

# 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 100381 Analyst CTF Start Date 10/13/15

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 2/5/17
- 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 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
- 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 10/13/15

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
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Date: 10/13/2015  
Time: 10:45:44

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.9°C                    PASSED  
(44.0°C - 52.0°C)  
Breath Tube     = 48.1°C                   PASSED  
(38.0°C - 50.0°C)

SETTINGS

Lamp Voltage    = 1.69 V                   PASSED  
(1.02 V - 2.38 V)  
Cooler Voltage = 1.70 V                   PASSED  
(0.97 V - 2.27 V)  
Bias Voltage    = 79 V                    PASSED  
(47 V - 111 V)  
Chopper Freq   = 541 Hz                   PASSED  
(475 Hz - 575 Hz)  
Barometer      = 29.4 in

PUMP INFO

Flow Rate = 4.662 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                        PASSED

Xq = 0.091 0.19% (0.00% - 4.00%)

Technician Screen

-----  
DATAMASTER dmt: 100381  
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Date: 10/13/2015  
Time: 11:50 AM

Temperatures (°C)

Sample Cell: 49.1°C  
Breath Tube: 47.8°C

Current Barometer 29.4 in  
Volume (Ltr) 1.51

Settings

Lamp: 1.70 V  
Bias: 79 V  
Cooler: 1.70 V  
Chopper: 541 Hz

Voltages (V)

Flow: 1.08 V  
Detector: 0.041 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100381  
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Date: 08/12/2015  
Time: 10:43:14

OPERATOR NAME:  
COLLEEN S OBRYANT  
CERTIFICATE #: 6237

Ca	=	0.1000		
CAL	=	0.951119	0.800 <=	CAL < 1.200
b1	=	0.0003	0.0000 <=	b1 < 0.0040
b2	=	0.0036	0.0010 <=	b2 < 0.0100
b3	=	0.0003	0.0000 <=	b3 < 0.0040
Xq	=	0.0913	0.0500 <=	Xq < 0.2000
a21	=	1.088949	1.050 <=	a21 < 1.300
a31	=	0.418374	0.300 <=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

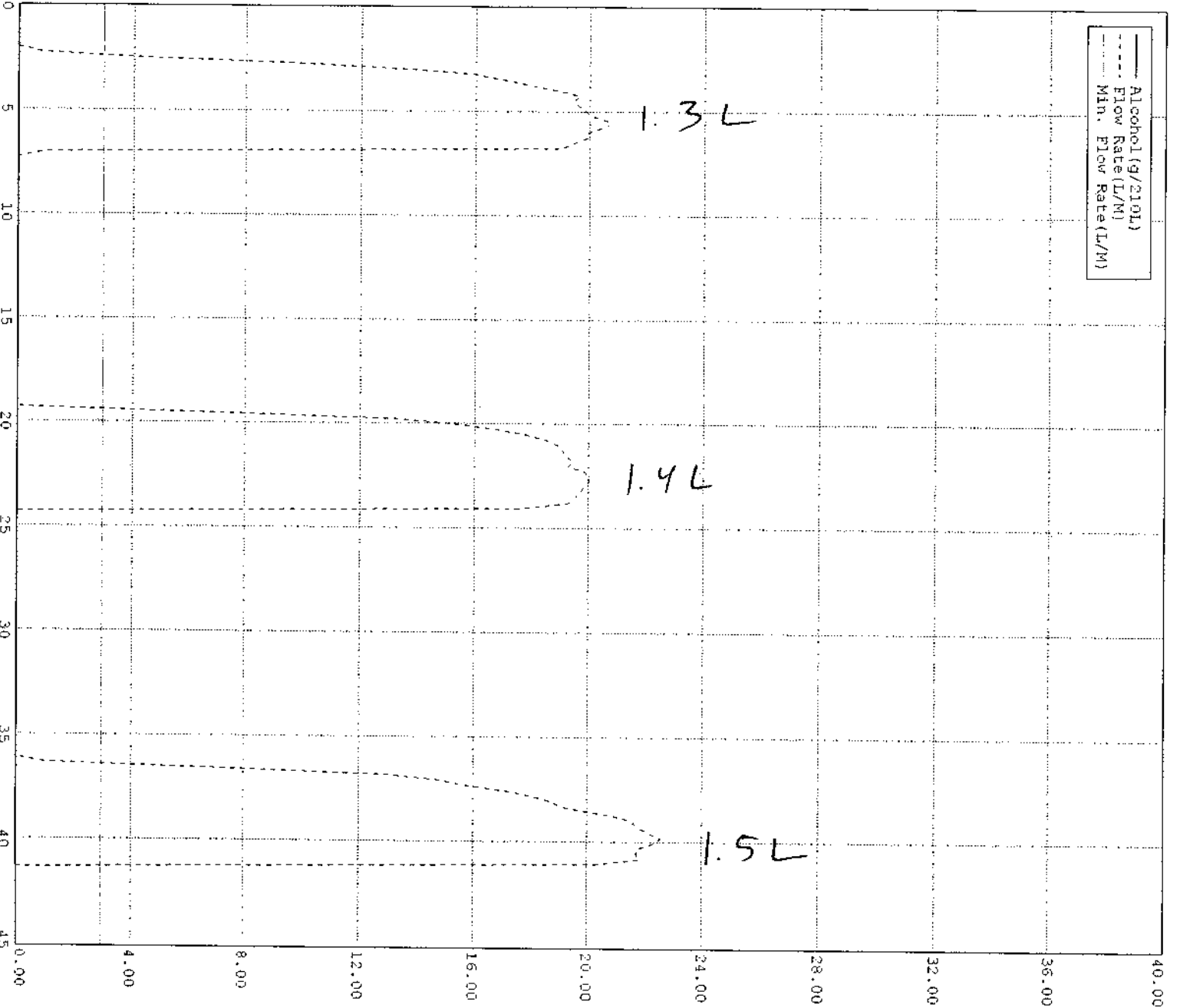
Date: 10/13/2015  
Time: 11:53:59

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX  
OPERATOR NAME:  
MINIMUM VOLUME  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.40: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	11:59
BLANK TEST	0.000	11:59
INTERNAL STANDARD	VERIFIED	11:59
EXTERNAL STANDARD	0.076	11:59
BLANK TEST	0.000	12:00
SUBJECT SAMPLE (Vol=1.51L)	0.000	12:01
BLANK TEST	0.000	12:02
EXTERNAL STANDARD	0.076	12:02
BLANK TEST	0.000	12:03



LINEARITY CHECK

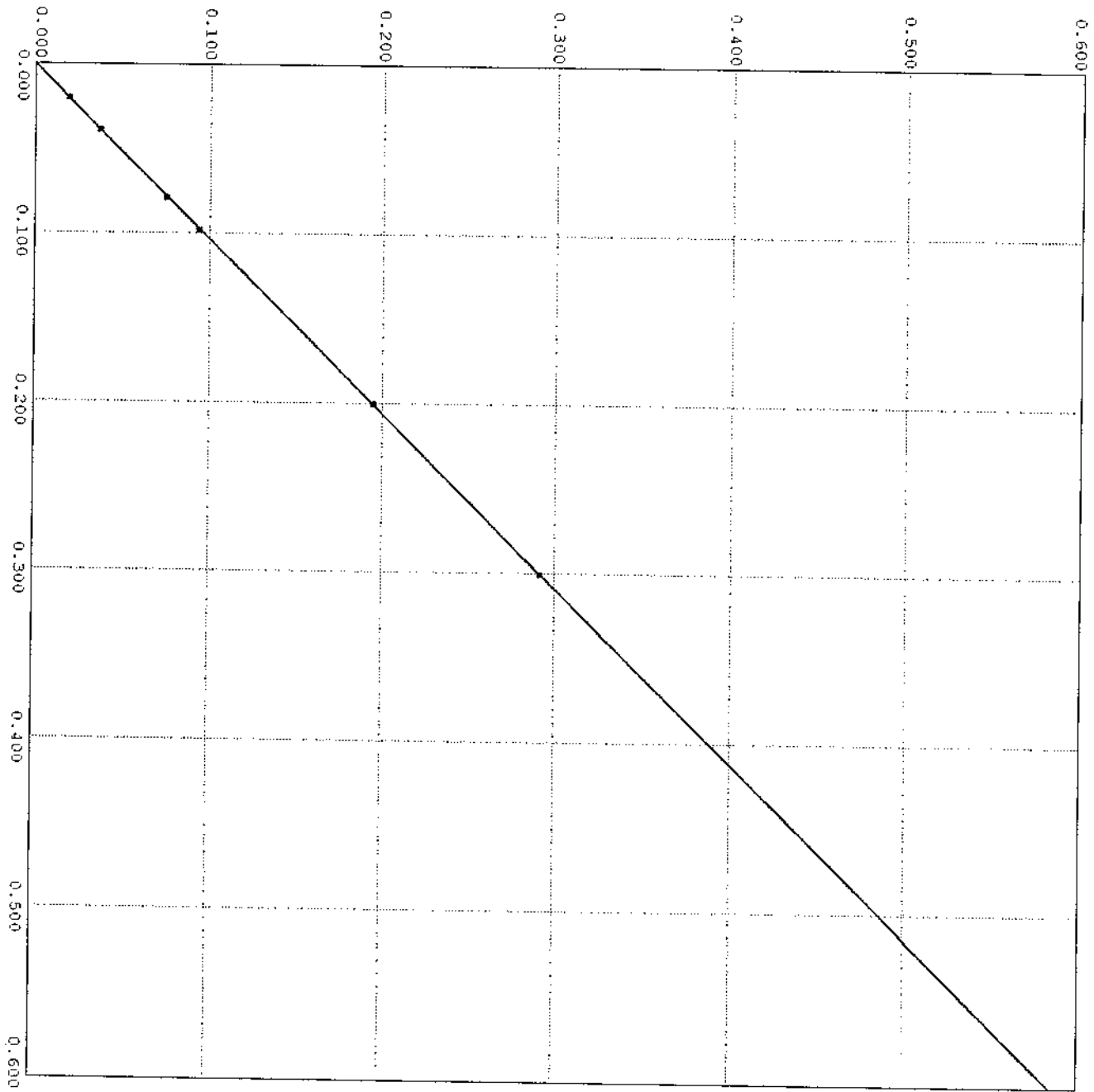
Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 10/13/2015  
Time: 12:18:31

SUPERVISOR NAME:  
CHARLES FOSTER  
OPERATOR'S #: 7734

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0382	0.0004
0.079	0.0760	0.0000
0.098	0.0948	0.0004
0.200	0.1956	0.0005
0.300	0.2922	0.0004

SLOPE = 0.974834  
R<sup>2</sup> = 0.999959



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

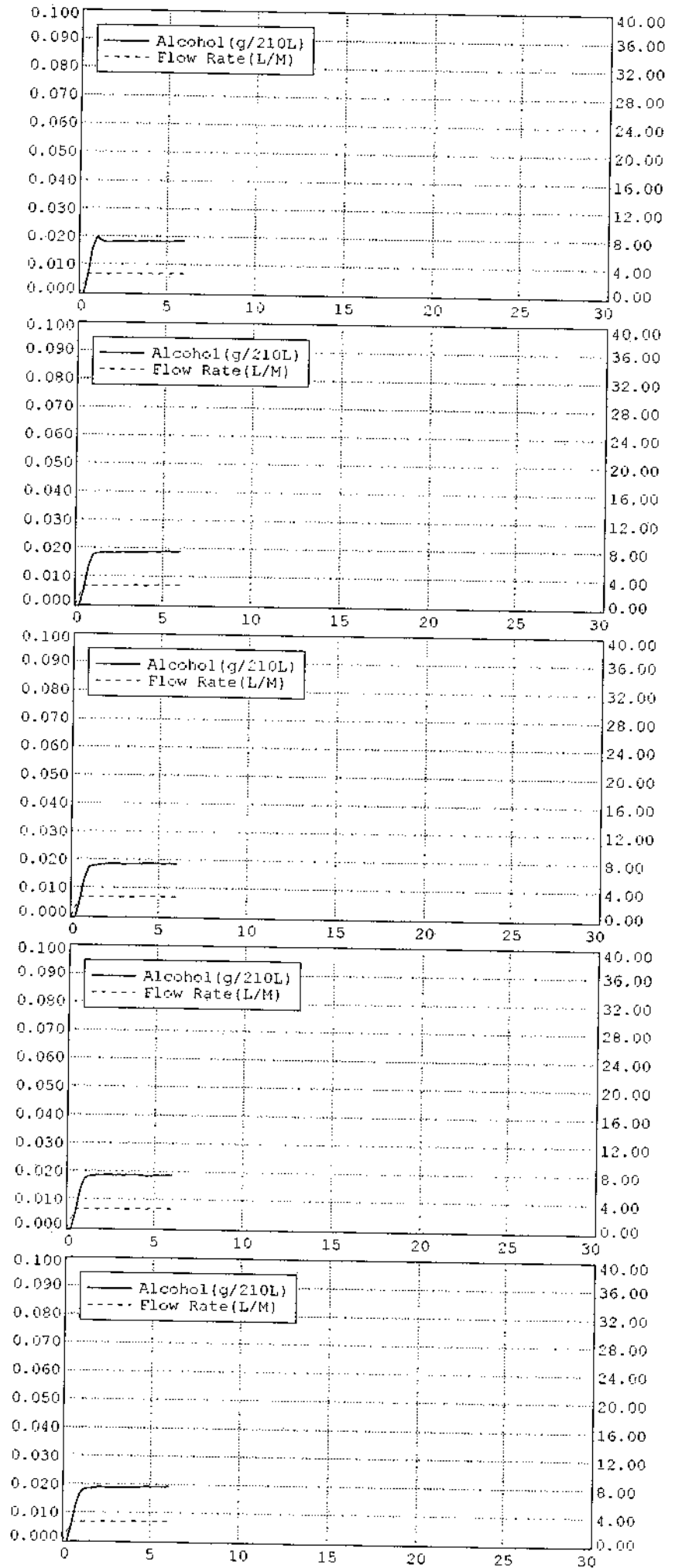
Date: 10/13/2015  
 Time: 12:18:33

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.39: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 991 psi

BLANK TEST	0.000	12:25
INTERNAL STANDARD	VERIFIED	12:25
EXTERNAL STANDARD	0.020	12:25
BLANK TEST	0.000	12:26
EXTERNAL STANDARD	0.020	12:27
BLANK TEST	0.000	12:27
EXTERNAL STANDARD	0.020	12:28
BLANK TEST	0.000	12:29
EXTERNAL STANDARD	0.020	12:29
BLANK TEST	0.000	12:30
EXTERNAL STANDARD	0.020	12:30
BLANK TEST	0.000	12:31

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

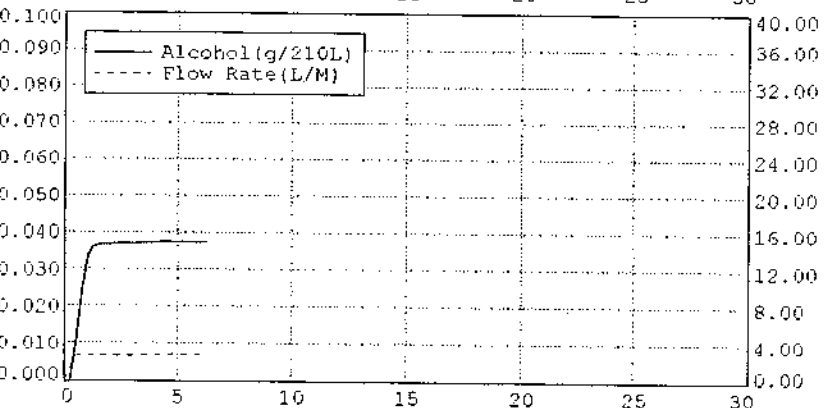
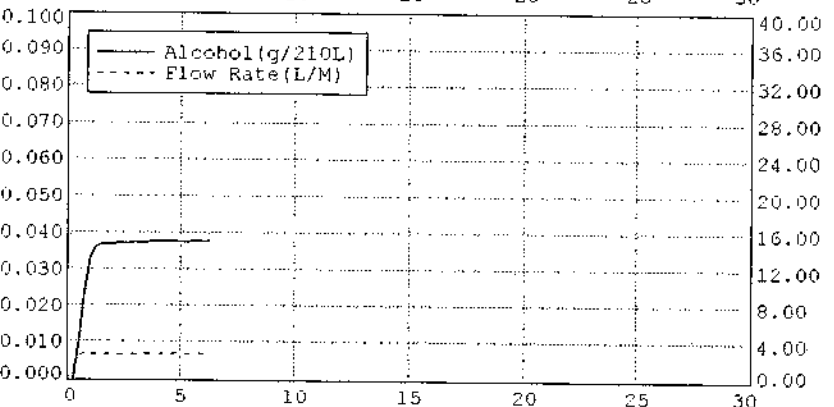
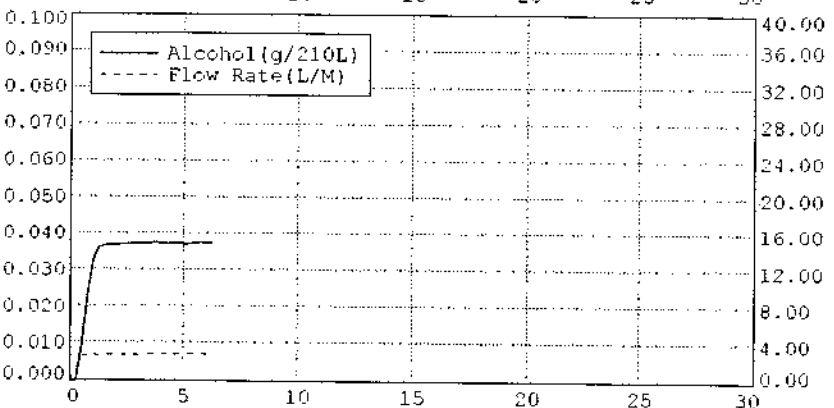
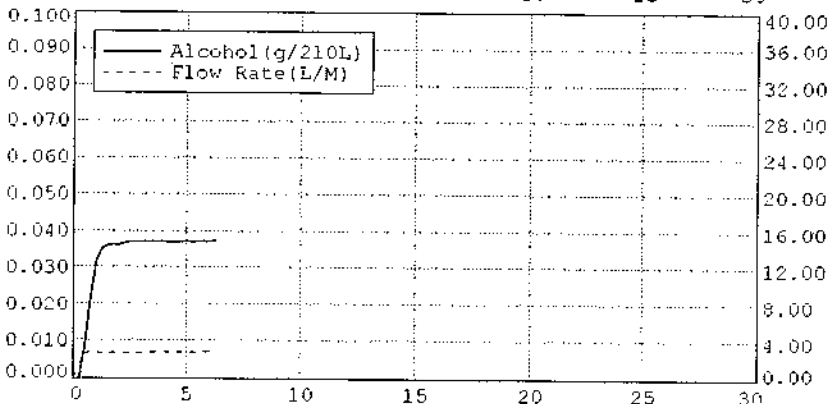
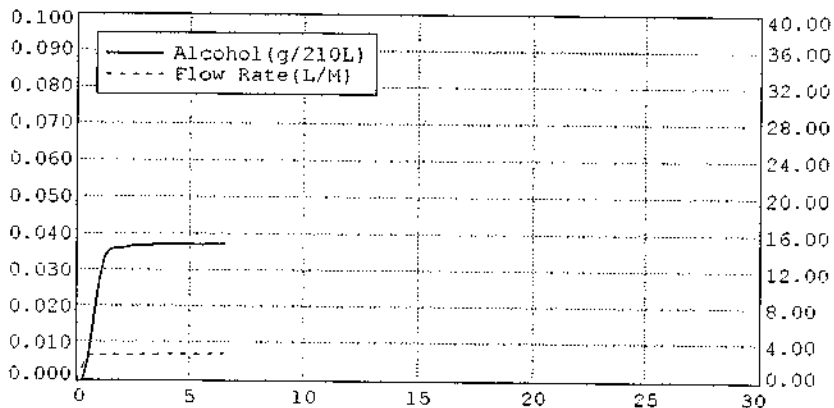
Date: 10/13/2015  
 Time: 12:31:43

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.39: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 1038 psi

BLANK TEST	0.000	12:32
INTERNAL STANDARD	VERIFIED	12:33
EXTERNAL STANDARD	0.038	12:33
BLANK TEST	0.000	12:34
EXTERNAL STANDARD	0.038	12:34
BLANK TEST	0.000	12:35
EXTERNAL STANDARD	0.038	12:35
BLANK TEST	0.000	12:36
EXTERNAL STANDARD	0.039	12:36
BLANK TEST	0.000	12:37
EXTERNAL STANDARD	0.038	12:37
BLANK TEST	0.000	12:38

Average = 0.0382  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

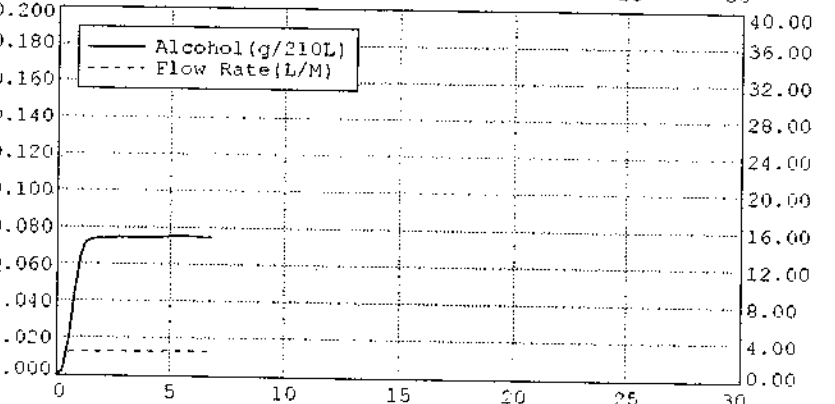
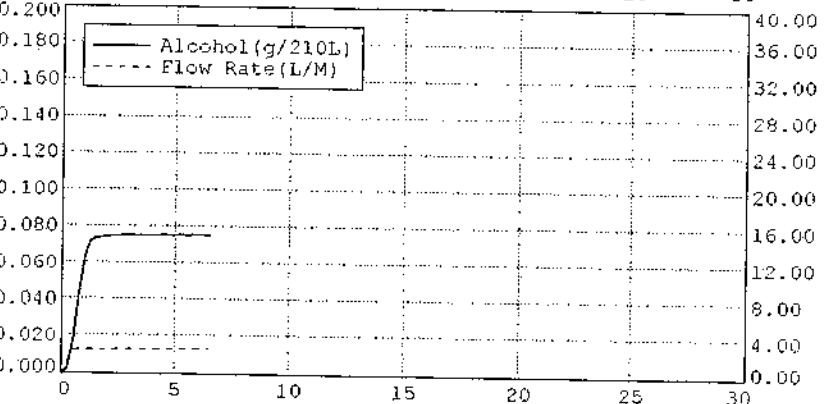
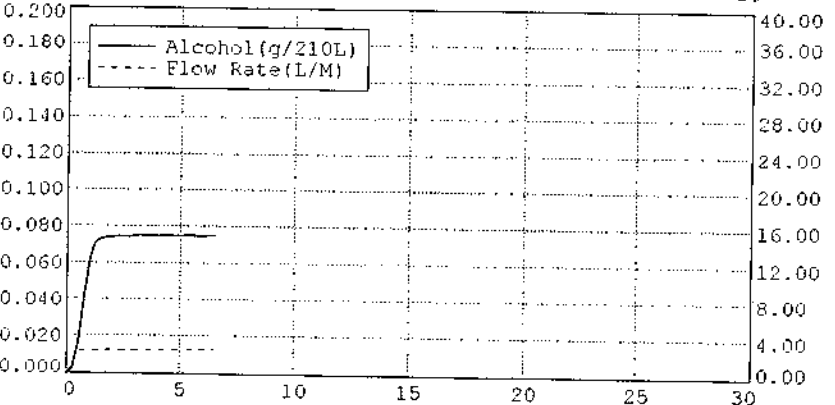
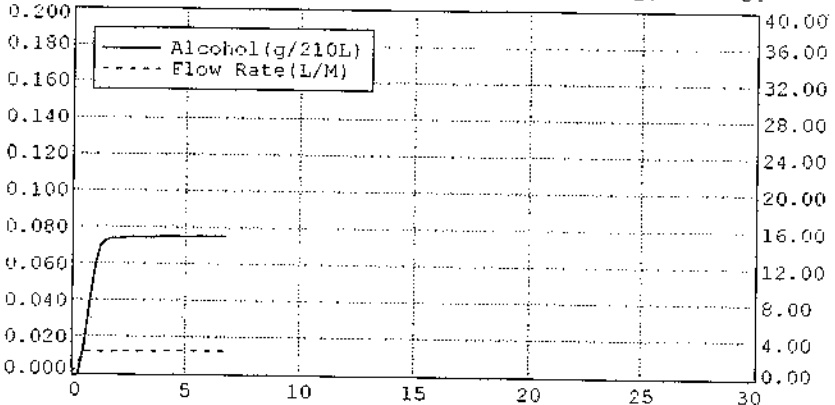
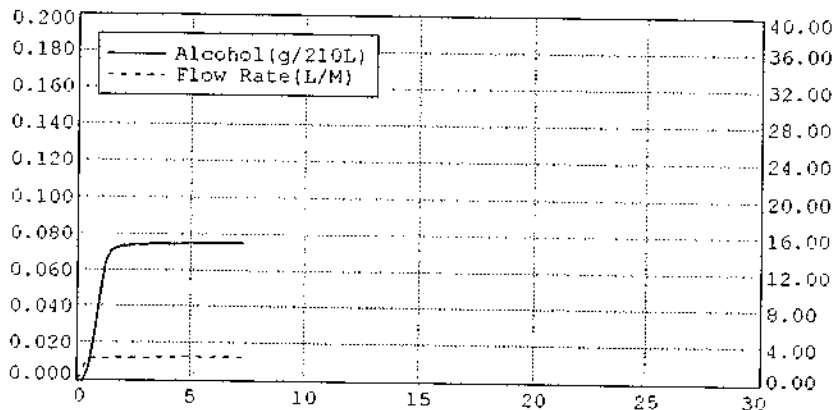
Date: 10/13/2015  
 Time: 12:39:22

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.39: 0.079  
 LOT #: 01315080A2  
 EXPIRATION: 02/05/2017  
 TANK PRESSURE: 421 psi

BLANK TEST	0.000	12:40
INTERNAL STANDARD	VERIFIED	12:40
EXTERNAL STANDARD	0.076	12:40
BLANK TEST	0.000	12:41
EXTERNAL STANDARD	0.076	12:42
BLANK TEST	0.000	12:43
EXTERNAL STANDARD	0.076	12:43
BLANK TEST	0.000	12:44
EXTERNAL STANDARD	0.076	12:44
BLANK TEST	0.000	12:45
EXTERNAL STANDARD	0.076	12:45
BLANK TEST	0.000	12:46

Average = 0.0760  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

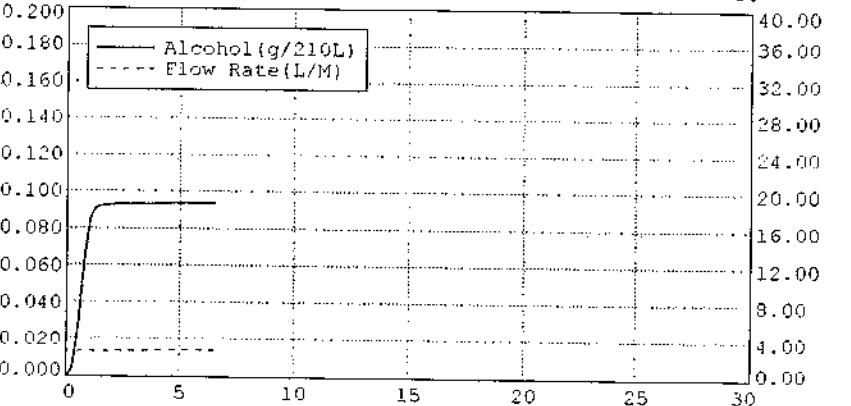
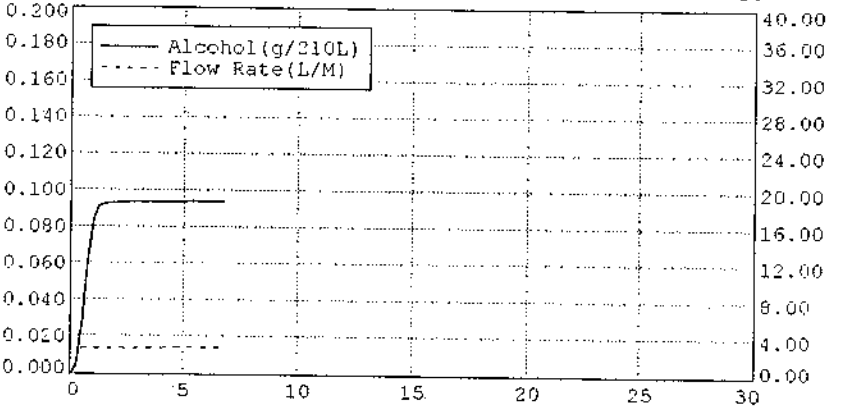
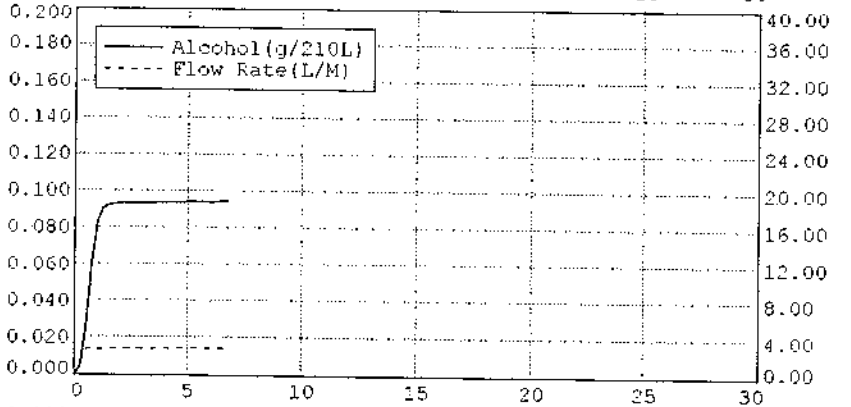
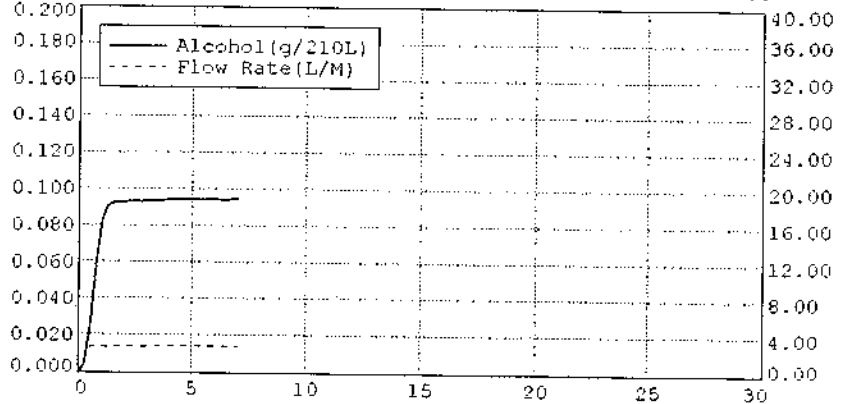
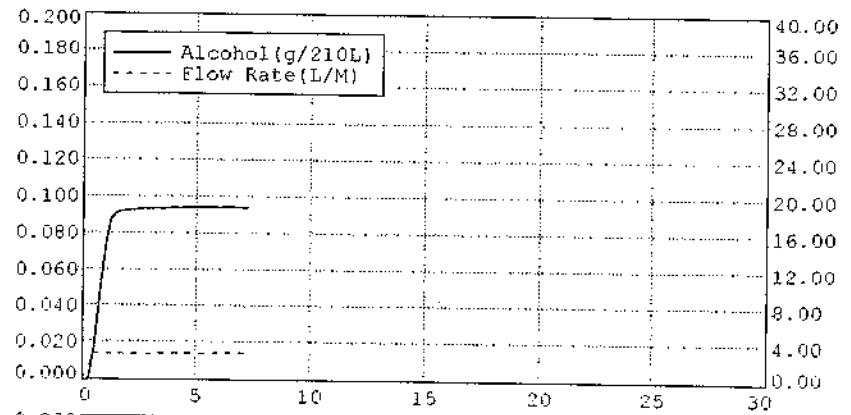
Date: 10/13/2015  
 Time: 12:49:05

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.40: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 1026 psi

BLANK TEST	0.000	12:50
INTERNAL STANDARD	VERIFIED	12:50
EXTERNAL STANDARD	0.095	12:50
BLANK TEST	0.000	12:51
EXTERNAL STANDARD	0.095	12:51
BLANK TEST	0.000	12:52
EXTERNAL STANDARD	0.095	12:52
BLANK TEST	0.000	12:53
EXTERNAL STANDARD	0.095	12:53
BLANK TEST	0.000	12:54
EXTERNAL STANDARD	0.094	12:55
BLANK TEST	0.000	12:55

Average = 0.0948  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

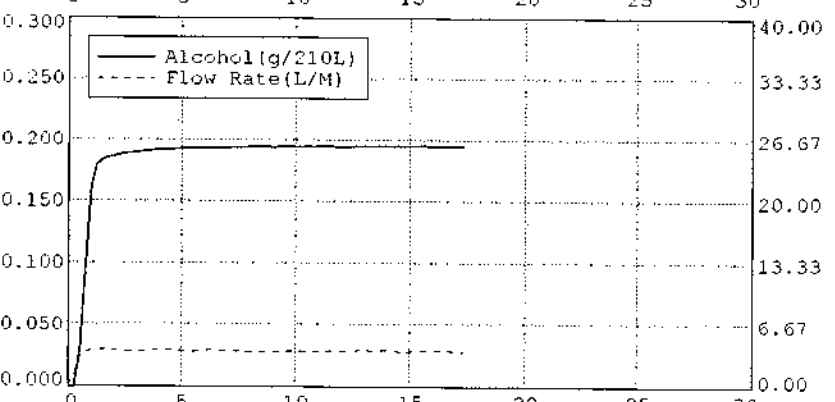
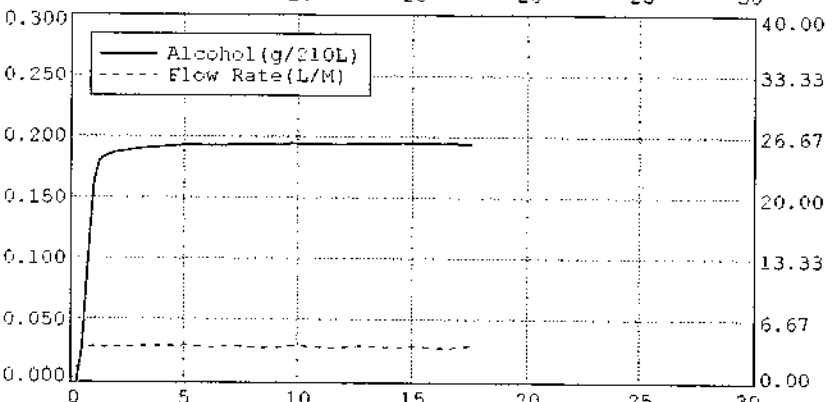
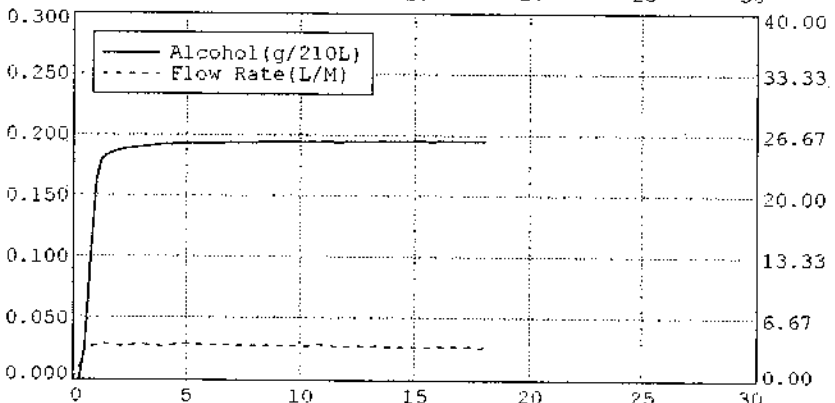
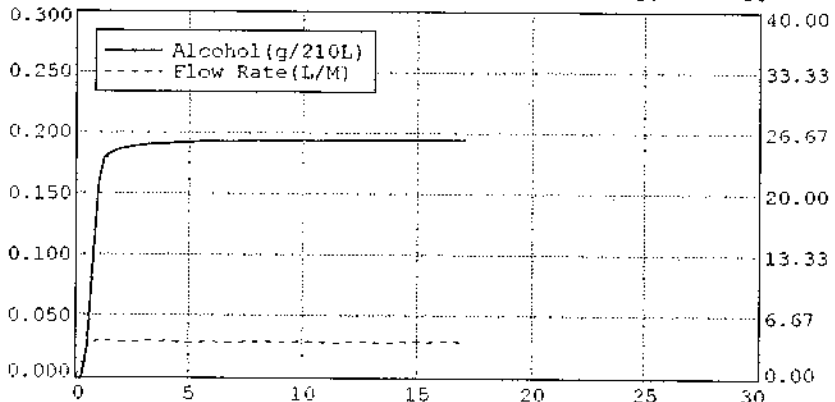
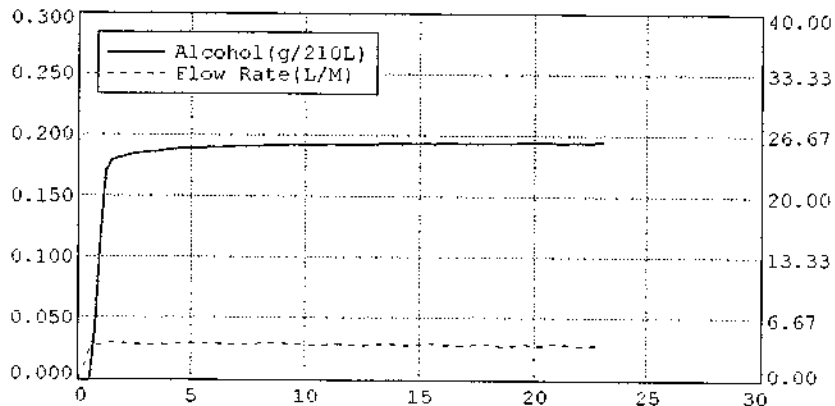
Date: 10/13/2015  
 Time: 12:58:28

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	12:59
INTERNAL STANDARD	VERIFIED	12:59
EXTERNAL STANDARD	0.195	13:00
BLANK TEST	0.000	13:01
EXTERNAL STANDARD	0.195	13:01
BLANK TEST	0.000	13:02
EXTERNAL STANDARD	0.196	13:02
BLANK TEST	0.000	13:03
EXTERNAL STANDARD	0.196	13:04
BLANK TEST	0.000	13:05
EXTERNAL STANDARD	0.196	13:05
BLANK TEST	0.000	13:06

Average = 0.1956  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

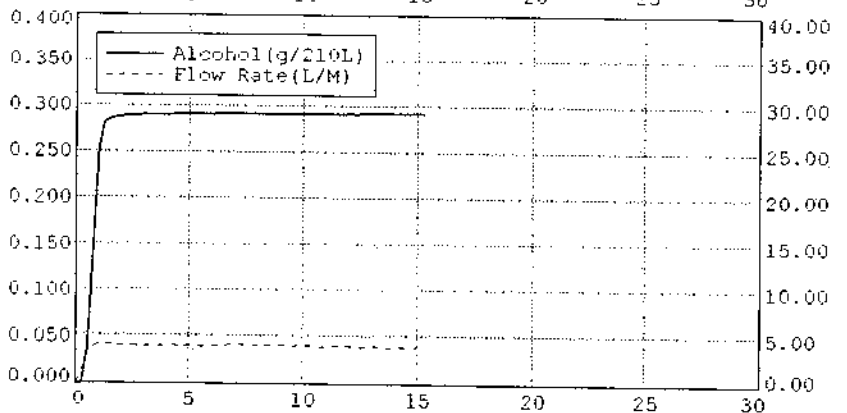
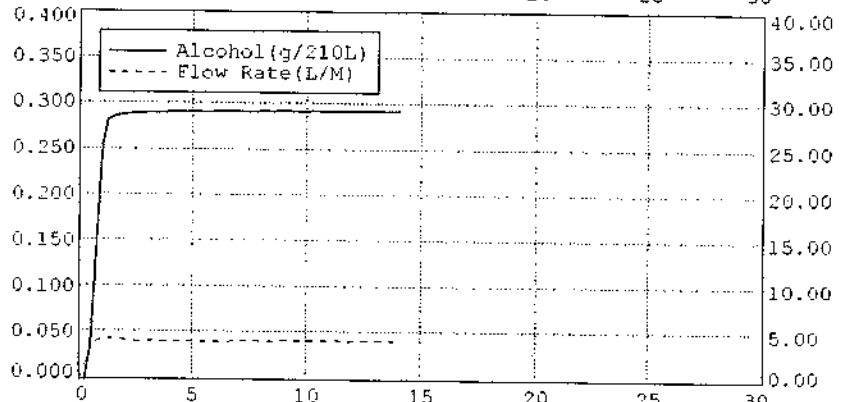
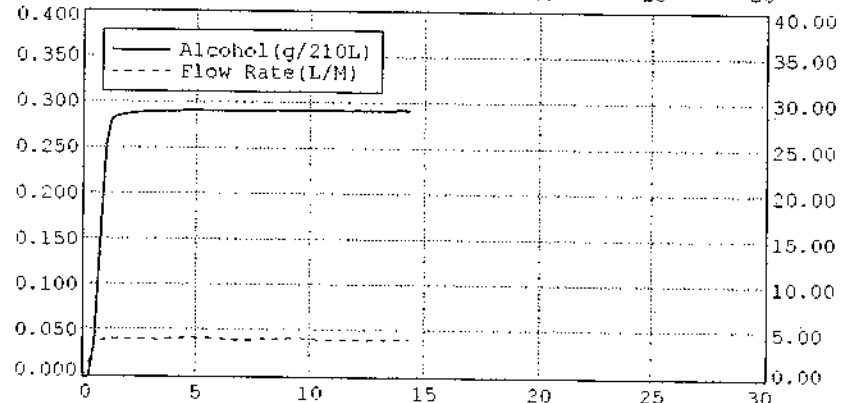
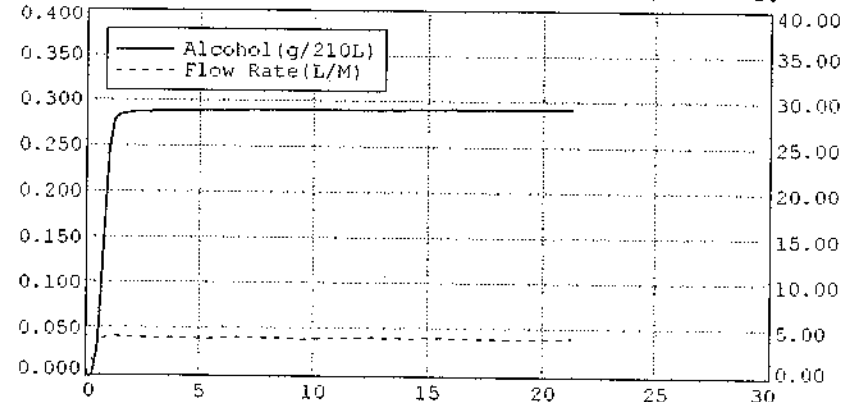
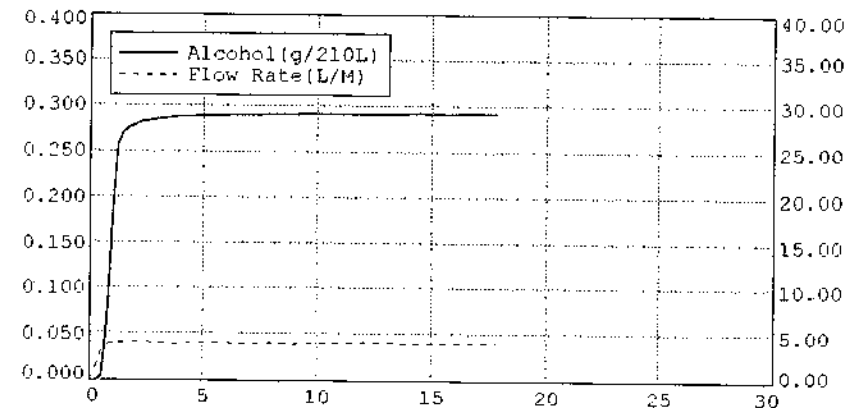
Alaska Department of Public Safety  
 DATAMASTER dmt: 100381

Date: 10/13/2015  
 Time: 13:21:07

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

BLANK TEST	0.000	13:22
INTERNAL STANDARD	VERIFIED	13:22
EXTERNAL STANDARD	0.292	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.292	13:24
BLANK TEST	0.000	13:25
EXTERNAL STANDARD	0.292	13:25
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.292	13:26
BLANK TEST	0.000	13:27
EXTERNAL STANDARD	0.293	13:27
BLANK TEST	0.000	13:28

Average = 0.2922  
 Std Dev = 0.0004



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 10/13/2015  
Time: 13:52:48

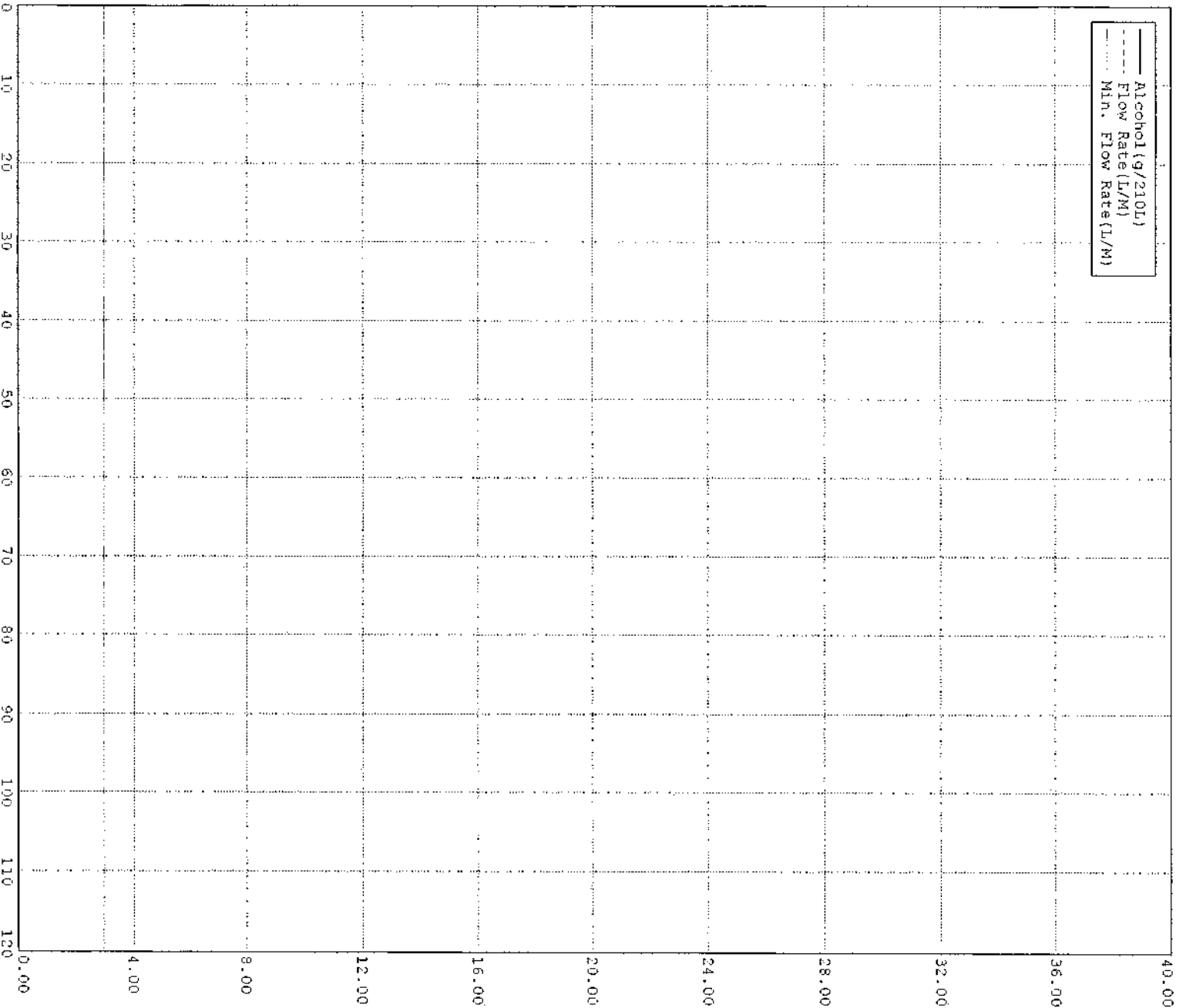
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INCOMPLETE XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.43: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	13:55
BLANK TEST	0.000	13:55
INTERNAL STANDARD	VERIFIED	13:55
EXTERNAL STANDARD	0.076	13:56
BLANK TEST	0.000	13:56
SUBJECT SAMPLE	INCOMPLETE	13:59



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 10/13/2015  
Time: 14:02:36

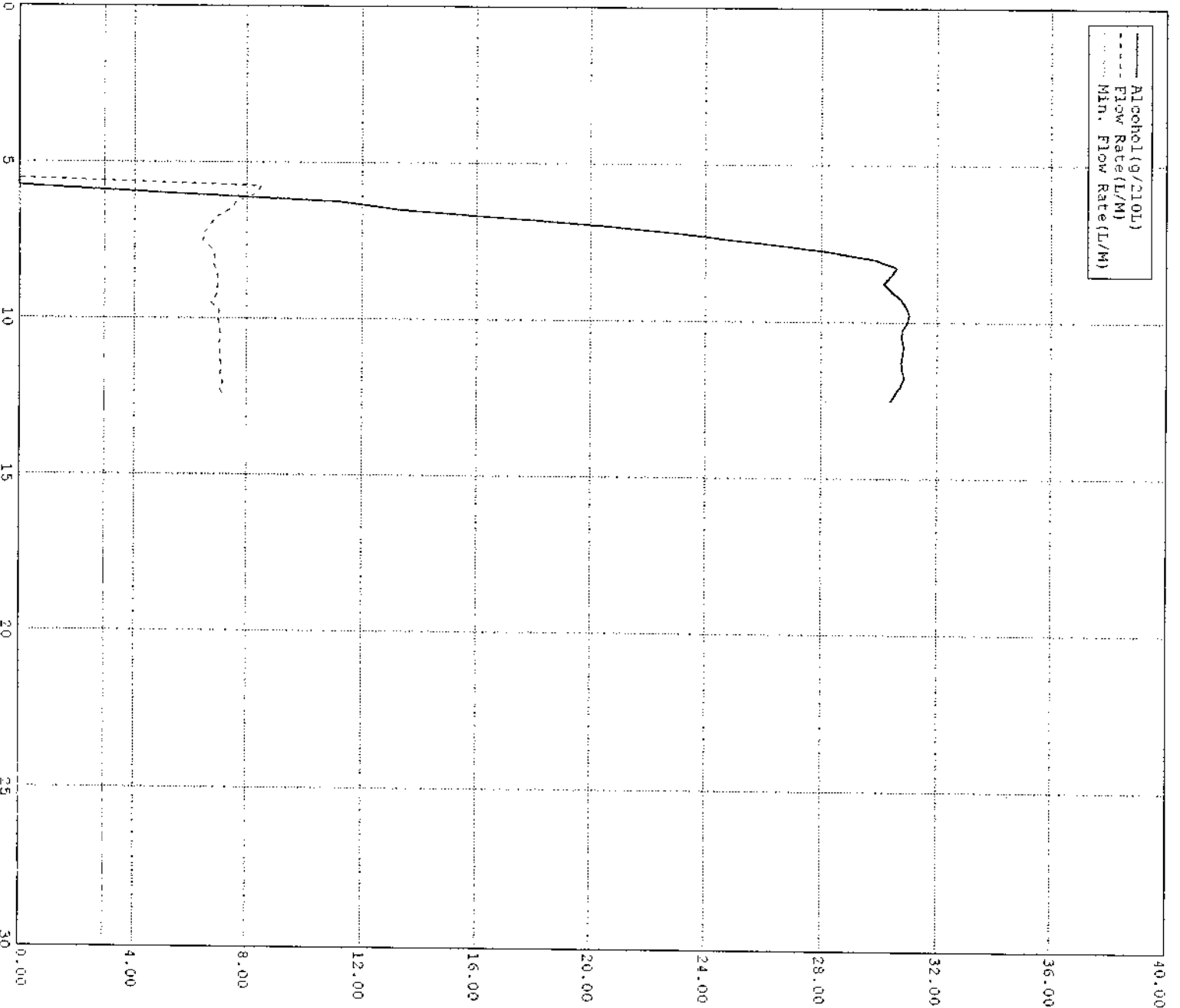
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
MOUTH ETOH  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AF 29.43: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:06
BLANK TEST	0.000	14:06
INTERNAL STANDARD	VERIFIED	14:06
EXTERNAL STANDARD	0.076	14:06
BLANK TEST	0.000	14:07
SUBJECT SAMPLE	INVALID	14:07



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 10/13/2015  
Time: 14:11:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INTERFERENCE ACETONE  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.44: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

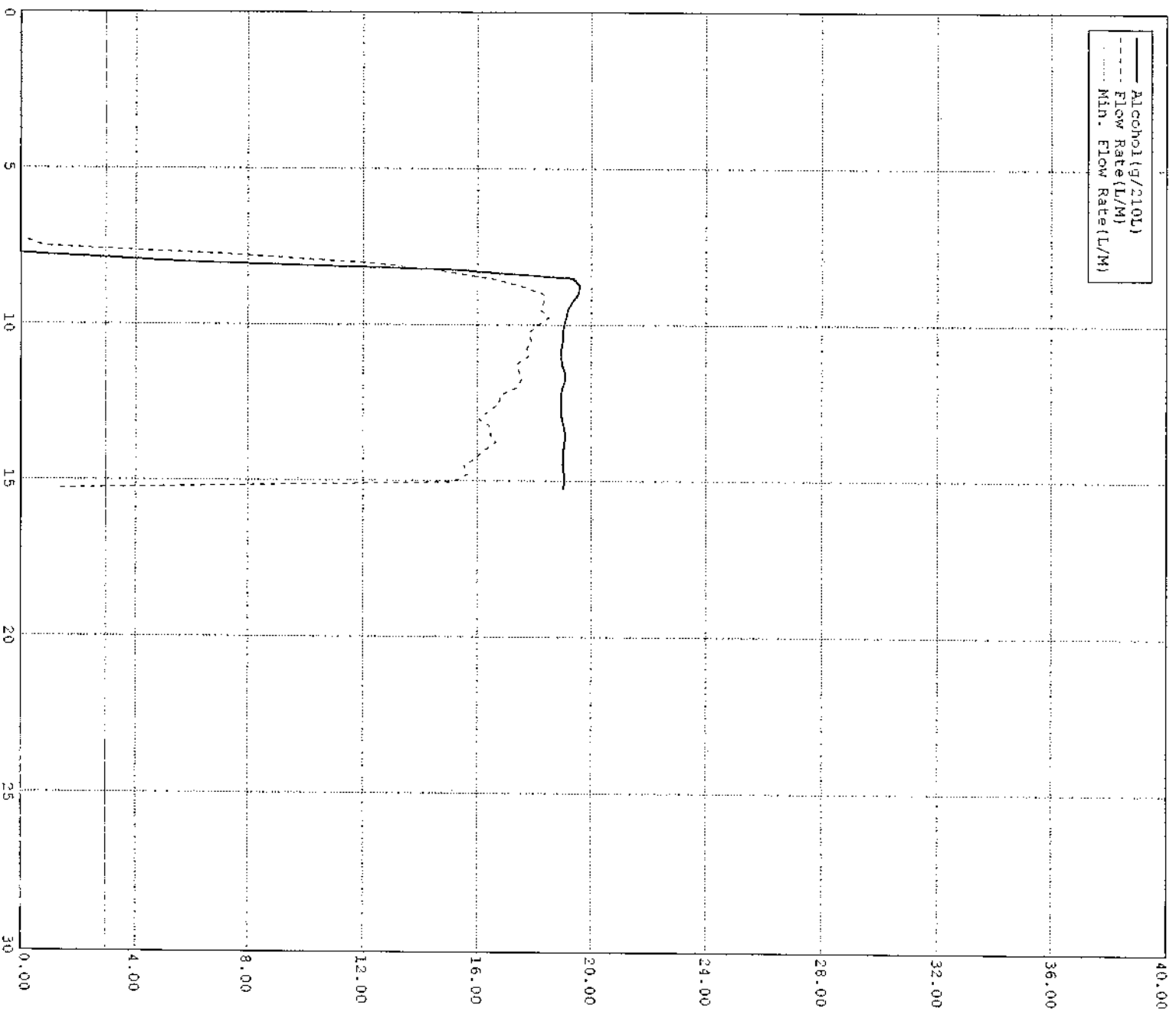
DIAGNOSTIC CHECK	PASSED	14:14
BLANK TEST	0.000	14:14
INTERNAL STANDARD	VERIFIED	14:14
Xq = 0.092 (0.388)	0.076	14:14
EXTERNAL STANDARD	X[1] = 0.0759 (-0.0008)	(0.0019)
BLANK TEST	0.000	14:15
SUBJECT SAMPLE	XXX	14:15
X[1] = 0.0954 (-0.0092)	(0.0017)	

Interference Detected

Filter 2 Average = -0.0005

Filter 3 Average = 0.0021

CRF 10/13/15



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmc: 100381

Date: 10/13/2015  
Time: 14:20:56

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

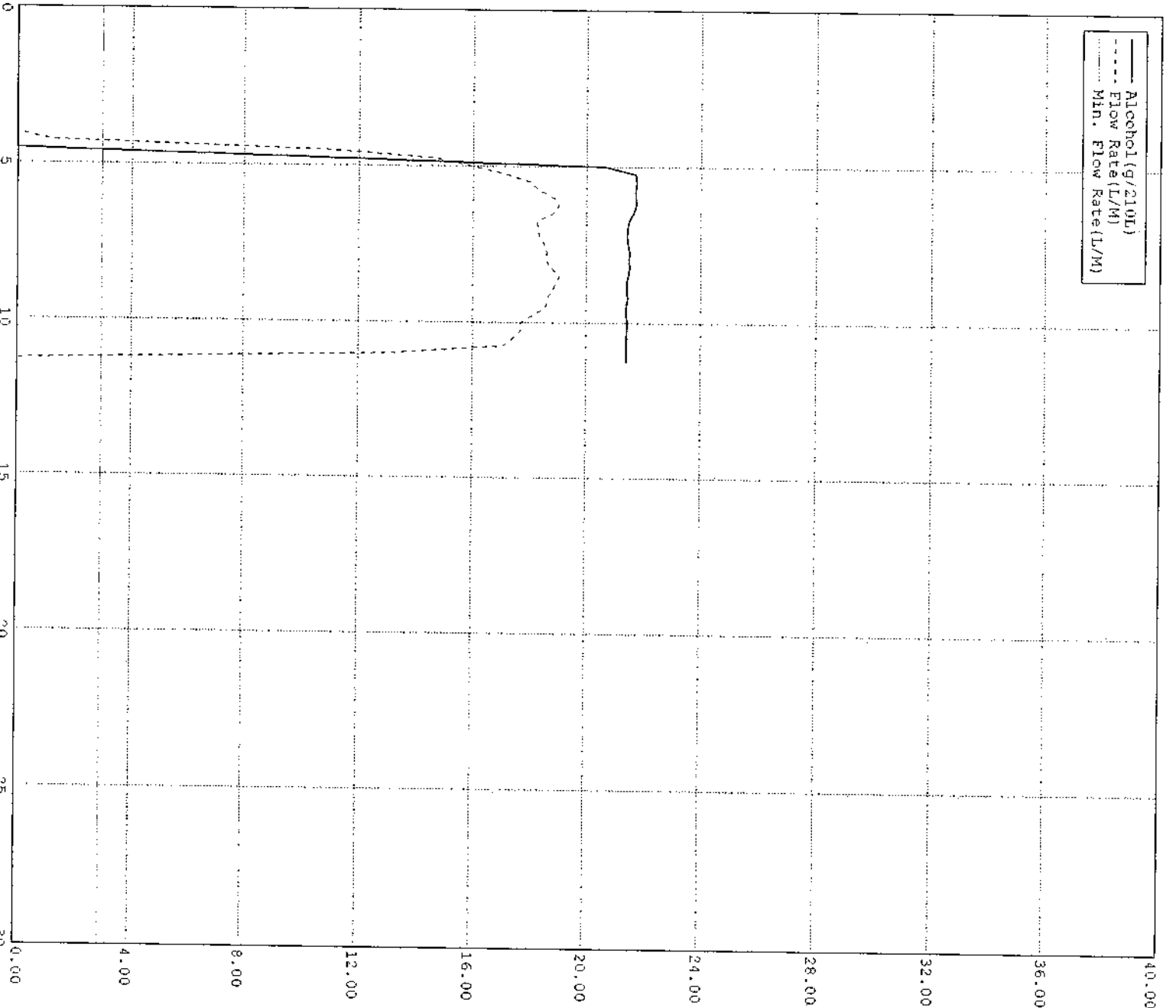
OPERATOR NAME:  
INTERFERENCE IPA  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.44: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:23
BLANK TEST	0.000	14:23
INTERNAL STANDARD	VERIFIED	14:23
Xq = 0.091 (0.19%)		
EXTERNAL STANDARD	0.076	14:23
X[1] = 0.0760 (0.0000)	(0.0022)	
BLANK TEST	0.000	14:24
SUBJECT SAMPLE	XXX	14:25
X[1] = 0.1076 (-0.0147)	(0.0019)	

Interference Detected





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 10/13/2015  
Time: 14:28:29

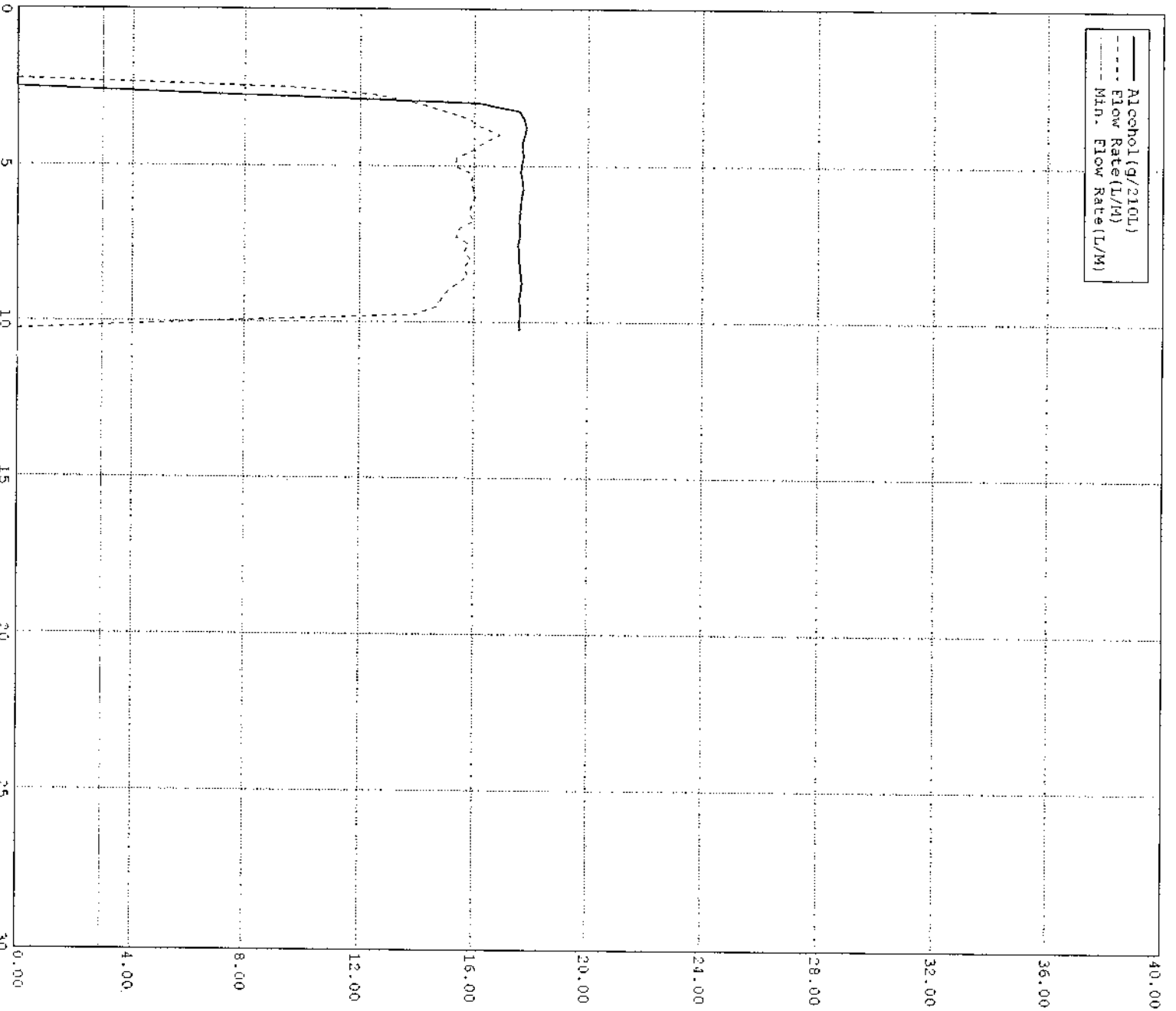
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INTERFERENCE NEGATIVE  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.44: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	14:30
BLANK TEST	0.000	14:30
INTERNAL STANDARD	VERIFIED	14:31
Xq = 0.092 (0.388)		
EXTERNAL STANDARD	0.076	14:31
X[1] = 0.0757 (-0.0005)	(0.0022)	
BLANK TEST	0.000	14:32
SUBJECT SAMPLE (Vol=1.94L)	0.088	14:32
X[1] = 0.0887 (0.0005)	(0.0010)	
BLANK TEST	0.000	14:33
EXTERNAL STANDARD	0.076	14:33
X[1] = 0.0758 (-0.0007)	(0.0020)	
BLANK TEST	0.000	14:34



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dntc: 100381

Date: 10/13/2015  
Time: 14:59:30

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

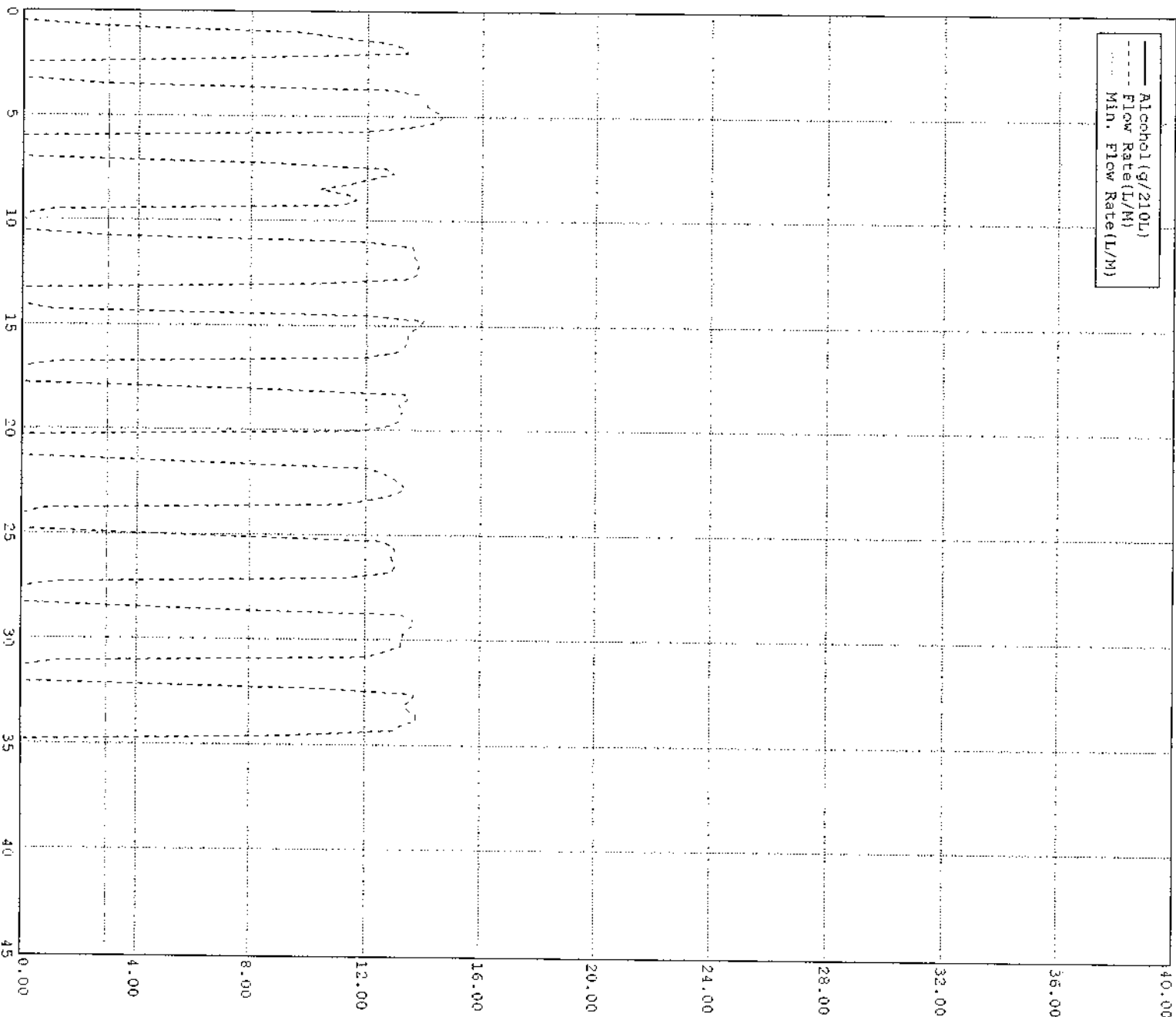
OPERATOR NAME:  
EXCEEDED ATTEMPTS  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.45: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:03
BLANK TEST	0.000	15:03
INTERNAL STANDARD	VERIFIED	15:03
EXTERNAL STANDARD	0.076	15:04
BLANK TEST	0.000	15:04
SUBJECT SAMPLE	XXX	15:05

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 10/13/2015  
Time: 15:12:12

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

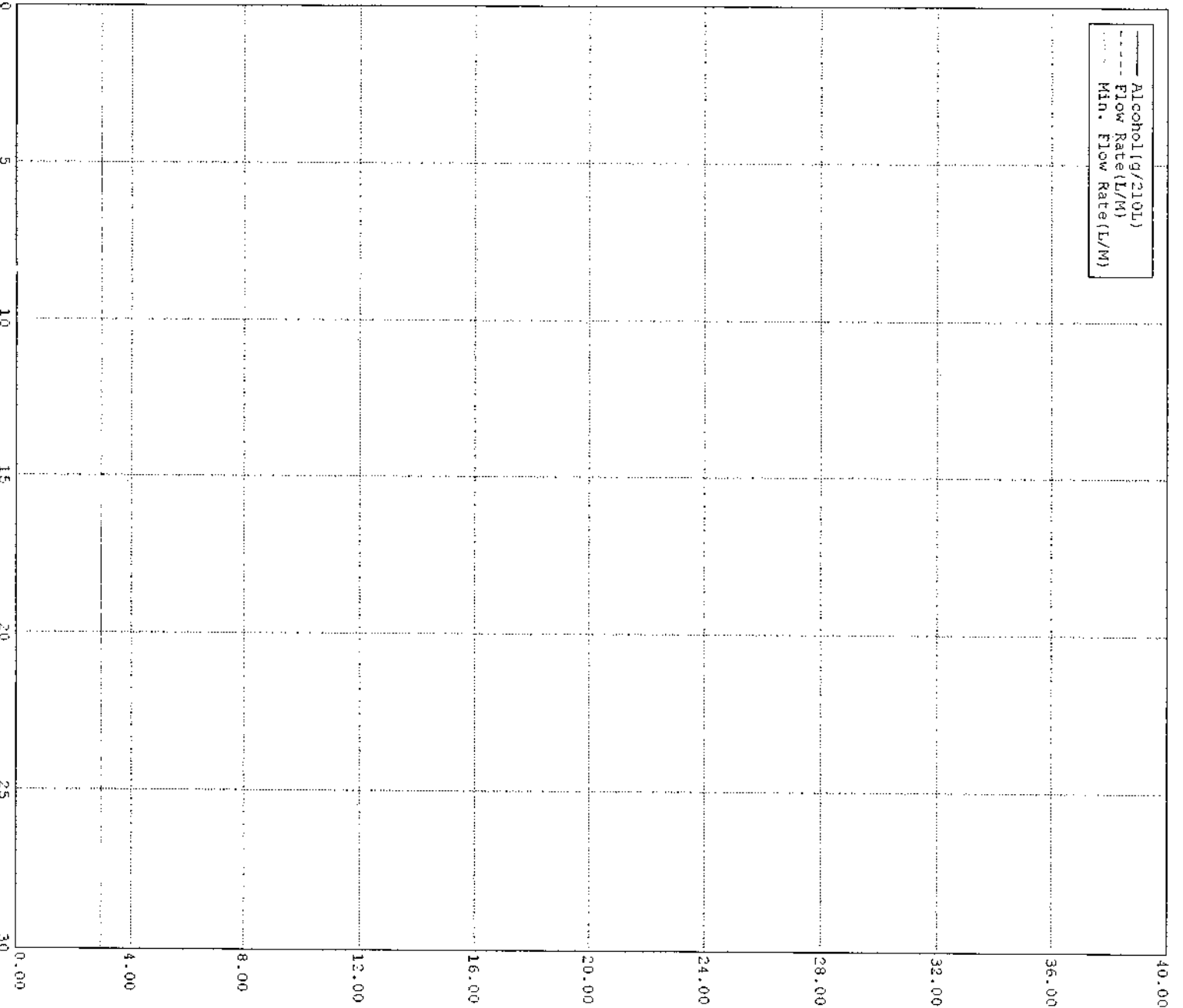
OPERATOR NAME:  
RFI XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AP 29.45: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:13
BLANK TEST	0.000	15:13
INTERNAL STANDARD	VERIFIED	15:14
EXTERNAL STANDARD	0.076	15:14
BLANK TEST	0.000	15:15

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100381

Date: 10/13/2015  
Time: 15:28:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
CHARLES FOSTER  
OPERATOR'S #: 7734

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.46: 0.079  
LOT #: 01315080A2  
EXPIRATION: 02/05/2017

DIAGNOSTIC CHECK	PASSED	15:31
INTERNAL STANDARD	0.000	15:31
EXTERNAL STANDARD	VERIFIED	15:31
INTERNAL STANDARD	0.077	15:31
EXTERNAL STANDARD	0.000	15:32
INTERNAL STANDARD	0.000	15:32
EXTERNAL STANDARD	0.000	15:33
INTERNAL STANDARD	0.077	15:33
EXTERNAL STANDARD	0.000	15:34

