

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 100351 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 11318080A1 Exp 6/1/15
 - iv. 0.100g/210L Mnf ILMO Lot 00813100A3 Exp 3/1/15
 - v. 0.200g/210L Mnf Both Lot 14130 Exp 5/12/16
 - 1. Simulator S/N DR5298 Date Calibrated 2/19/14
 - vi. 0.300g/210L Mnf Both Lot 14130 Exp 6/2/16
 - 1. Simulator S/N QD1177 Date Calibrated 2/20/14

6. Functional Tests (attached)

- a. Incomplete
- b. Invalid
- c. Interference
 - i. Acetone - Mnf Both Lot 14030 Level 0.100 Exp 2/20/16
 - 1. Simulator S/N QD1198 Date Calibrated 2/20/14
 - ii. Isopropanol - Mnf Both Lot 14030 Level 0.100 Exp 2/20/16
 - 1. Simulator S/N SD1202 Date Calibrated 2/20/14
 - iii. Negative Control - Mnf Both Lot 14030 Level 0.100 Exp 2/20/16
 - 1. Simulator S/N DR4161 Date Calibrated 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: 100351

Date: 12/11/2014
Time: 13:10:53

VERSIONS

DMT: 2.00
PIC: 3.03
Modem: 2.3
Questions: 2.2

TEMPERATURES

Sample Chamber = 48.7°C PASSED
Breath Tube = 48.1°C PASSED

PUMP INFO

Flow Rate = 4.771 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: 100351

Date: 12/11/2014

Time: 1:13 PM

Temperatures (°C)

Sample Cell: 48.7°C

Breath Tube: 47.6°C

Current Barometer 28.9 in

Volume (Ltr) 1.53

Settings

Lamp: 1.82 V

Bias: 80 V

Cooler: 1.91 V

Chopper: 542 Hz

Voltages (V)

Flow: 1.04 V

Detector: -0.005 V

CALIBRATION FACTORS

Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 07/31/2014
Time: 13:25:55

OPERATOR NAME:
R MARTIN
CERTIFICATE #: GUTH 2100, DR7001, 34.0C

Ca = 0.1000
CAL = 0.968230 0.800 <= CAL < 1.200
b1 = 0.0002 0.0000 <= b1 < 0.0040
b2 = 0.0051 0.0010 <= b2 < 0.0100
b3 = 0.0000 0.0000 <= b3 < 0.0040
Xq = 0.1103 0.0500 <= Xq < 0.2000
a21 = 1.167066 1.050 <= a21 < 1.300
a31 = 0.468488 0.300 <= a31 < 0.800

972.45
35.9%
72.9F

SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER chmt: 100351

Date: 12/11/2014
Time: 13:14:51

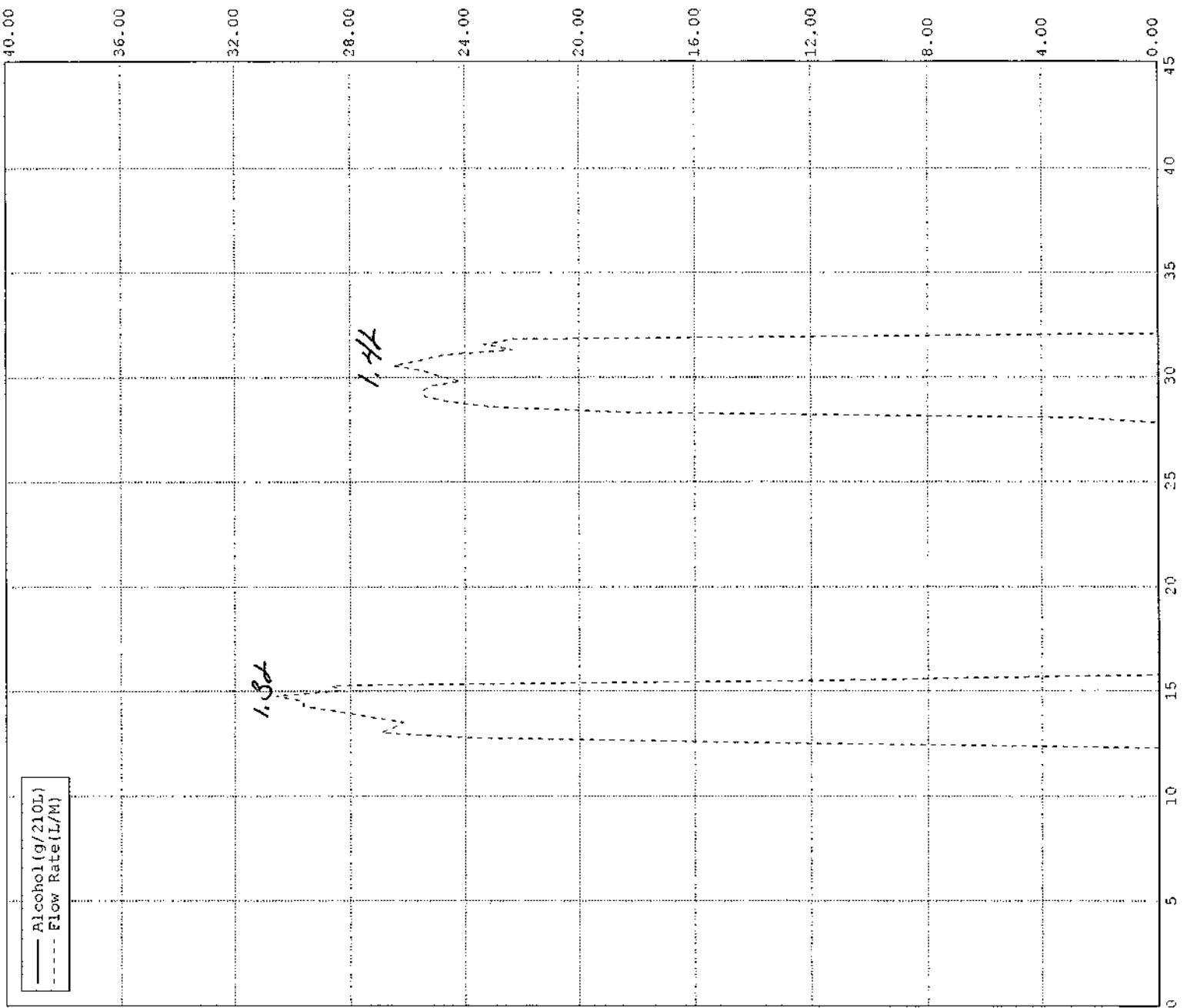
SUBJECT NAME:
TEST TEST
LICENSE #: VOLUME TEST

OPERATOR NAME:
COLLEEN S OBRyant
OPERATOR'S #: 6237

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

EXTERNAL STANDARD INFORMATION
NOMINAL: 0.080
TARGET AT 28.92: 0.077
LOT #: 11313080A1
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK	PASSED	13:16
BLANK TEST	0.000	13:16
INTERNAL STANDARD	VERIFIED	13:16
EXTERNAL STANDARD	0.077	13:17
BLANK TEST	0.000	13:18
SUBJECT SAMPLE	0.000	13:18
BLANK TEST	0.000	13:19
EXTERNAL STANDARD	0.076	13:19
BLANK TEST	0.000	13:20



LINEARITY CHECK

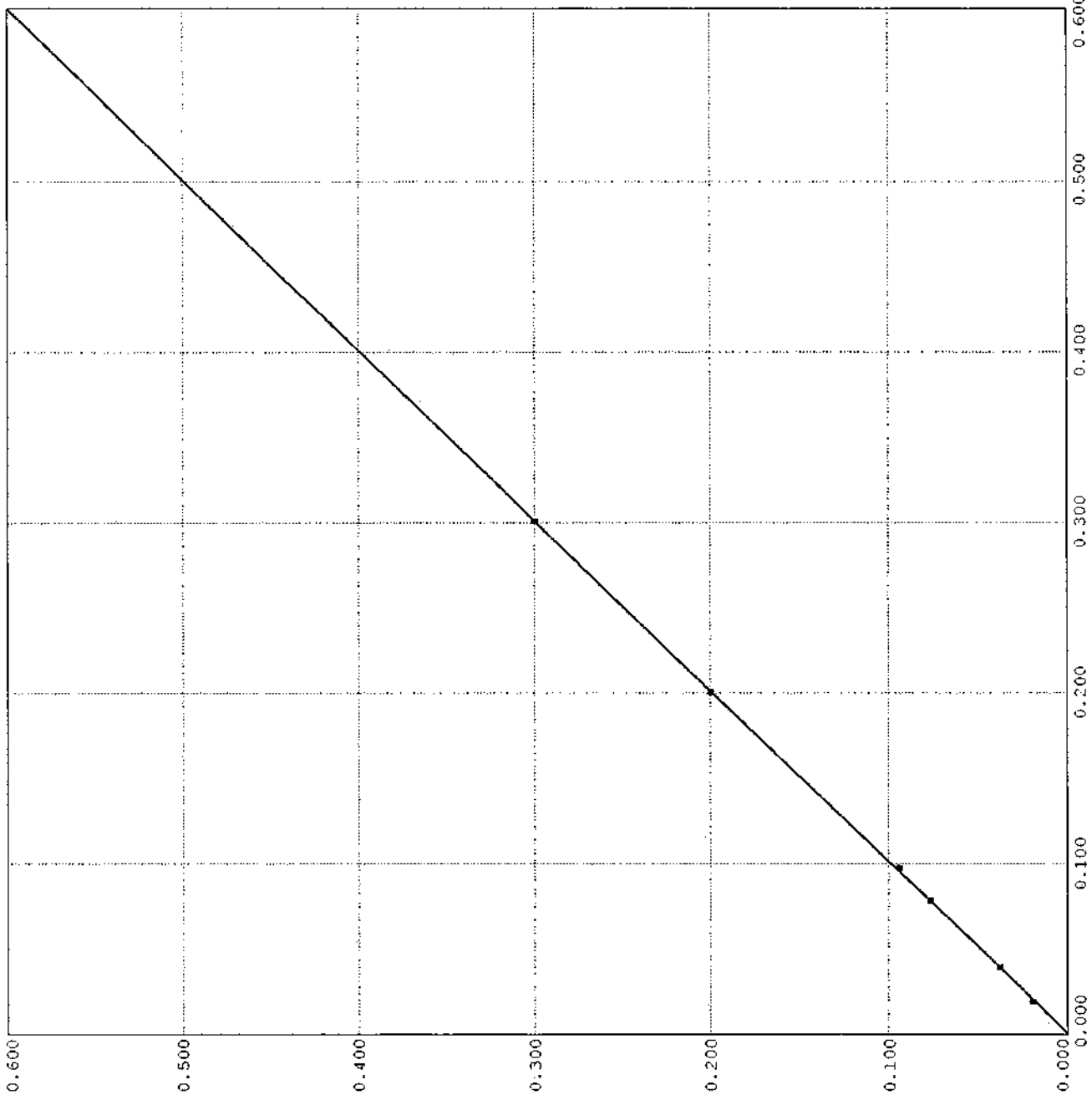
Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 12/17/2014
Time: 09:26:19

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

TARGET	AVERAGE	STD. DEV.
0.019	0.0201	0.0002
0.039	0.0388	0.0001
0.078	0.0777	0.0001
0.097	0.0950	0.0002
0.200	0.2006	0.0003
0.300	0.3005	0.0006

SLOPE = 1.001602
R² = 0.999900



CS

LINEARITY CHECK: Control Test 1

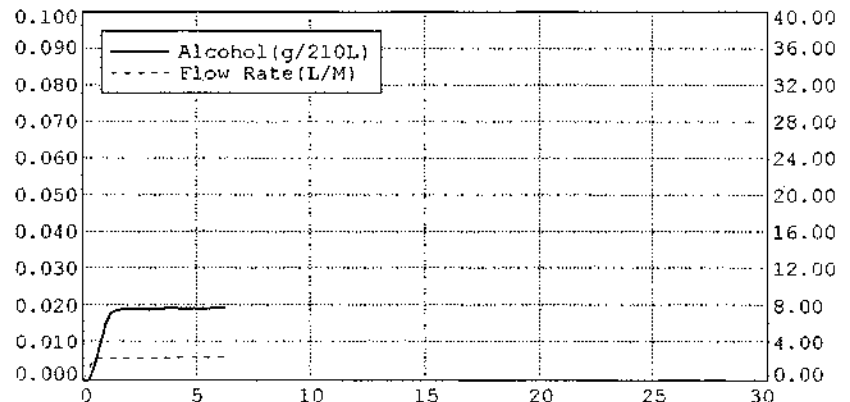
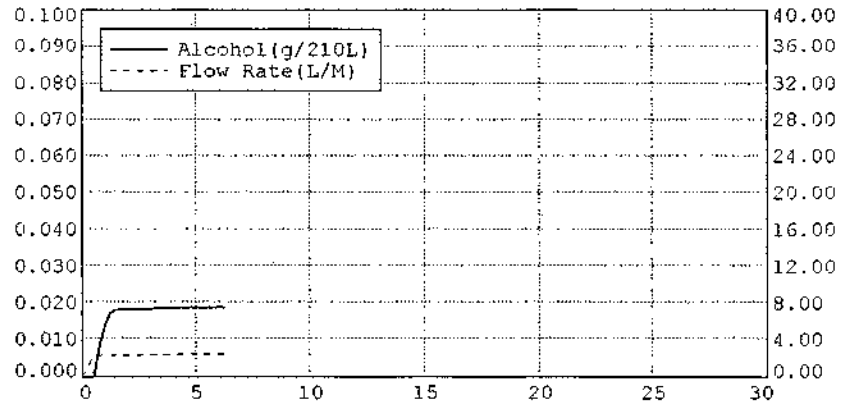
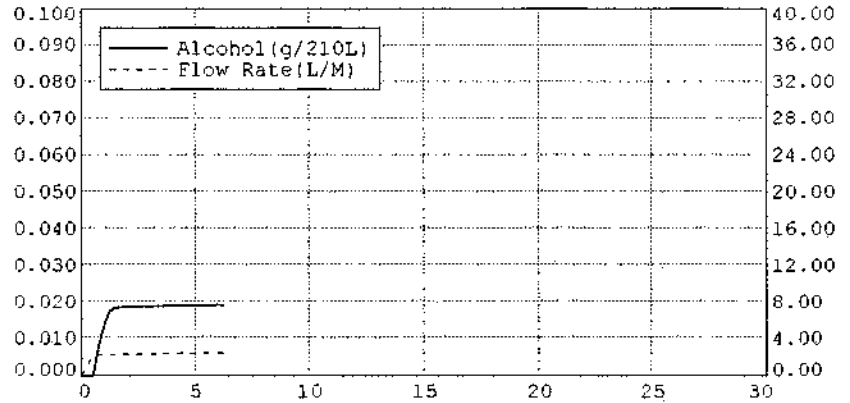
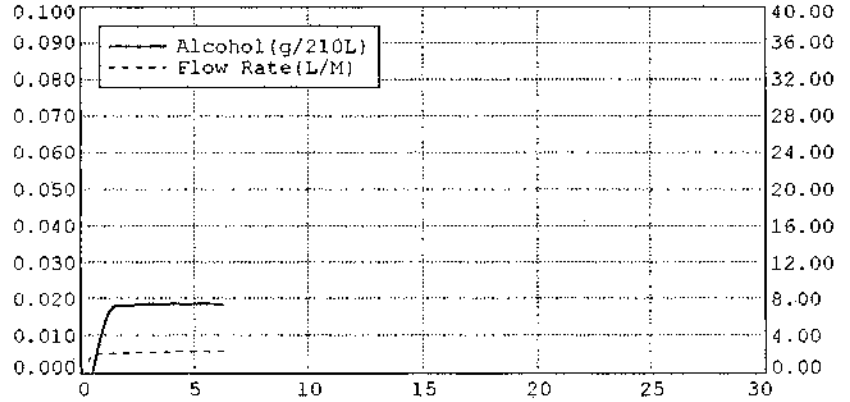
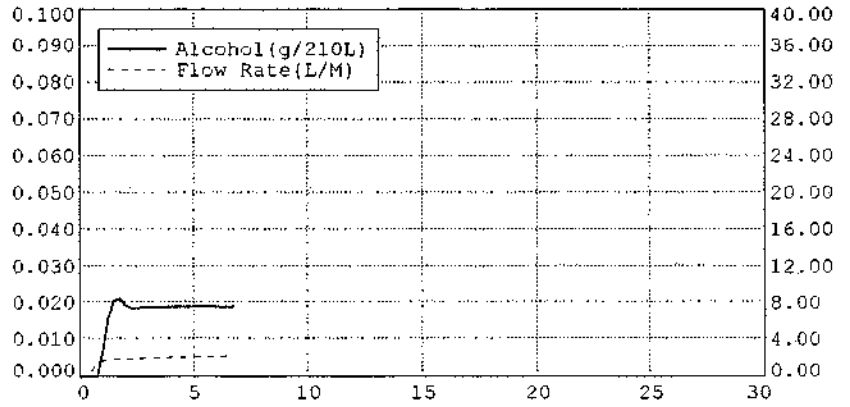
Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 12/17/2014
Time: 09:26:20

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

BLANK TEST	0.000	09:34
INTERNAL STANDARD	VERIFIED	09:34
EXTERNAL STANDARD	0.020	09:34
BLANK TEST	0.000	09:35
EXTERNAL STANDARD	0.019	09:36
BLANK TEST	0.000	09:36
EXTERNAL STANDARD	0.020	09:37
BLANK TEST	0.000	09:38
EXTERNAL STANDARD	0.019	09:38
BLANK TEST	0.000	09:39
EXTERNAL STANDARD	0.020	09:39
BLANK TEST	0.000	09:40

Average = 0.0201
Std Dev = 0.0002



LINEARITY CHECK: Control Test 2

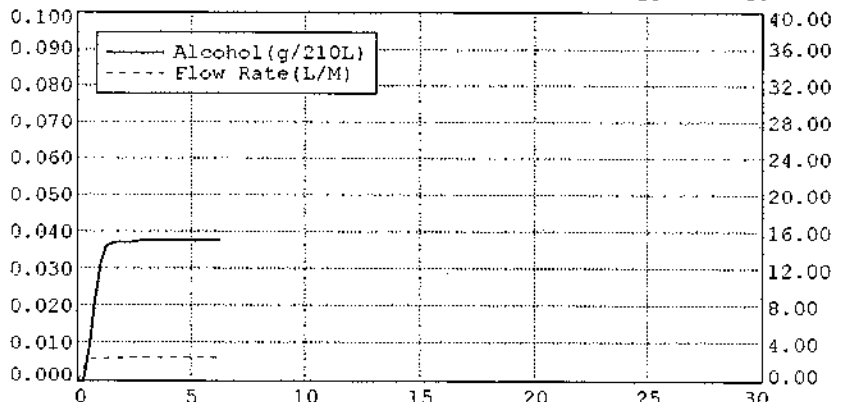
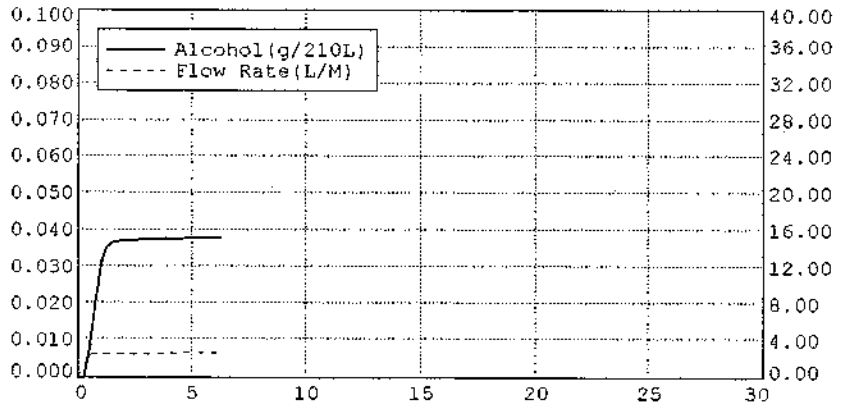
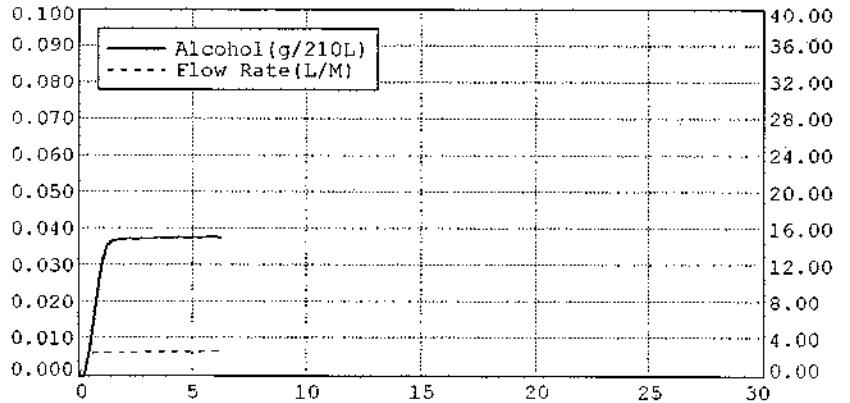
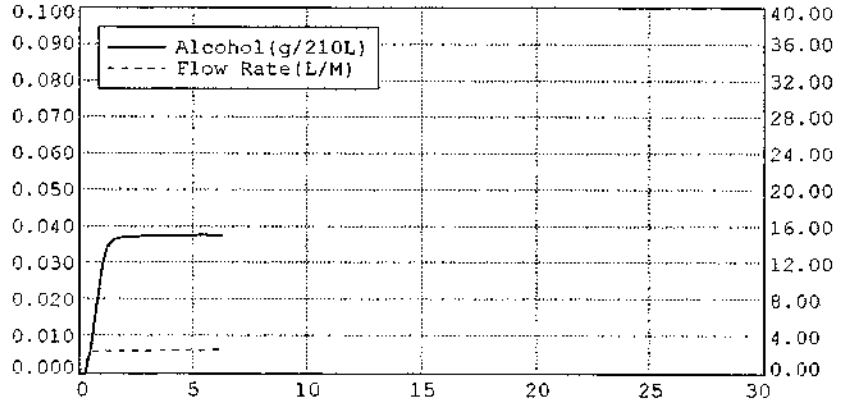
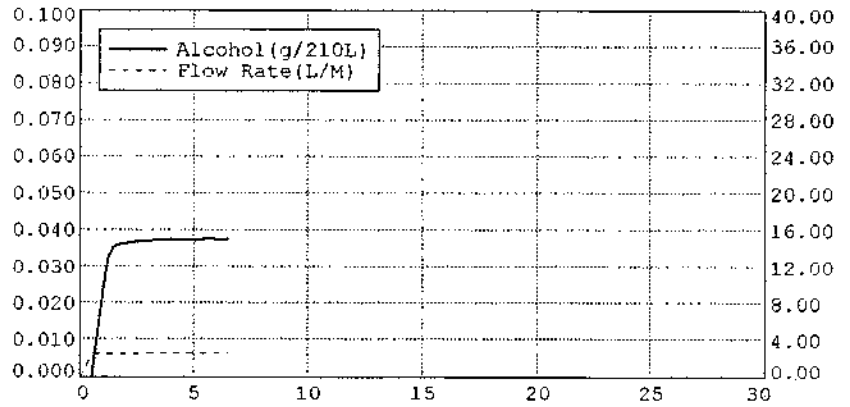
Alaska Department of Public Safety
 DATAMASTER dmt: 100351

Date: 12/17/2014
 Time: 09:43:03

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

BLANK TEST	0.000	09:44
INTERNAL STANDARD	VERIFIED	09:44
EXTERNAL STANDARD	0.038	09:44
BLANK TEST	0.000	09:45
EXTERNAL STANDARD	0.038	09:45
BLANK TEST	0.000	09:46
EXTERNAL STANDARD	0.038	09:46
BLANK TEST	0.000	09:47
EXTERNAL STANDARD	0.038	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.039	09:49
BLANK TEST	0.000	09:49

Average = 0.0388
 Std Dev = 0.0001



LINEARITY CHECK: Control Test 3

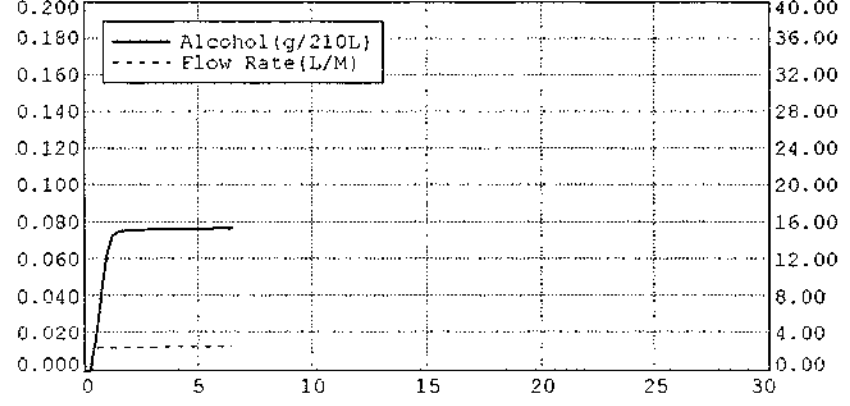
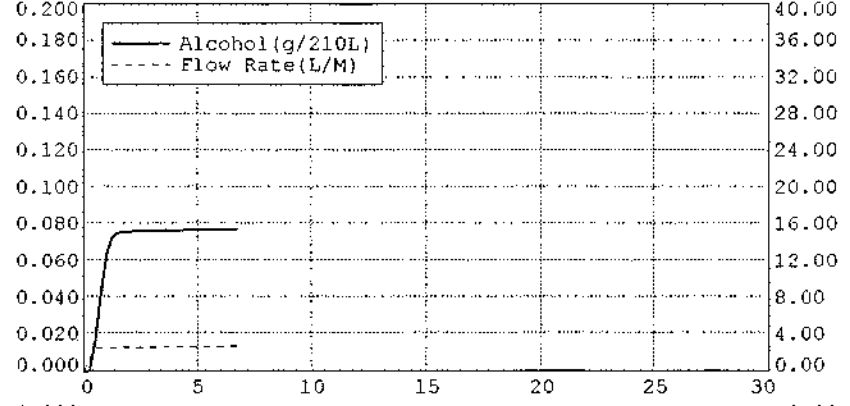
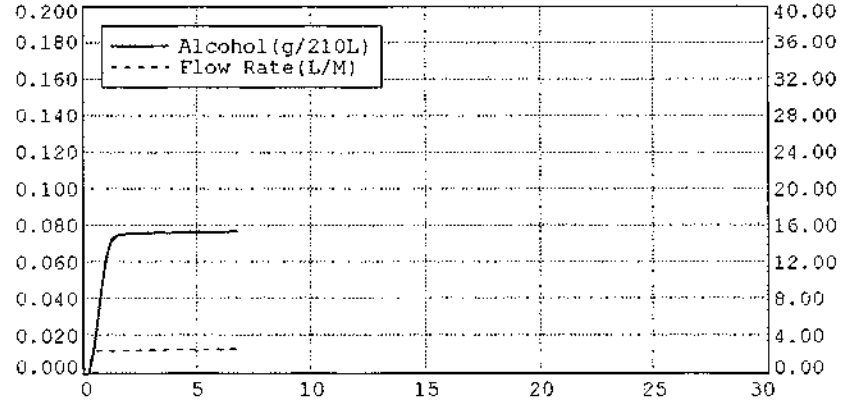
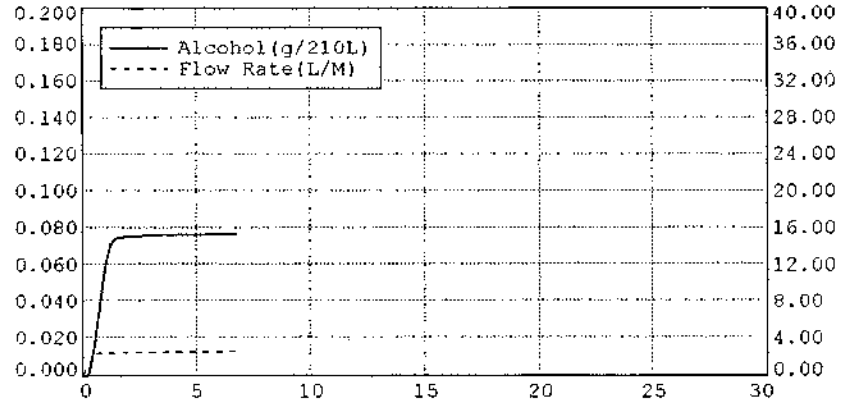
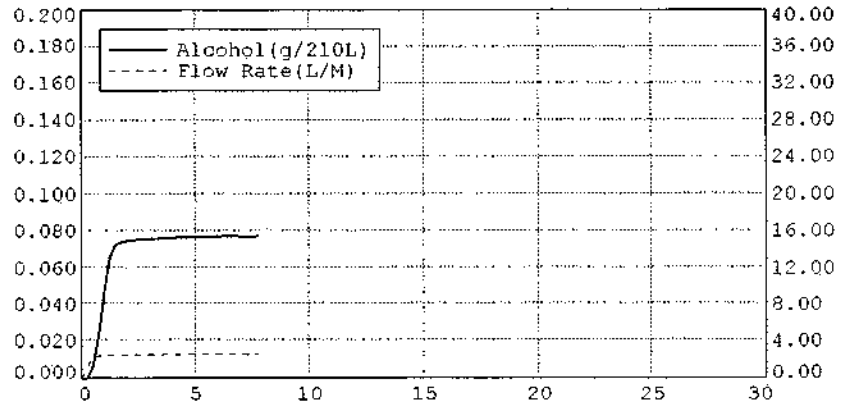
Alaska Department of Public Safety
 DATAMASTER dmt: 100351

Date: 12/17/2014
 Time: 09:51:34

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

BLANK TEST	0.000	09:52
INTERNAL STANDARD	VERIFIED	09:52
EXTERNAL STANDARD	0.077	09:53
BLANK TEST	0.000	09:53
EXTERNAL STANDARD	0.077	09:54
BLANK TEST	0.000	09:55
EXTERNAL STANDARD	0.077	09:55
BLANK TEST	0.000	09:56
EXTERNAL STANDARD	0.077	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.077	09:57
BLANK TEST	0.000	09:58

Average = 0.0777
 Std Dev = 0.0001



LINEARITY CHECK: Control Test 4

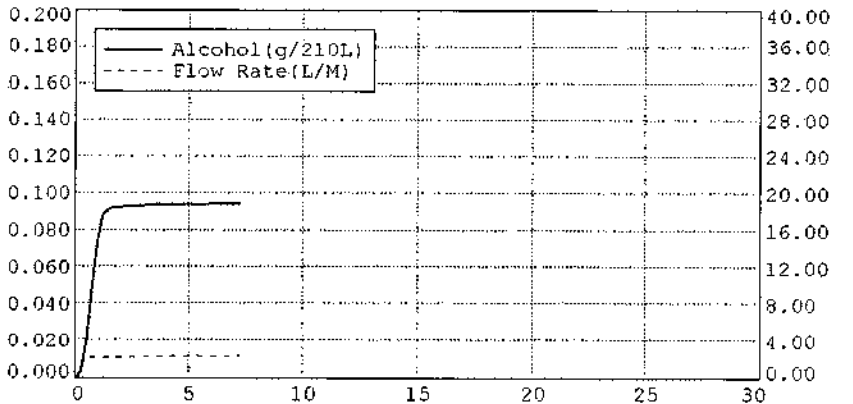
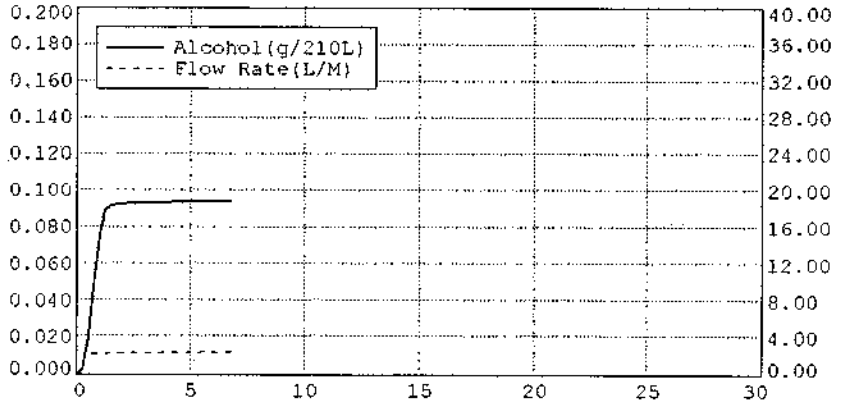
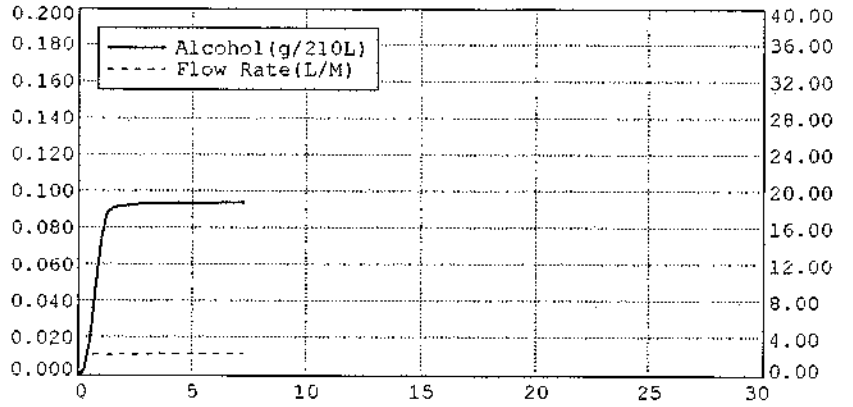
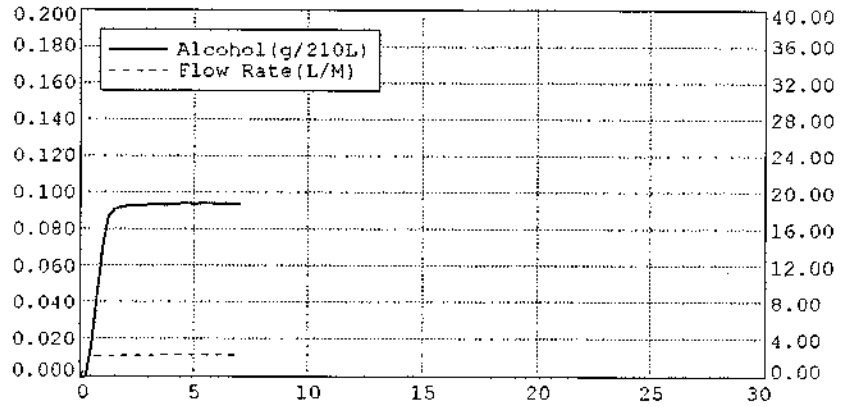
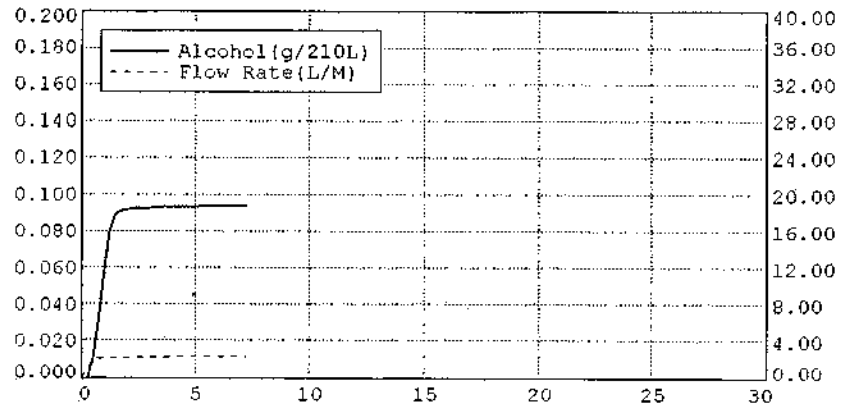
Alaska Department of Public Safety
 DATAMASTER dmt: 100351

Date: 12/17/2014
 Time: 09:59:34

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

BLANK TEST	0.000	10:00
INTERNAL STANDARD	VERIFIED	10:00
EXTERNAL STANDARD	0.095	10:01
BLANK TEST	0.000	10:02
EXTERNAL STANDARD	0.094	10:02
BLANK TEST	0.000	10:03
EXTERNAL STANDARD	0.094	10:03
BLANK TEST	0.000	10:04
EXTERNAL STANDARD	0.095	10:04
BLANK TEST	0.000	10:05
EXTERNAL STANDARD	0.095	10:05
BLANK TEST	0.000	10:06

Average = 0.0950
 Std Dev = 0.0002



LINEARITY CHECK: Control Test 5

Alaska Department of Public Safety
 DATAMASTER dmt: 100351

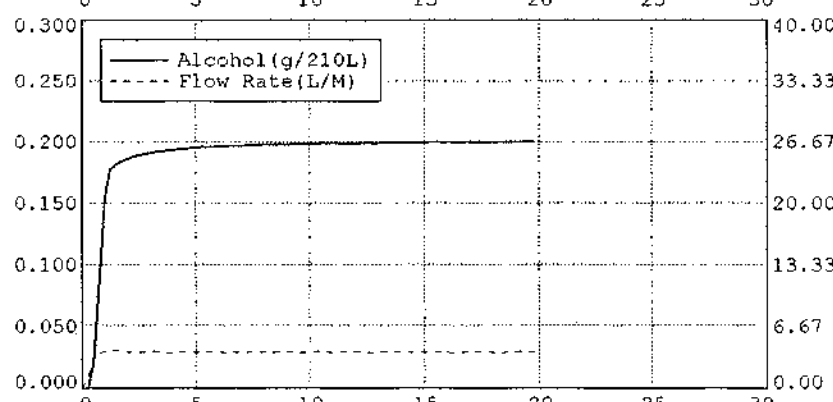
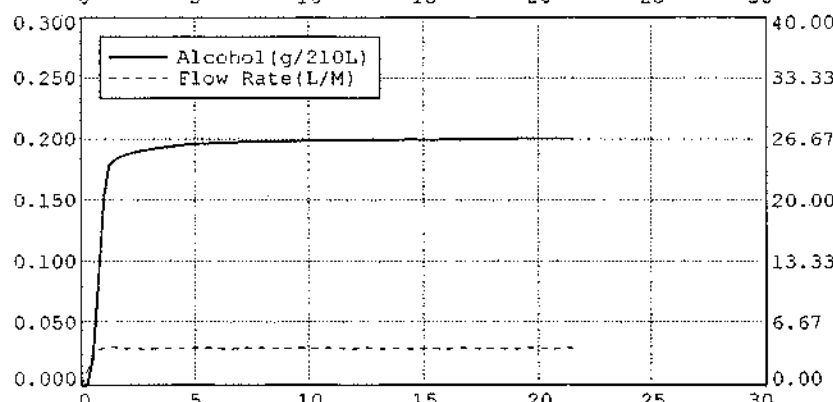
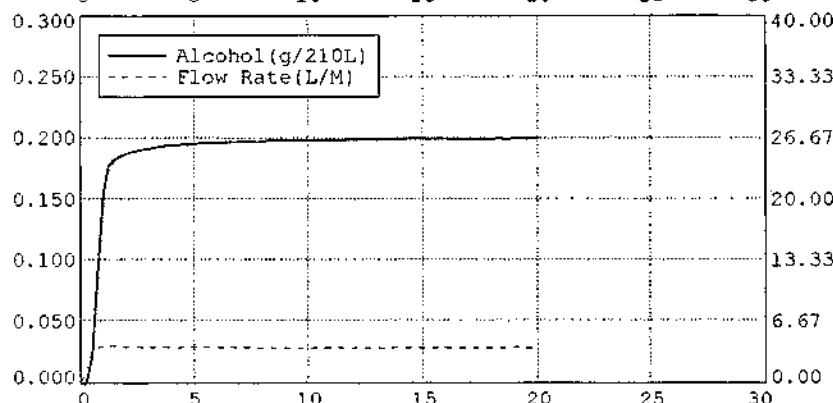
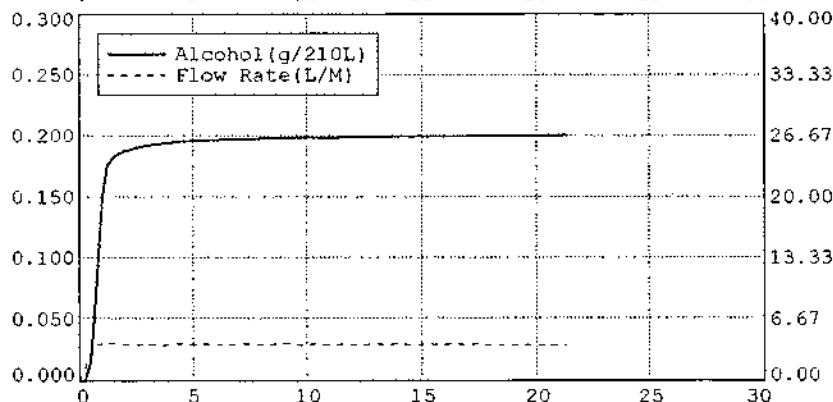
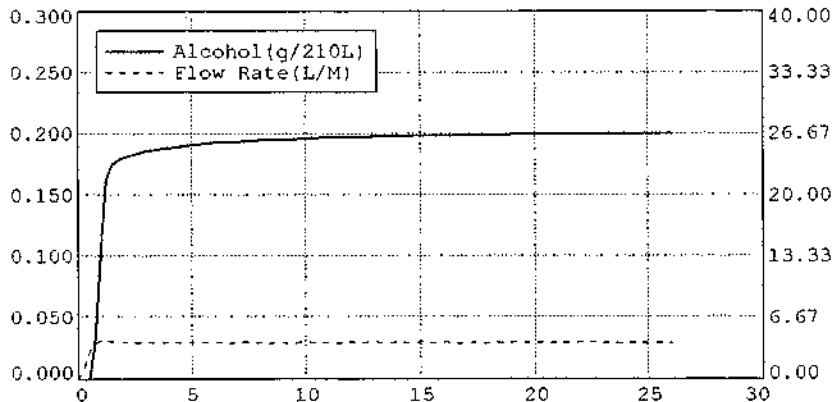
Date: 12/17/2014
 Time: 10:08:32

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:09
INTERNAL STANDARD	VERIFIED	10:09
EXTERNAL STANDARD	0.200	10:10
BLANK TEST	0.000	10:11
EXTERNAL STANDARD	0.200	10:11
BLANK TEST	0.000	10:12
EXTERNAL STANDARD	0.200	10:13
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.200	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.200	10:15
BLANK TEST	0.000	10:16

Average = 0.2006
 Std Dev = 0.0003



LINEARITY CHECK: Control Test 6

Alaska Department of Public Safety
 DATAMASTER dmt: 100351

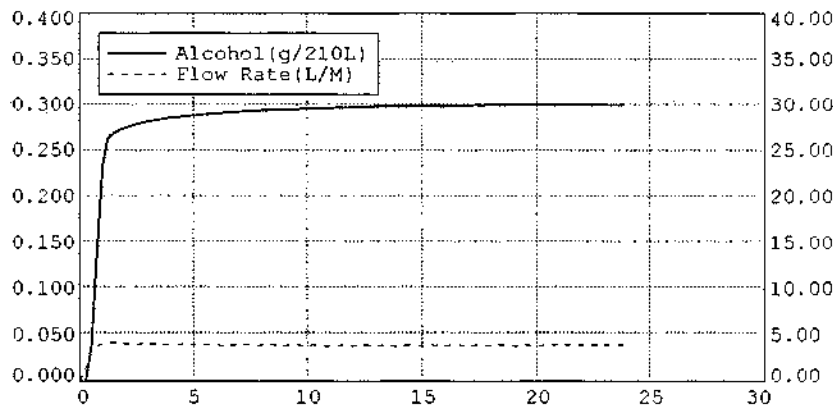
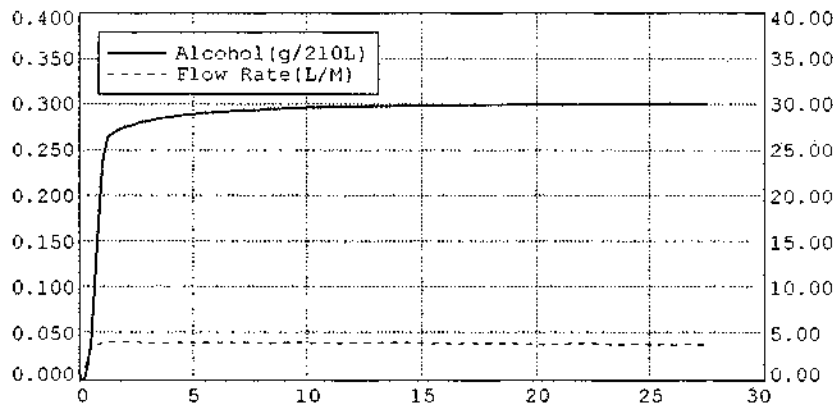
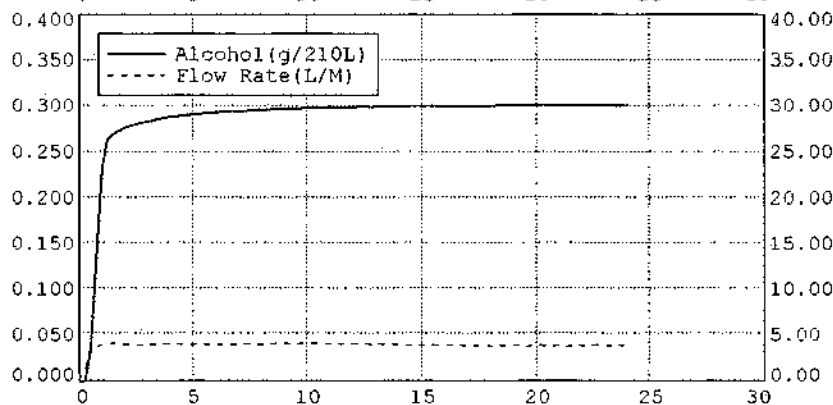
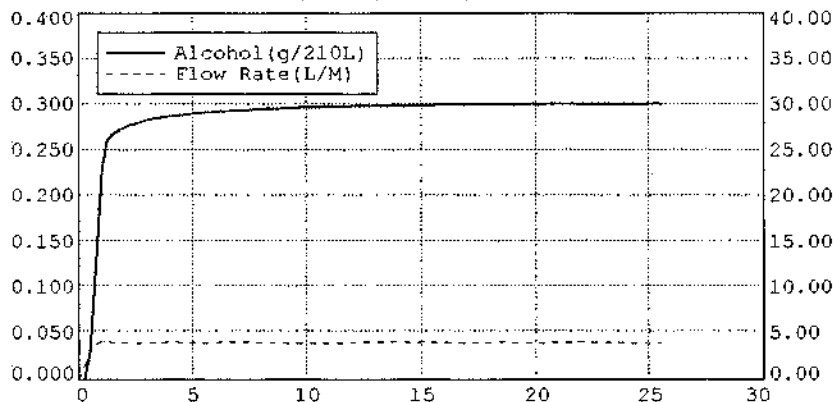
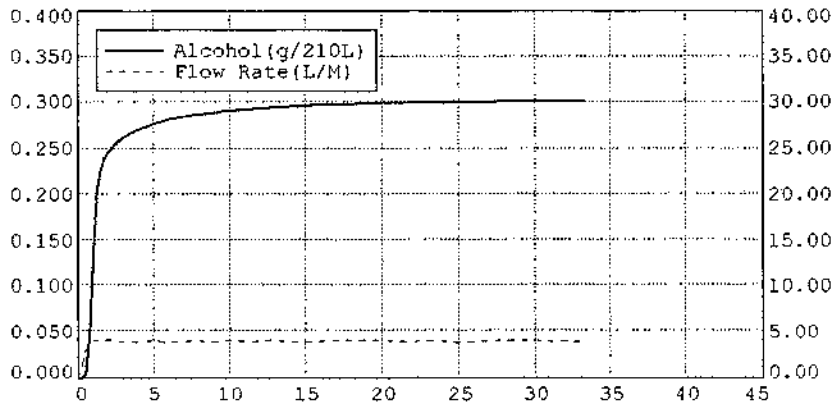
Date: 12/17/2014
 Time: 10:19:33

EXTERNAL STANDARD INFORMATION

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

BLANK TEST	0.000	10:20
INTERNAL STANDARD	VERIFIED	10:20
EXTERNAL STANDARD	0.301	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.300	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.300	10:24
BLANK TEST	0.000	10:25
EXTERNAL STANDARD	0.300	10:25
BLANK TEST	0.000	10:26
EXTERNAL STANDARD	0.299	10:27
BLANK TEST	0.000	10:28

Average = 0.3005
 Std Dev = 0.0006



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 12/17/2014
Time: 10:32:54

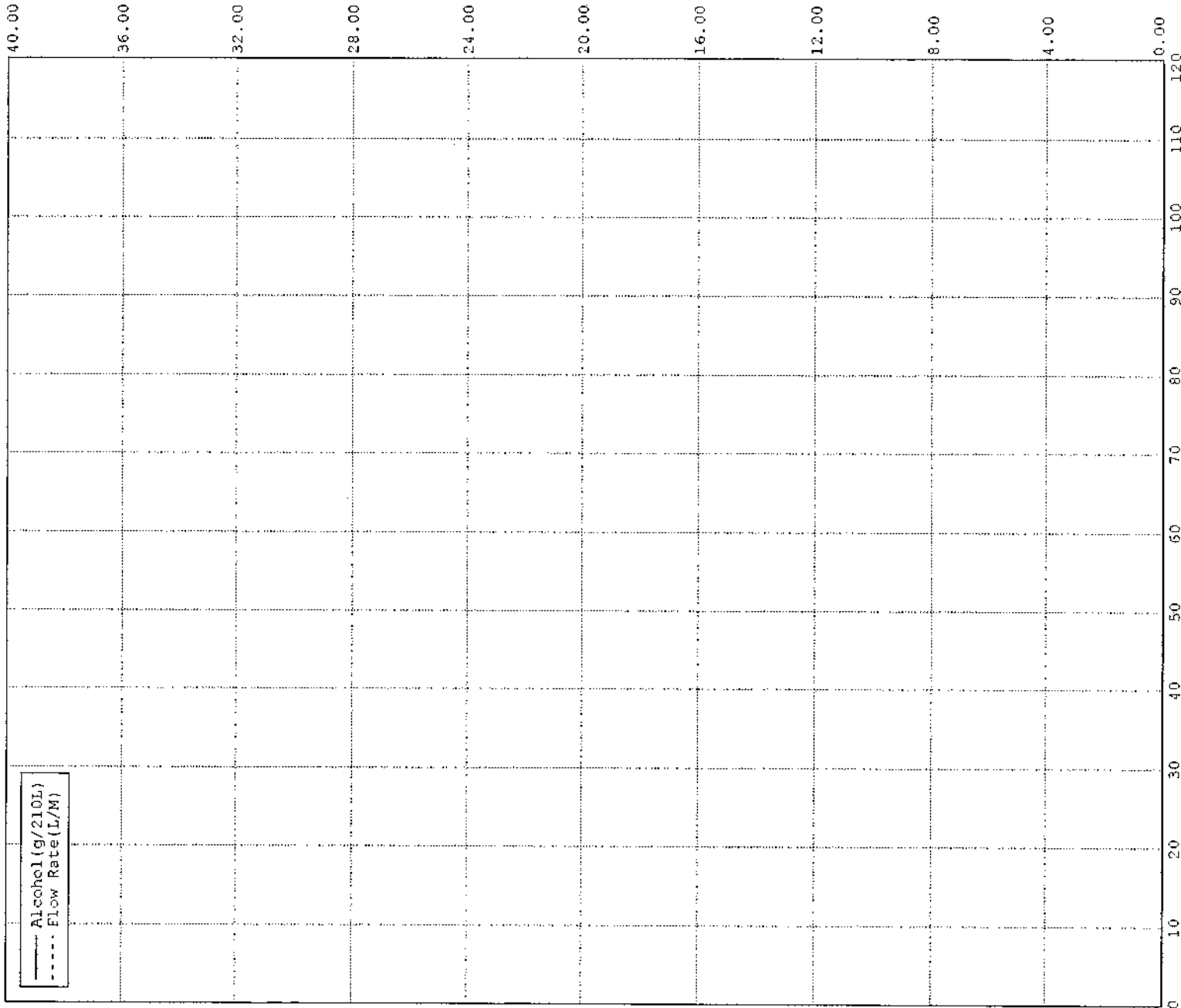
SUBJECT NAME:
TEST TEST
LICENSE #: INCOMPLETE

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 29.29: 0.078
LOT #: 11313080A1
EXPIRATION: 06/01/2015

DIAGNOSTIC CHECK PASSED 10:33
BLANK TEST 0.000 10:34
INTERNAL STANDARD VERIFIED 10:34
EXTERNAL STANDARD 0.077 10:34
BLANK TEST 0.000 10:35
SUBJECT SAMPLE INCOMPLETE 10:37



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 12/17/2014
Time: 10:38:50

SUBJECT NAME:
TEST TEST
LICENSE #: INVALID

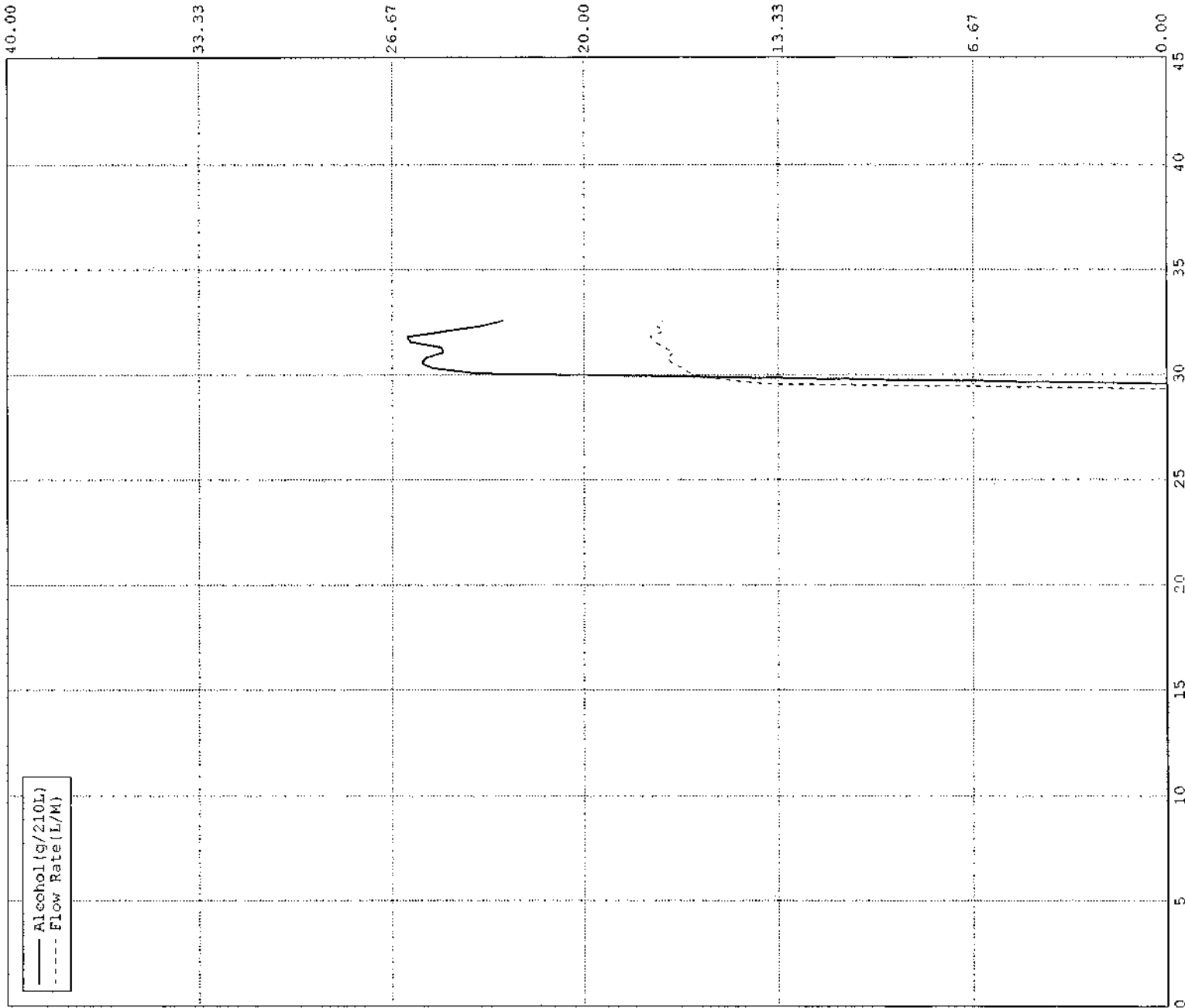
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

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

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

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

CAB



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 12/17/2014
Time: 13:59:50

SUBJECT NAME:
TEST TEST
LICENSE #: INT-ACETONE

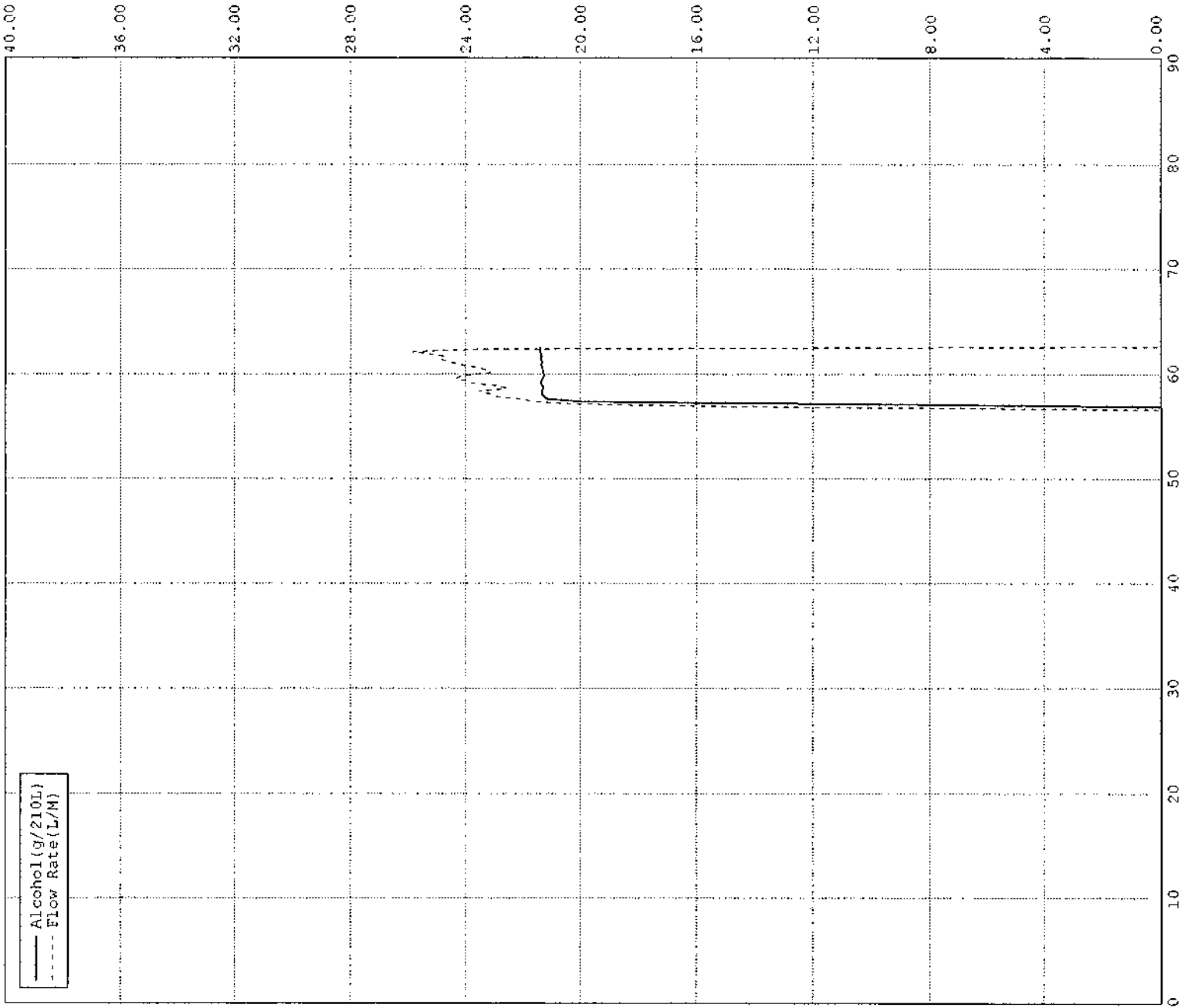
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

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	14:01
BLANK TEST	0.000	14:01
INTERNAL STANDARD	VERIFIED	14:02
$Xq = 0.114$ (3.52%)		
EXTERNAL STANDARD	0.077	14:02
$X[1] = 0.0778$ (-0.0014) (0.0015)		
BLANK TEST	0.000	14:03
SUBJECT SAMPLE	INTERFERENCE	14:04
$X[1] = 0.1073$ (-0.0142) (-0.0001)		



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER cmt: 100351

Date: 12/17/2014
Time: 14:08:53

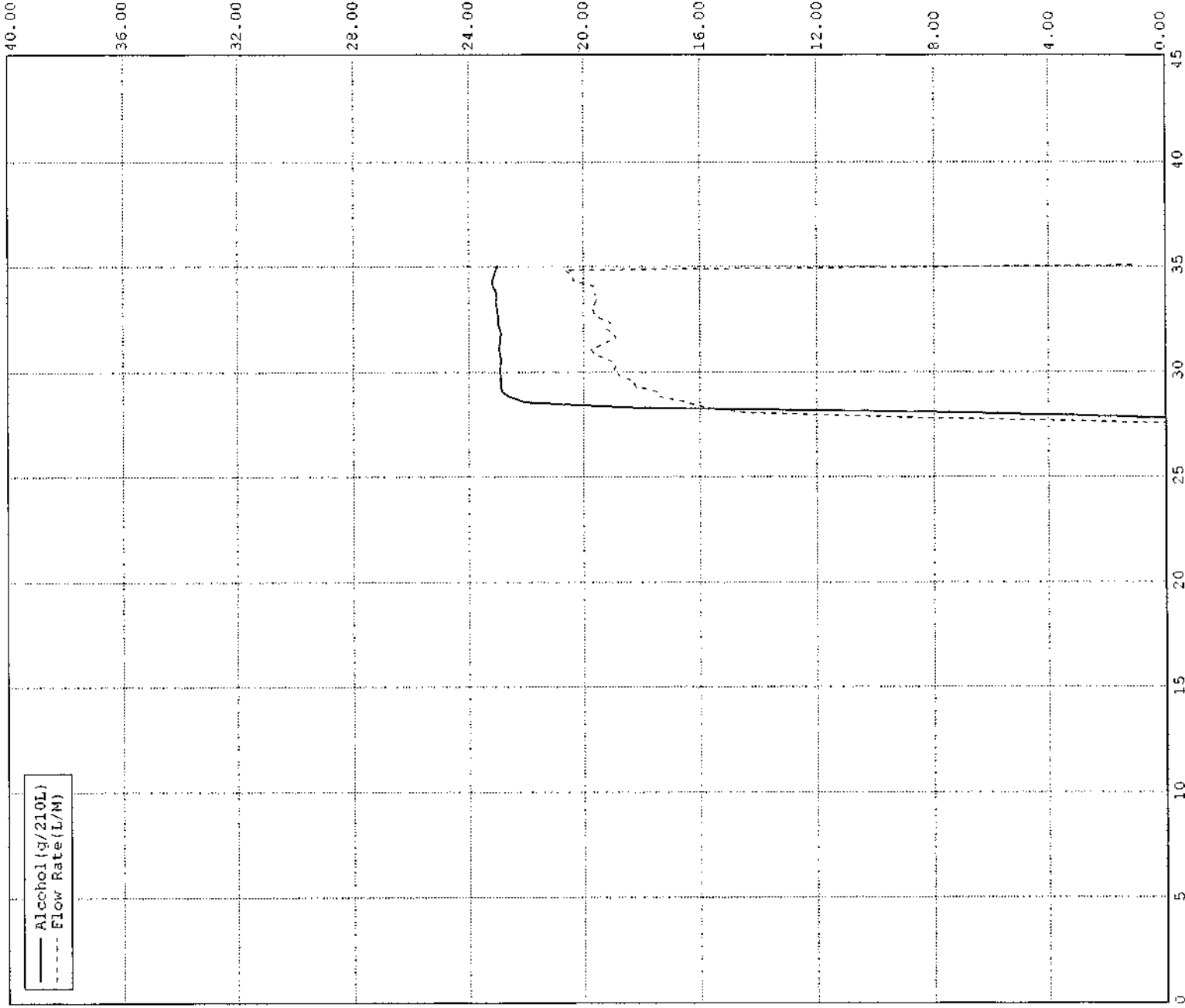
SUBJECT NAME:
TEST TEST
LICENSE #: INT-IPA

OPERATOR NAME:
COLLEEN S OBRyant
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 14:10
BLANK TEST 0.000 14:10
INTERNAL STANDARD VERIFIED 14:10
Xq = 0.114 (3.28%)
EXTERNAL STANDARD 0.077 14:10
X[1] = 0.0777 (-0.0013) (0.0015)
BLANK TEST 0.000 14:11
SUBJECT SAMPLE INTERFERENCE 14:12
X[1] = 0.1158 (-0.0239) (-0.0002)



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 12/17/2014
Time: 14:15:49

SUBJECT NAME:
TEST TEST
LICENSE #: INT-NEGATIVE

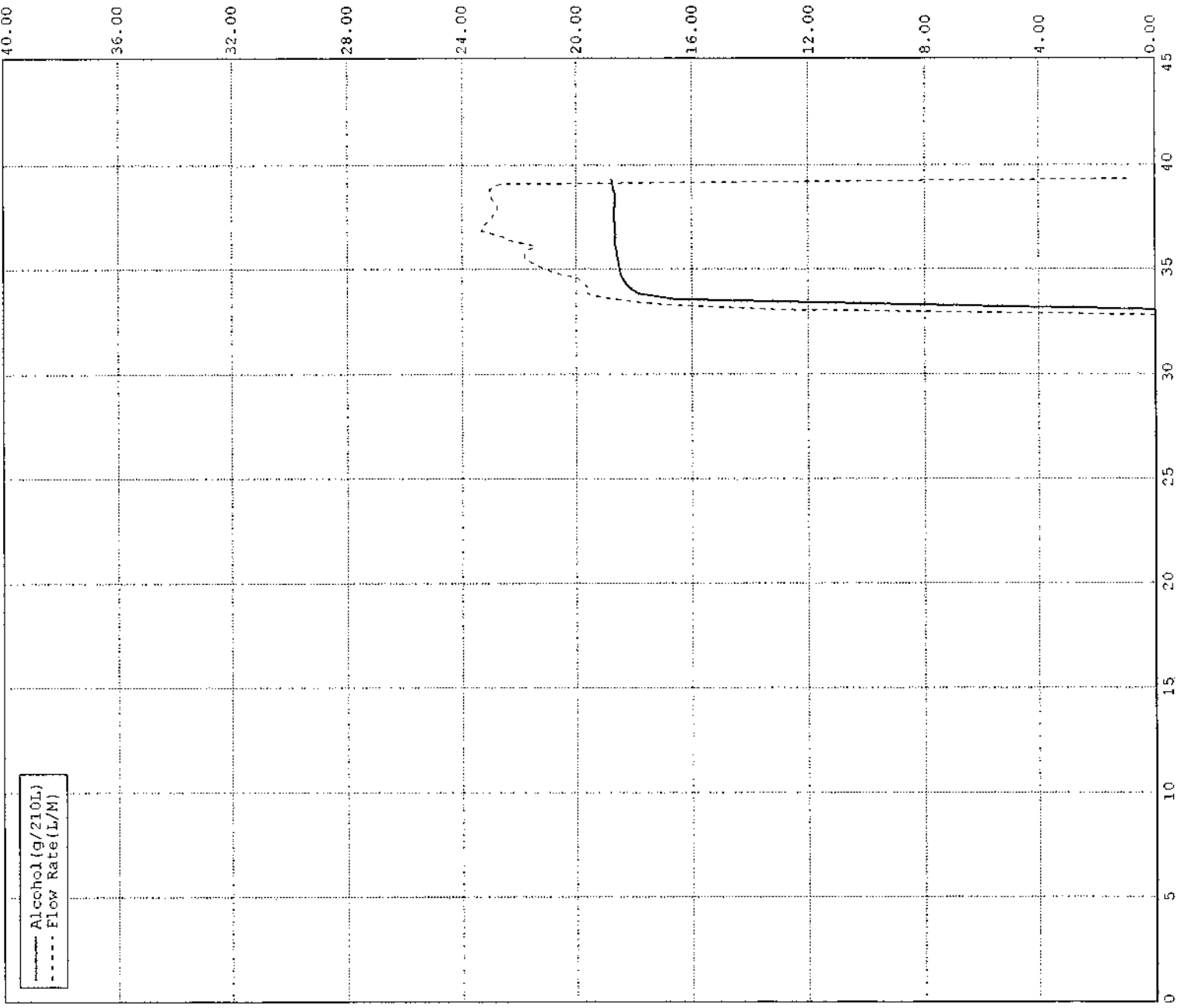
OPERATOR NAME:
COLLEEN S O'BRYAN
OPERATOR'S #: 6237

DEPT/AGENCY:
AAAI
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	14:16
BLANK TEST	0.000	14:17
INTERNAL STANDARD	VERIFIED	14:17
Xq = 0.114 (3.76%)		
EXTERNAL STANDARD	0.078	14:17
X[1] = 0.0780 (-0.0007) (0.0017)		
BLANK TEST	0.000	14:18
SUBJECT SAMPLE (Vol=2.21L)	0.094	14:19
X[1] = 0.0945 (0.0002) (0.0000)		
BLANK TEST	0.000	14:20
EXTERNAL STANDARD	0.077	14:20
X[1] = 0.0779 (-0.0010) (0.0014)		
BLANK TEST	0.000	14:21

Filter 2 avg = -0.0011
Filter 3 avg = 0.0015



SUBJECT TEST

Alaska Department of Public Safety
DATAMASTER dmt: 100351

Date: 12/17/2014
Time: 14:23:53

SUBJECT NAME:
TEST TEST
LICENSE #: RFI

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

DEPT/AGENCY:
AAA1

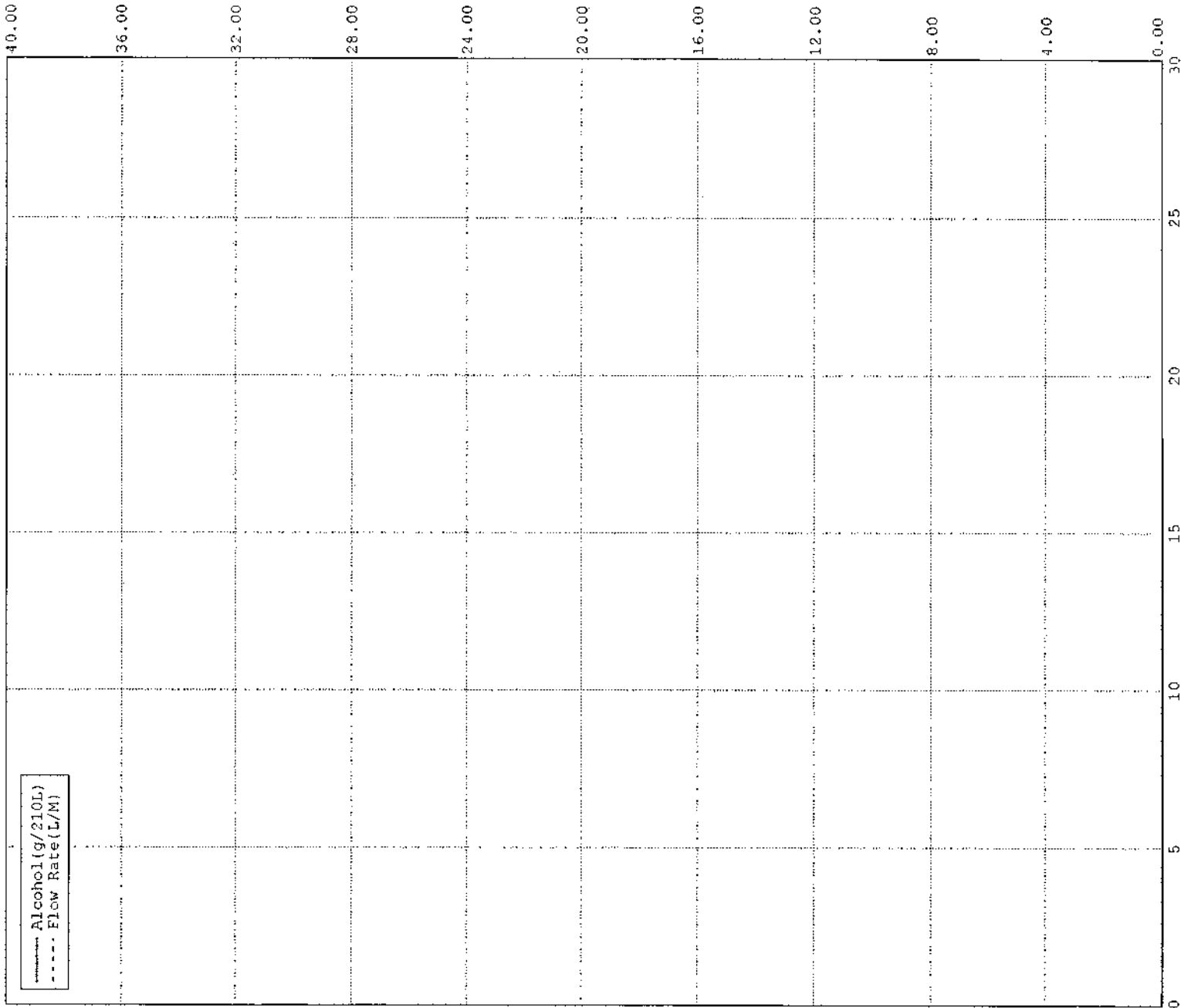
CASE/REPORT: 14-1234
TEST TYPE: TEST

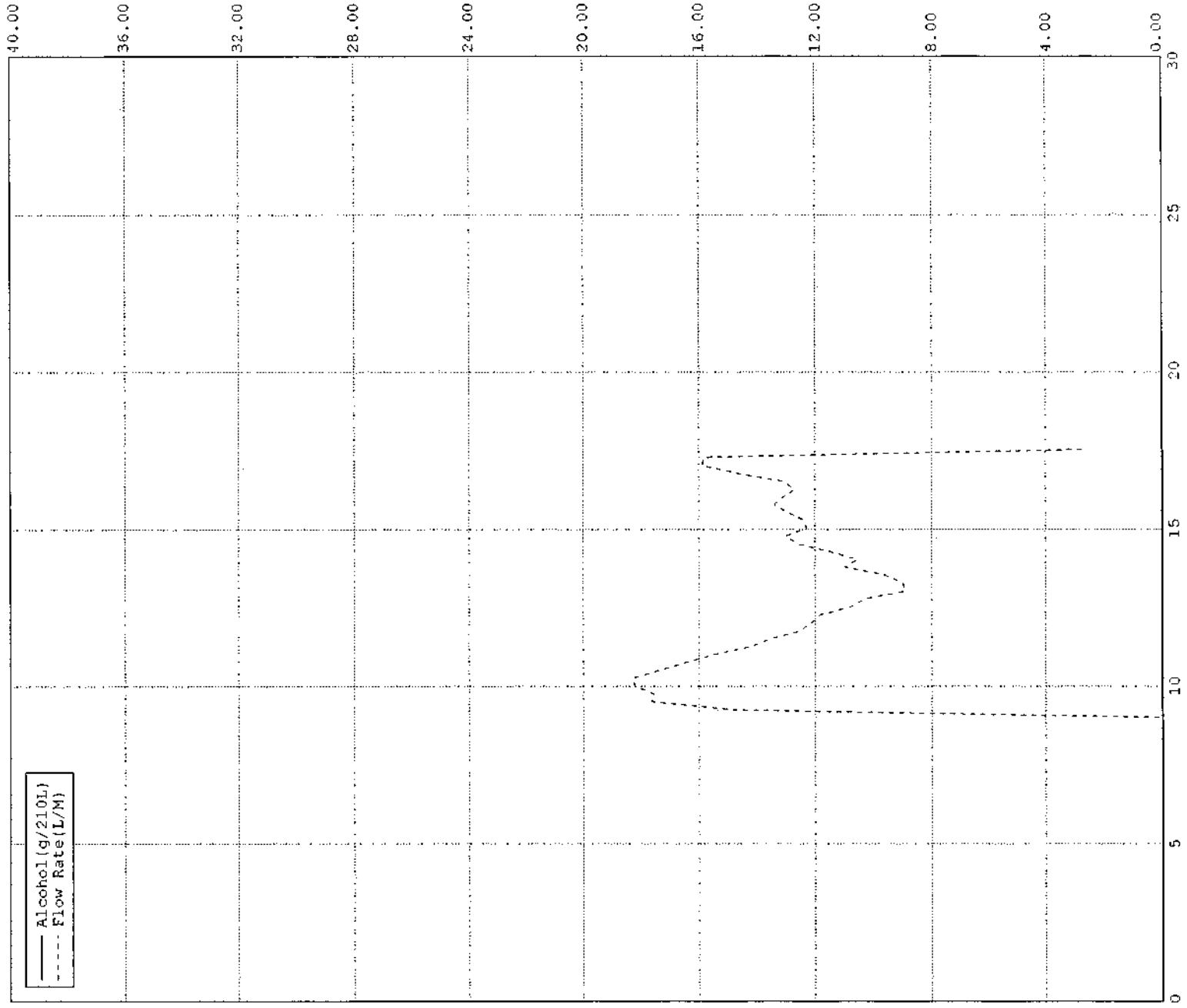
EXTERNAL STANDARD INFORMATION

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

DIAGNOSTIC CHECK PASSED 14:24
BLANK TEST 0.000 14:25
INTERNAL STANDARD VERIFIED 14:25
EXTERNAL STANDARD 0.077 14:25
BLANK TEST 0.000 14:26

RFI DETECTED





SUBJECT TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100351

Date: 12/17/2014
 Time: 14:38:12

SUBJECT NAME:
 TEST TEST
 LICENSE #: NON-DRINKING

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

DEPT/AGENCY:
 AAAA

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

TEST TYPE	RESULT	TIME
DIAGNOSTIC CHECK	PASSED	14:39
BLANK TEST	0.000	14:39
INTERNAL STANDARD	VERIFIED	14:39
EXTERNAL 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	0.078	14:42
BLANK TEST	0.000	14:42

CS