

## Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 2/2/2015  
Effective: 2/2/2015

Version: DMCEF 2015 R0  
Status: Active

Instrument S/N 100680 Analyst CRF Start Date 4/27/15

1. Diagnostic Test (attached)
2. 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)
3. Print Calibration Factors (attached)
4. Volume Test - Minimum 1.5 L (1.3L to 1.7L)
5. 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 11313080A1 Exp 6/1/15
- iv. 0.100g/210L Mnf ILMO Lot 02915100A1 Exp 3/5/17
- v. 0.200g/210L Mnf buth Lot 13220 Exp 8/5/15
  1. Simulator S/N SD1200 Date Calibrated 1/20/15
- vi. 0.300g/210L Mnf buth Lot 14270 Exp 12/2/16
  1. Simulator S/N DR6267 Date Calibrated 1/20/15

## 6. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
- d. Exceeded attempts
- i. Acetone - Mnf buth Lot 14110 Level 0.100 Exp 5/1/16
  1. Simulator S/N DR4162 Date Calibrated 1/19/15
- ii. Isopropanol - Mnf buth Lot 14110 Level 0.100 Exp 5/1/16
  1. Simulator S/N DR4163 Date Calibrated 1/19/15
- iii. Negative Control - Mnf buth Lot 14030 Level 0.100 Exp 1/20/16
  1. Simulator S/N DR4178 Date Calibrated 1/19/15

e. RFI 

7. Verify stylus is calibrated
8. Reset Options
9. Clear Memory
10. Verification of Calibration
11. Non-Drinking Subject Test (attached)
12. Upload
13. Remove tank prior to shut down

End Date 4/28/15

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100680  
-----

Date: 4/27/2015  
Time: 10:29:36

VERSIONS

DMT: 3.00  
PIC: 3.03  
Modem: 2.6  
Questions: 2.2

TEMPERATURES

Sample Chamber = 49.0°C PASSED  
Breath Tube = 46.6°C PASSED

PUMP INFO

Flow Rate = 4.264 L/M PASSED

DETECTOR INFO

PUMP ON PASSED  
PUMP OFF PASSED

FILTER INFO

Filter 1 PASSED  
Filter 2 PASSED  
Filter 3 PASSED

INTERNAL STANDARD PASSED

Technician Screen

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DATAMASTER dmt: 100680  
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Date: 4/27/2015  
Time: 10:34 AM

Temperatures (°C)

Sample Cell: 48.8°C  
Breath Tube: 47.1°C

Current Barometer 29.4 in  
Volume (Ltr) 1.51

Settings

Lamp: 1.86 V  
Bias: 79 V  
Cooler: 1.82 V  
Chopper: 523 Hz

Voltages (V)

Flow: 1.04 V  
Detector: 0.035 V

CALIBRATION FACTORS

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Alaska Department of Public Safety  
DATAMASTER dmt: 100680  
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Date: 1/1/2010  
Time: 12:39:39

Ca	=	0.1010			
CAL	=	0.985164	0.800	<=	CAL < 1.200
b1	=	0.0000	0.0000	<=	b1 < 0.0040
b2	=	0.0030	0.0010	<=	b2 < 0.0100
b3	=	0.0000	0.0000	<=	b3 < 0.0040
Xq	=	0.1184	0.0500	<=	Xq < 0.2000
a21	=	1.174920	1.050	<=	a21 < 1.300
a31	=	0.555442	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

Date: 4/27/2015  
 Time: 10:56:21

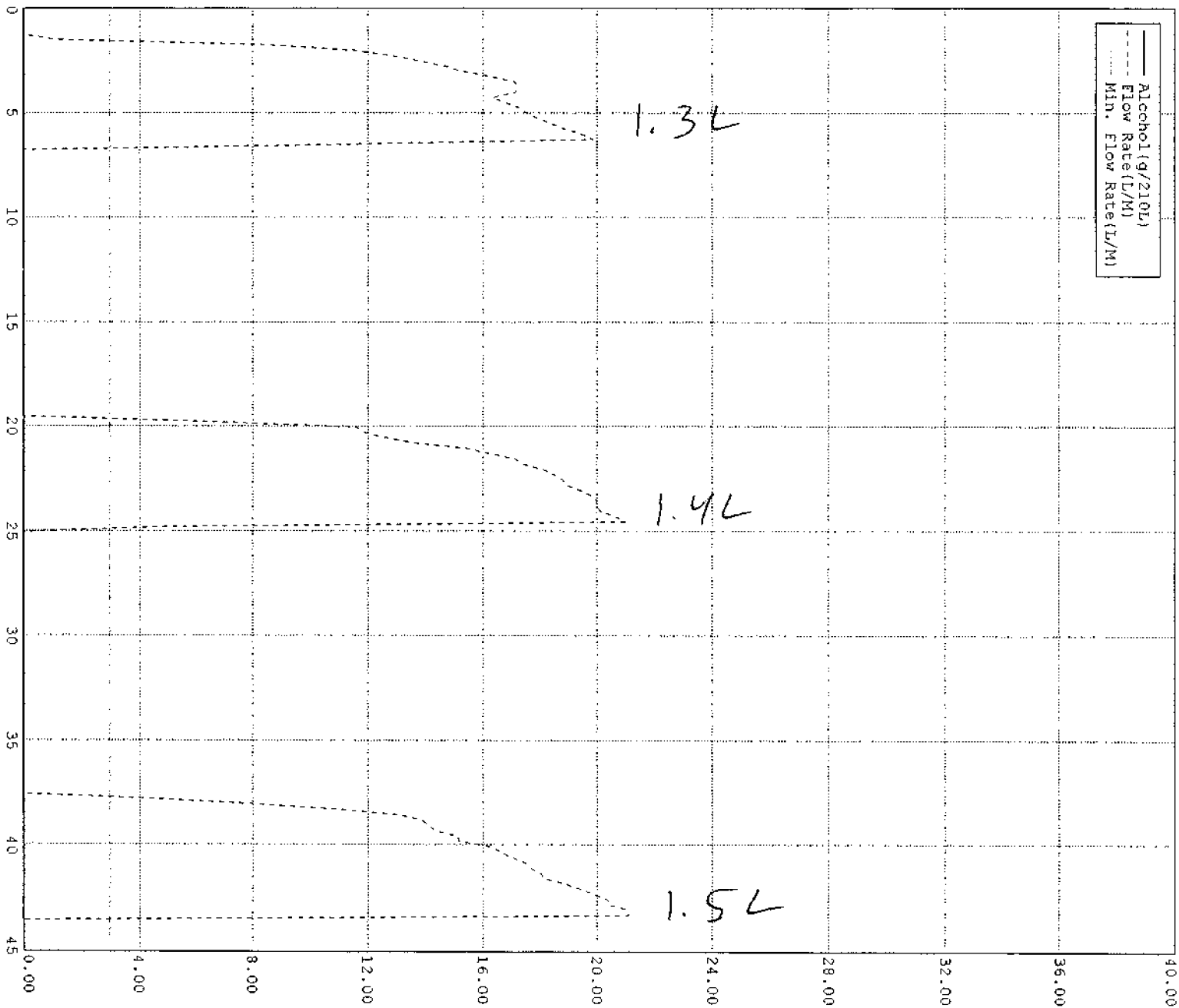
SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

OPERATOR NAME:  
 MINIMUM VOLUME  
 OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.43: 0.079  
 LOT #: 1313080A1  
 EXPIRATION: 6/1/2015

DIAGNOSTIC CHECK	PASSED	11:02
BLANK TEST	0.000	11:02
INTERNAL STANDARD	VERIFIED	11:02
EXTERNAL STANDARD	0.079	11:02
BLANK TEST	0.000	11:03
SUBJECT SAMPLE (Vol=1.56L)	0.000	11:04
BLANK TEST	0.000	11:05
EXTERNAL STANDARD	0.079	11:05
BLANK TEST	0.000	11:06



LINEARITY CHECK

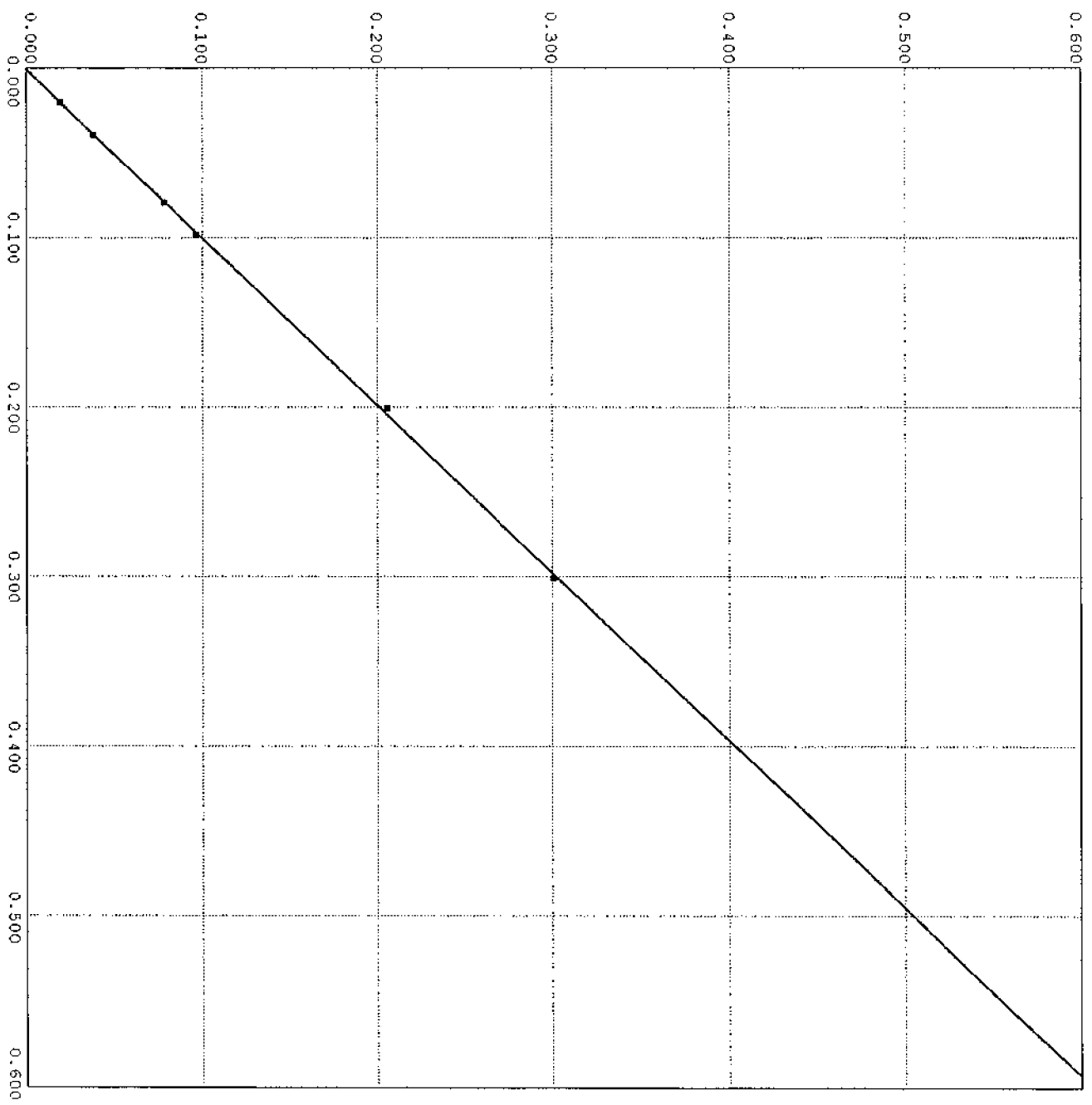
Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

Date: 4/27/2015  
 Time: 13:19:50

SUPERVISOR NAME:  
 CHARLES FOSTER  
 OPERATOR'S #: 7734

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0007
0.039	0.0392	0.0004
0.079	0.0792	0.0008
0.098	0.0974	0.0009
0.200	0.2064	0.0005
0.300	0.3014	0.0005

SLOPE = 1.012743  
 R<sup>2</sup> = 0.999586



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

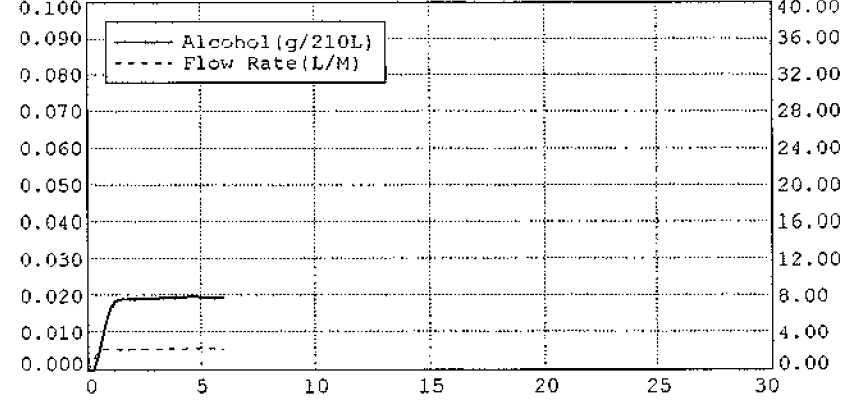
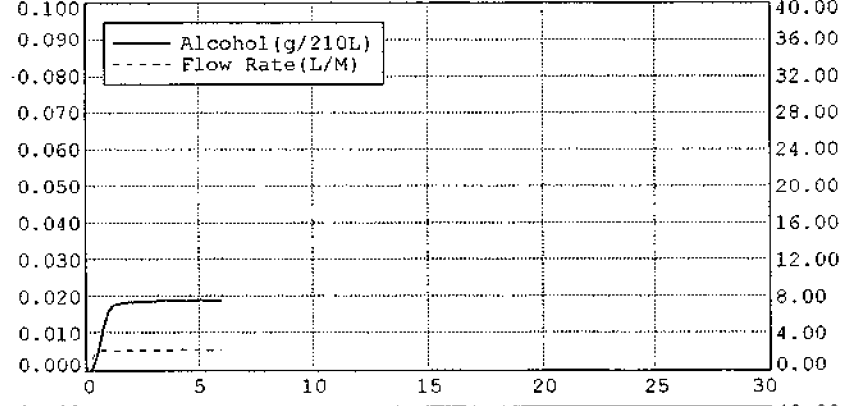
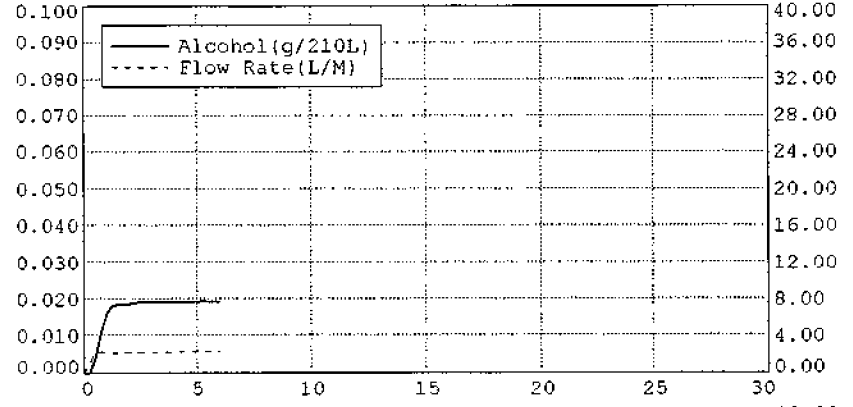
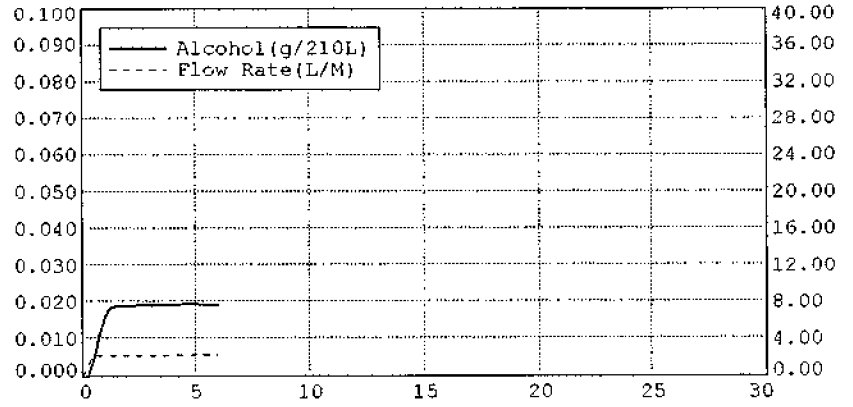
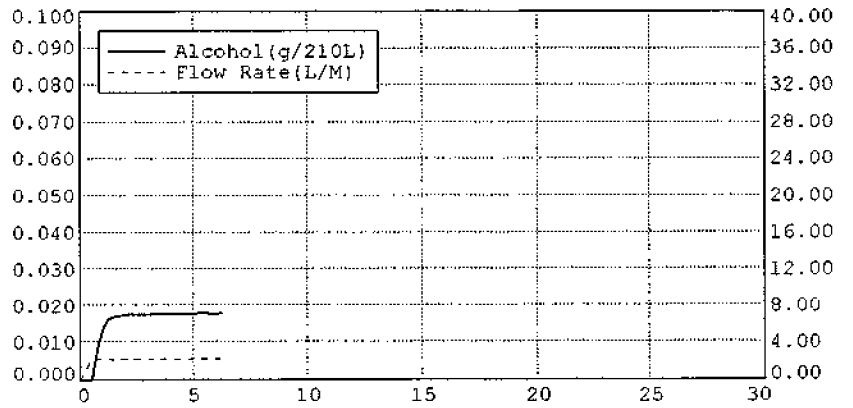
Date: 4/27/2015  
 Time: 13:19:51

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.45: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 3/5/2017  
 TANK PRESSURE: 908 psi

BLANK TEST	0.000	13:21
INTERNAL STANDARD	VERIFIED	13:21
EXTERNAL STANDARD	0.019	13:21
BLANK TEST	0.000	13:22
EXTERNAL STANDARD	0.020	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.021	13:23
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.020	13:25
BLANK TEST	0.000	13:25
EXTERNAL STANDARD	0.020	13:26
BLANK TEST	0.000	13:27

Average = 0.0200  
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

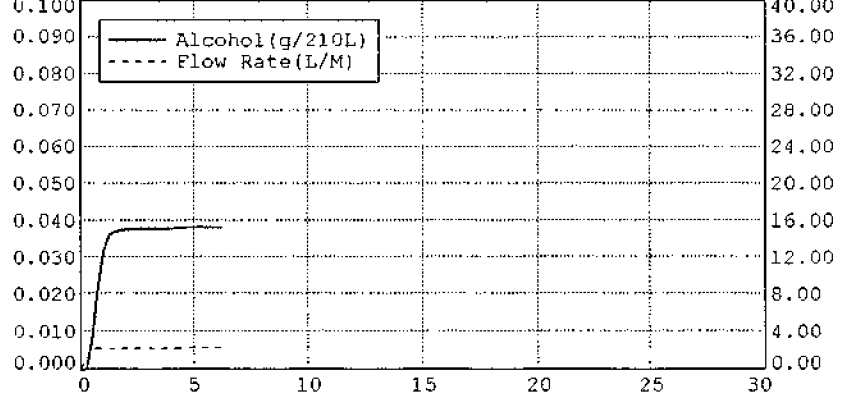
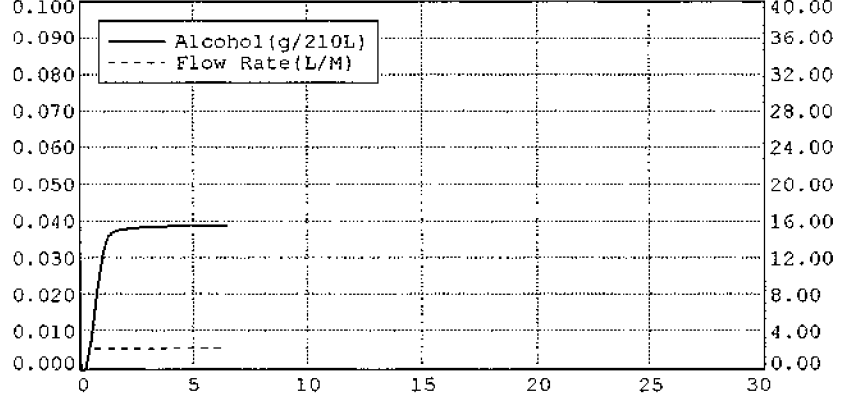
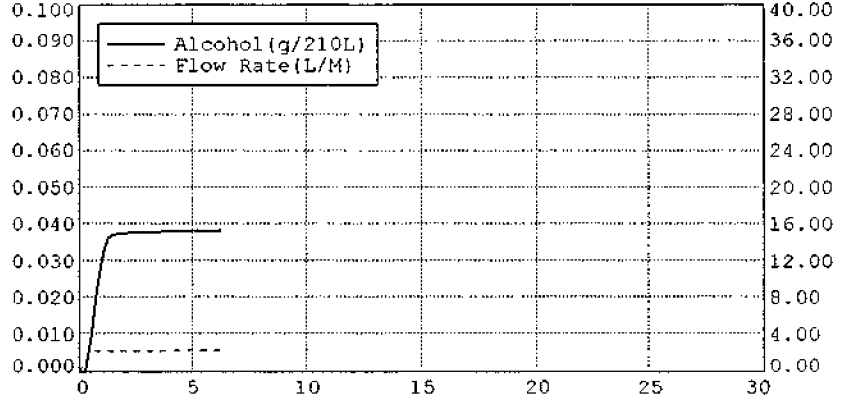
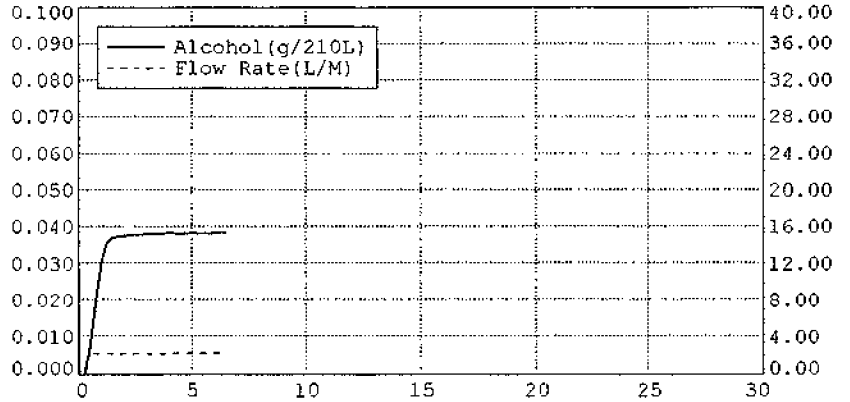
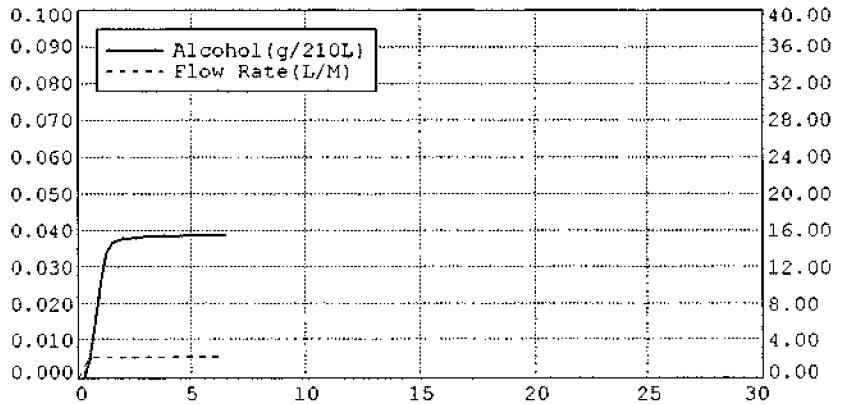
Date: 4/27/2015  
 Time: 13:27:39

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.45: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 3/5/2017  
 TANK PRESSURE: 974 psi

BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
EXTERNAL STANDARD	0.039	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.039	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.039	13:31
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.040	13:33
BLANK TEST	0.000	13:34
EXTERNAL STANDARD	0.039	13:34
BLANK TEST	0.000	13:35

Average = 0.0392  
 Std Dev = 0.0004





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

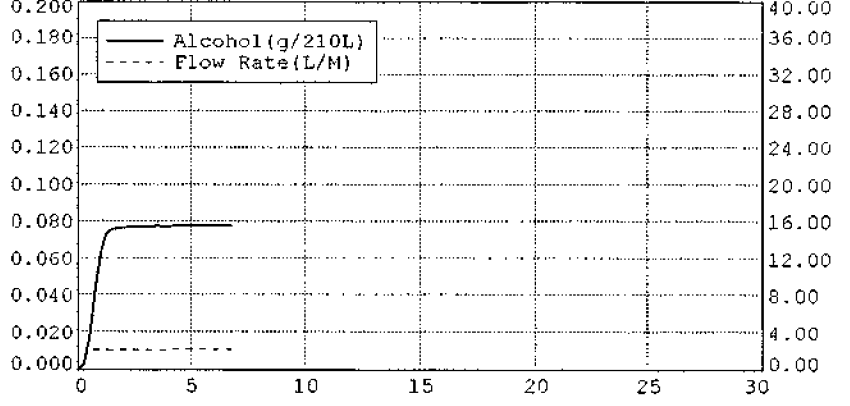
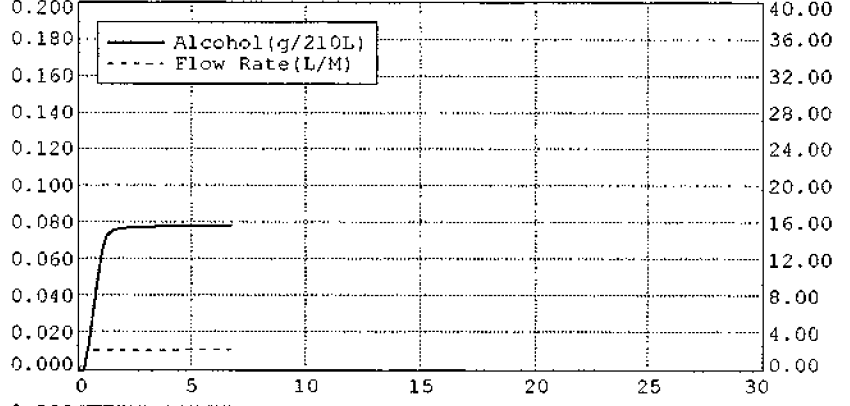
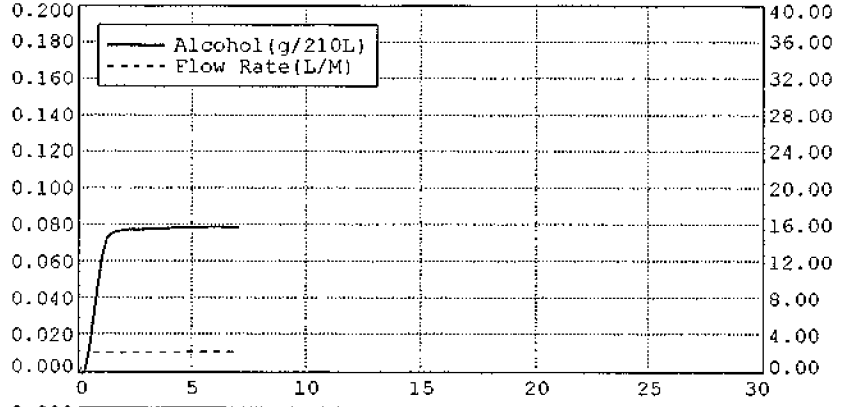
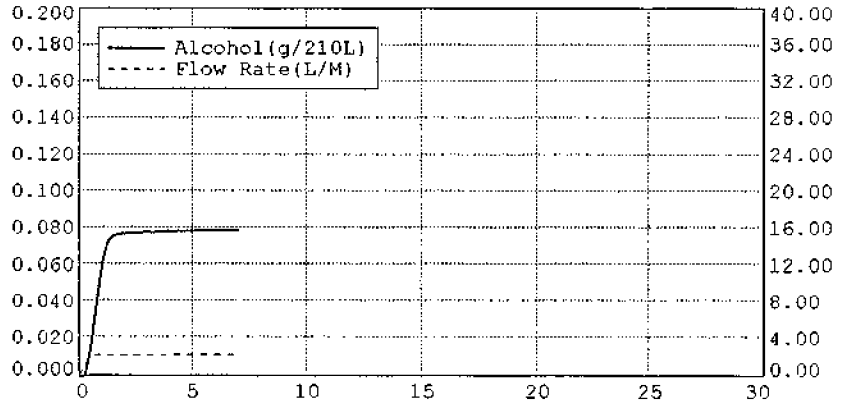
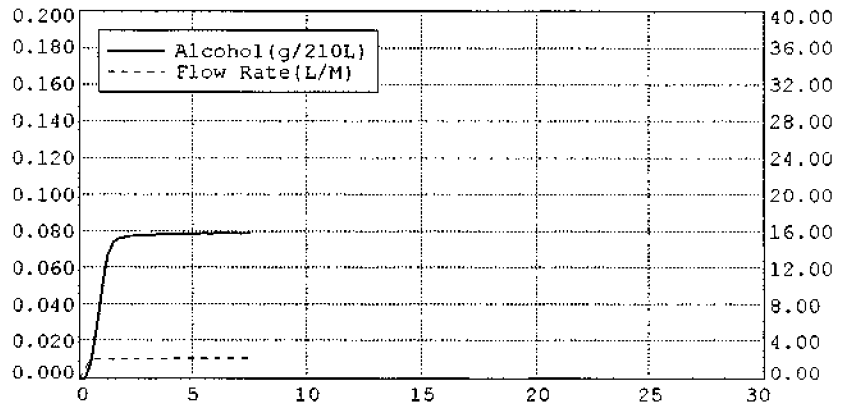
Date: 4/27/2015  
 Time: 13:35:52

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.45: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 6/1/2015  
 TANK PRESSURE: 756 psi

BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.080	13:37
BLANK TEST	0.000	13:38
EXTERNAL STANDARD	0.079	13:38
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.080	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.078	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.079	13:42
BLANK TEST	0.000	13:43

Average = 0.0792  
 Std Dev = 0.0008



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

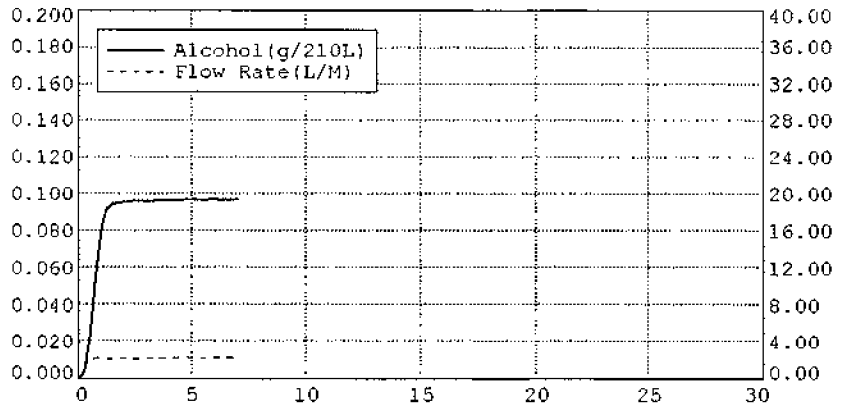
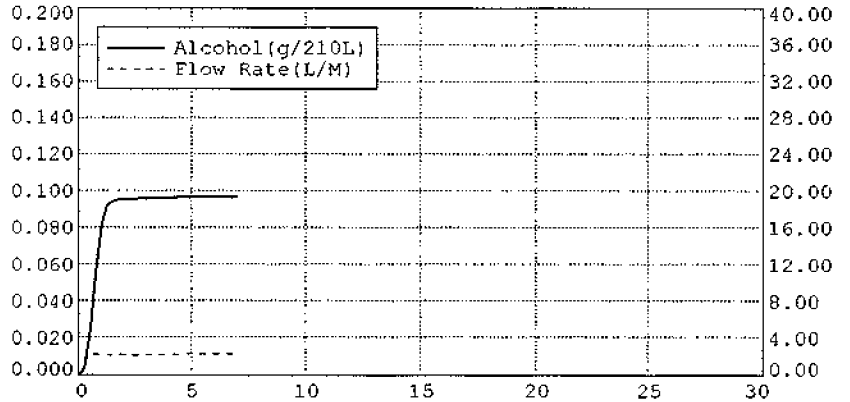
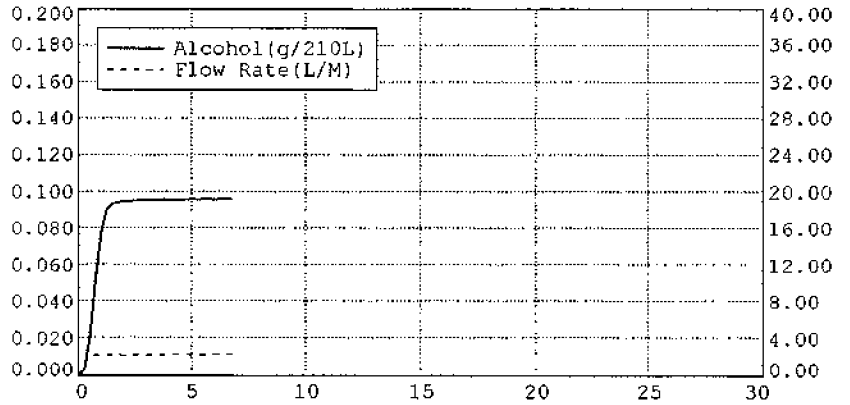
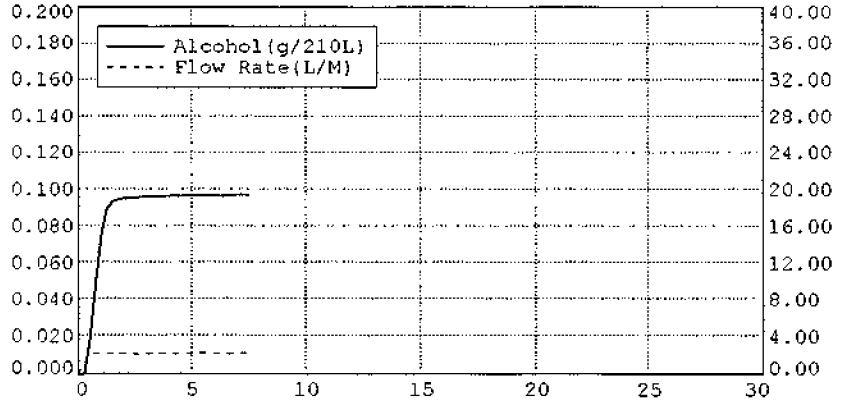
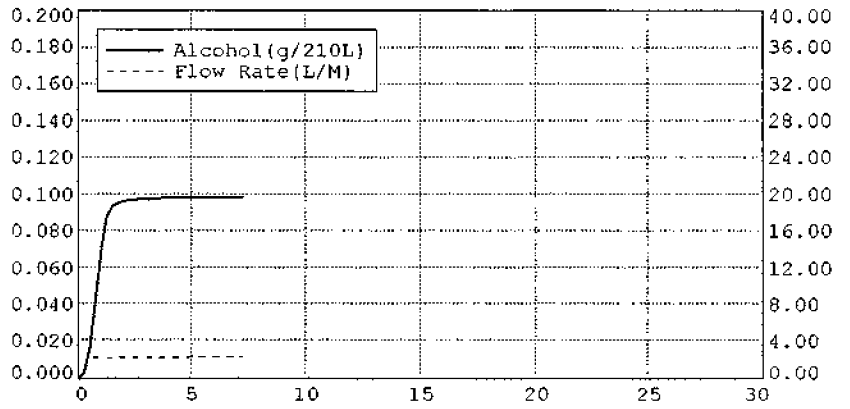
Date: 4/27/2015  
 Time: 13:46:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.45: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 3/5/2017  
 TANK PRESSURE: 915 psi

BLANK TEST	0.000	13:47
INTERNAL STANDARD	VERIFIED	13:47
EXTERNAL STANDARD	0.099	13:47
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.097	13:49
BLANK TEST	0.000	13:50
EXTERNAL STANDARD	0.097	13:50
BLANK TEST	0.000	13:51
EXTERNAL STANDARD	0.097	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.097	13:52
BLANK TEST	0.000	13:53

Average = 0.0974  
 Std Dev = 0.0009



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

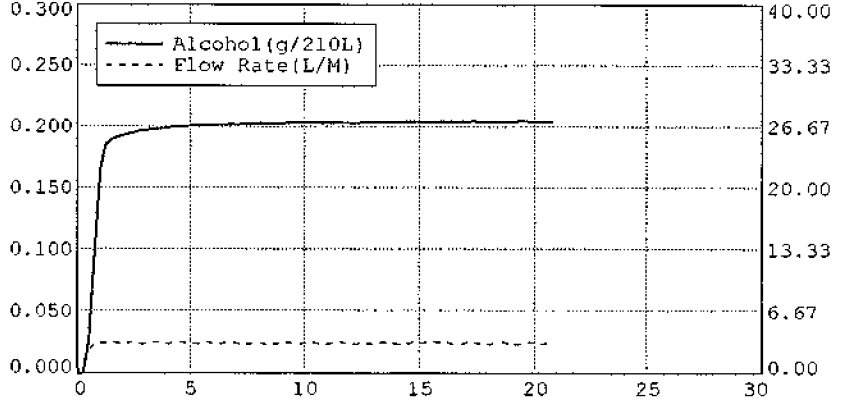
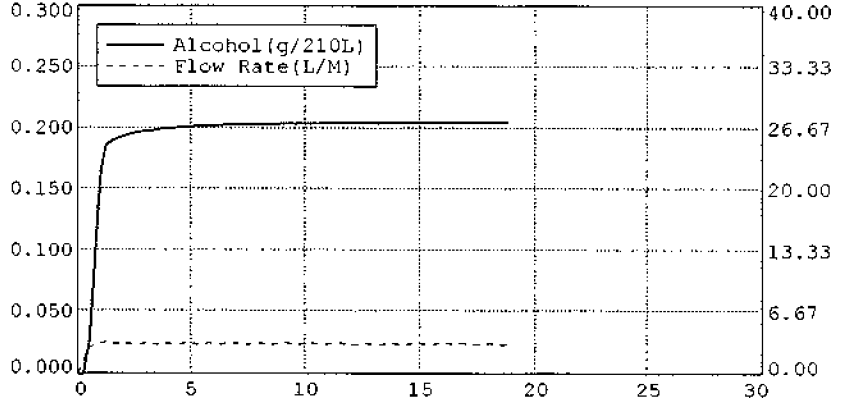
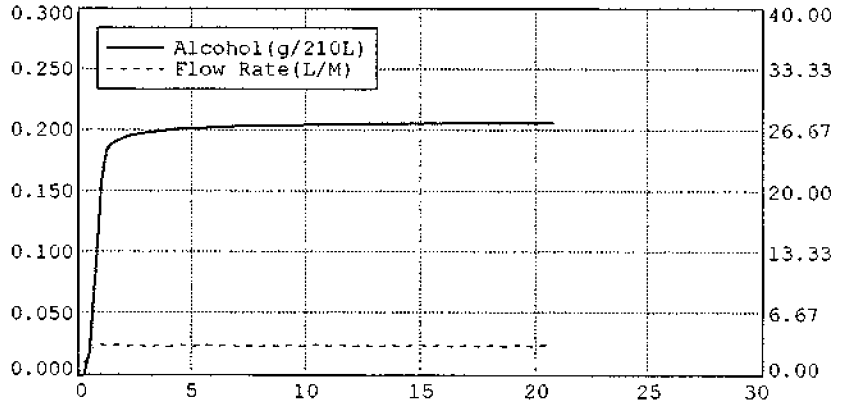
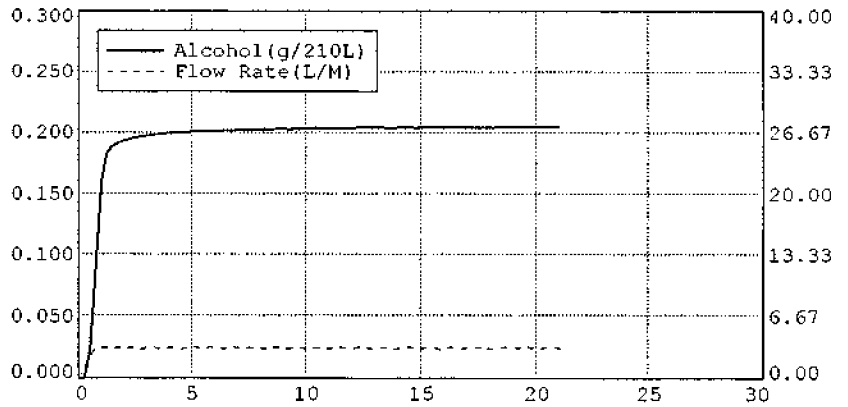
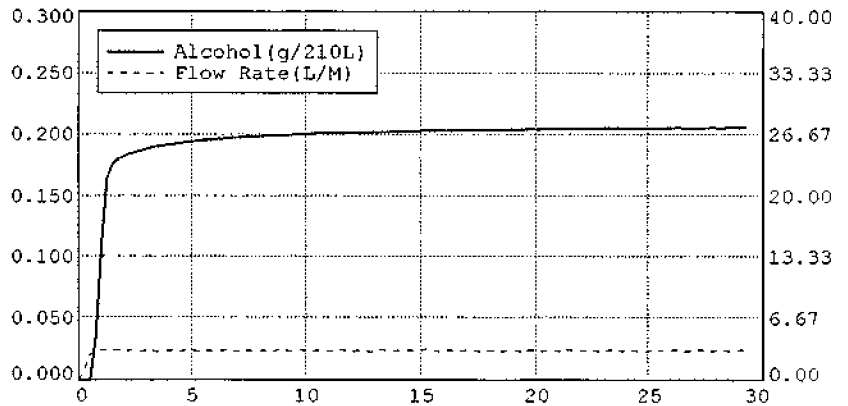
Date: 4/27/2015  
 Time: 13:57:14

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 13220  
 EXPIRATION: 8/5/2015

BLANK TEST	0.000	13:58
INTERNAL STANDARD	VERIFIED	13:58
EXTERNAL STANDARD	0.207	13:59
BLANK TEST	0.000	14:00
EXTERNAL STANDARD	0.206	14:00
BLANK TEST	0.000	14:01
EXTERNAL STANDARD	0.207	14:02
BLANK TEST	0.000	14:03
EXTERNAL STANDARD	0.206	14:03
BLANK TEST	0.000	14:04
EXTERNAL STANDARD	0.206	14:05
BLANK TEST	0.000	14:06

Average = 0.2064  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

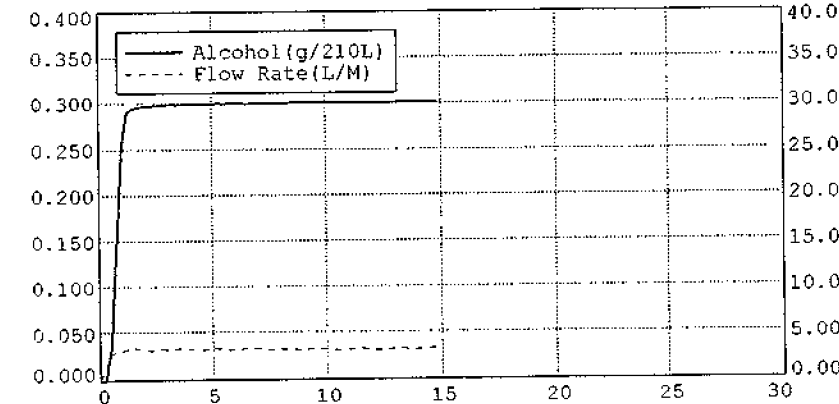
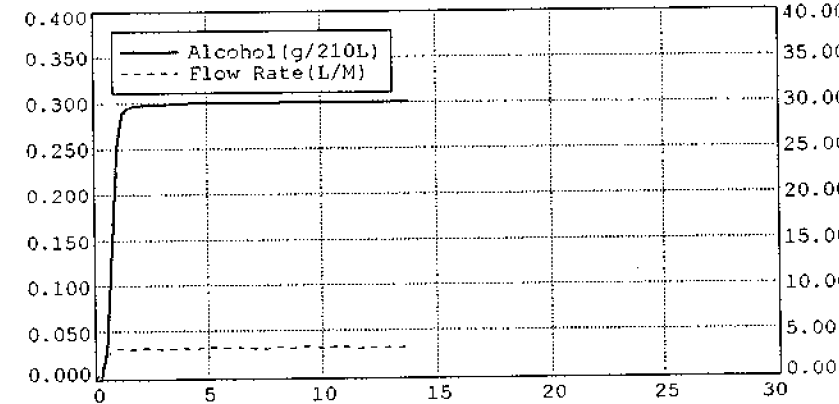
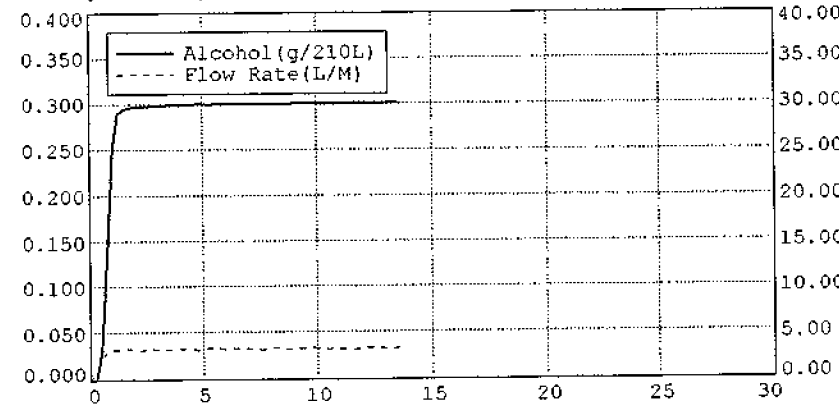
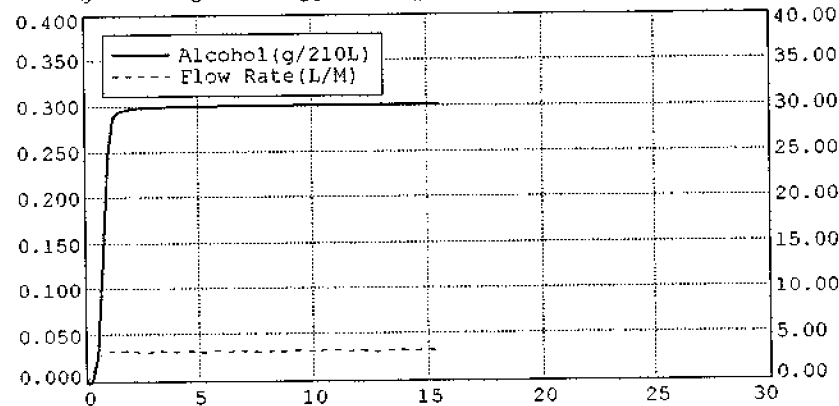
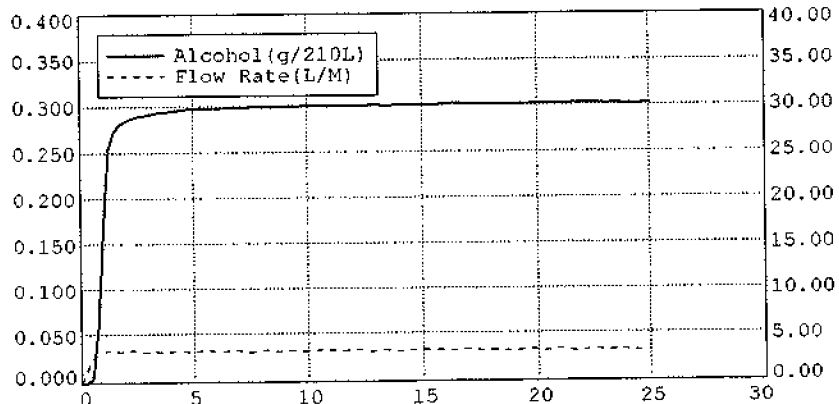
Date: 4/27/2015  
 Time: 14:10:15

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 14270  
 EXPIRATION: 12/2/2016

BLANK TEST	0.000	14:11
INTERNAL STANDARD	VERIFIED	14:11
EXTERNAL STANDARD	0.302	14:11
BLANK TEST	0.000	14:13
EXTERNAL STANDARD	0.302	14:13
BLANK TEST	0.000	14:14
EXTERNAL STANDARD	0.301	14:14
BLANK TEST	0.000	14:15
EXTERNAL STANDARD	0.301	14:16
BLANK TEST	0.000	14:17
EXTERNAL STANDARD	0.301	14:17
BLANK TEST	0.000	14:18

Average = 0.3014  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100680

Date: 4/27/2015  
Time: 14:37:39

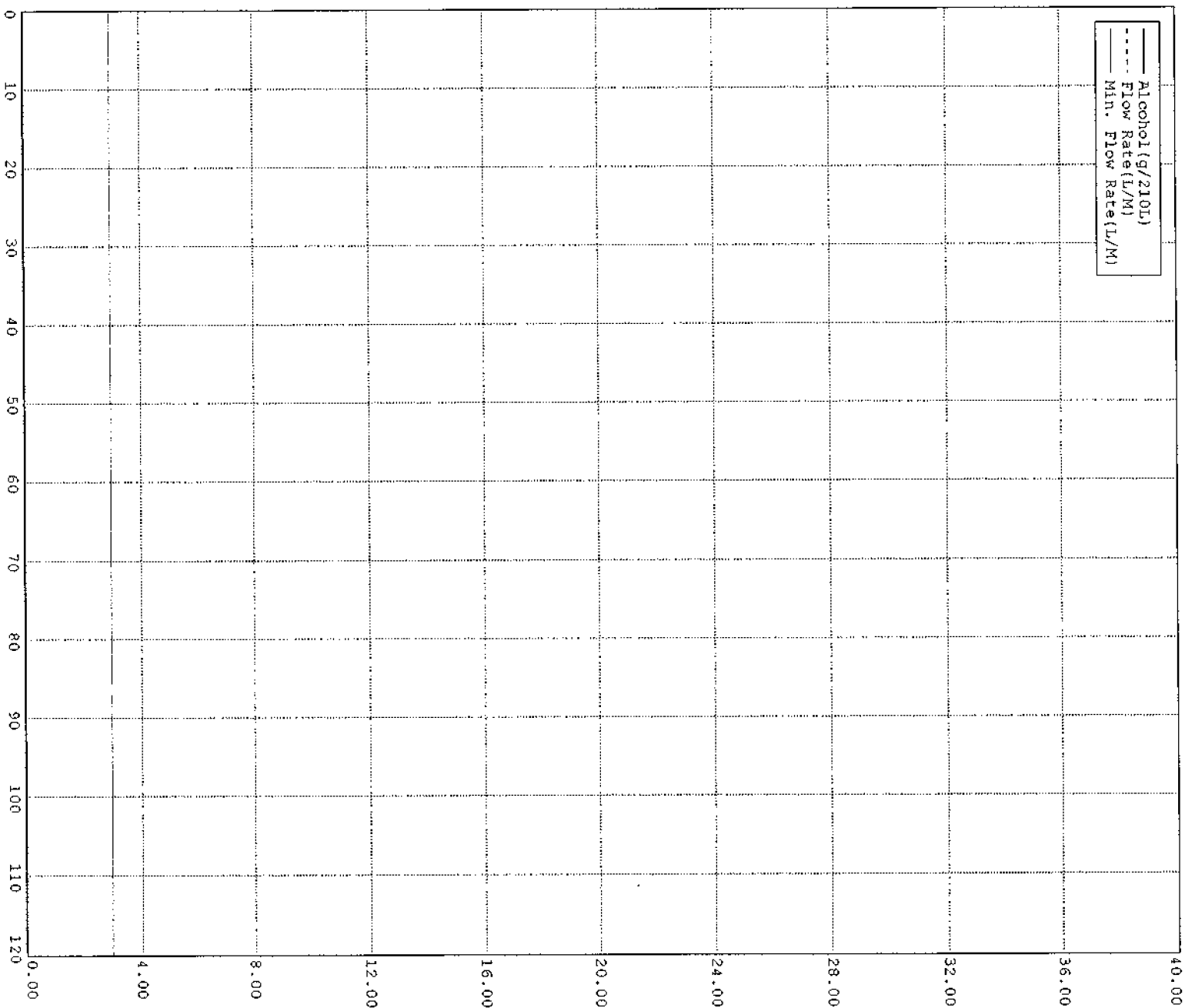
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INCOMPLETE XXXX  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.45: 0.079  
LOT #: 11313080A1  
EXPIRATION: 6/1/2015

DIAGNOSTIC CHECK	PASSED	14:38
BLANK TEST	0.000	14:38
INTERNAL STANDARD	VERIFIED	14:38
EXTERNAL STANDARD	0.077	14:39
BLANK TEST	0.000	14:40
SUBJECT SAMPLE	INCOMPLETE	14:42



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

Date: 4/27/2015  
 Time: 14:49:45

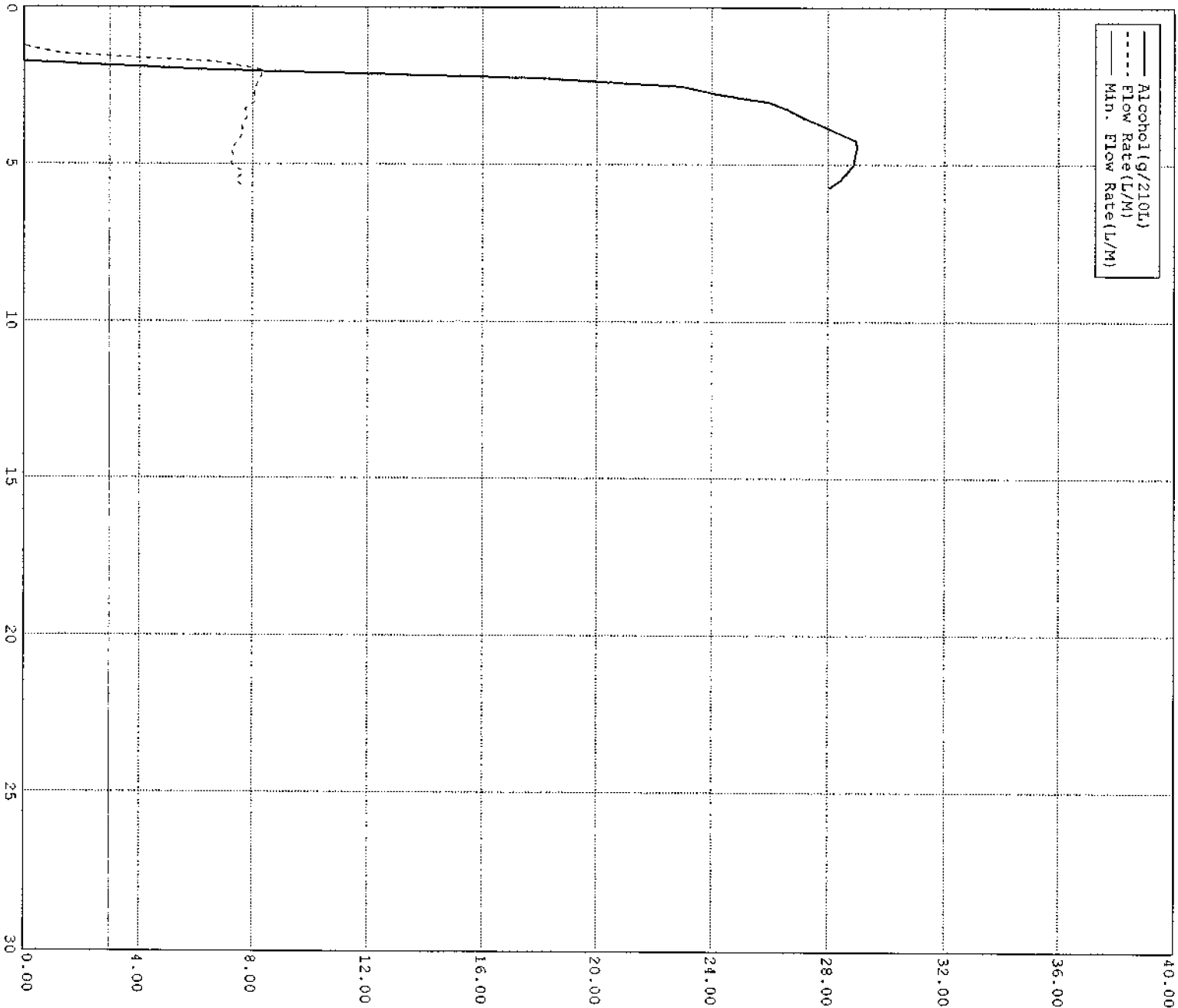
SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

OPERATOR NAME:  
 MOUTH ETOH  
 OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.44: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 6/1/2015

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	14:53
BLANK TEST	0.000	14:53
INTERNAL STANDARD	VERIFIED	14:53
EXTERNAL STANDARD	0.080	14:53
BLANK TEST	0.000	14:55
SUBJECT SAMPLE	INVALID	14:55



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

Date: 4/27/2015  
 Time: 15:34:32

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

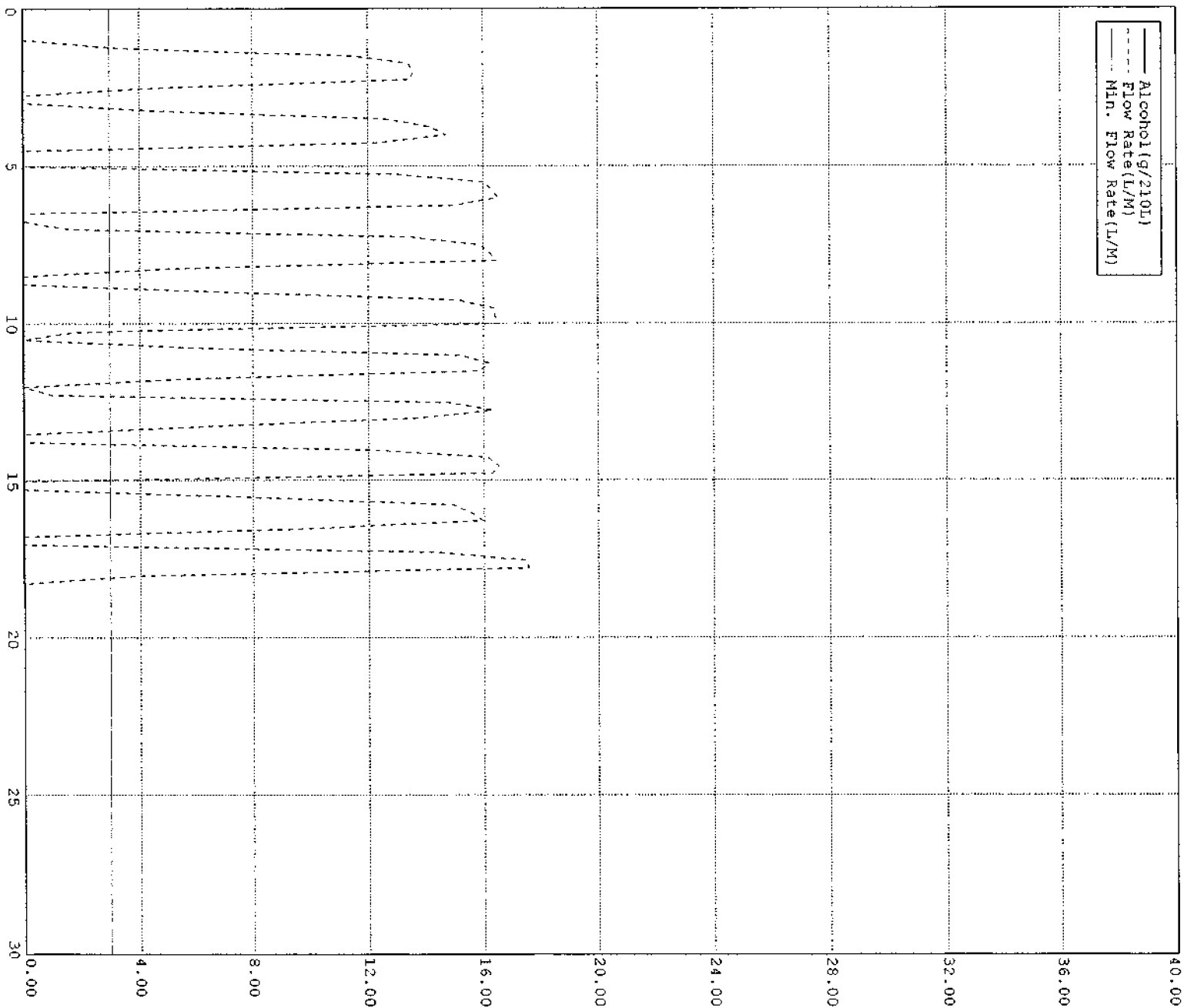
OPERATOR NAME:  
 EXCEEDED ATTEMPTS  
 OPERATOR S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.44: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 6/1/2015

DIAGNOSTIC CHECK	PASSED	15:41
BLANK TEST	0.000	15:41
INTERNAL STANDARD	VERIFIED	15:41
EXTERNAL STANDARD	0.080	15:41
BLANK TEST	0.000	15:42
SUBJECT SAMPLE	XXX	15:43

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

Date: 4/27/2015  
 Time: 14:57:33

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 29.45: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 6/1/2015

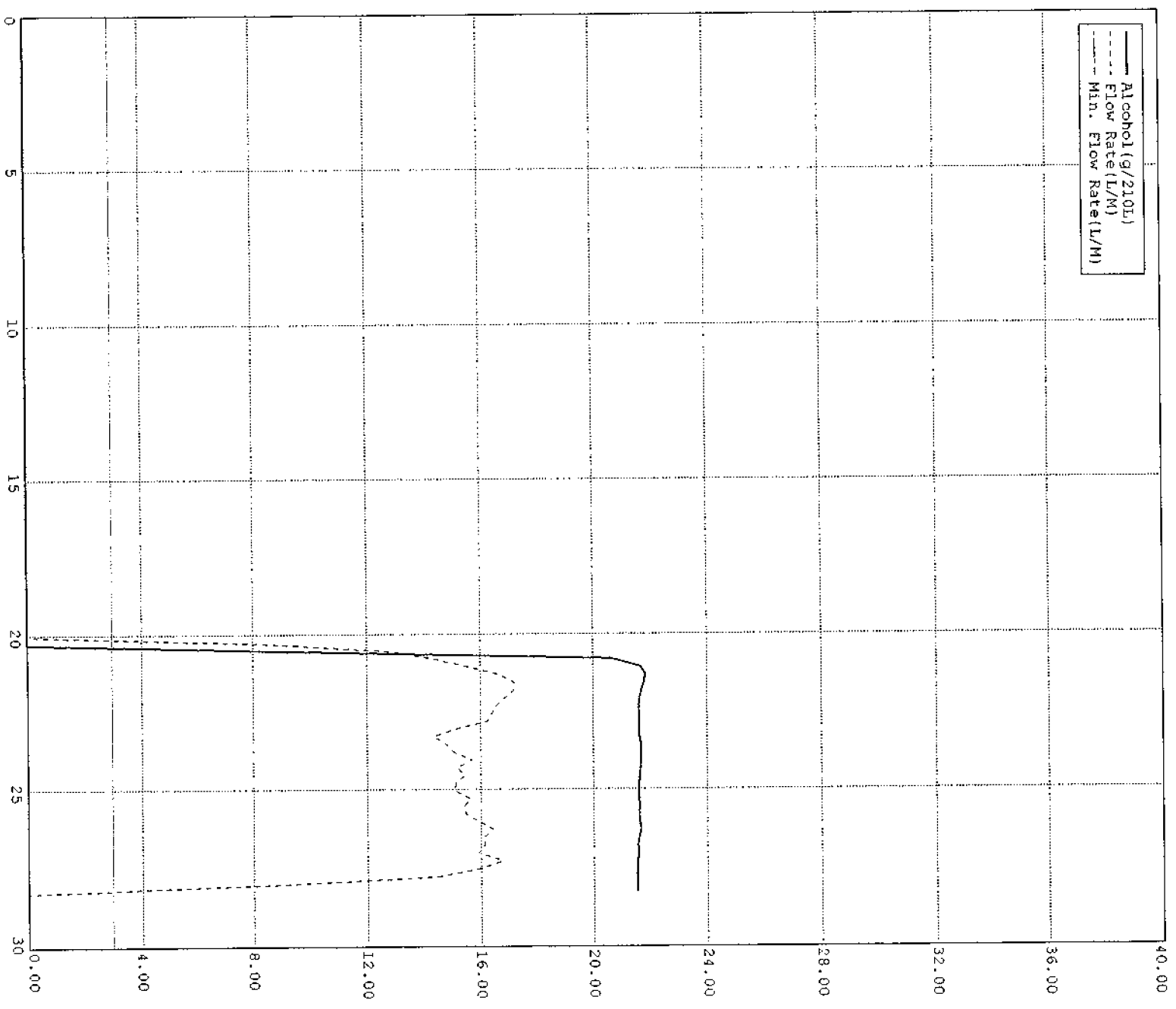
DIAGNOSTIC CHECK	PASSED	15:00
BLANK TEST	0.000	15:01
INTERNAL STANDARD	VERIFIED	15:01
XQ = 0.117 (0.75%)		
EXTERNAL STANDARD	0.078	15:01
X[1] = 0.0781 (-0.0001)	(0.0014)	
BLANK TEST	0.000	15:02
SUBJECT SAMPLE	XXX	15:02
X[1] = 0.1079 (-0.0199)	(0.0006)	

Interference Detected

*F:Her 2 Avg. = 0.0004*

*F:Her 3 Avg. = 0.0021*

*CRF 4/28/15*





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100680

Date: 4/27/2015  
Time: 15:06:29

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

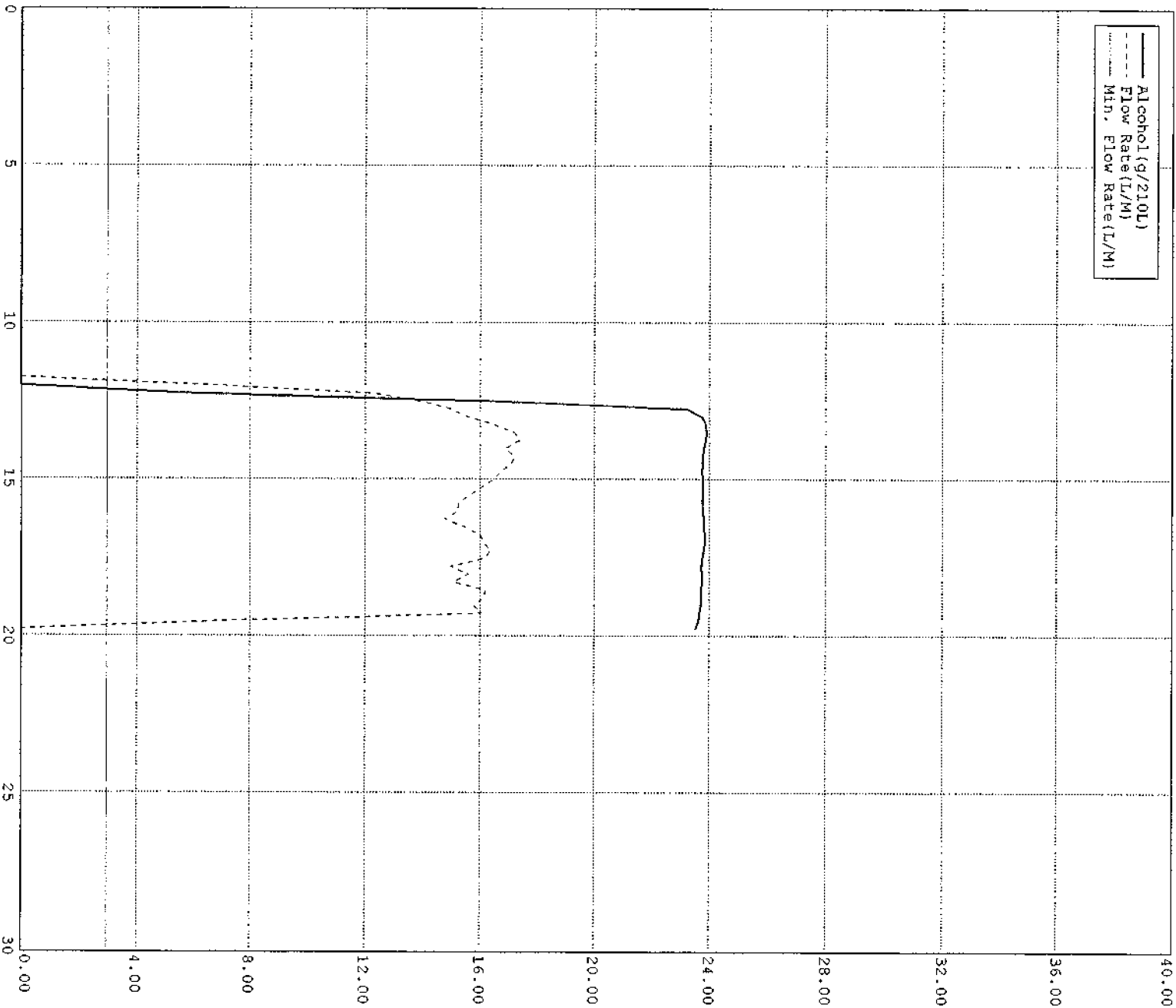
OPERATOR NAME:  
INTERFERENCE IPA  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.44: 0.079  
LOF #: 11313080A1  
EXPIRATION: 6/1/2015

DIAGNOSTIC CHECK	PASSED	15:09
BLANK TEST	0.000	15:09
INTERNAL STANDARD	VERIFIED	15:09
Xq = 0.119 (0.52%)		
EXTERNAL STANDARD	0.078	15:10
X[1] = 0.0785 (0.0000)	(0.0023)	
BLANK TEST	0.000	15:11
SUBJECT SAMPLE	XXX	15:11
X[1] = 0.1178 (-0.0243)	(0.0014)	

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100680

Date: 4/27/2015  
Time: 15:14:36

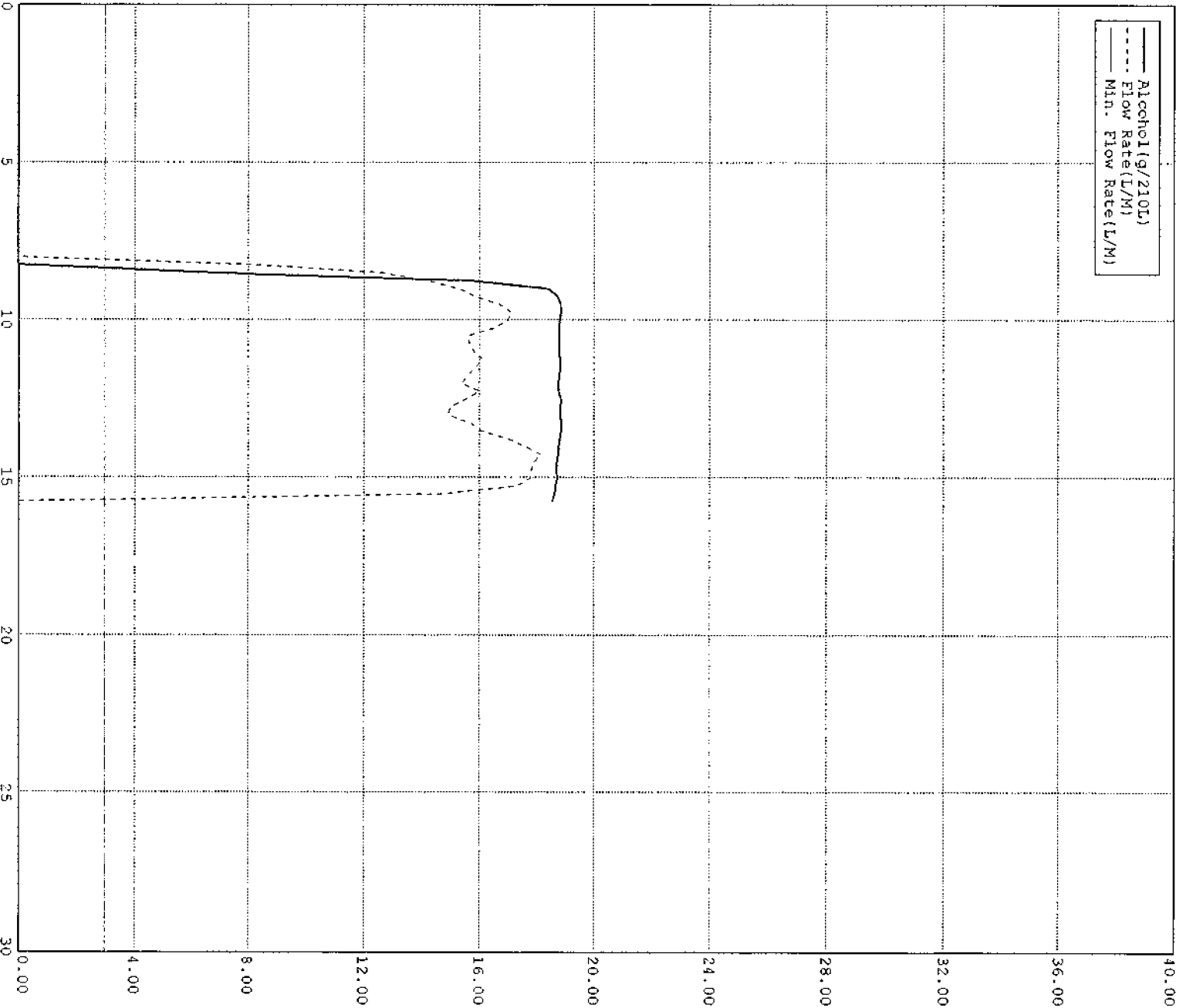
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

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 #: 11313080A1  
EXPIRATION: 6/1/2015

DIAGNOSTIC CHECK	PASSED	15:18
BLANK TEST	0.000	15:18
INTERNAL STANDARD	VERIFIED	15:18
Xq = 0.118 (0.22%)		
EXTERNAL STANDARD	0.079	15:19
X[1] = 0.0793 (0.0013) (0.0027)		
BLANK TEST	0.000	15:20
SUBJECT SAMPLE (Vol=1.98L)	0.093	15:20
X[1] = 0.0931 (-0.0017) (0.0002)		
BLANK TEST	0.000	15:21
EXTERNAL STANDARD	0.079	15:21
X[1] = 0.0789 (0.0004) (0.0018)		
BLANK TEST	0.000	15:22



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100680

Date: 4/27/2015  
 Time: 15:46:39

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

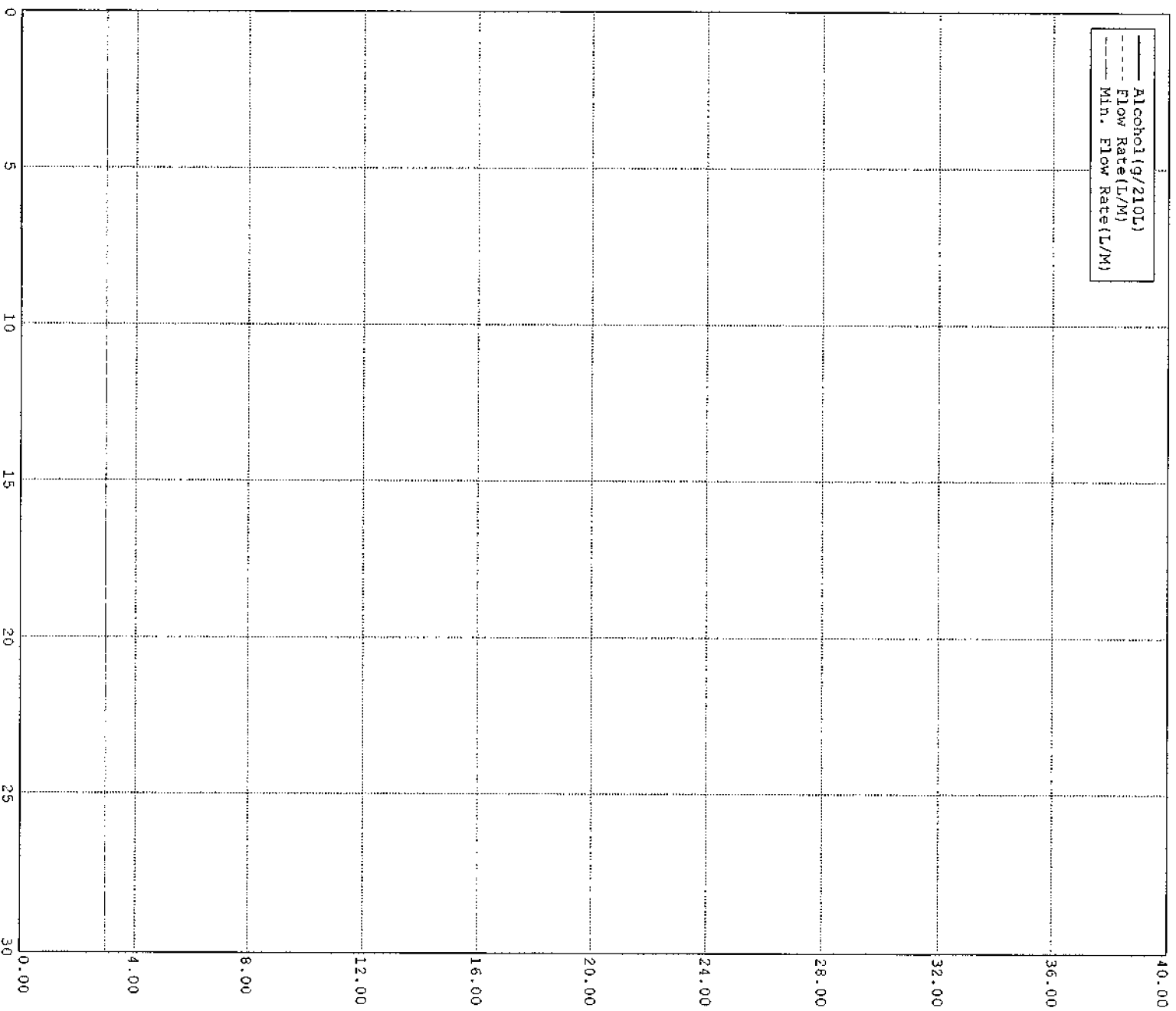
OPERATOR NAME:  
 RFI XXXX  
 OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.44: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 6/1/2015

DIAGNOSTIC CHECK  
 BLANK TEST PASSED 15:47  
 INTERNAL STANDARD VERIFIED 15:48  
 EXTERNAL STANDARD 0.079 15:48  
 BLANK TEST 0.000 15:49

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100680

Date: 4/28/2015  
Time: 08:50:59

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 AP 29.26: 0.078  
LOT #: 11313080A1  
EXPIRATION: 6/1/2015

DIAGNOSTIC CHECK	PASSED	08:52
BLANK TEST	0.000	08:52
INTERNAL STANDARD	VERIFIED	08:52
EXTERNAL STANDARD	0.079	08:52
BLANK TEST	0.000	08:53
SUBJECT SAMPLE (Vol=2.47U)	0.000	08:54
BLANK TEST	0.000	08:54
EXTERNAL STANDARD	0.079	08:55
BLANK TEST	0.000	08:56

