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Certificate of Analysis

Customer

CMI Calibration Laboratory, CMI Inc.
316 East Ninth Street, Owensboro, KY 42303

Item Description

Ethanol Dry Gas Standard (Ethanol in Nitrogen)

Target Value

0.080 BAC

Lot Number

01315080A2

Manufacture Date

January 13, 2015

Expiration Date

February 5, 2017

Analysis Type/Test Method

NDIR/DMT-1

Lot Average (ppm/BAC)

212.3/0.081

**Lot Measurement of
Uncertainty [\pm ppm/BAC]**

4.7/0.0018

<u>NTRM Information</u>	
Batch#	09160202
Serial#	CC14290
Reported NIST Value (ppm)	212.8

Jacob Matto
Specialty Gas Analytical Lab Technician
ILMO Products Company

01/22/15
Date

* The stated expanded uncertainty was determined from the combined uncertainty associated with the following: calibration standard, equipment accuracy, repeatability and random variability (instrument readability). The uncertainty is expressed as $U = ku$, where u is the combined standard uncertainty and the coverage factor k is equal to 2, yielding a level of confidence of approximately 95%.

* The results on this report relate only to the items tested in the group of cylinders designated by the 'Lot Number' field.

SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100362

Date: 03/09/2015
 Time: 10:20:15

SUPERVISOR NAME:
 BRANDI BARNETT
 OPERATOR'S #: 7038

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.82: 0.080
 TANK PRESSURE: 1045 psi

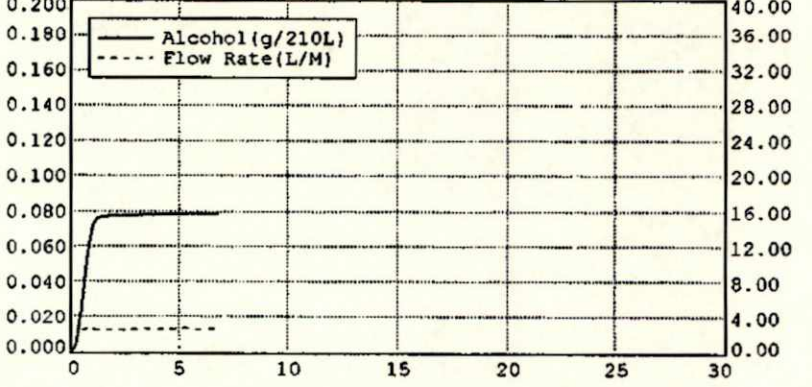
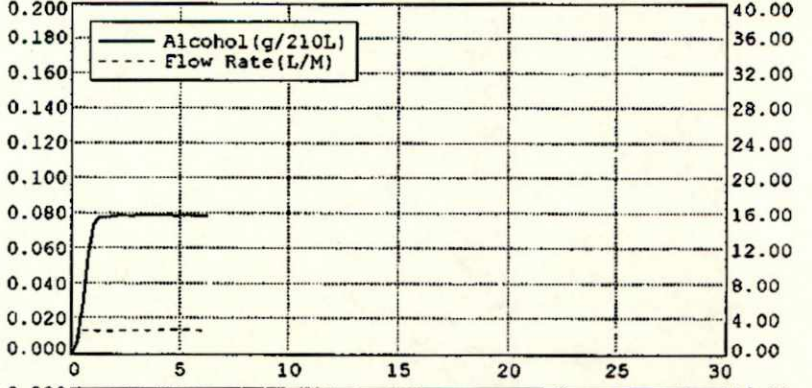
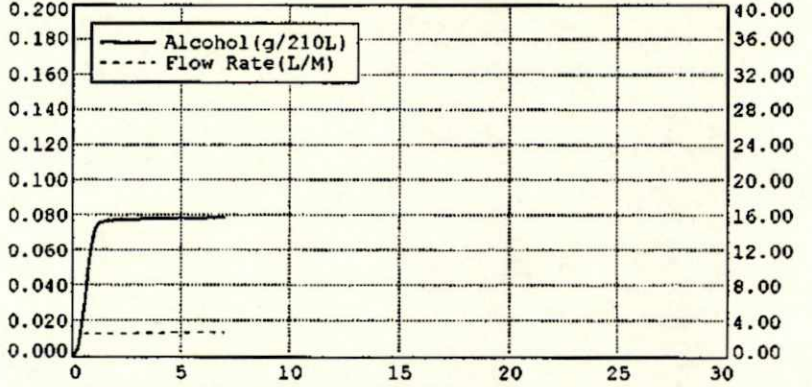
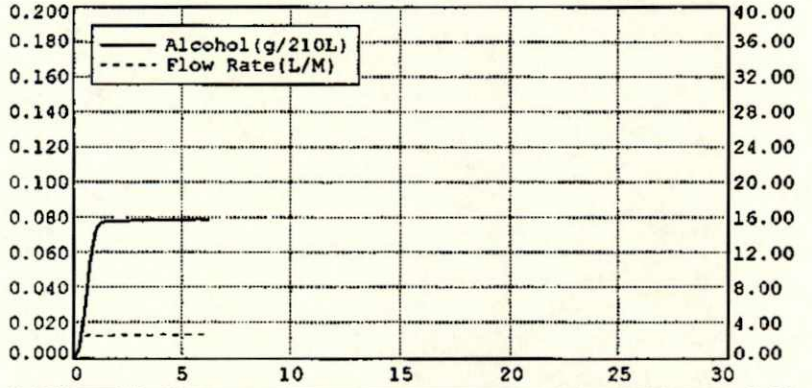
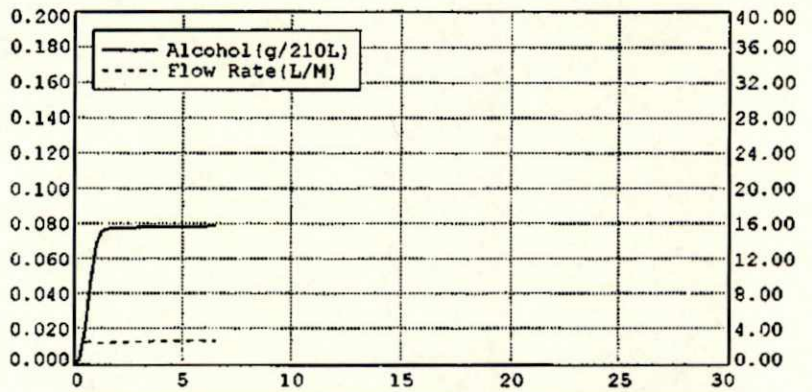
BLANK TEST	0.000	10:21
INTERNAL STANDARD	VERIFIED	10:21
EXTERNAL STANDARD	0.080	10:21
BLANK TEST	0.000	10:22
EXTERNAL STANDARD	0.079	10:22
BLANK TEST	0.000	10:23
EXTERNAL STANDARD	0.080	10:23
BLANK TEST	0.000	10:24
EXTERNAL STANDARD	0.079	10:25
BLANK TEST	0.000	10:25
EXTERNAL STANDARD	0.080	10:26
BLANK TEST	0.000	10:27

Average = 0.0796
 Std Dev = 0.0005

lot: 01315080A2
 Exp: 2/5/2017 BMB 3/9/15

100362	0.0796
100668	0.0802
100377	0.0804

$$\text{Avg} = 0.0800 = 0.080$$



SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100668

Date: 03/09/2015
 Time: 10:03:56

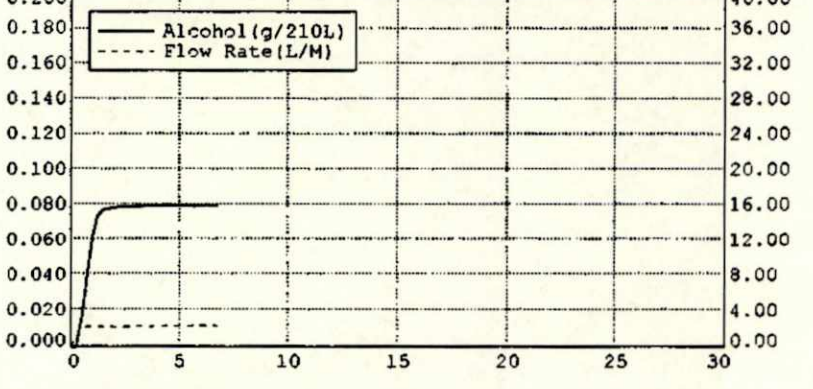
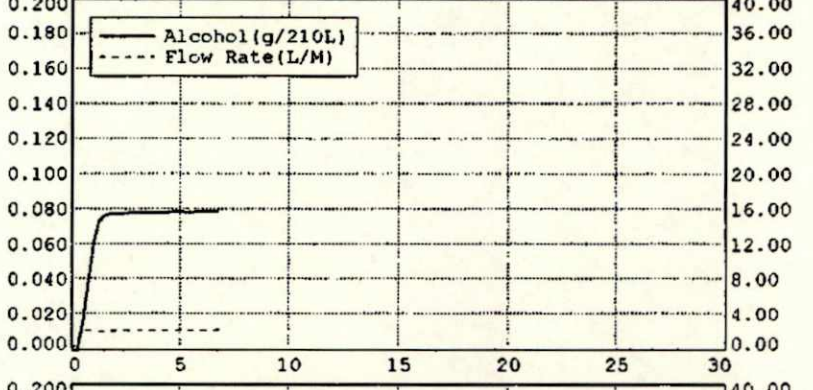
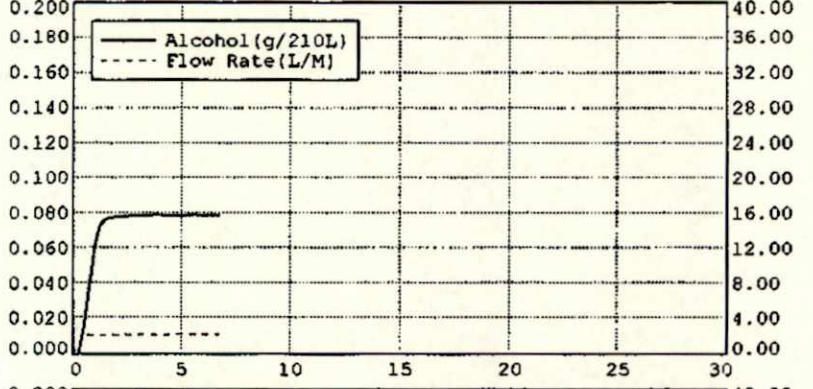
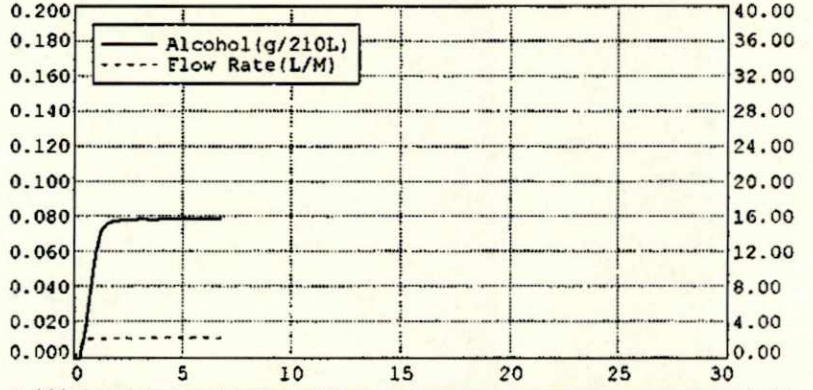
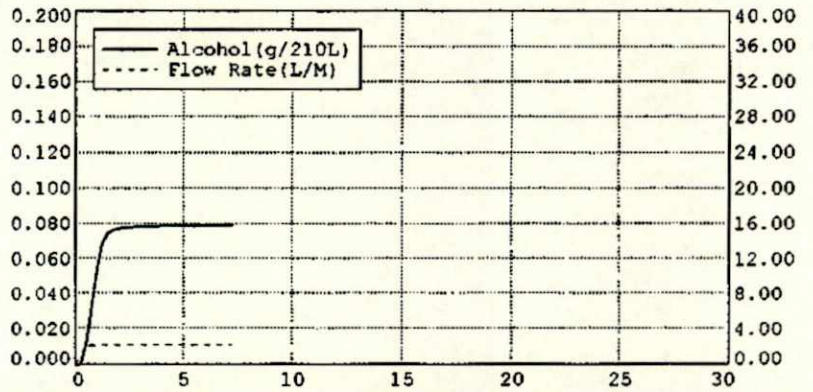
SUPERVISOR NAME:
 BRANDI BARNETT
 OPERATOR'S #: 7038

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.80: 0.080
 TANK PRESSURE: 1062 psi

BLANK TEST	0.000	10:05
INTERNAL STANDARD	VERIFIED	10:05
EXTERNAL STANDARD	0.080	10:05
BLANK TEST	0.000	10:06
EXTERNAL STANDARD	0.080	10:06
BLANK TEST	0.000	10:07
EXTERNAL STANDARD	0.080	10:07
BLANK TEST	0.000	10:08
EXTERNAL STANDARD	0.080	10:09
BLANK TEST	0.000	10:09
EXTERNAL STANDARD	0.081	10:10
BLANK TEST	0.000	10:11

Average = 0.0802
 Std Dev = 0.0004

Lot: 01315080A2
 Exp: 2/5/2017
 BMB 3/9/15



SUPERVISOR TEST

Alaska Department of Public Safety
 DATAMASTER dmt: 100377

Date: 03/09/2015
 Time: 09:55:37

SUPERVISOR NAME:
 BRANDI BARNETT
 OPERATOR'S #: 7038

EXTERNAL STANDARD INFORMATION
 NOMINAL: 0.080
 TARGET AT 29.79: 0.080
 TANK PRESSURE: 1057 psi

BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.080	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.081	09:58
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.080	09:59
BLANK TEST	0.000	10:00
EXTERNAL STANDARD	0.081	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.080	10:01
BLANK TEST	0.000	10:02

Average = 0.0804
 Std Dev = 0.0005

Lot: 01315080A2

Exp: 2/5/17 BMB 3/9/15

