

# Alaska Scientific Crime Detection Laboratory

## DataMaster Certification Form

Issued: 10/9/2014  
Effective: 10/9/2014

Version: DMCEF 2014 R1  
Status: Active

Instrument S/N 100-406 Analyst Colleen O'Bryant Start Date 12/11/14

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 1.4 L (1.3L to 1.7L)

5. Linearity Test (attached)

a. Levels Used

- i. 0.020g/210L Mnf ILMO Lot 00813020A1 Exp 3/1/15
- ii. 0.040g/210L Mnf ILMO Lot 00813040A2 Exp 3/1/15
- iii. 0.080g/210L Mnf ILMO Lot 11313080A1 Exp 6/1/15
- iv. 0.100g/210L Mnf ILMO Lot 00813100A3 Exp 3/1/15
- v. 0.200g/210L Mnf Guth Lot 14130 Exp 5/2/16
  1. Simulator S/N DR41598 Date Calibrated 2/19/14
- vi. 0.300g/210L Mnf Guth Lot 14150 Exp 6/2/16
  1. Simulator S/N SD1177 Date Calibrated 2/20/14

6. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference

- i. Acetone - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/16
  1. Simulator S/N SD1198 Date Calibrated 2/20/14
- ii. Isopropanol - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/16
  1. Simulator S/N SD1202 Date Calibrated 2/20/14
- iii. Negative Control - Mnf Guth Lot 14030 Level 0.100 Exp 1/20/16
  1. Simulator S/N DR4161 Date Calibrated 2/20/14 ~~2/19/14~~

d. 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 12/17/14

DIAGNOSTIC RECORD

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100406  
-----

Date: 12/11/2014  
Time: 12:56:28

VERSIONS

DMT: 2.00  
PIC: 3.02  
Modem: 2.3  
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.9°C            PASSED  
Breath Tube     = 47.3°C           PASSED

PUMP INFO

Flow Rate = 5.170 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: 100406  
-----

Date: 12/11/2014  
Time: 3:14 PM

Temperatures (°C)

Sample Cell: 48.8°C  
Breath Tube: 46.2°C

Current Barometer 28.9 in  
Volume (Ltr) 1.47

Settings

Lamp: 1.79 V  
Bias: 80 V  
Cooler: 1.79 V  
Chopper: 536 Hz

Voltages (V)

Flow: 1.07 V  
Detector: -0.057 V

CALIBRATION FACTORS

-----  
Alaska Department of Public Safety  
DATAMASTER dmt: 100406  
-----

Date: 10/05/2011  
Time: 09:07:21

Ca	=	0.1000			
CAL	=	0.988221	0.800	<=	CAL < 1.200
b1	=	0.0007	0.0000	<=	b1 < 0.0040
b2	=	0.0060	0.0010	<=	b2 < 0.0100
b3	=	0.0003	0.0000	<=	b3 < 0.0040
Xq	=	0.1008	0.0500	<=	Xq < 0.2000
a21	=	1.202874	1.050	<=	a21 < 1.300
a31	=	0.480296	0.300	<=	a31 < 0.800

SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100406

Date: 12/11/2014  
Time: 15:15:49

SUBJECT NAME:  
TEST TEST  
LICENSE #: VOLUME TEST

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

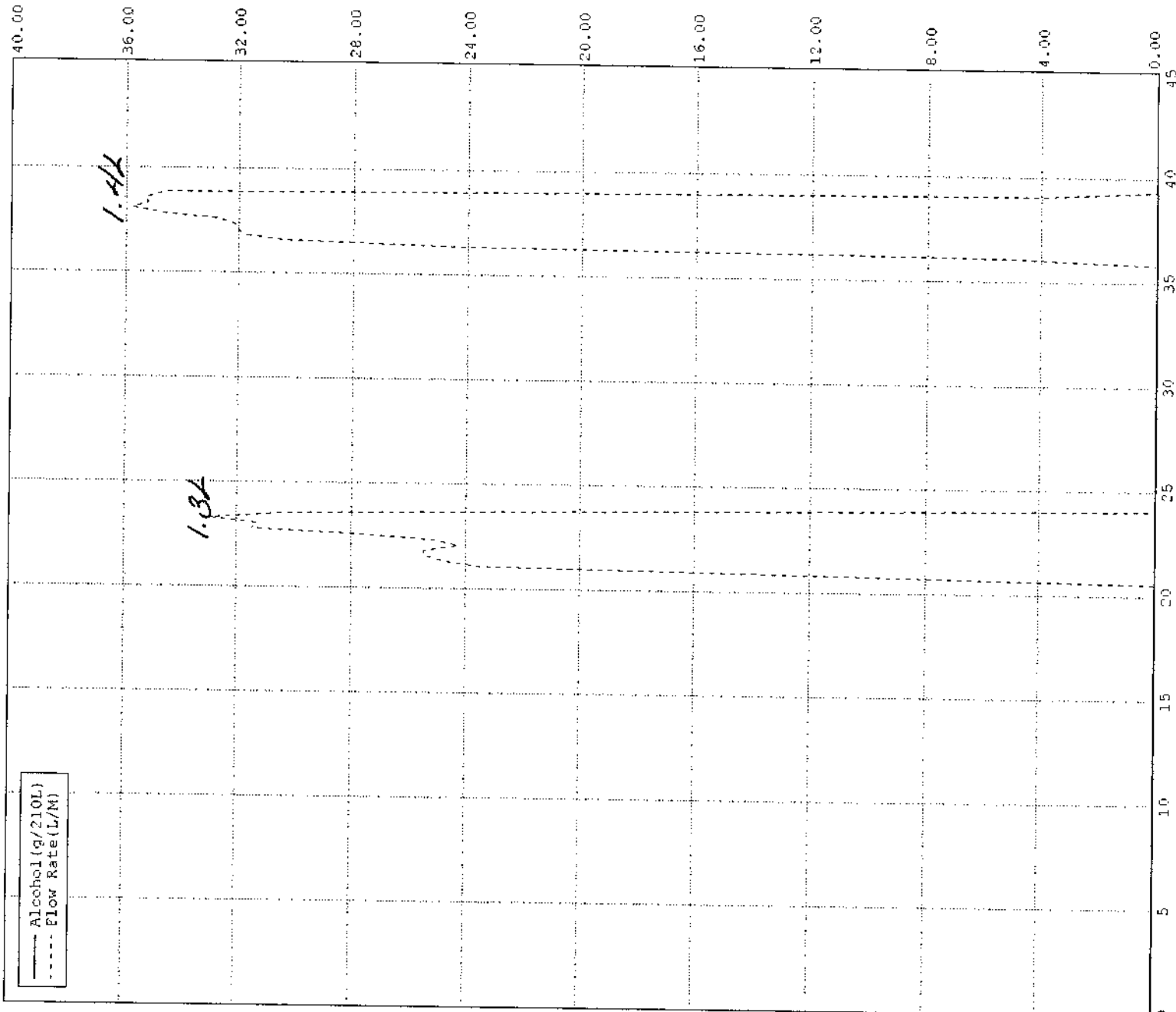
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 28.93; 0.077  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	15:21
BLANK TEST	0.000	15:21
INTERNAL STANDARD	VERIFIED	15:21
EXTERNAL STANDARD	0.076	15:21
BLANK TEST	0.000	15:22
SUBJECT SAMPLE	0.000	15:23
BLANK TEST	0.000	15:24
EXTERNAL STANDARD	0.077	15:24
BLANK TEST	0.000	15:25

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



LINEARITY CHECK

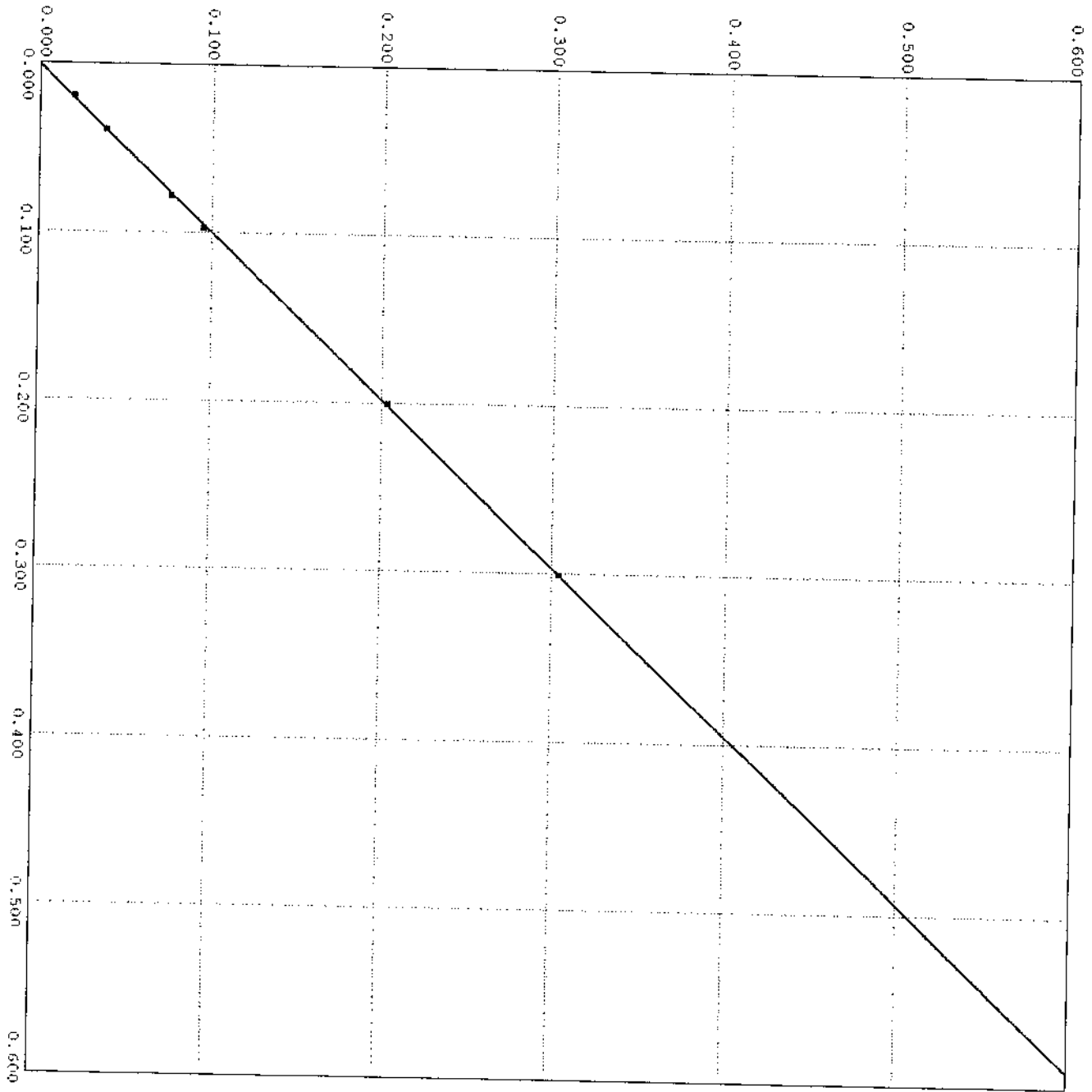
Alaska Department of Public Safety  
DATAMASTER dnt: 100406

Date: 12/17/2014  
Time: 09:07:15

SUPERVISOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

TARGET	AVERAGE	STD. DEV.
0.019	0.0205	0.0001
0.039	0.0395	0.0003
0.078	0.0774	0.0004
0.097	0.0963	0.0002
0.200	0.2041	0.0007
0.300	0.3048	0.0009

SLOPE = 1.017515  
 $R^2$  = 0.999831



MS

LINEARITY CHECK: Control Test 1

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

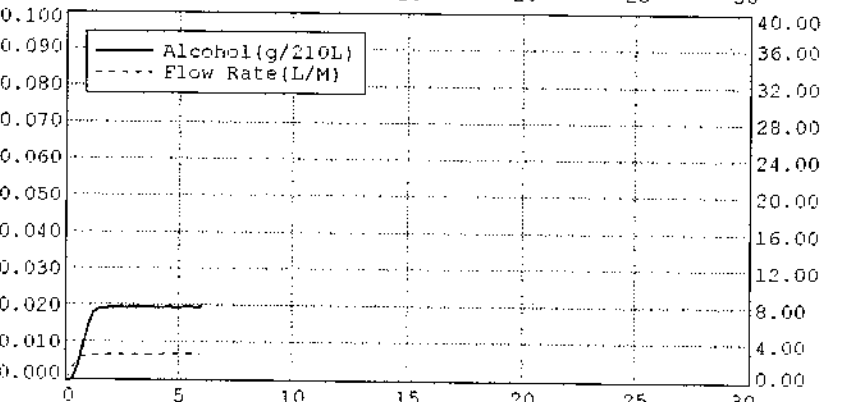
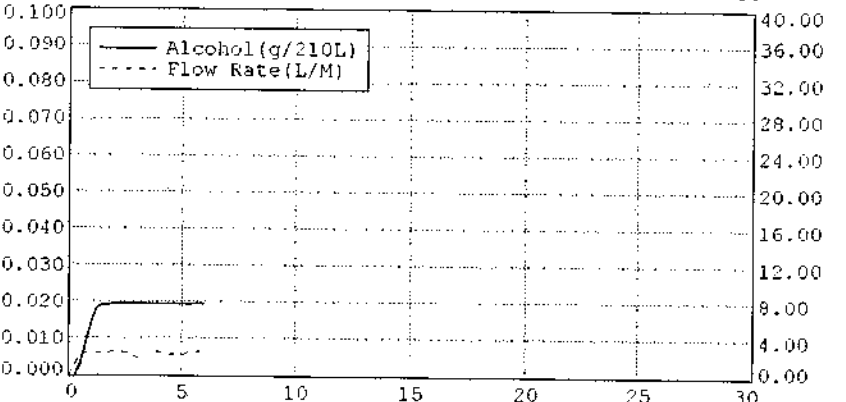
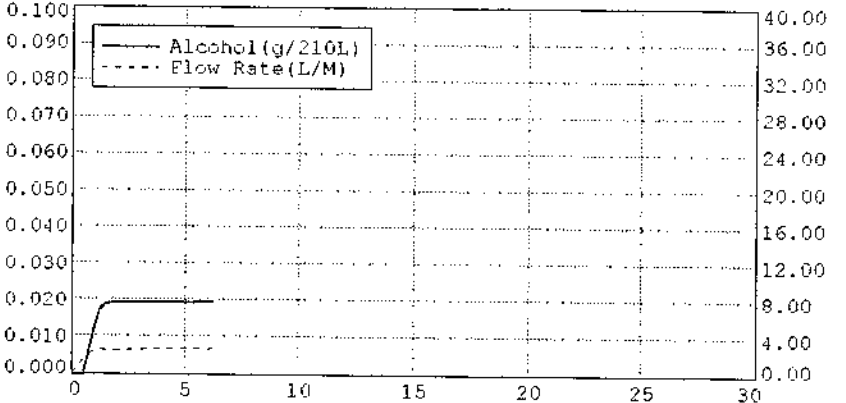
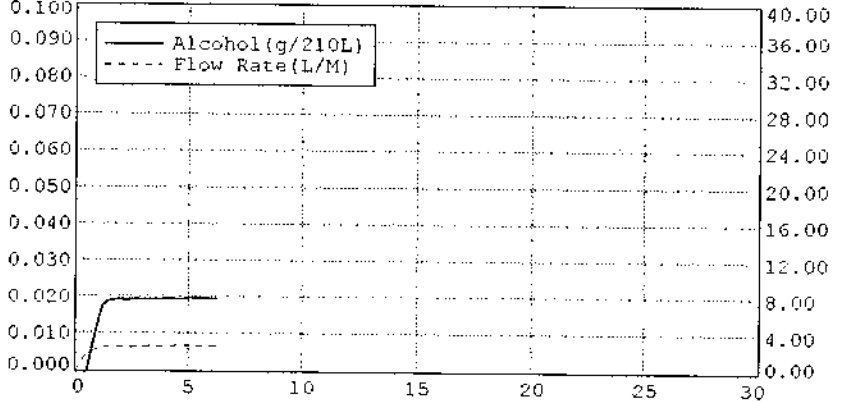
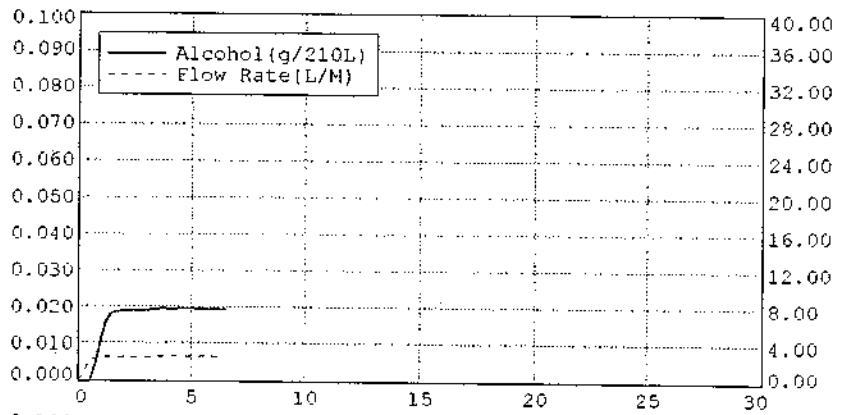
Date: 12/17/2014  
 Time: 09:07:17

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.020  
 TARGET AT 29.28: 0.019  
 LOT #: 00813020A1  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:09
INTERNAL STANDARD	VERIFIED	09:09
EXTERNAL STANDARD	0.020	09:09
BLANK TEST	0.000	09:10
EXTERNAL STANDARD	0.020	09:11
BLANK TEST	0.000	09:11
EXTERNAL STANDARD	0.020	09:12
BLANK TEST	0.000	09:13
EXTERNAL STANDARD	0.020	09:13
BLANK TEST	0.000	09:14
EXTERNAL STANDARD	0.020	09:14
BLANK TEST	0.000	09:15

Average = 0.0205  
 Std Dev = 0.0001



LINEARITY CHECK: Control Test 2

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

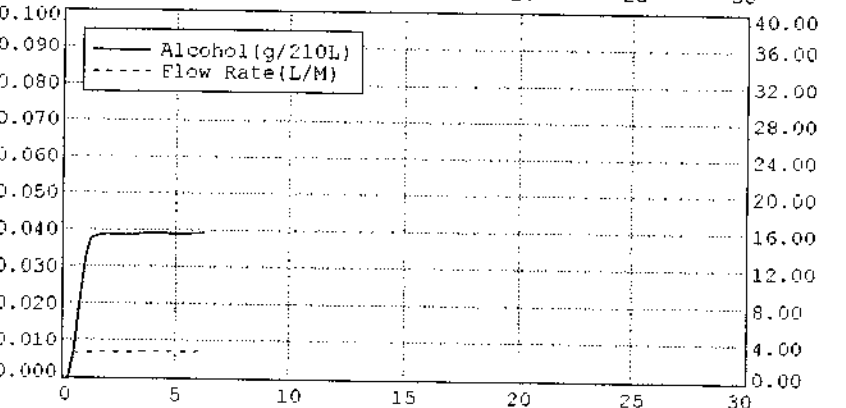
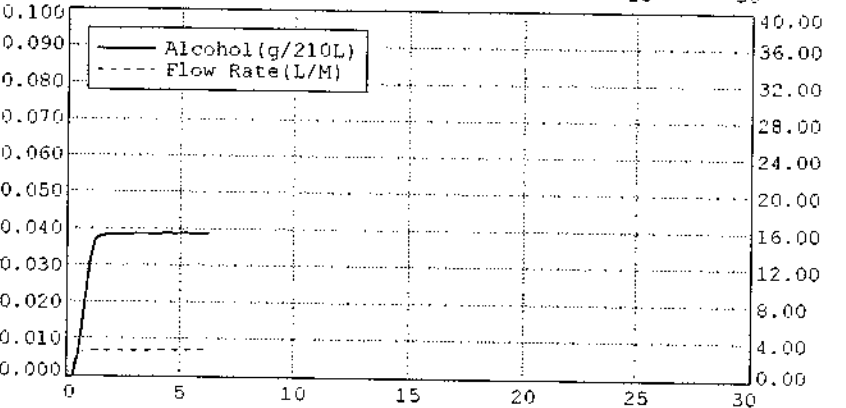
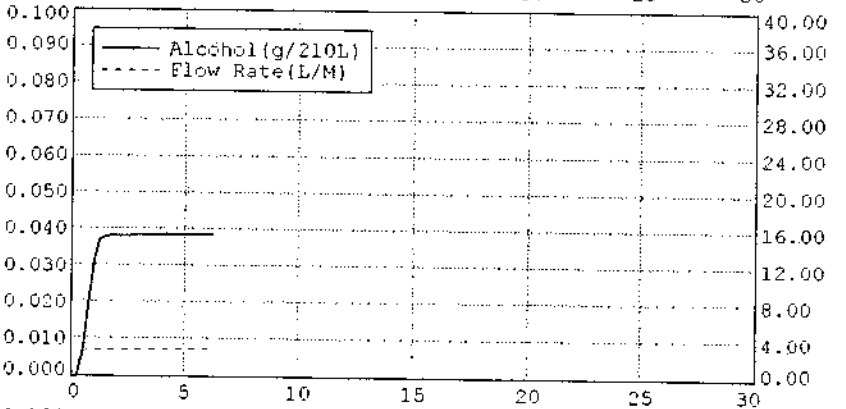
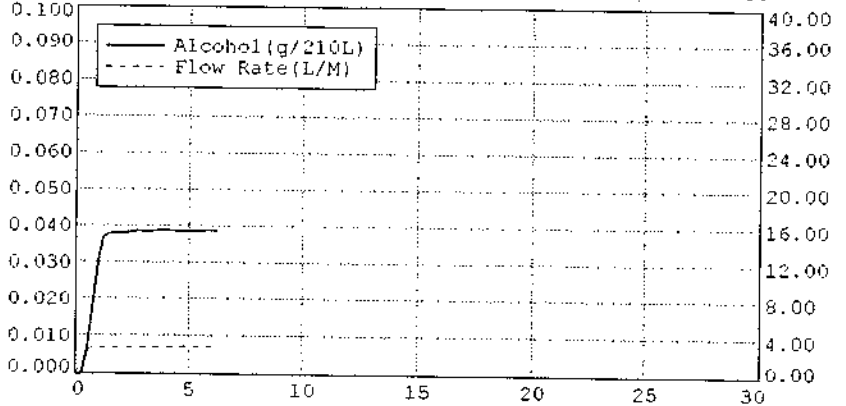
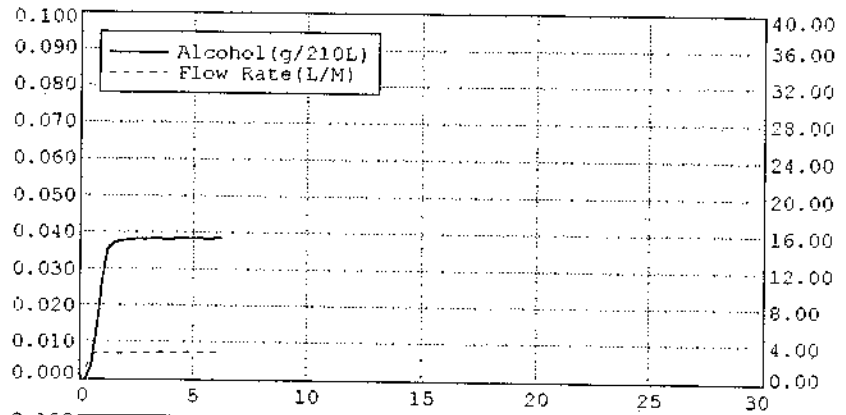
Date: 12/17/2014  
 Time: 09:16:07

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.040  
 TARGET AT 29.28: 0.039  
 LOT #: 00813040A2  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:17
INTERNAL STANDARD	VERIFIED	09:17
EXTERNAL STANDARD	0.039	09:17
BLANK TEST	0.000	09:18
EXTERNAL STANDARD	0.039	09:19
BLANK TEST	0.000	09:20
EXTERNAL STANDARD	0.039	09:20
BLANK TEST	0.000	09:21
EXTERNAL STANDARD	0.039	09:21
BLANK TEST	0.000	09:22
EXTERNAL STANDARD	0.039	09:22
BLANK TEST	0.000	09:23

Average = 0.0395  
 Std Dev = 0.0003





LINEARITY CHECK: Control Test 3

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

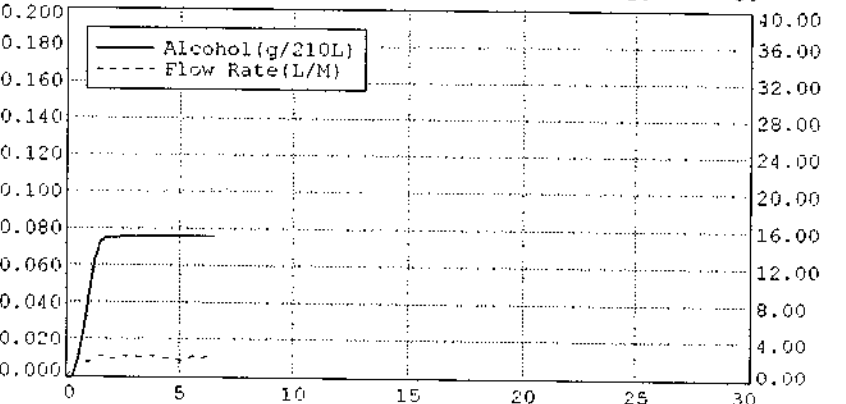
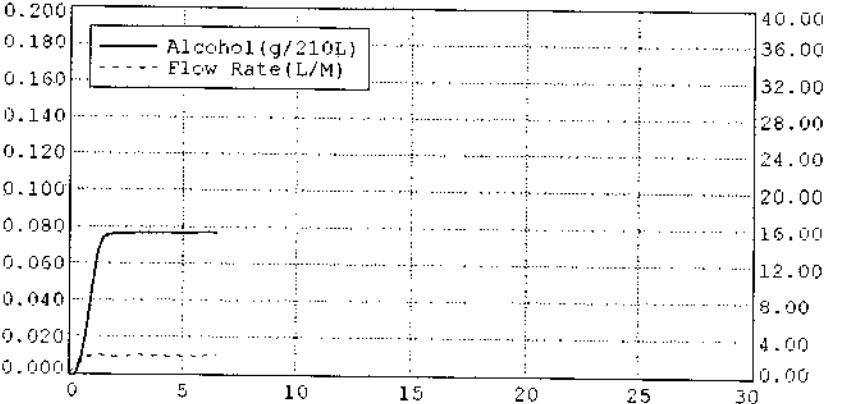
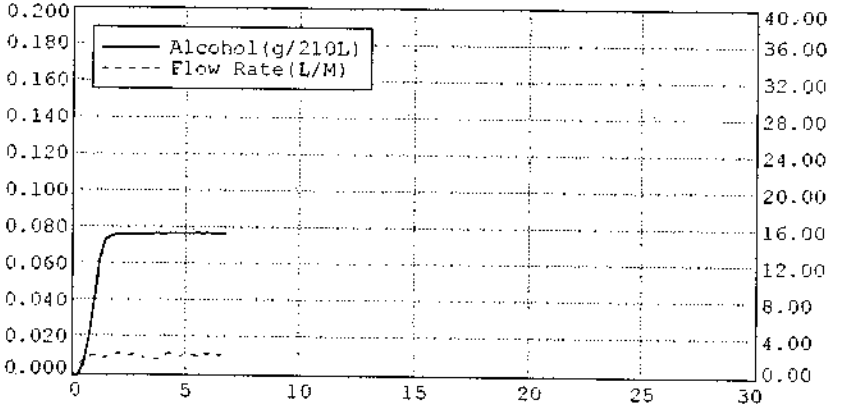
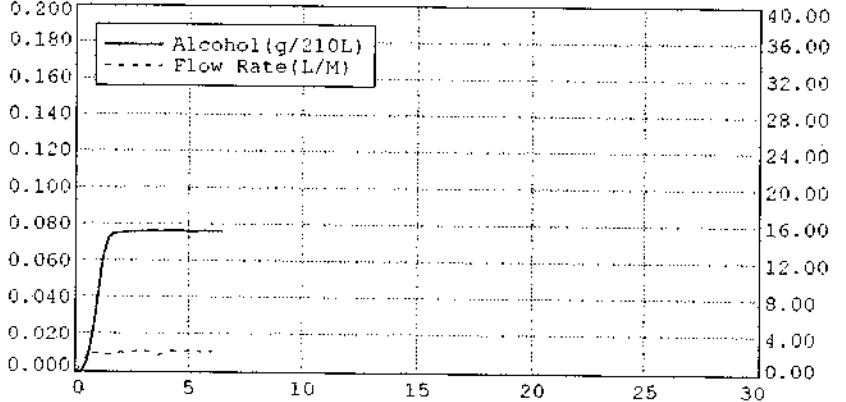
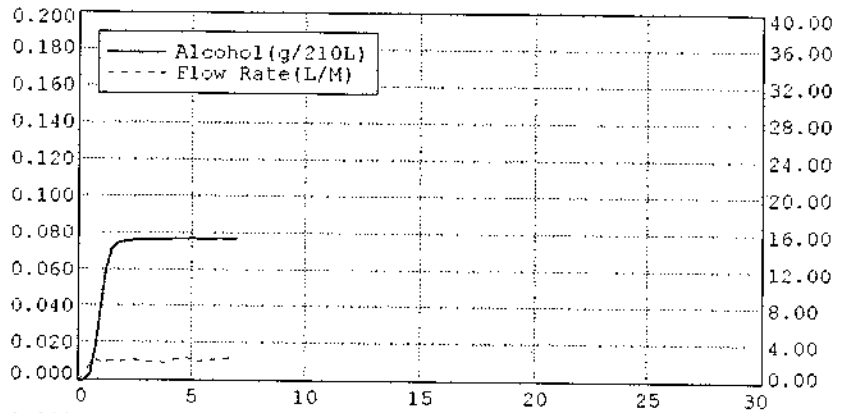
Date: 12/17/2014  
 Time: 09:24:07

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
 TARGET AT 29.28: 0.078  
 LOT #: 11313080A1  
 EXPIRATION: 06/01/2015

BLANK TEST	0.000	09:25
INTERNAL STANDARD	VERIFIED	09:25
EXTERNAL STANDARD	0.077	09:25
BLANK TEST	0.000	09:26
EXTERNAL STANDARD	0.077	09:26
BLANK TEST	0.000	09:27
EXTERNAL STANDARD	0.077	09:27
BLANK TEST	0.000	09:28
EXTERNAL STANDARD	0.077	09:29
BLANK TEST	0.000	09:30
EXTERNAL STANDARD	0.076	09:30
BLANK TEST	0.000	09:31

Average = 0.0774  
 Std Dev = 0.0004



LINEARITY CHECK: Control Test 4

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

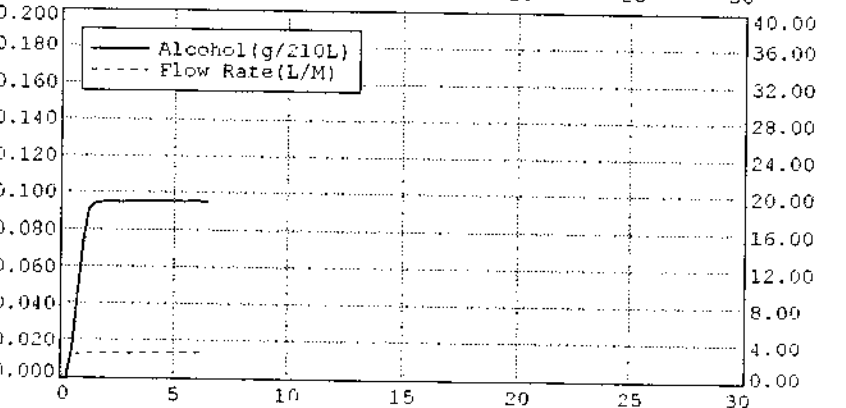
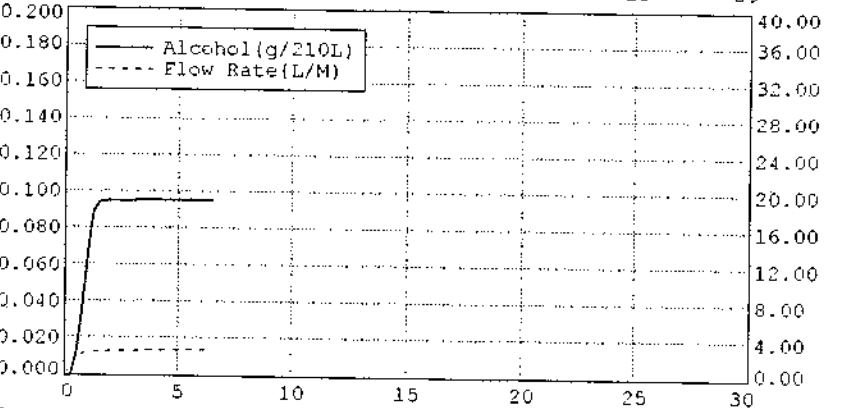
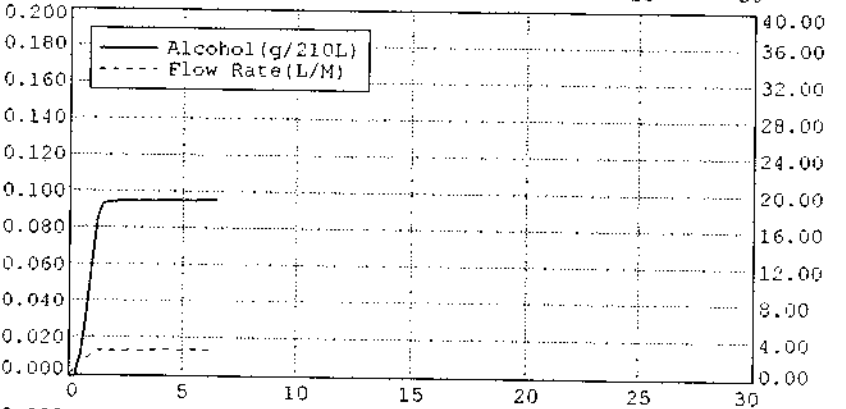
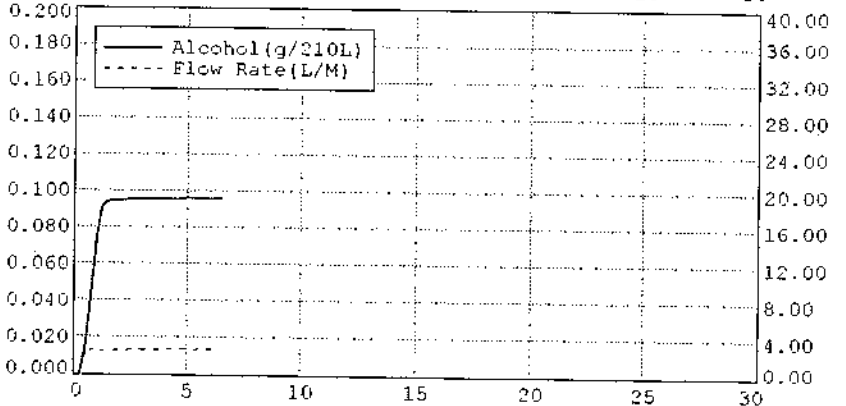
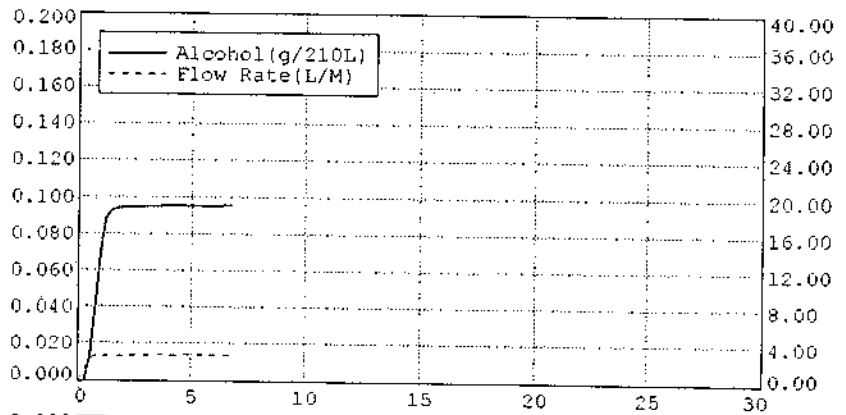
Date: 12/17/2014  
 Time: 09:31:41

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.100  
 TARGET AT 29.28: 0.097  
 LOT #: 00813100A3  
 EXPIRATION: 03/01/2015

BLANK TEST	0.000	09:32
INTERNAL STANDARD	VERIFIED	09:33
EXTERNAL STANDARD	0.096	09:33
BLANK TEST	0.000	09:34
EXTERNAL STANDARD	0.096	09:34
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.096	09:35
BLANK TEST	0.000	09:36
EXTERNAL STANDARD	0.096	09:36
BLANK TEST	0.000	09:37
EXTERNAL STANDARD	0.096	09:37
BLANK TEST	0.000	09:38

Average = 0.0963  
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

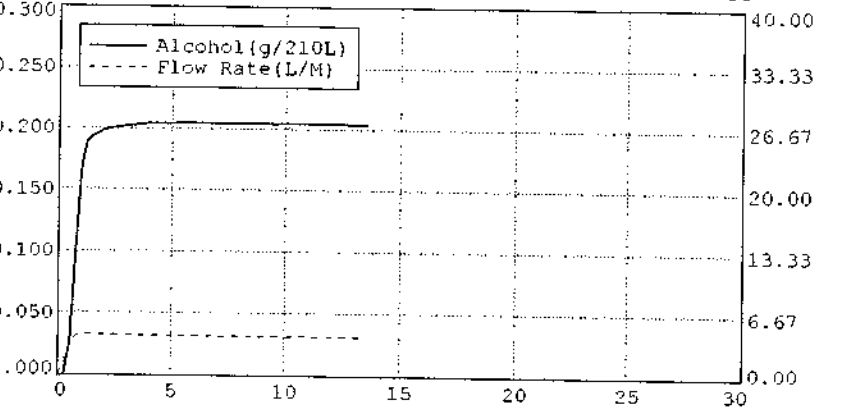
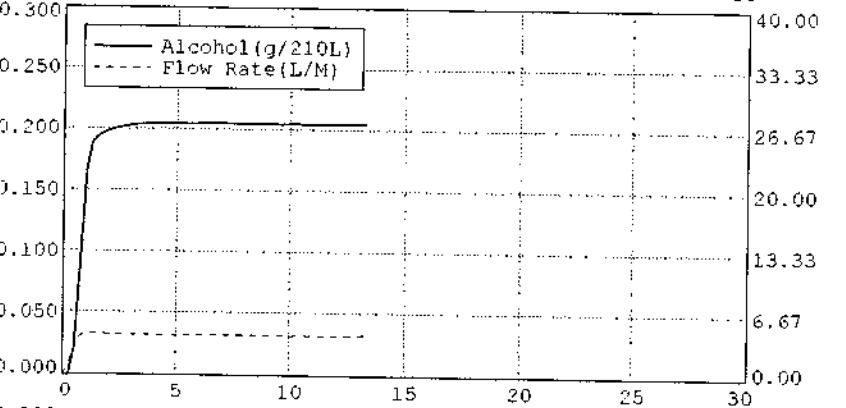
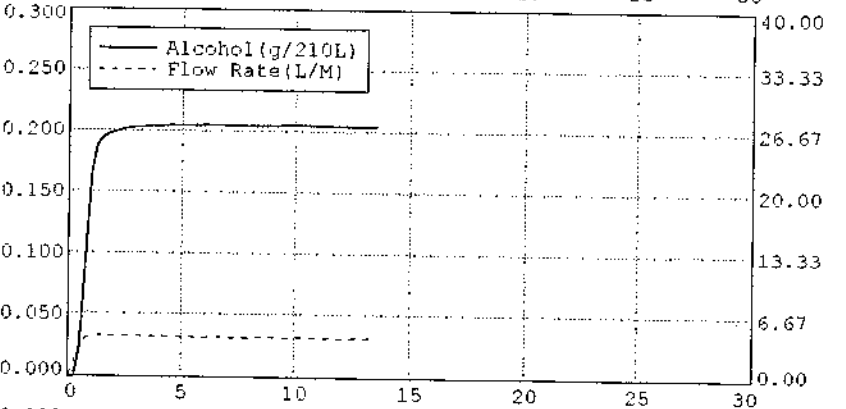
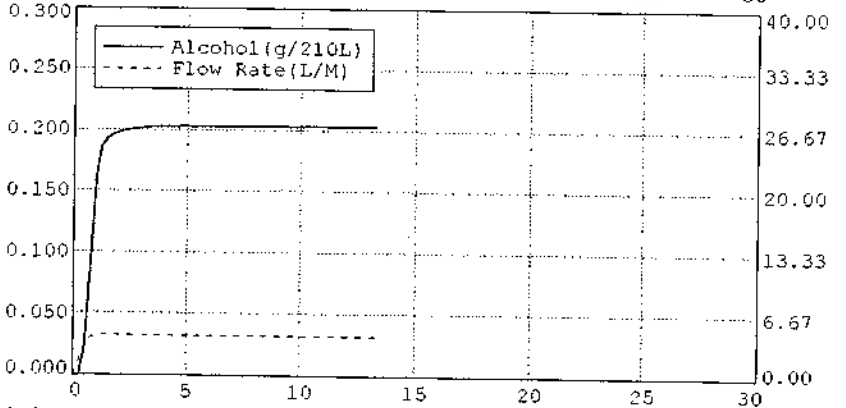
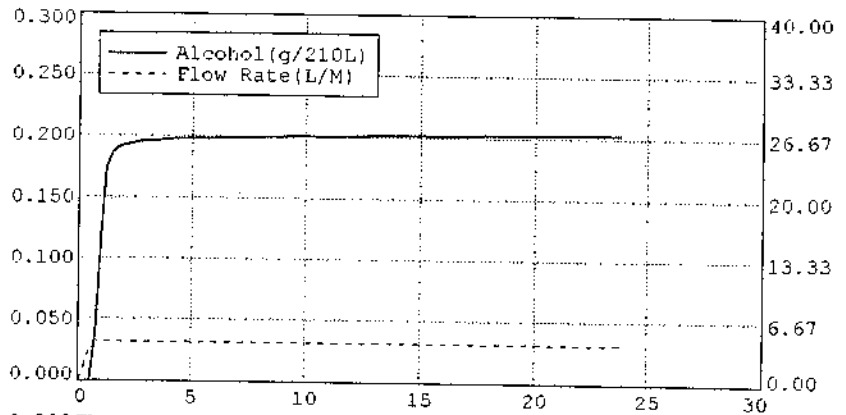
Date: 12/17/2014  
 Time: 09:40:21

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.200  
 LOT #: 14130  
 EXPIRATION: 05/12/2016

BLANK TEST	0.000	09:41
INTERNAL STANDARD	VERIFIED	09:42
EXTERNAL STANDARD	0.203	09:42
BLANK TEST	0.000	09:43
EXTERNAL STANDARD	0.203	09:43
BLANK TEST	0.000	09:44
EXTERNAL STANDARD	0.204	09:45
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.204	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.204	09:47
BLANK TEST	0.000	09:48

Average = 0.2041  
 Std Dev = 0.0007



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety  
 DATAMASTER dmt: 100406

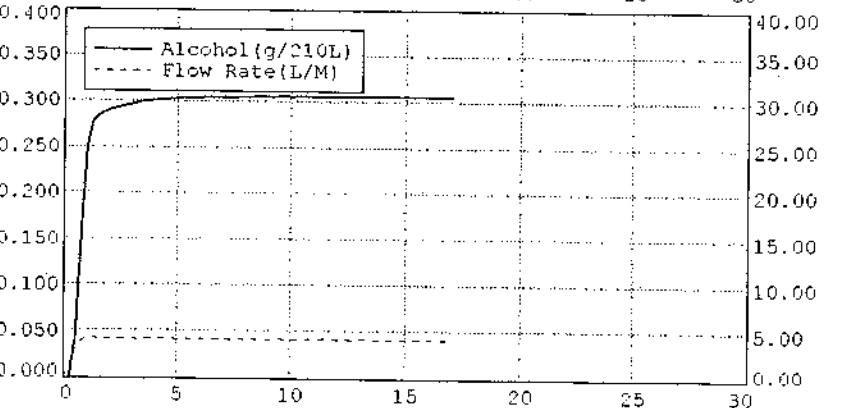
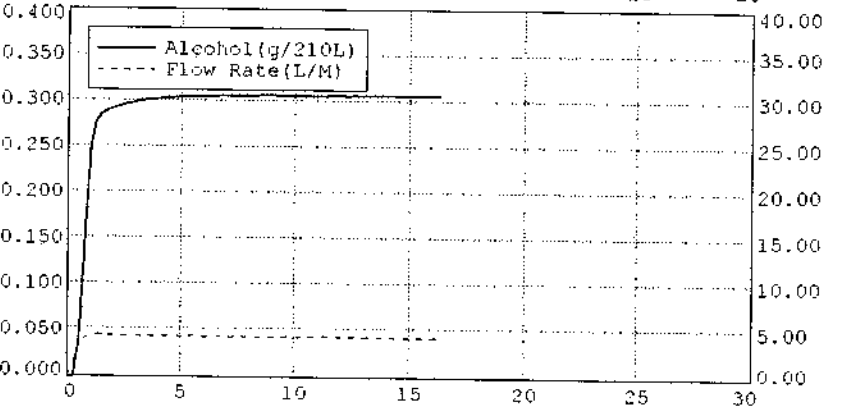
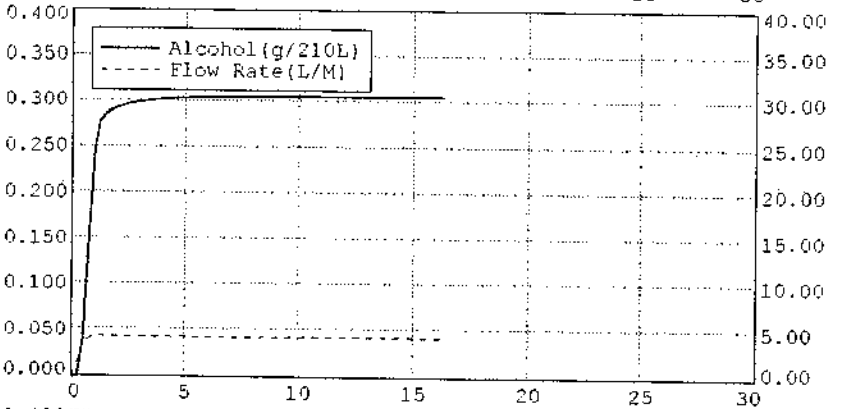
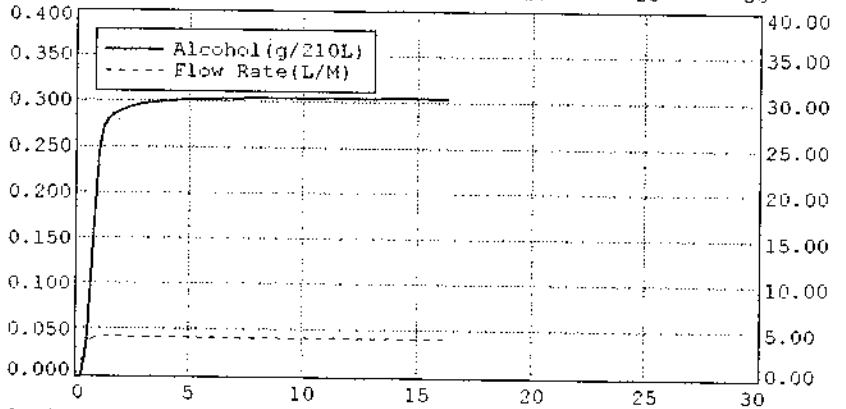
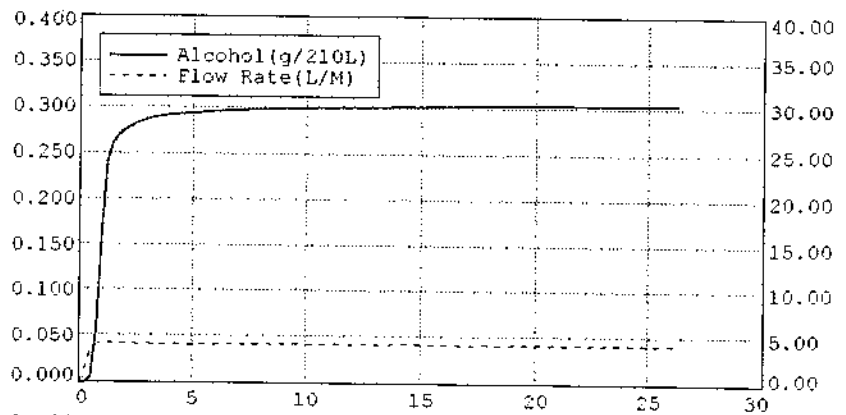
Date: 12/17/2014  
 Time: 09:50:35

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.300  
 LOT #: 14150  
 EXPIRATION: 06/02/2016

BLANK TEST	0.000	09:53
INTERNAL STANDARD	VERIFIED	09:53
EXTERNAL STANDARD	0.304	09:53
BLANK TEST	0.000	09:54
EXTERNAL STANDARD	0.303	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.305	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.305	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.305	09:58
BLANK TEST	0.000	09:59

Average = 0.3048  
 Std Dev = 0.0009



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 12/17/2014  
Time: 10:24:43

SUBJECT NAME:  
TEST TEST  
LICENSE #: INCOMPLETE

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

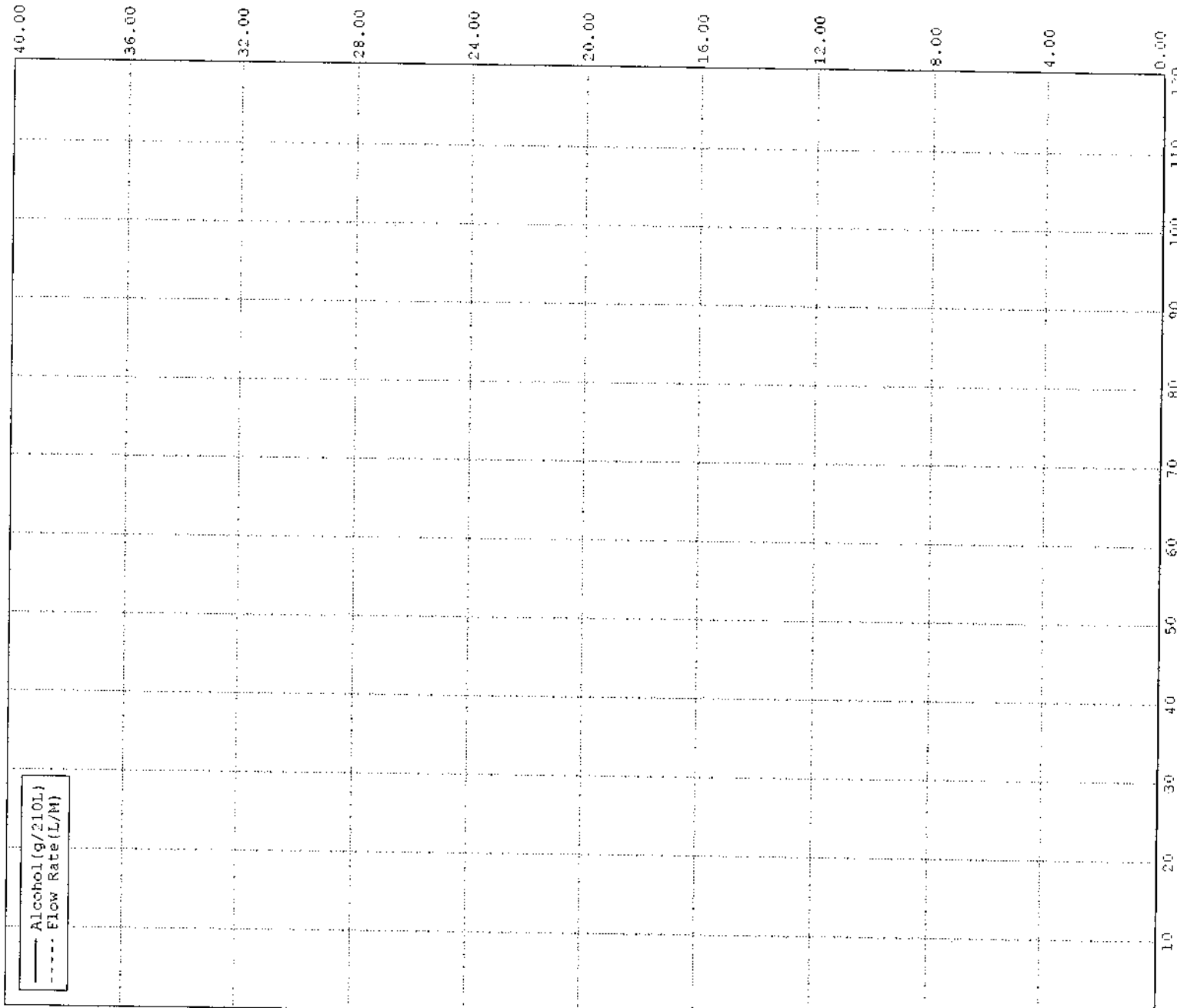
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK PASSED 10:26  
BLANK TEST 0.000 10:26  
INTERNAL STANDARD VERIFIED 10:26  
EXTERNAL STANDARD 0.076 10:26  
BLANK TEST 0.000 10:27  
SUBJECT SAMPLE INCOMPLETE 10:29

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



SUBJECT TEST

Alaska Department of Public Safety  
DATA MASTER dmt: 100406

Date: 12/17/2014  
Time: 10:33:47

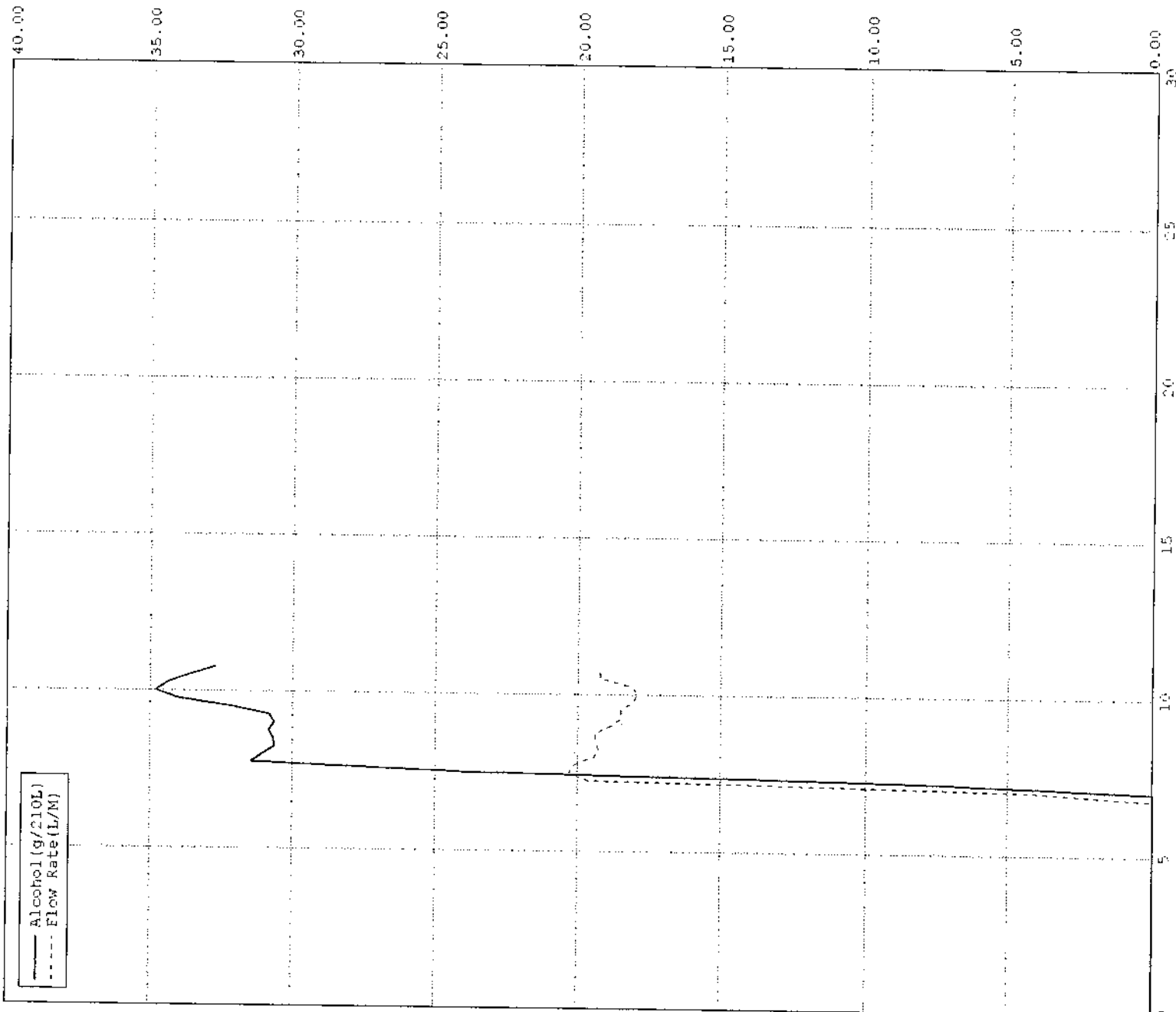
SUBJECT NAME:  
TEST TEST  
LICENSE #: INVALID

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.31: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	10:39
BLANK TEST	0.000	10:39
INTERNAL STANDARD	VERIFIED	10:40
EXTERNAL STANDARD	0.077	10:40
BLANK TEST	0.000	10:41
SUBJECT SAMPLE	INVALID	10:41



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 12/17/2014  
Time: 13:52:35

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-IPA

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1

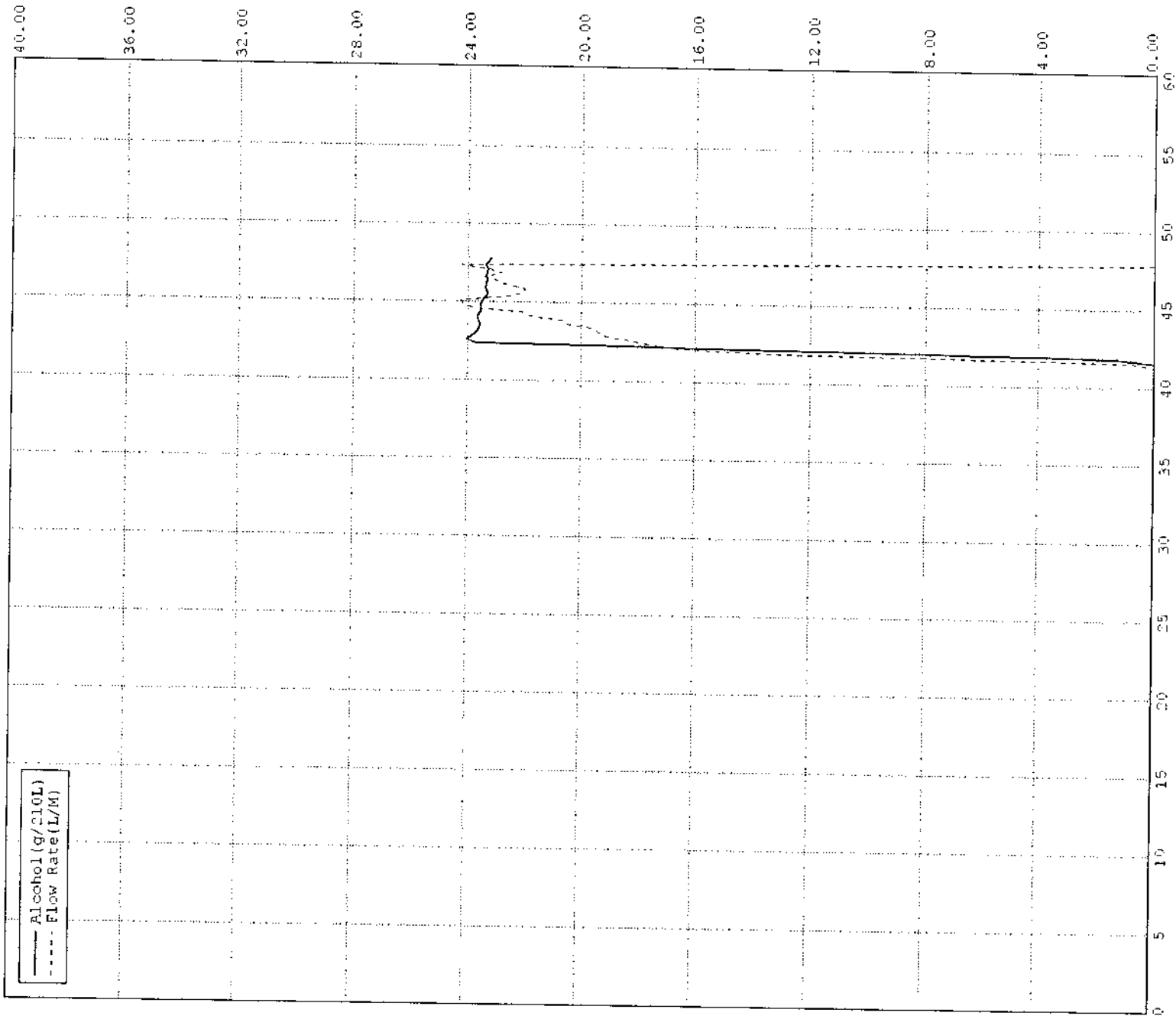
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION

NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	13:54
BLANK TEST	0.000	13:54
INTERNAL STANDARD	VERIFIED	13:54
$X_q = 0.102$ (1.488)		
EXTERNAL STANDARD	0.077	13:54
$X[1] = 0.0776$ (-0.0004) (0.0028)		
BLANK TEST	0.000	13:55
SUBJECT SAMPLE	INTERFERENCE	13:56
$X[1] = 0.1151$ (-0.0251) (0.0021)		

OB



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 12/17/2014  
Time: 10:44:25

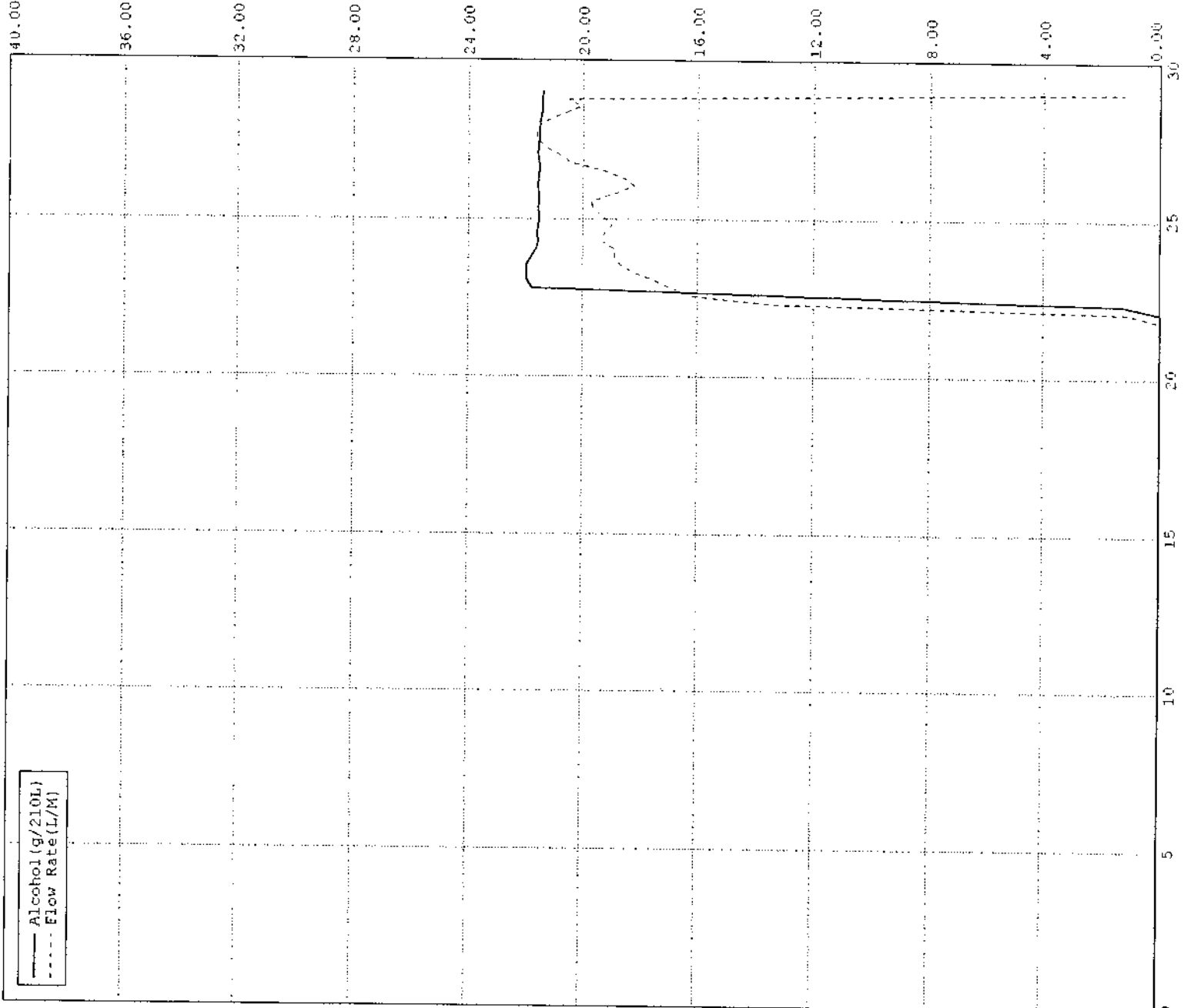
SUBJECT NAME:  
TEST TEST  
LICENSE #: INT - ACETON

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.30: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	10:45
BLANK TEST	0.000	10:45
INTERNAL STANDARD	VERIFIED	10:45
Xq = 0.103 (2.35%)		
EXTERNAL STANDARD	0.077	10:46
X[1] = 0.0776 (0.0001) (0.0039)		
BLANK TEST	0.000	10:47
SUBJECT SAMPLE INTERFERENCE		10:47
X[1] = 0.1061 (-0.0170) (0.0025)		





SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 12/17/2014  
Time: 14:00:32

SUBJECT NAME:  
TEST TEST  
LICENSE #: INT-NEG

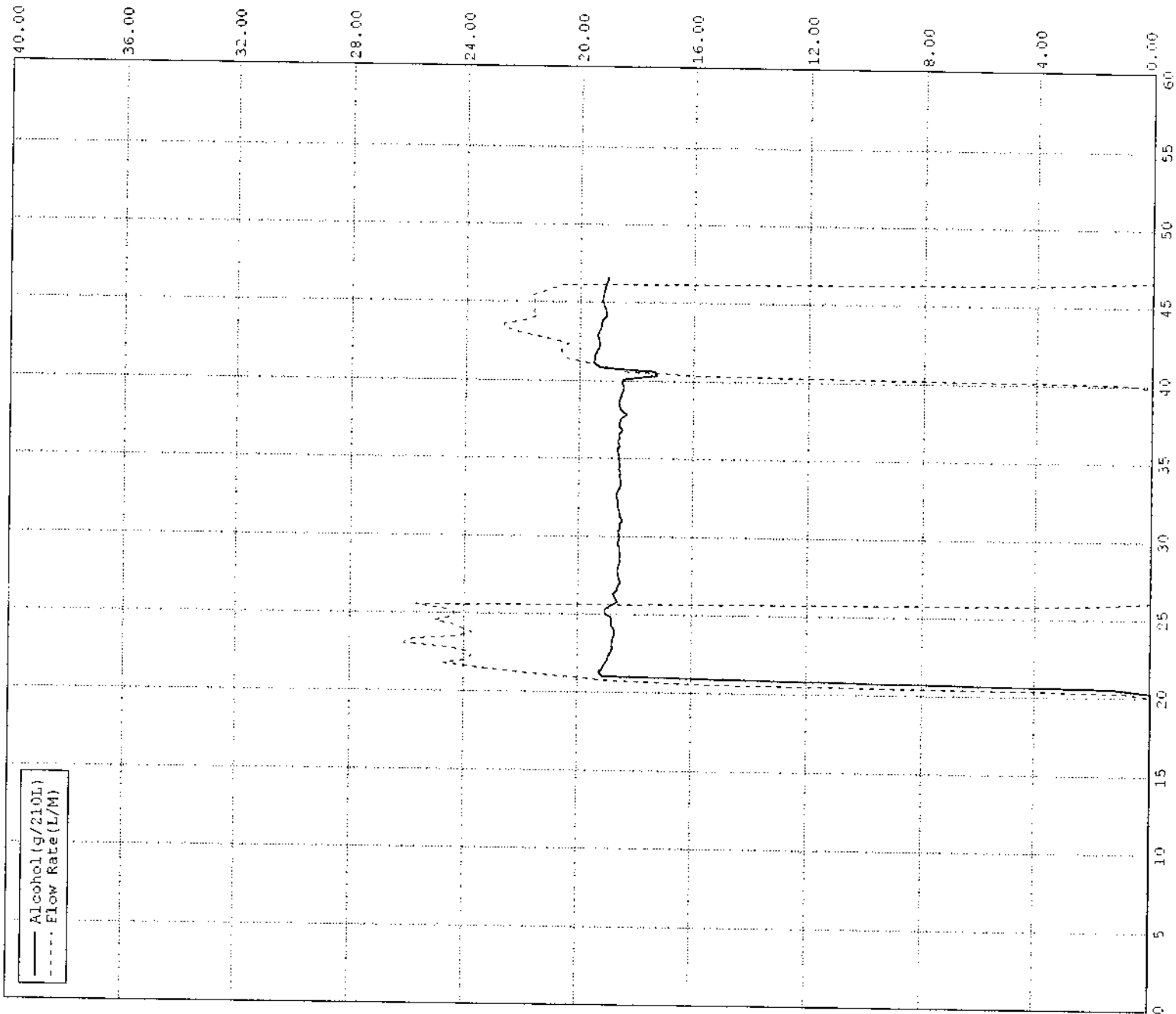
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.32: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	14:01
BLANK TEST	0.000	14:01
INTERNAL STANDARD	VERIFIED	14:01
Xg = 0.104 (3.05%)		
EXTERNAL STANDARD	0.077	14:02
X[1] = 0.0779 (0.0000)	(0.0035)	
BLANK TEST	0.000	14:03
SUBJECT SAMPLE (Vol=2.10L)	0.094	14:03
X[1] = 0.0949 (0.0006)	(0.0009)	
BLANK TEST	0.000	14:04
EXTERNAL STANDARD	0.077	14:05
X[1] = 0.0776 (0.0002)	(0.0024)	
BLANK TEST	0.000	14:05

Filter 2 avg = 0.0000  
Filter 3 avg = 0.0000



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 12/17/2014  
Time: 14:24:01

SUBJECT NAME:  
TEST TEST  
LICENSE #: RFI

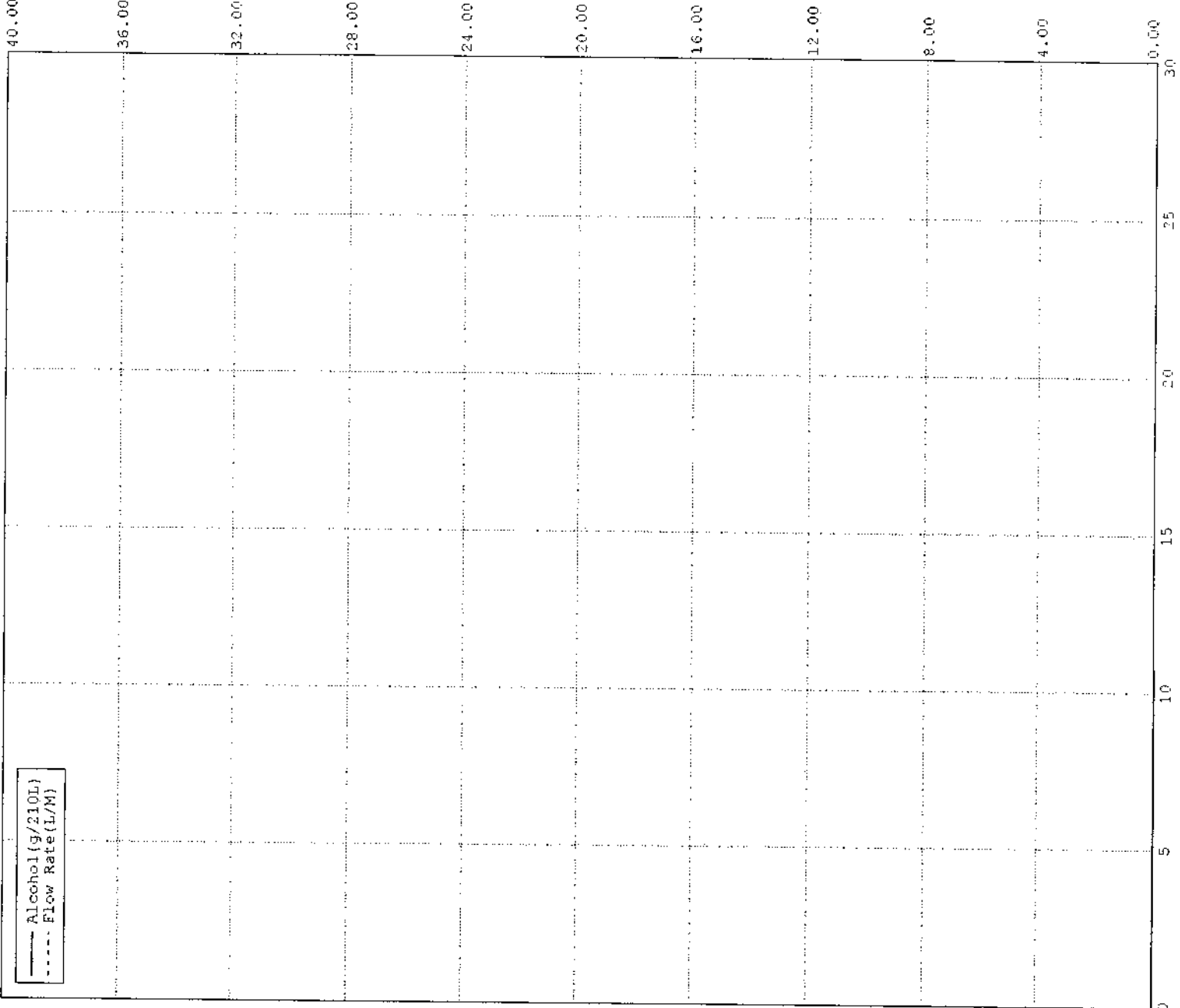
OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.31: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK  
BLANK TEST PASSED 14:25  
INTERNAL STANDARD 0.000 14:25  
EXTERNAL STANDARD VERIFIED 14:25  
BLANK TEST 0.077 14:25  
0.000 14:26

RFI DETECTED



SUBJECT TEST

Alaska Department of Public Safety  
DATAMASTER dmt: 100406

Date: 12/17/2014  
Time: 14:37:42

SUBJECT NAME:  
TEST TEST  
LICENSE #: NON-DRINKING

OPERATOR NAME:  
COLLEEN S O'BRYAN  
OPERATOR'S #: 6237

DEPT/AGENCY:  
AAA1  
CASE/REPORT: 14-1234  
TEST TYPE: TEST

EXTERNAL STANDARD INFORMATION  
NOMINAL: 0.080  
TARGET AT 29.31: 0.078  
LOT #: 11313080A1  
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	14:38
BLANK TEST	0.000	14:38
INTERNAL STANDARD	VERIFIED	14:38
INTERNAL STANDARD	0.078	14:39
BLANK TEST	0.000	14:40
SUBJECT SAMPLE	0.000	14:40
BLANK TEST	0.000	14:41
EXTERNAL STANDARD	0.077	14:41
BLANK TEST	0.000	14:42

*CSB*

