

## 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 100682 Analyst CTF 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 1.6 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 Gruth Lot 13270 Exp 3/5/15
  1. Simulator S/N SD1200 Date Calibrated 1/20/15
- vi. 0.300g/210L Mnf Gruth 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 Gruth Lot 14110 Level 0.100 Exp 5/1/16
  1. Simulator S/N DR4162 Date Calibrated 1/19/15
- ii. Isopropanol - Mnf Gruth Lot 14110 Level 0.100 Exp 5/1/16
  1. Simulator S/N DR4163 Date Calibrated 1/19/15
- iii. Negative Control - Mnf Gruth 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: 100682  
-----

Date: 04/27/2015  
Time: 10:40:32

VERSIONS

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

TEMPERATURES

Sample Chamber = 48.9°C                    PASSED  
Breath Tube     = 48.1°C                   PASSED

PUMP INFO

Flow Rate = 4.233 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

-----  
DATAMASTER dmt: 100682  
-----

Date: 04/27/2015  
Time: 10:53 AM

Temperatures (°C)

Sample Cell: 49.0°C  
Breath Tube: 48.1°C

Current Barometer 29.4 in  
Volume (Ltr) 1.46

Settings

Lamp: 1.83 V  
Bias: 78 V  
Cooler: 1.81 V  
Chopper: 521 Hz

Voltages (V)

Flow: 1.04 V  
Detector: -0.027 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100682  
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Date: 01/17/2013  
Time: 05:32:06

Ca = 0.1010  
CAL = 0.979558    0.800 <= CAL < 1.200  
b1 = 0.0003    0.0000 <= b1 < 0.0040  
b2 = 0.0037    0.0010 <= b2 < 0.0100  
b3 = 0.0002    0.0000 <= b3 < 0.0040  
Xq = 0.0849    0.0500 <= Xq < 0.2000  
a21 = 1.121346    1.050 <= a21 < 1.300  
a31 = 0.437570    0.300 <= a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
 DATA MASTER dmt: 100682

Date: 04/27/2015  
 Time: 10:58:57

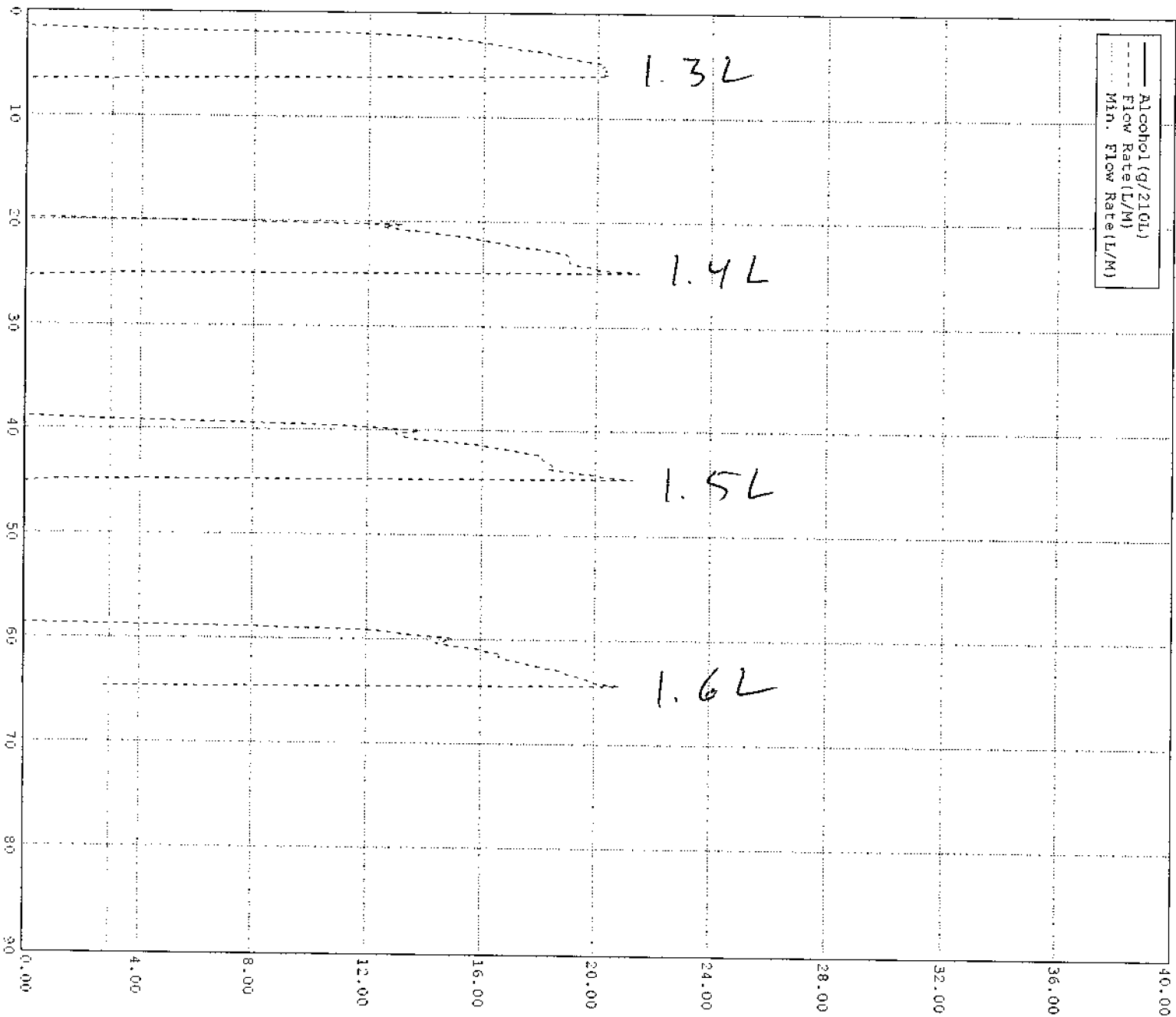
SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

OPERATOR NAME:  
 MINIMUM VOLUME  
 OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.44: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

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=1.58L)	0.000	11:04
BLANK TEST	0.000	11:05
EXTERNAL STANDARD	0.080	11:05
BLANK TEST	0.000	11:06



LINEARITY CHECK

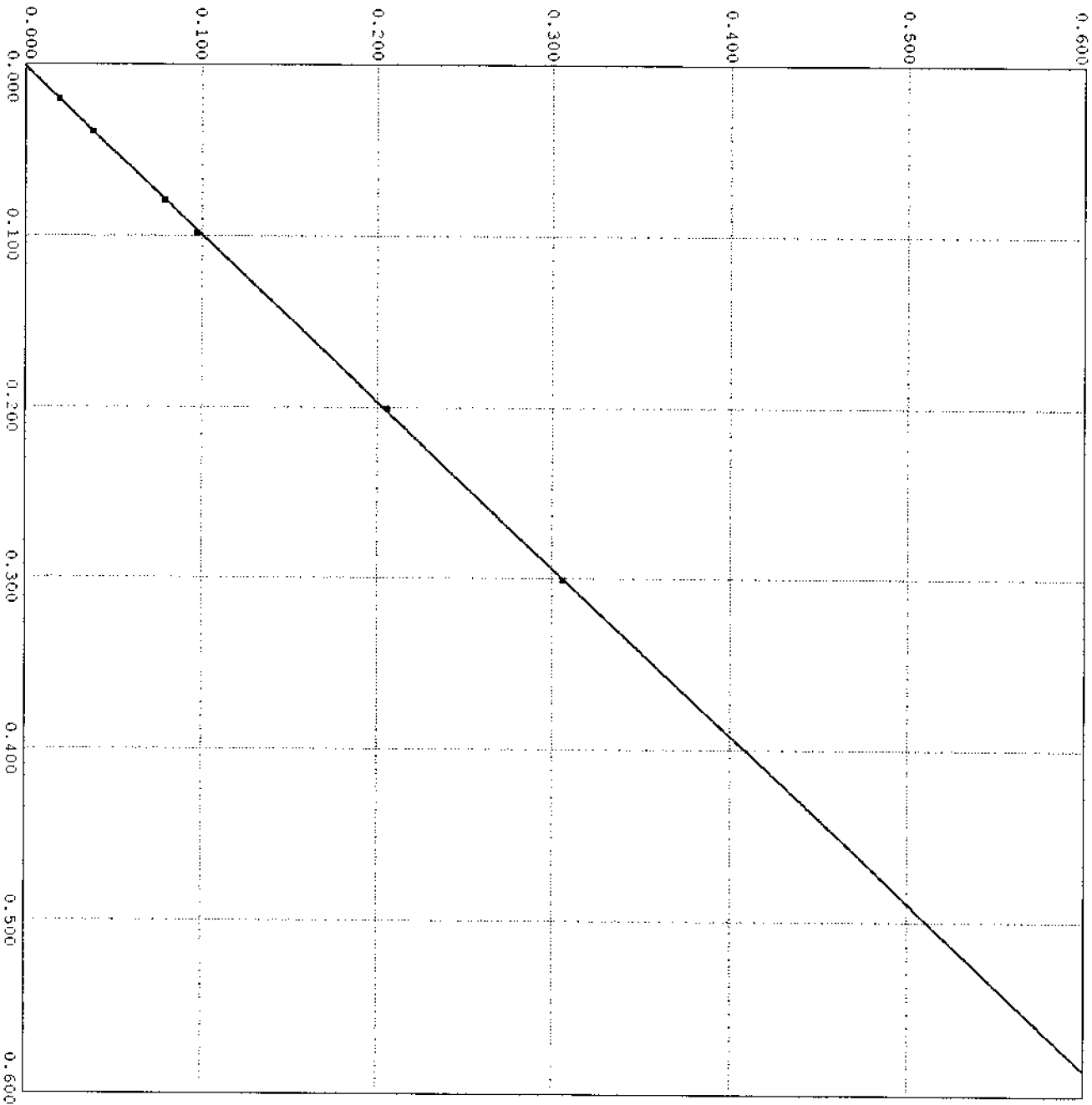
Alaska Department of Public Safety  
 DATAMASTER dnt: 100682

Date: 04/27/2015  
 Time: 13:11:10

SUPERVISOR NAME:  
 CHARLES FOSTER  
 OPERATOR'S #: 7734

TARGET	AVERAGE	STD. DEV.
0.020	0.0200	0.0000
0.039	0.0394	0.0005
0.079	0.0798	0.0004
0.098	0.0982	0.0004
0.200	0.2064	0.0005
0.300	0.3064	0.0005

SLOPE = 1.027078  
 R<sup>2</sup> = 0.999884



LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

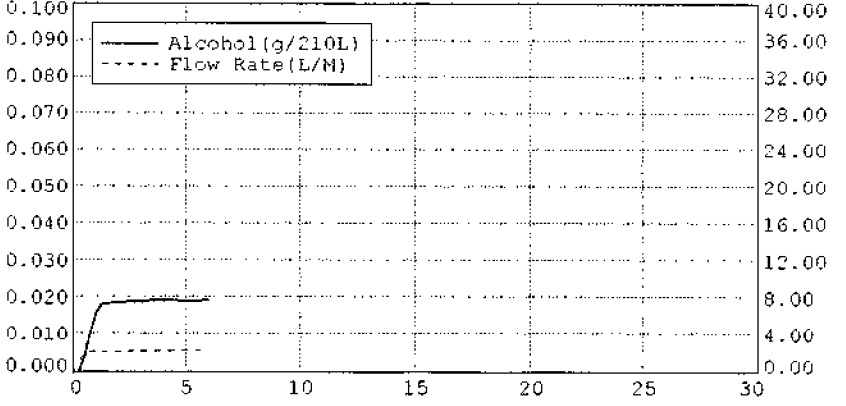
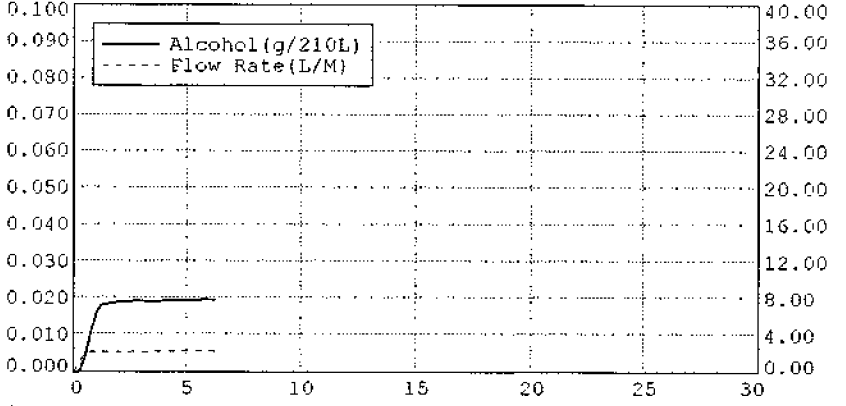
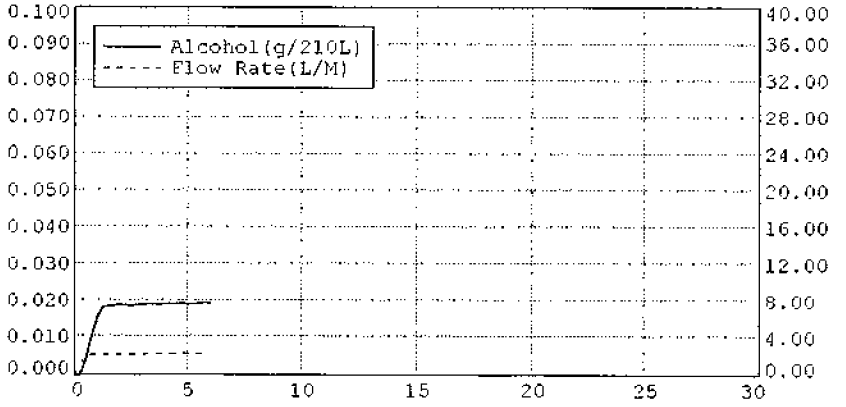
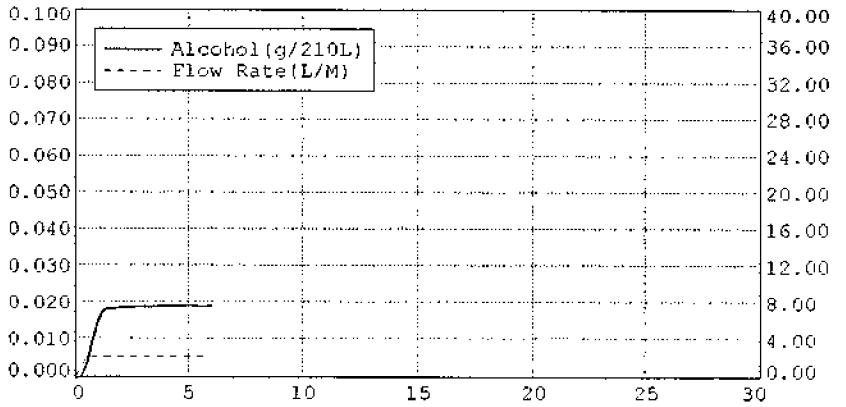
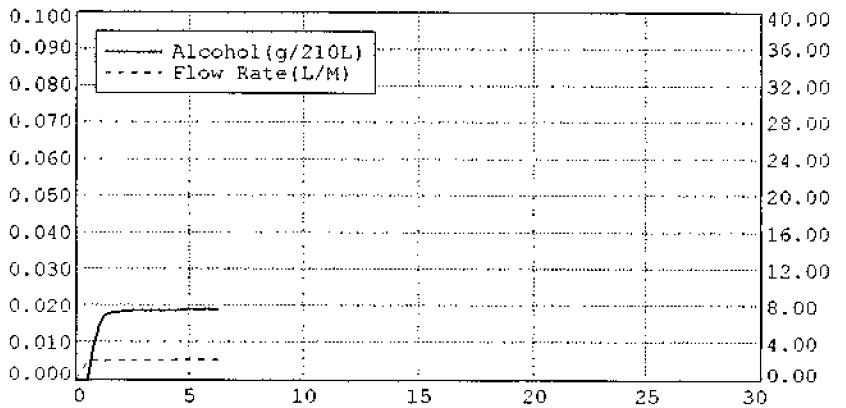
Date: 04/27/2015  
 Time: 13:11:10

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.46: 0.020  
 LOT #: 02915020A2  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 913 psi

BLANK TEST	0.000	13:12
INTERNAL STANDARD	VERIFIED	13:12
EXTERNAL STANDARD	0.020	13:13
BLANK TEST	0.000	13:13
EXTERNAL STANDARD	0.020	13:14
BLANK TEST	0.000	13:15
EXTERNAL STANDARD	0.020	13:15
BLANK TEST	0.000	13:16
EXTERNAL STANDARD	0.020	13:16
BLANK TEST	0.000	13:17
EXTERNAL STANDARD	0.020	13:17
BLANK TEST	0.000	13:18

Average = 0.0200  
 Std Dev = 0.0000



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

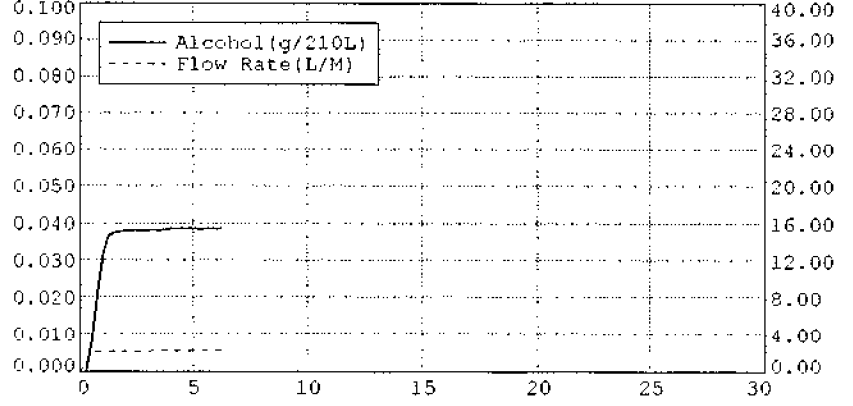
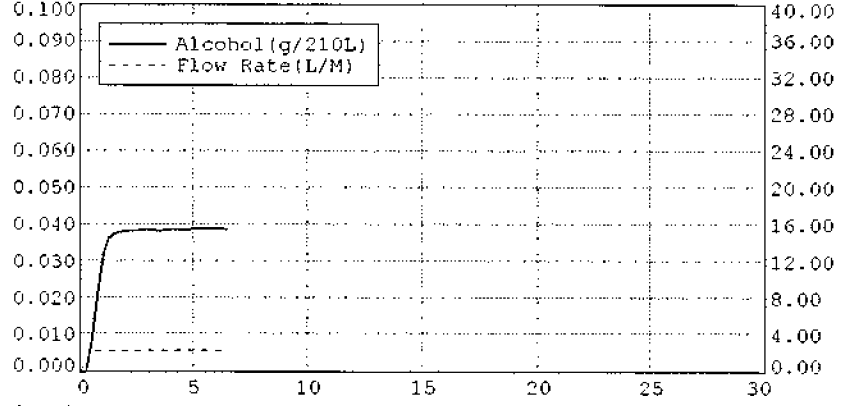
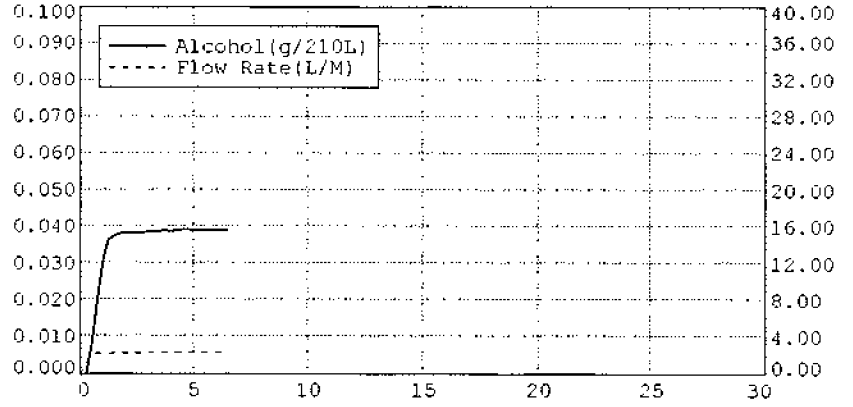
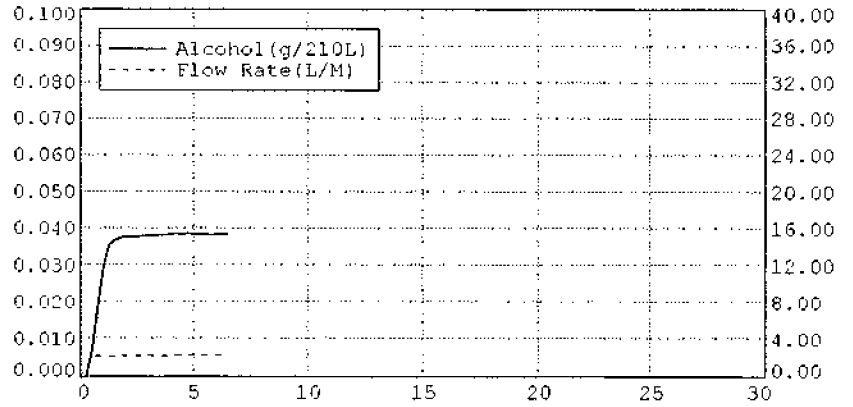
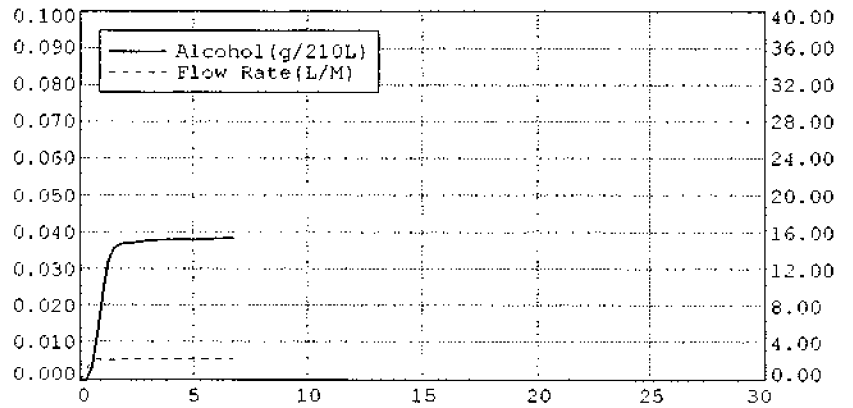
Date: 04/27/2015  
 Time: 13:20:12

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.46: 0.039  
 LOT #: 02915040A3  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 980 psi

BLANK TEST	0.000	13:21
INTERNAL STANDARD	VERIFIED	13:21
EXTERNAL STANDARD	0.039	13:22
BLANK TEST	0.000	13:23
EXTERNAL STANDARD	0.039	13:23
BLANK TEST	0.000	13:24
EXTERNAL STANDARD	0.040	13:24
BLANK TEST	0.000	13:25
EXTERNAL STANDARD	0.040	13:25
BLANK TEST	0.000	13:26
EXTERNAL STANDARD	0.039	13:26
BLANK TEST	0.000	13:27

Average = 0.0394  
 Std Dev = 0.0005





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

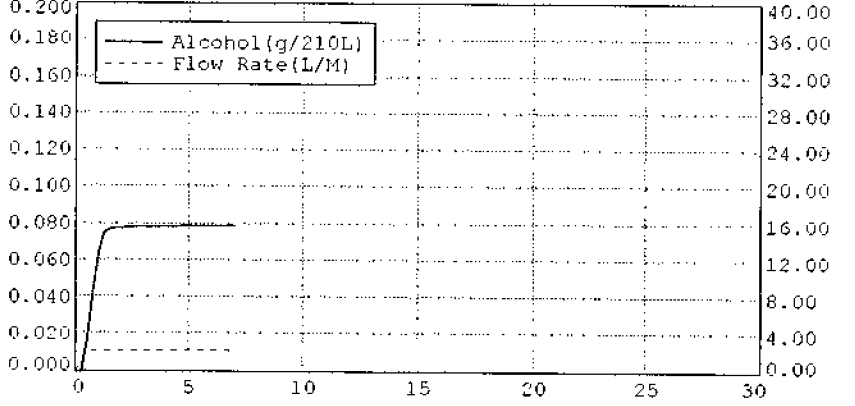
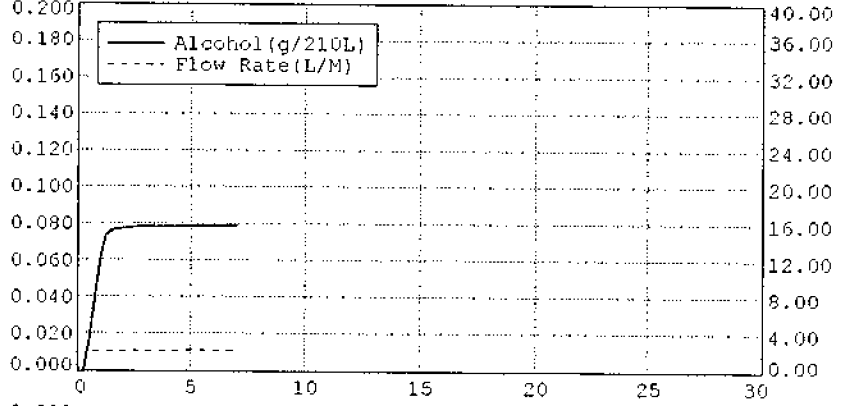
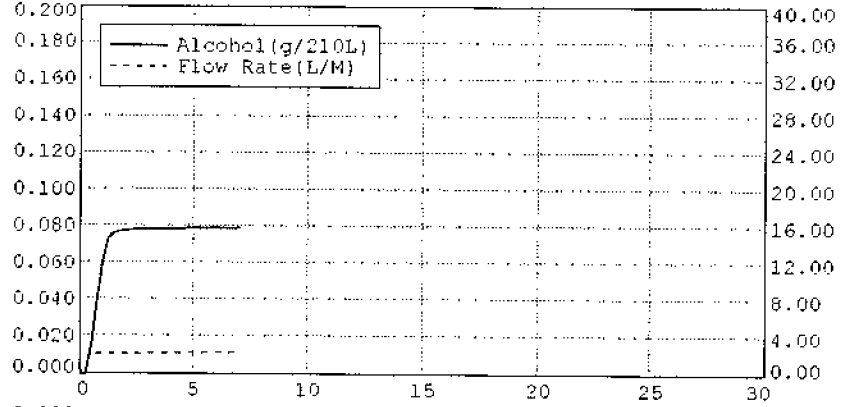
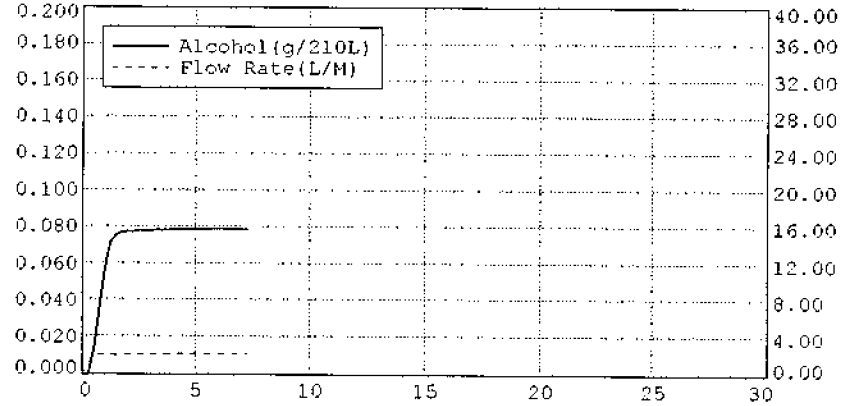
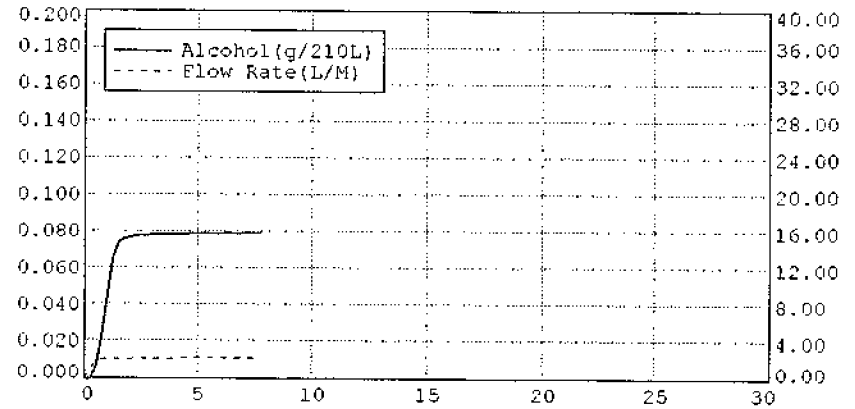
Date: 04/27/2015  
 Time: 13:28:02

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.46: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015  
 TANK PRESSURE: 725 psi

BLANK TEST	0.000	13:29
INTERNAL STANDARD	VERIFIED	13:29
EXTERNAL STANDARD	0.080	13:29
BLANK TEST	0.000	13:30
EXTERNAL STANDARD	0.079	13:30
BLANK TEST	0.000	13:31
EXTERNAL STANDARD	0.080	13:32
BLANK TEST	0.000	13:32
EXTERNAL STANDARD	0.080	13:33
BLANK TEST	0.000	13:34
EXTERNAL STANDARD	0.080	13:34
BLANK TEST	0.000	13:35

Average = 0.0798  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

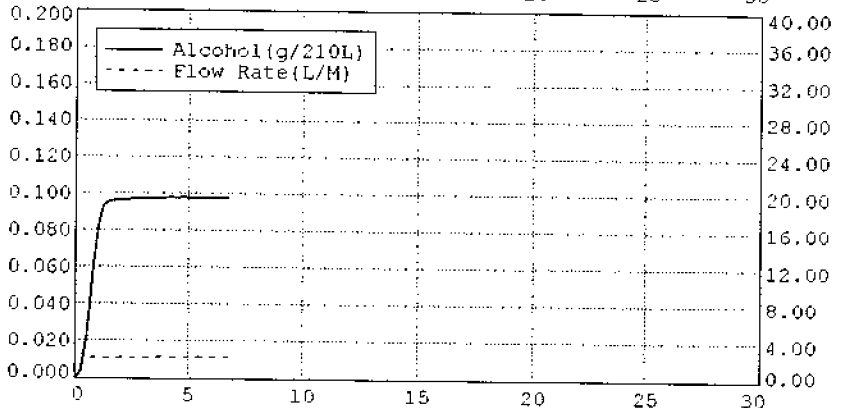
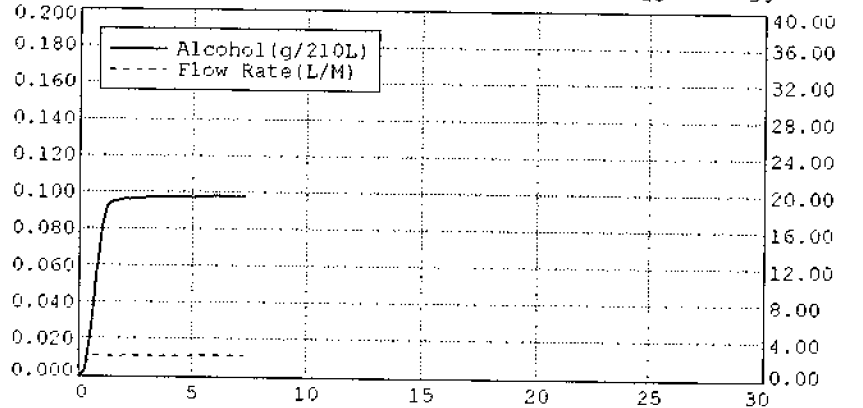
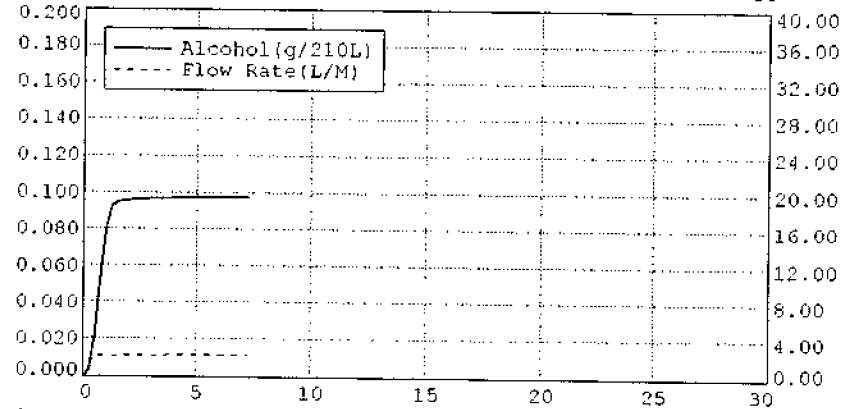
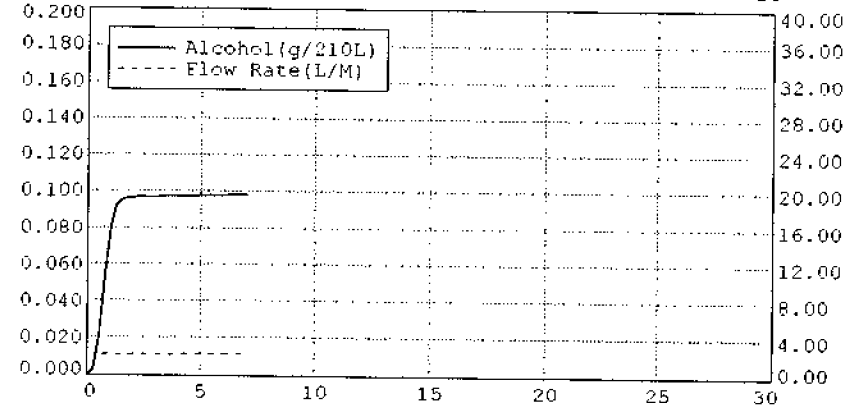
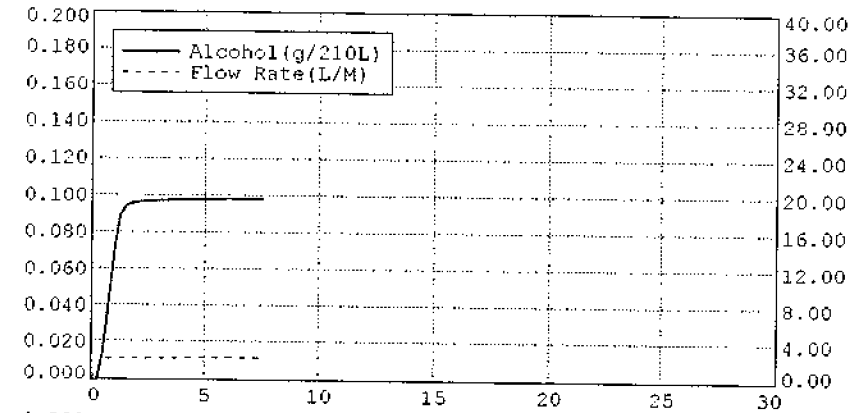
Date: 04/27/2015  
 Time: 13:36:40

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.46: 0.098  
 LOT #: 02915100A1  
 EXPIRATION: 03/05/2017  
 TANK PRESSURE: 926 psi

BLANK TEST	0.000	13:37
INTERNAL STANDARD	VERIFIED	13:37
EXTERNAL STANDARD	0.099	13:38
BLANK TEST	0.000	13:39
EXTERNAL STANDARD	0.098	13:39
BLANK TEST	0.000	13:40
EXTERNAL STANDARD	0.098	13:40
BLANK TEST	0.000	13:41
EXTERNAL STANDARD	0.098	13:41
BLANK TEST	0.000	13:42
EXTERNAL STANDARD	0.098	13:42
BLANK TEST	0.000	13:43

Average = 0.0982  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

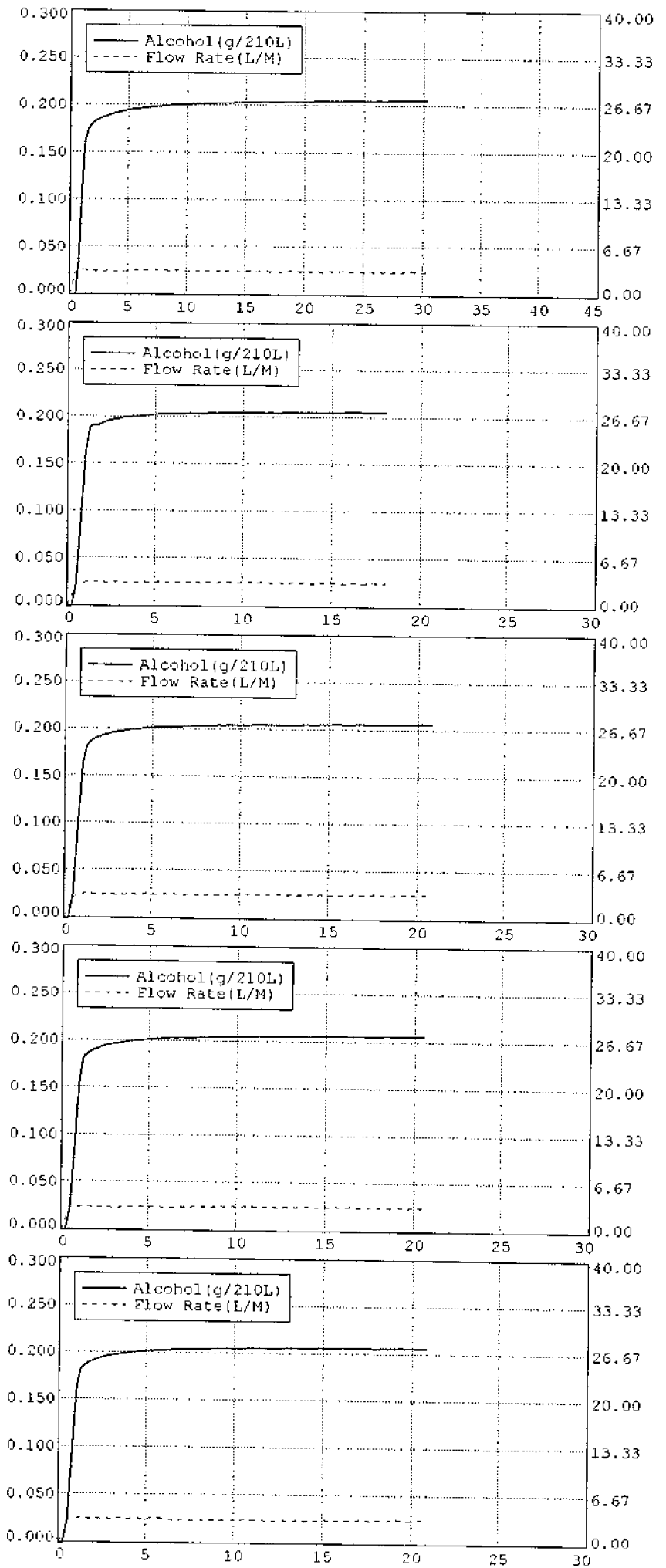
Date: 04/27/2015  
 Time: 13:46:29

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 13220  
 EXPIRATION: 08/05/2015

BLANK TEST	0.000	13:47
INTERNAL STANDARD	VERIFIED	13:47
EXTERNAL STANDARD	0.206	13:48
BLANK TEST	0.000	13:49
EXTERNAL STANDARD	0.206	13:49
BLANK TEST	0.000	13:50
EXTERNAL STANDARD	0.206	13:51
BLANK TEST	0.000	13:52
EXTERNAL STANDARD	0.207	13:52
BLANK TEST	0.000	13:53
EXTERNAL STANDARD	0.207	13:53
BLANK TEST	0.000	13:54

Average = 0.2064  
 Std Dev = 0.0005



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

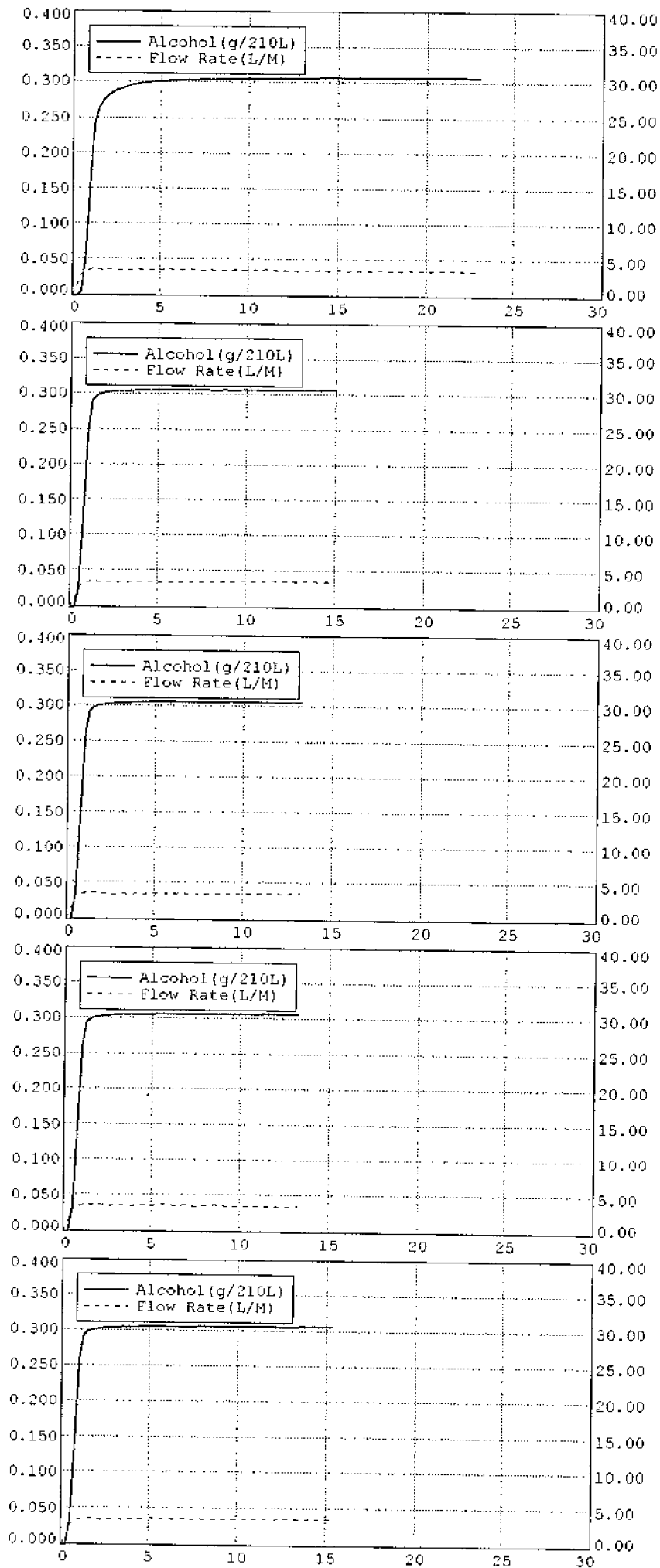
Date: 04/27/2015  
 Time: 13:57:11

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	13:58
INTERNAL STANDARD	VERIFIED	13:58
EXTERNAL STANDARD	0.307	13:59
BLANK TEST	0.000	14:00
EXTERNAL STANDARD	0.306	14:00
BLANK TEST	0.000	14:01
EXTERNAL STANDARD	0.306	14:01
BLANK TEST	0.000	14:02
EXTERNAL STANDARD	0.306	14:02
BLANK TEST	0.000	14:03
EXTERNAL STANDARD	0.307	14:04
BLANK TEST	0.000	14:05

Average = 0.3064  
 Std Dev = 0.0005



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmc: 100682

Date: 04/27/2015  
 Time: 14:38:47

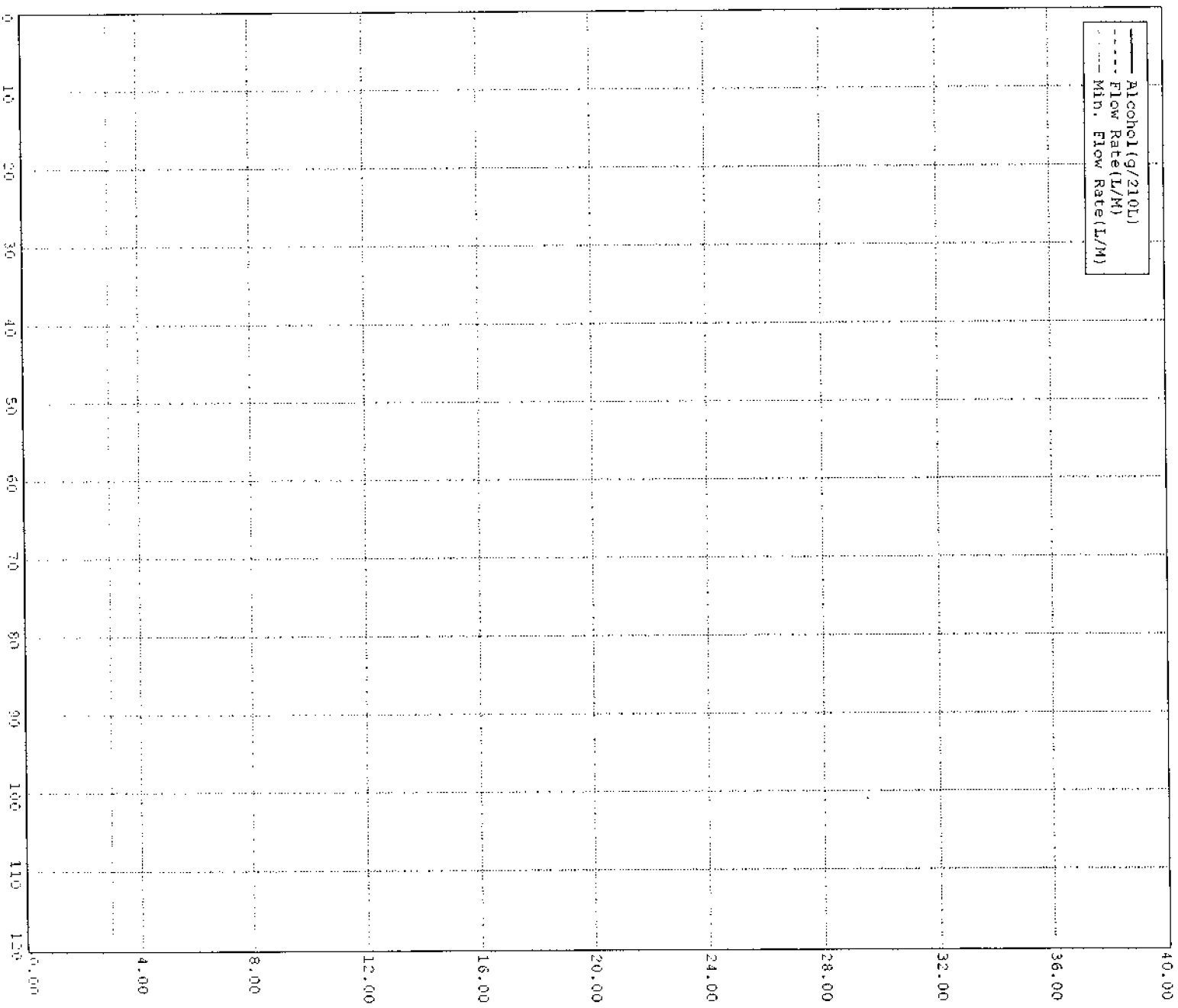
SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

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: 06/01/2015

DIAGNOSTIC CHECK	PASSED	14:39
BLANK TEST	0.000	14:39
INTERNAL STANDARD	VERIFIED	14:40
EXTERNAL STANDARD	0.080	14:40
BLANK TEST	0.000	14:41
SUBJECT SAMPLE	INCOMPLETE	14:43



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 04/27/2015  
Time: 14:50:54

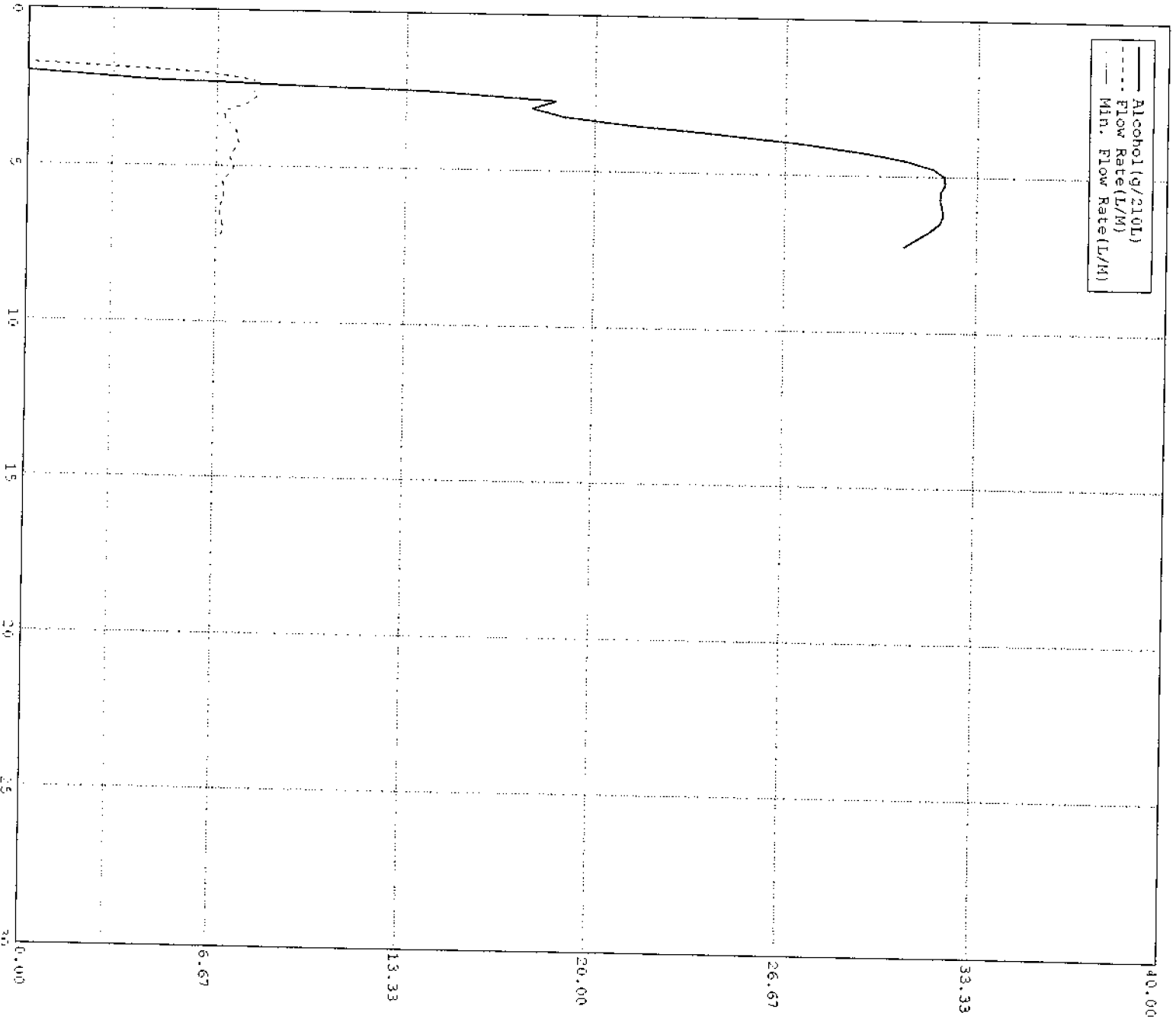
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
MOUTH ETOH  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.45: 0.079  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK  
BLANK TEST PASSED 14:54  
INTERNAL STANDARD 0.000 14:54  
EXTERNAL STANDARD VERIFIED 0.080 14:54  
BLANK TEST 0.000 14:55  
SUBJECT SAMPLE INVALID 14:55



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dnt: 100682

Date: 04/27/2015  
Time: 15:35:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

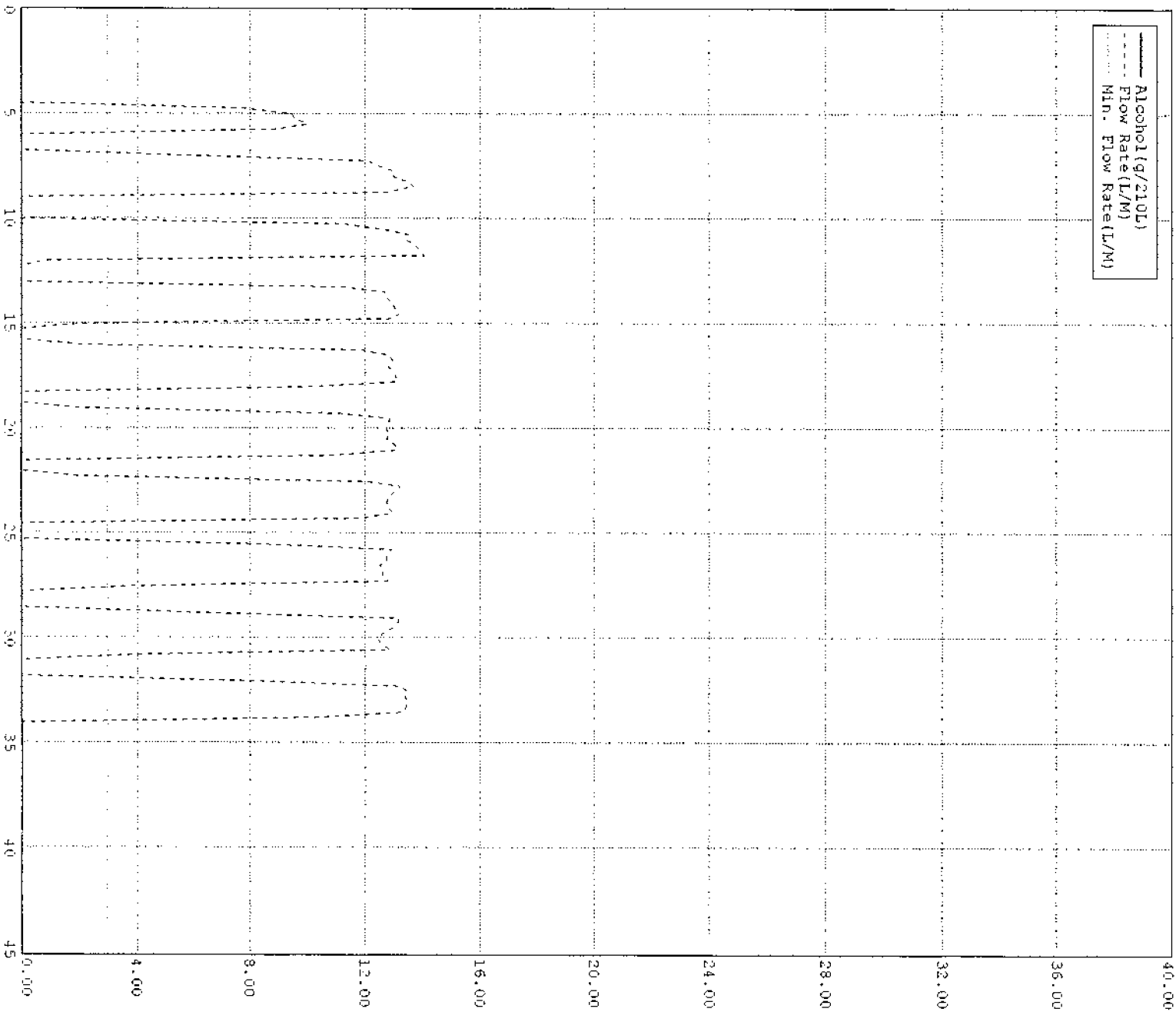
OPERATOR NAME:  
EXCEEDED ATTEMPTS  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.45: 0.079  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	15:40
BLANK TEST	0.000	15:40
INTERNAL STANDARD	VERIFIED	15:40
EXTERNAL STANDARD	0.080	15:40
BLANK TEST	0.000	15:41
SUBJECT SAMPLE	XXX	15:42

Maximum Attempts Exceeded



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

Date: 04/27/2015  
 Time: 14:58:39

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

OPERATOR NAME:  
 INTERFERENCE ACETONE  
 OPERATOR'S #: XXXX

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

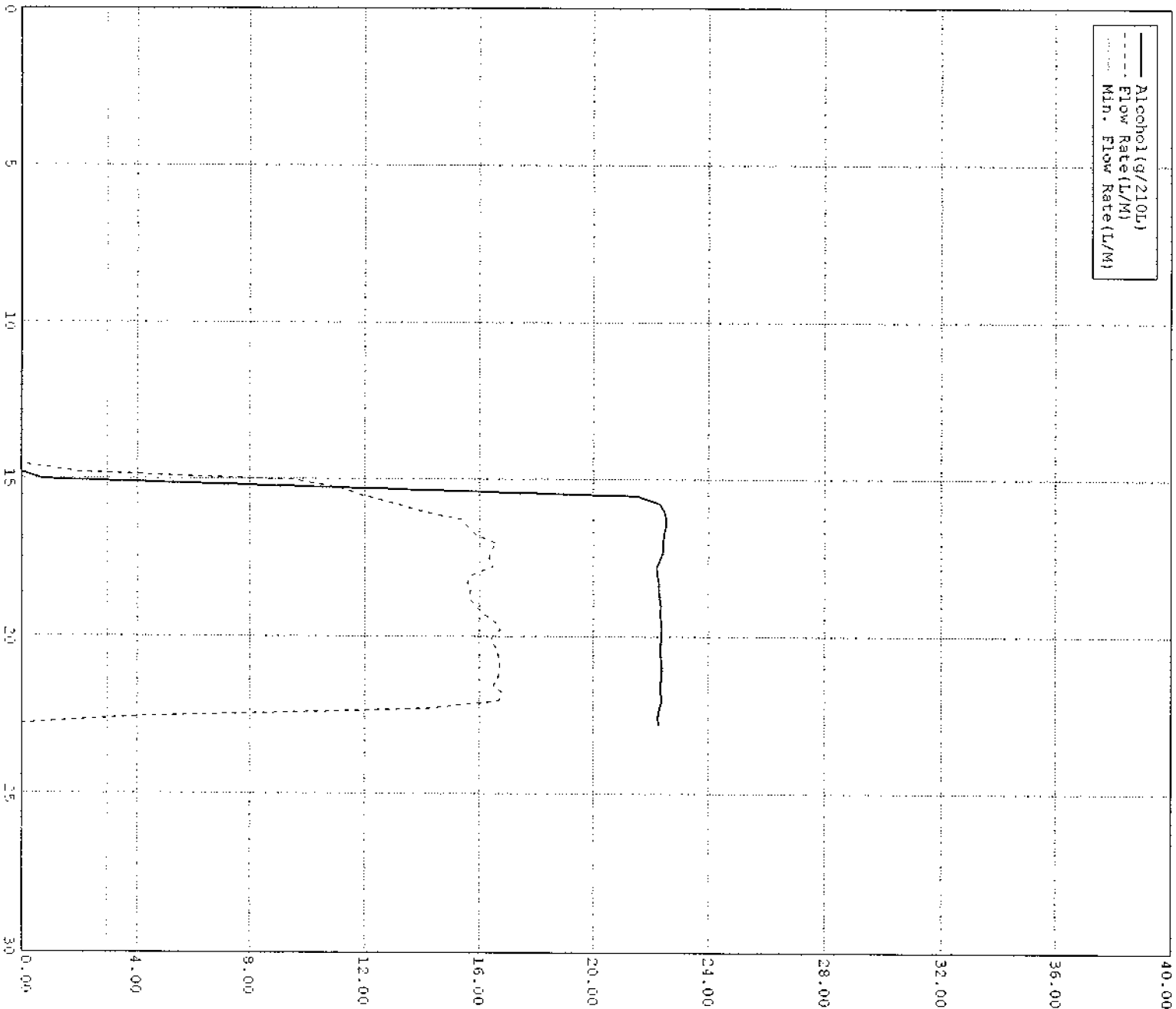
EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AF 29.46: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	15:01
BLANK TEST	0.000	15:01
INTERNAL STANDARD	VERIFIED	15:01
Xq = 0.084 (1.238)		
EXTERNAL STANDARD	0.080	15:01
X[1] = 0.0797 (0.0008)	(0.0032)	
BLANK TEST	0.000	15:02
SUBJECT SAMPLE	XXX	15:03
X[1] = 0.1112 (-0.0152)	(0.0017)	

Interference Detected

Filter 2 Aug. = 0.0010  
 Filter 3 Aug. = 0.0027

CTF 4/28/15





SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

Date: 04/27/2015  
 Time: 15:07:40

SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

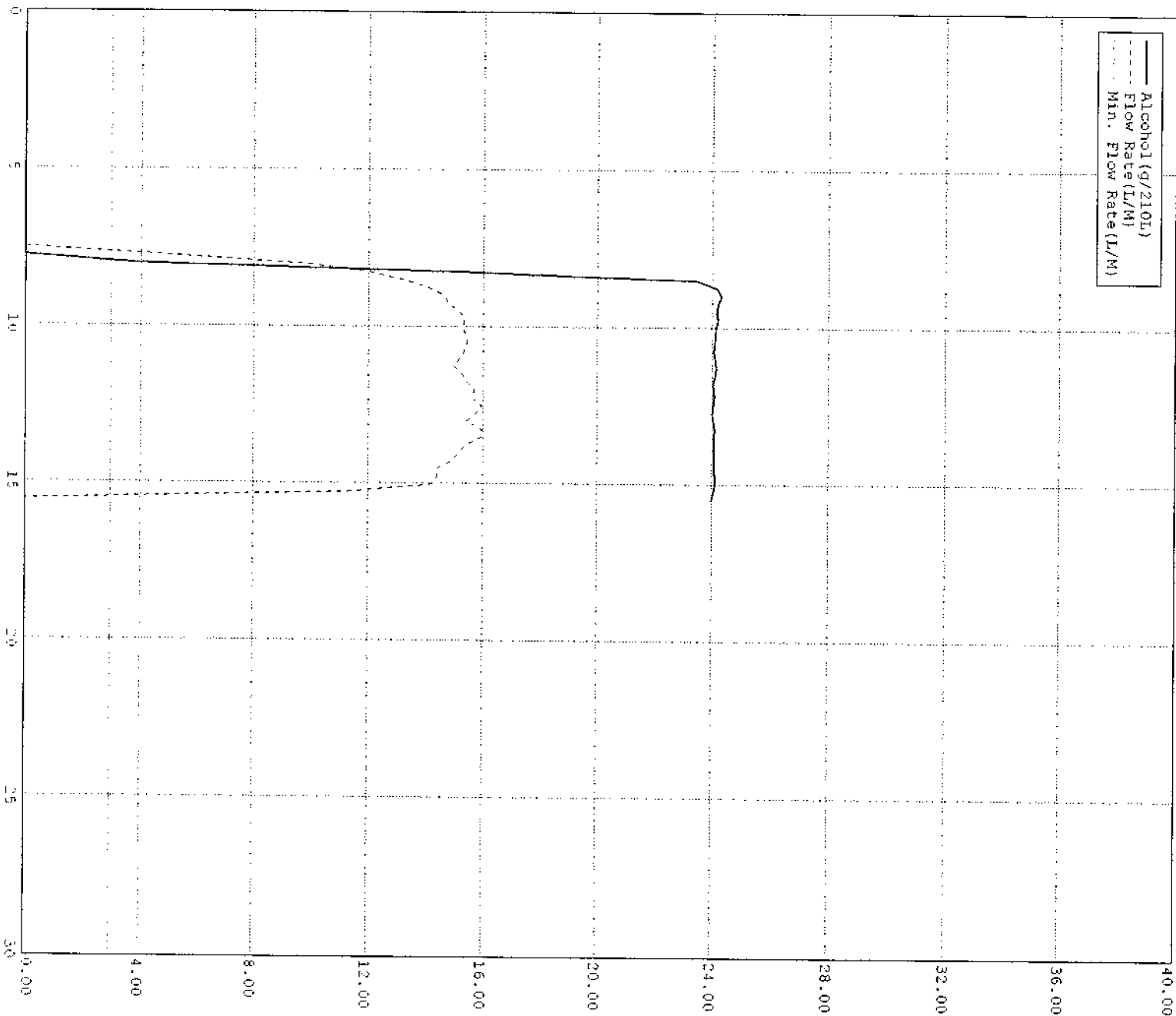
OPERATOR NAME:  
 INTERFERENCE IPA  
 OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.45: 0.079  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	15:10
BLANK TEST	0.000	15:10
INTERNAL STANDARD	VERIFIED	15:10
Xq = 0.085 (0.51%)		
EXTERNAL STANDARD	0.080	15:10
X[1] = 0.0804 (0.0015)	(0.0032)	
BLANK TEST	0.000	15:11
SUBJECT SAMPLE	XXX	15:11
X[1] = 0.1199 (-0.0186)	(0.0015)	

Interference Detected



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100682

Date: 04/27/2015  
Time: 15:15:55

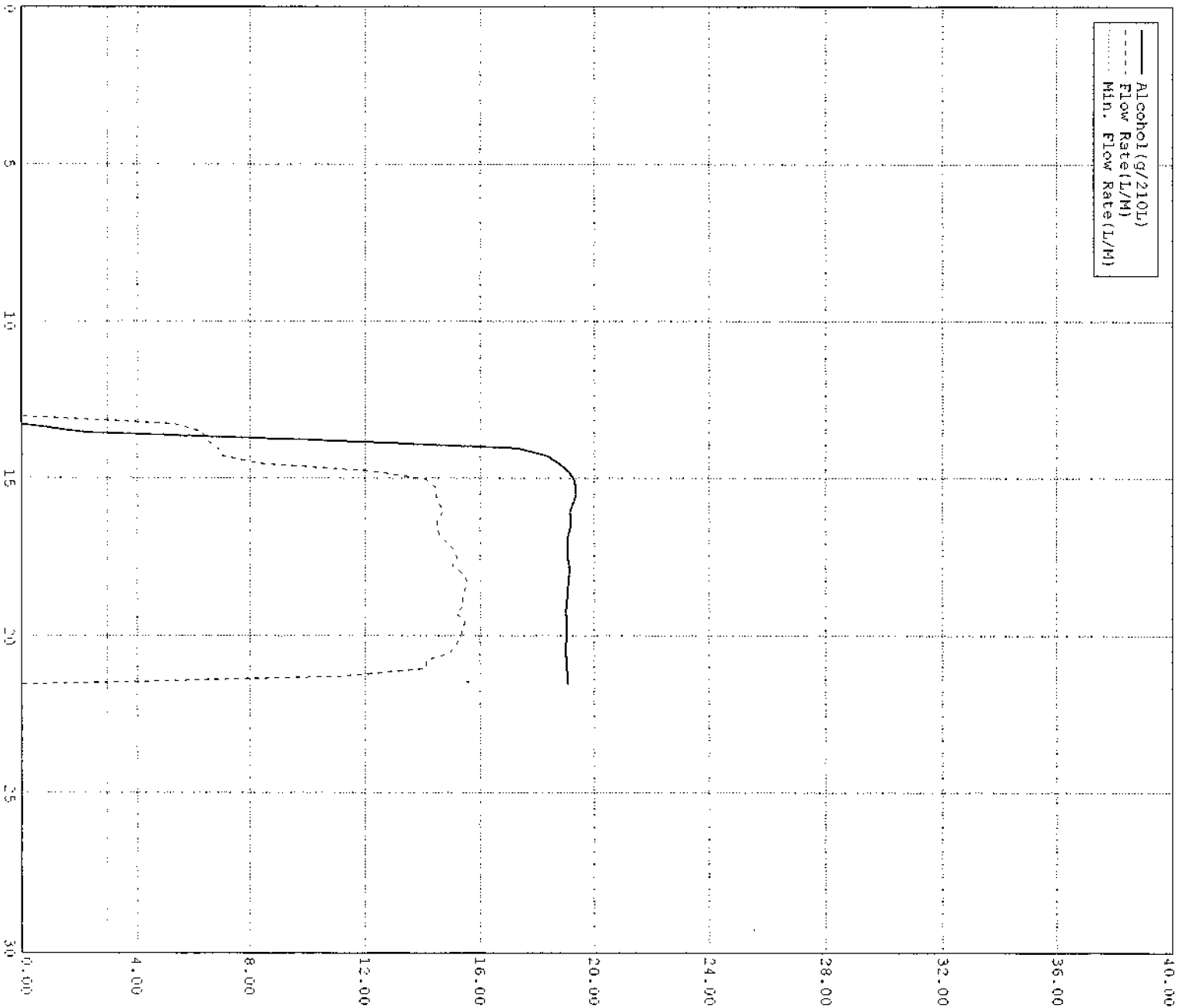
SUBJECT NAME:  
TEST TEST  
LICENSE #: XXXX

OPERATOR NAME:  
INTERFERENCE NEGATIVE  
OPERATOR'S #: XXXX

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

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.45: 0.079  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	15:18
BLANK TEST	0.000	15:18
INTERNAL STANDARD	VERIFIED	15:18
Xq = 0.085 (0.51%)		
EXTERNAL STANDARD	0.080	15:18
X[1] = 0.0797 (0.0010)	(0.0026)	
BLANK TEST	0.000	15:19
SUBJECT SAMPLE (Vol=1.83L)	0.095	15:20
X[1] = 0.0950 (-0.0001)	(0.0007)	
BLANK TEST	0.000	15:21
EXTERNAL STANDARD	0.080	15:21
X[1] = 0.0795 (0.0008)	(0.0019)	
BLANK TEST	0.000	15:22



SUBJECT TEST

Alaska Department of Public Safety  
 DATAMASTER dmt: 100682

Date: 04/27/2015  
 Time: 15:47:50

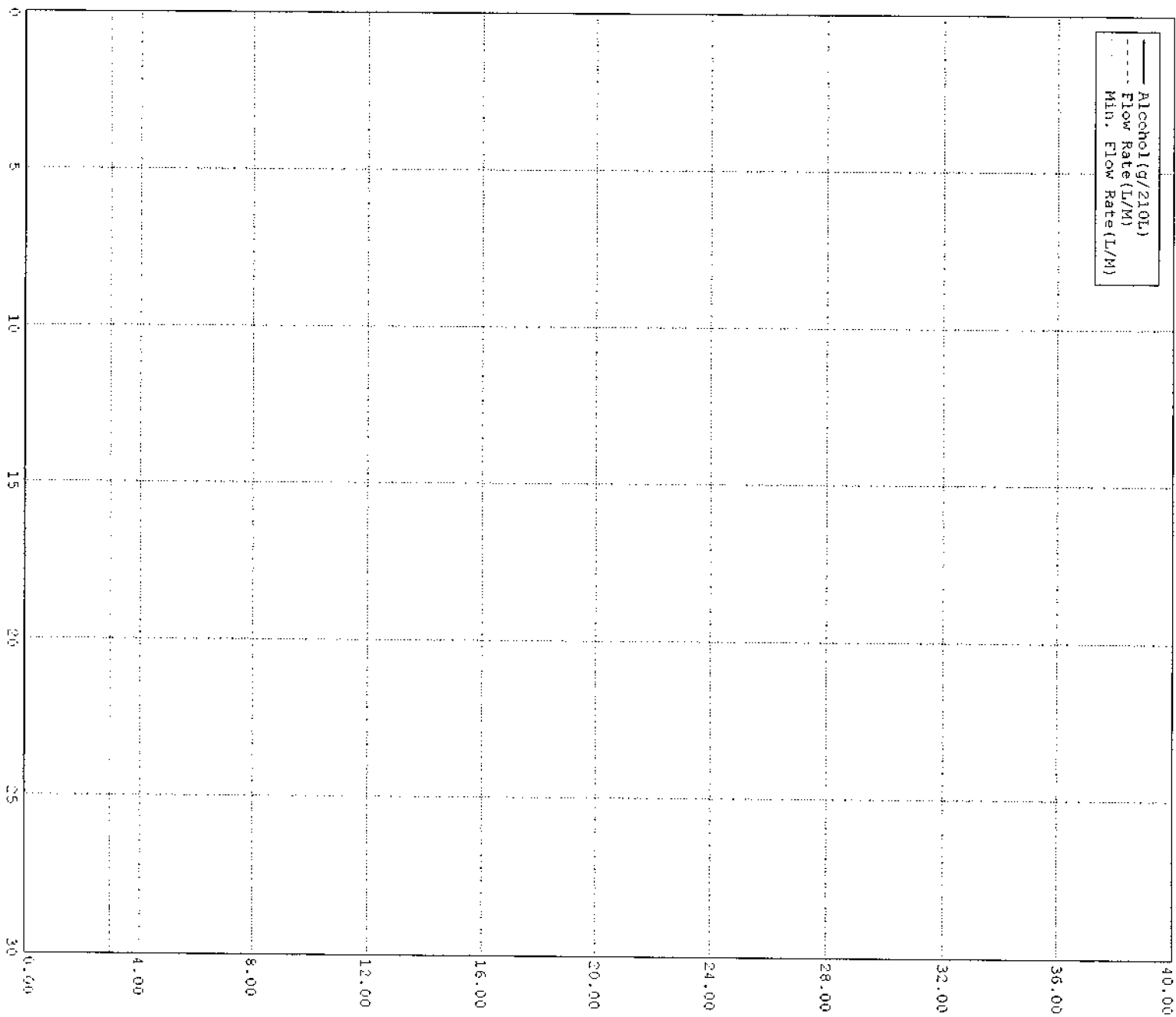
SUBJECT NAME:  
 TEST TEST  
 LICENSE #: XXXX

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: 06/01/2015

DIAGNOSTIC CHECK  
 BLANK TEST PASSED 15:49  
 INTERNAL STANDARD 0.000 15:49  
 EXTERNAL STANDARD VERIFIED 15:49  
 BLANK TEST 0.080 15:49  
 BLANK TEST 0.000 15:50  
 RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
 DATAWASTER dmt: 100682

Date: 04/28/2015  
 Time: 08:51:47

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 29.26: 0.078  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	08:52
BLANK TEST	0.000	08:52
INTERNAL STANDARD	VERIFIED	08:53
EXTERNAL STANDARD	0.080	08:53
BLANK TEST	0.000	08:54
SUBJECT SAMPLE (Vol=2.47L)	0.000	08:54
BLANK TEST	0.000	08:55
EXTERNAL STANDARD	0.079	08:55
BLANK TEST	0.000	08:56

