEST	0.000	13:05

BBMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100380

Date: 09/29/2016  
Time: 10:45:11

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARRETT  
OPERATOR'S #: 7038

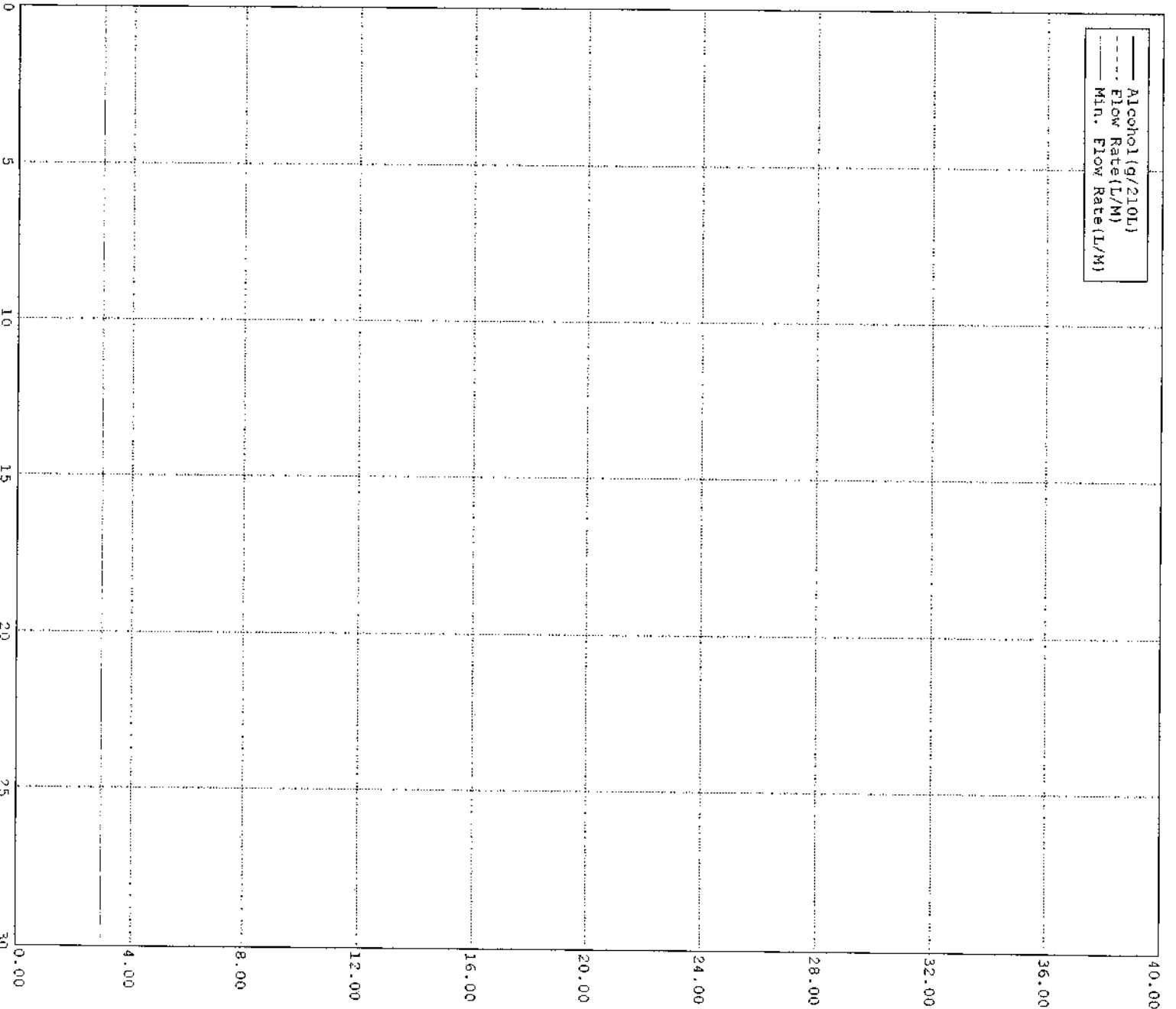
DEPT/AGENCY:  
RFI  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.30: 0.081  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK  
BLANK TEST PASSED 10:47  
INTERNAL STANDARD 0.000 10:47  
EXTERNAL STANDARD VERIFIED 10:47  
BLANK TEST 0.081 10:47  
0.000 10:48

RFI DETECTED

BMB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100380

Date: 09/29/2016  
Time: 10:26:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
BRANDI BARNETT  
OPERATOR'S #: 7038

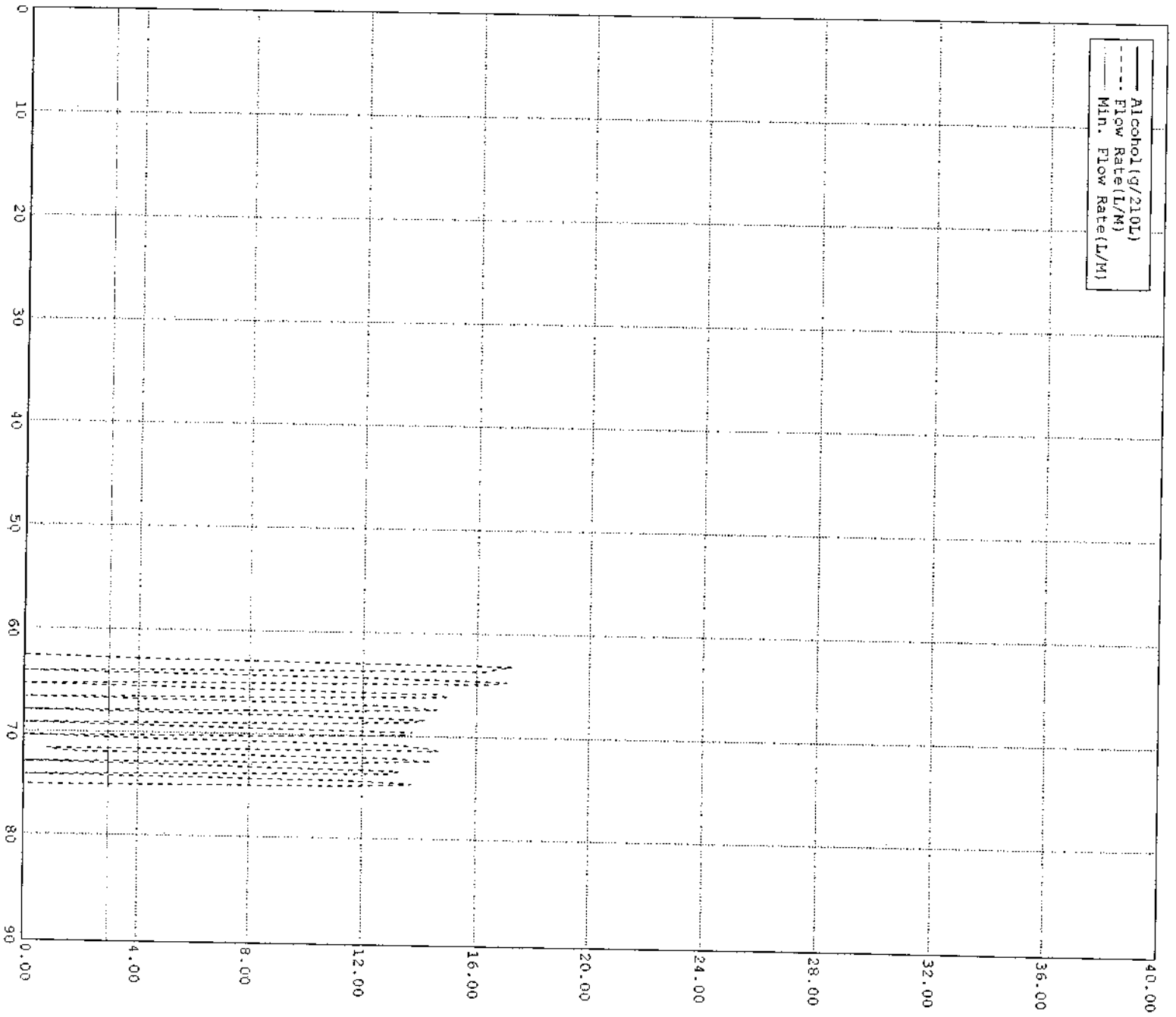
DEPT/AGENCY:  
MAXIMUM ATTEMPTS EXCEEDED  
CASE/REPORT: XXXX  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 30.30: 0.081  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	10:29
BLANK TEST	0.000	10:29
INTERNAL STANDARD	VERIFIED	10:29
EXTERNAL STANDARD	0.082	10:30
BLANK TEST	0.000	10:30
SUBJECT SAMPLE	XXX	10:32

Maximum Attempts Exceeded

RMB



SUBJECT TEST

Alaska Department of Public Safety  
DATA/MASTER dmt: 100380

Date: 09/29/2016  
Time: 13:19:41

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 30.31: 0.081  
LOT #: AG608504  
EXPIRATION: 03/25/2018

DIAGNOSTIC CHECK	PASSED	13:20
BLANK TEST	0.000	13:20
INTERNAL STANDARD	VERIFIED	13:20
EXTERNAL STANDARD	0.082	13:21
BLANK TEST	0.000	13:22
SUBJECT SAMPLE (VOL=2.27L)	0.000	13:23
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.082	13:24
BLANK TEST	0.000	13:25

BMB

