

Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: ML600HC11378

Volatiles Quality Assurance Controls Run Date(s): 10/4/21

Calibration Date: 9/24/21

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|---------------------------------|------------|---------|-----------------|-------------------|---|
| Level 1 | Jul-23 | 1907006 | 0.0764 | 0.0688-0.0840 | 0.0707 g/100cc 0.0753 g/100cc g/100cc |
| Level 2 | Jul-23 | 1907007 | 0.2170 | 0.1953-0.2387 | 0.2072 g/100cc 0.2064 g/100cc g/100cc |
| Multi-Component mixture: | | | Lot # | FN07101701 | acceptable |
| Curve Fit: | | | Column 1 | 0.99988 | Column2 |
| | | | | | 0.99982 |

Ethanol Calibration Reference Material

| Calibrator level | Target Value | Acceptable Range | Column 1 | Column 2 | Precision | Mean |
|------------------|--------------|------------------|----------|----------|-----------|---------|
| 50 | 0.050 | 0.045 - 0.055 | 0.0511 | 0.0501 | 0.001 | 0.0506 |
| 100 | 0.100 | 0.090 - 0.110 | 0.0973 | 0.0972 | 0.0001 | 0.0972 |
| 200 | 0.200 | 0.180 - 0.220 | 0.2003 | 0.2013 | 0.001 | 0.2008 |
| 300 | 0.300 | 0.270 - 0.330 | 0.3022 | 0.3031 | 0.0009 | 0.3026 |
| 400 | 0.400 | 0.360 - 0.440 | | | 0 | #DIV/0! |
| 500 | 0.500 | 0.450 - 0.550 | 0.4989 | 0.4980 | 0.0009 | 0.4984 |

Aqueous Controls

| Control level | Target Value | Acceptable Range | Overall Results |
|---------------|--------------|------------------|-----------------|
| 80 | 0.080 | 0.076 - 0.084 | 0.079 g/100cc |

dc

REVIEWED

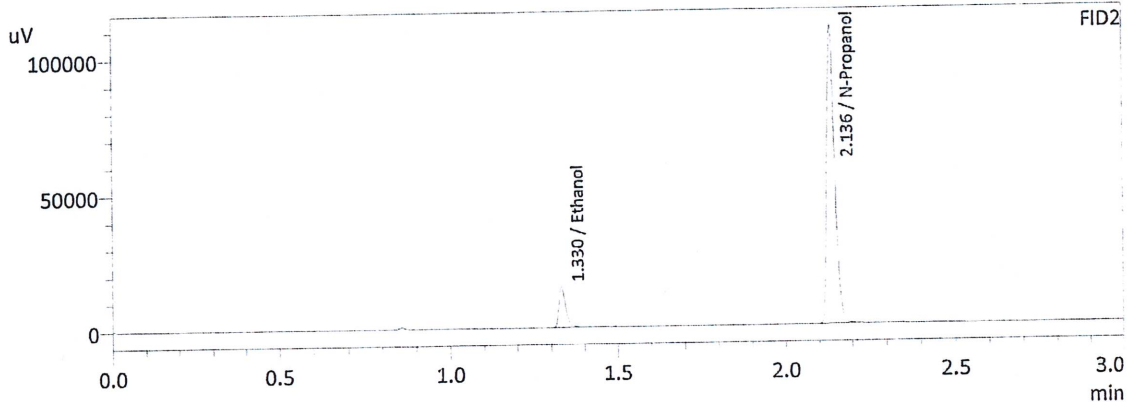
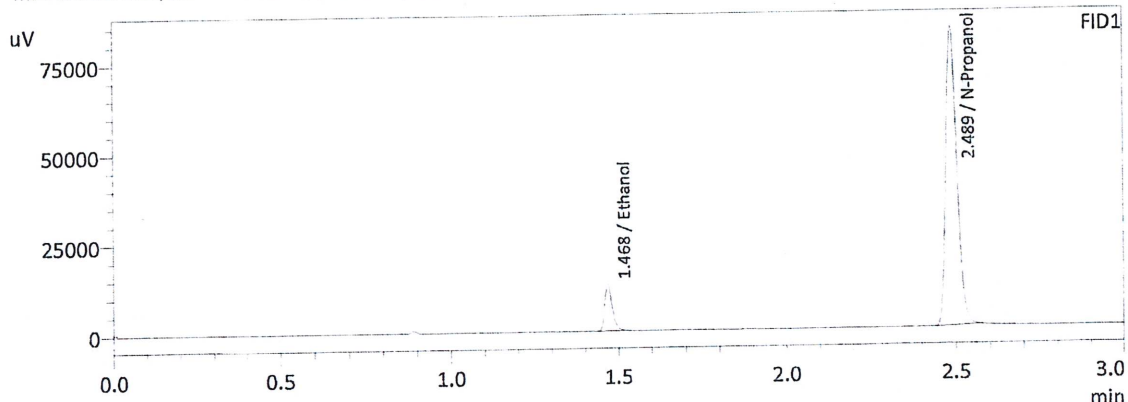
By Galina Giso at 3:46 pm, Oct 05, 2021

Worklist: 5272

| <u>LAB CASE</u> | <u>ITEM</u> | <u>ITEM TYPE</u> | <u>DESCRIPTION</u> | |
|-----------------|-------------|------------------|--------------------|---|
| M2021-4216 | 1 | BCK | Alcohol Analysis |  |
| M2021-4217 | 1 | BCK | Alcohol Analysis |  |
| M2021-4225 | 1 | BCK | Alcohol Analysis |  |
| M2021-4258 | 1 | BCK | Alcohol Analysis |  |
| M2021-4259 | 1 | BCK | Alcohol Analysis |  |
| M2021-4264 | 1 | BCK | Alcohol Analysis |  |
| M2021-4265 | 1 | BCK | Alcohol Analysis |  |
| M2021-4273 | 1 | BCK | Alcohol Analysis |  |
| M2021-4279 | 1 | BCK | Alcohol Analysis |  |
| M2021-4290 | 1 | BCK | Alcohol Analysis |  |
| M2021-4291 | 1 | BCK | Alcohol Analysis |  |
| M2021-4292 | 1 | BCK | Alcohol Analysis |  |
| M2021-4303 | 1 | BCK | Alcohol Analysis |  |
| M2021-4304 | 1 | BCK | Alcohol Analysis |  |
| M2021-4377 | 1 | BCK | Alcohol Analysis |  |
| M2021-4378 | 1 | BCK | Alcohol Analysis |  |
| M2021-4379 | 1 | BCK | Alcohol Analysis |  |
| M2021-4380 | 1 | BCK | Alcohol Analysis |  |
| M2021-4381 | 1 | BCK | Alcohol Analysis |  |
| M2021-4386 | 1 | BCK | Alcohol Analysis |  |
| P2021-3065 | 1 | BCK | Alcohol Analysis |  |



Sample Name : 0.050
 Laboratory : Meridian
 Injection Date : 9/24/2021 3:01:35 PM
 Vial # : 1
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

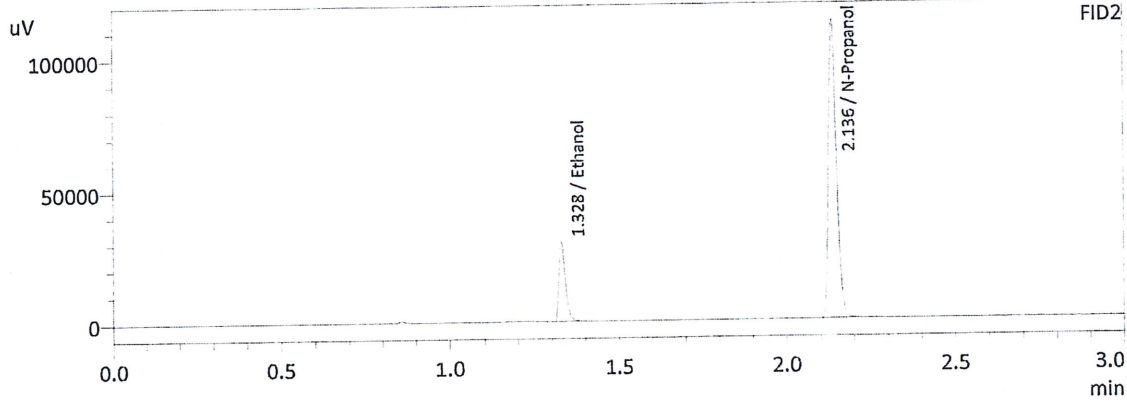
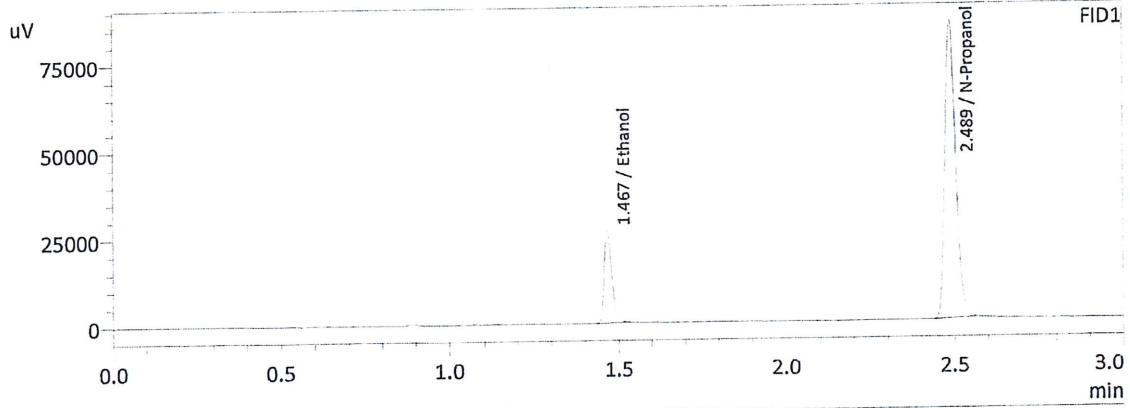
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0511 | 20302 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 186201 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0501 | 20360 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 182324 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JL

Sample Name : 0.100
 Laboratory : Meridian
 Injection Date : 9/24/2021 3:08:54 PM
 Vial # : 2
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

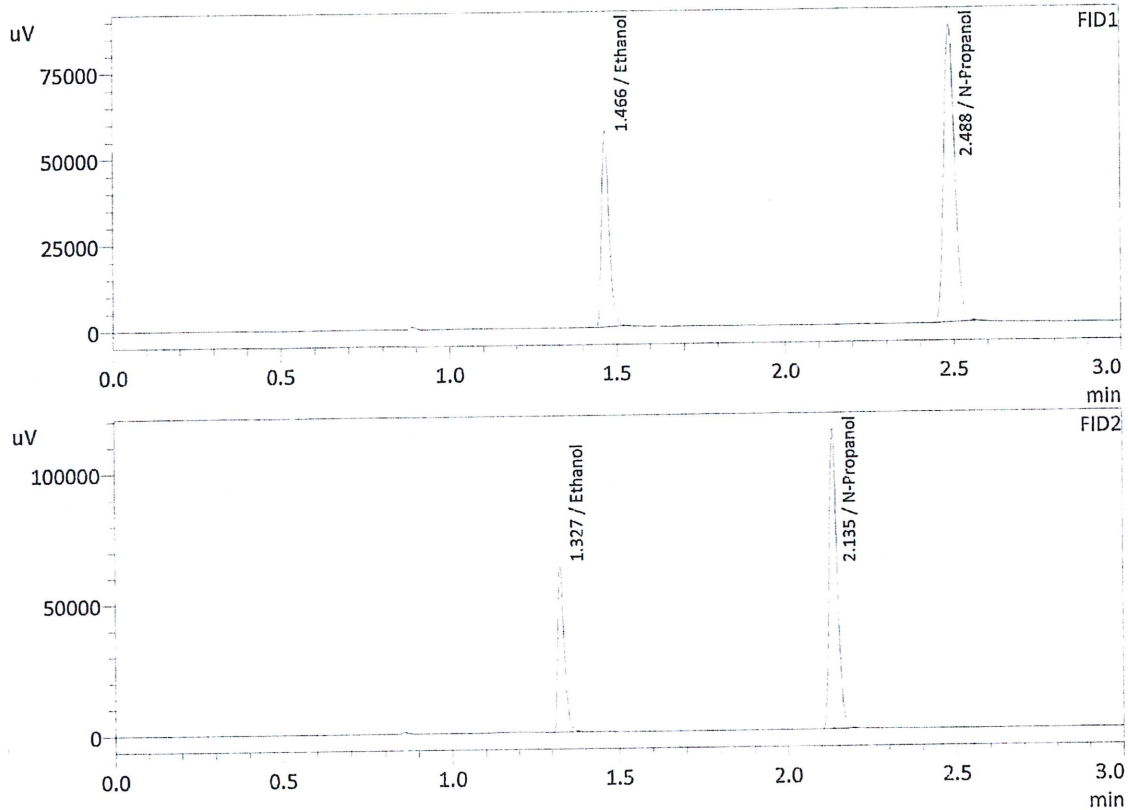
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0973 | 41082 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 192428 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0972 | 40395 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 187566 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

de

Sample Name : 0.200
 Laboratory : Meridian
 Injection Date : 9/24/2021 3:16:15 PM
 Vial # : 3
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

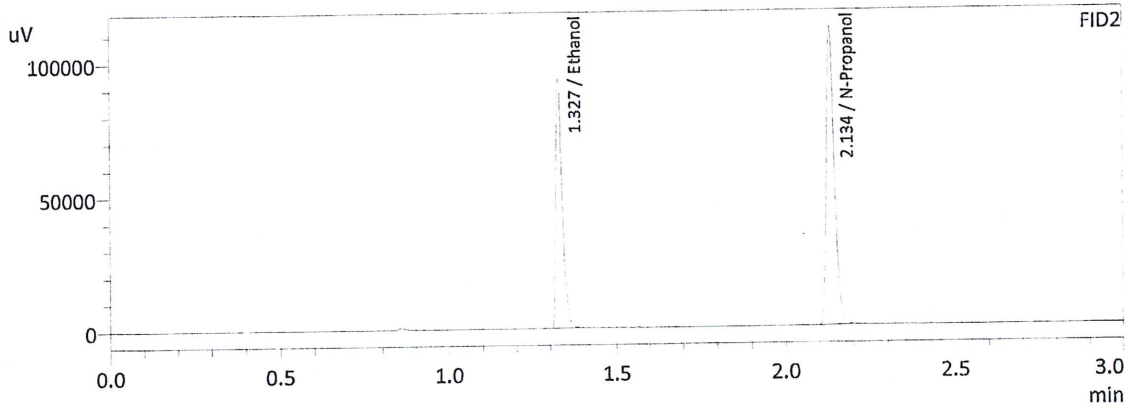
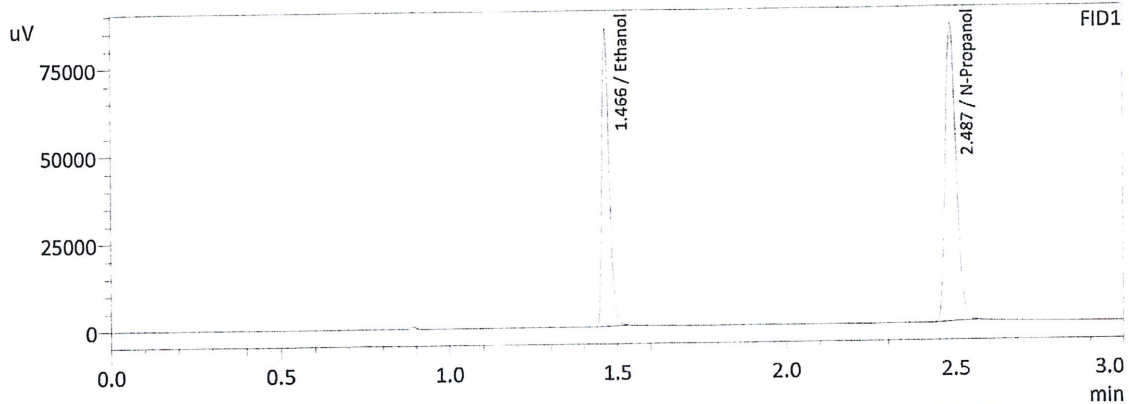
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2003 | 87010 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 194844 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2013 | 83873 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 188835 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JK

Sample Name : 0.300
 Laboratory : Meridian
 Injection Date : 9/24/2021 3:25:06 PM
 Vial # : 4
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

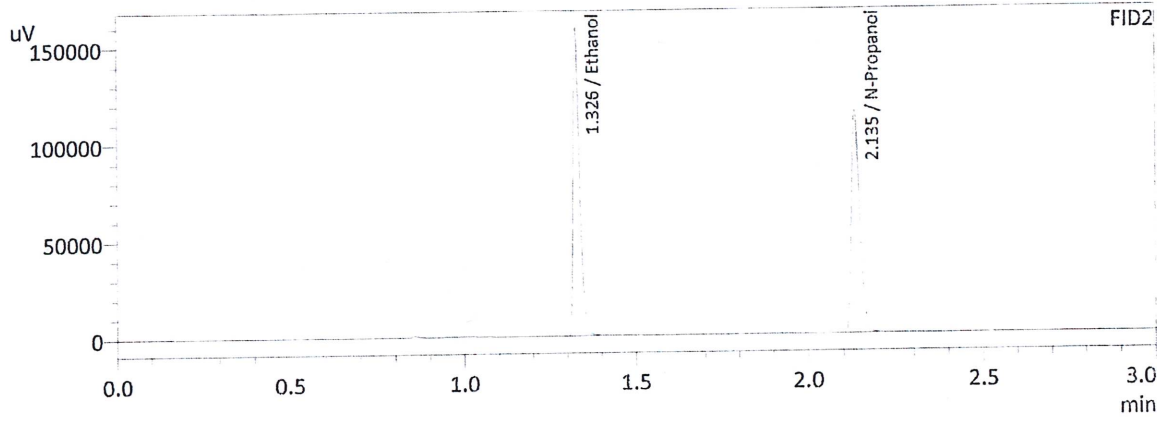
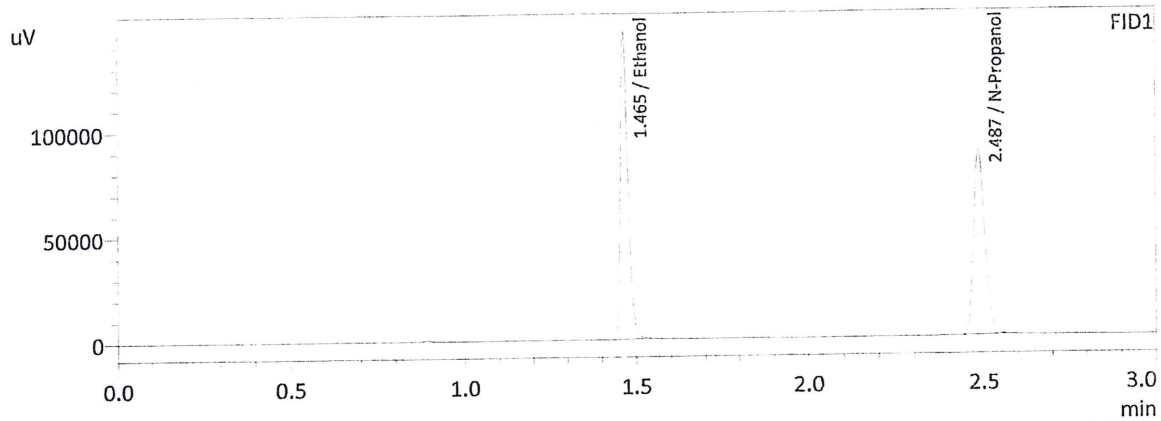
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.3022 | 129260 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 190942 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.3031 | 123191 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 184434 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

dc

Sample Name : 0.500
 Laboratory : Meridian
 Injection Date : 9/24/2021 3:32:39 PM
 Vial # : 5
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

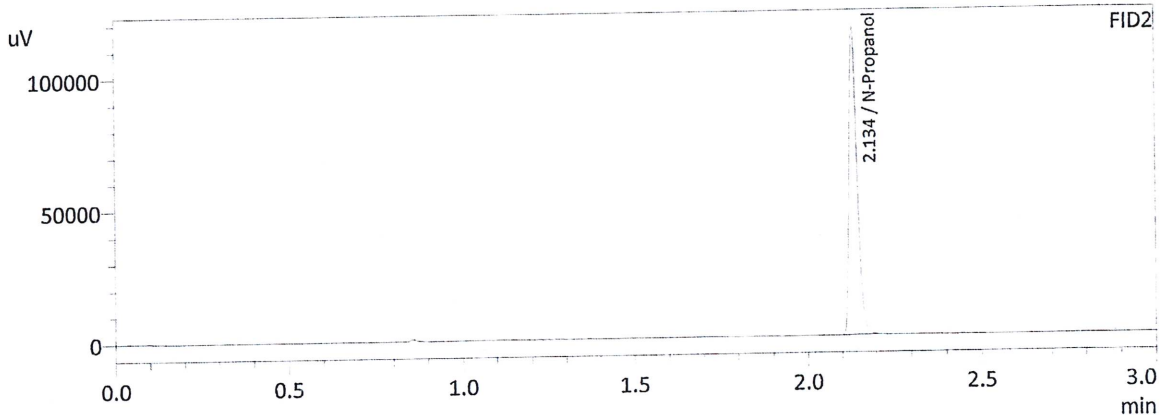
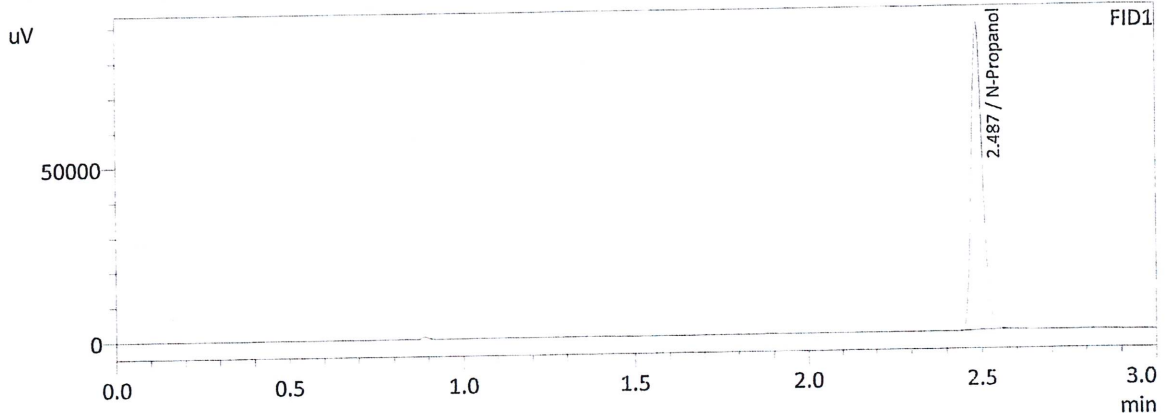
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.4989 | 221445 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 197412 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.4980 | 207935 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 189644 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JL

Sample Name : INT STD BLNK
 Laboratory : Meridian
 Injection Date : 9/24/2021 3:41:07 PM
 Vial # : 6
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 197246 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

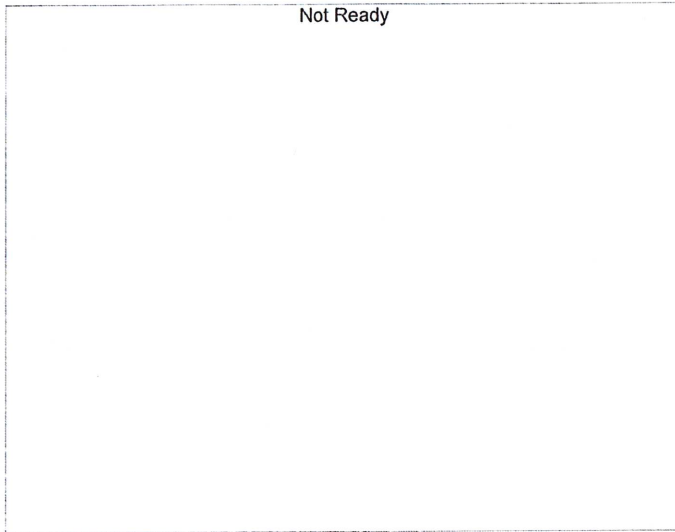
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 192028 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Calibration Table

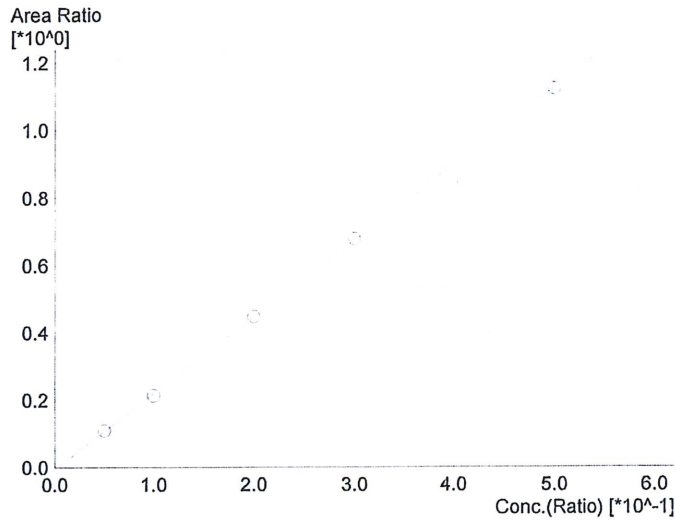
Laboratory : MERIDIAN
 Instrument Name : GC-HS
 Instrument Serial # : C12595800409 / C12255750548

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 Method File :C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Batch File :C:\LabSolutions\Data\210924\CALIBRATION\CALCURVE_TEMPLATE.gcb
 Date Acquired :9/24/2021 3:32:39 PM
 Date Created :9/24/2021 3:28:16 PM
 Date Modified :9/24/2021 3:35:41 PM



Name : Methanol
 Detector Name: FID1
 Function : $f(x)=0*x+0$
 R² value= 0
 FitType: Linear
 ZeroThrough: Not Through

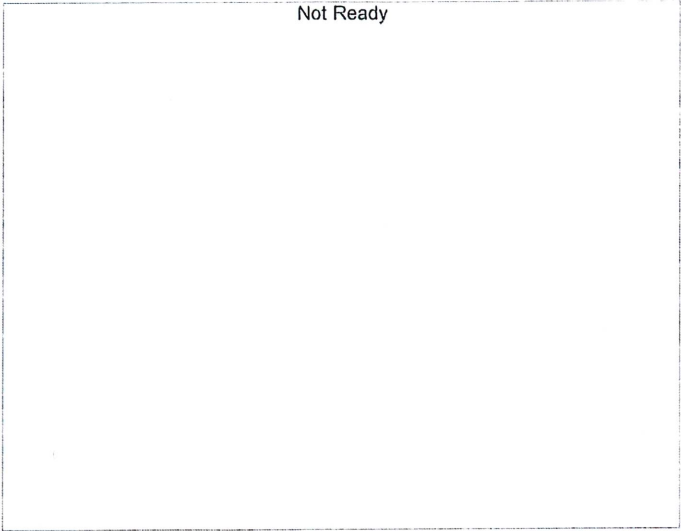
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Ethanol
 Detector Name: FID1
 Function : $f(x)=2.26156*x-0.00660280$
 R² value= 0.9998841
 FitType: Linear
 ZeroThrough: Not Through

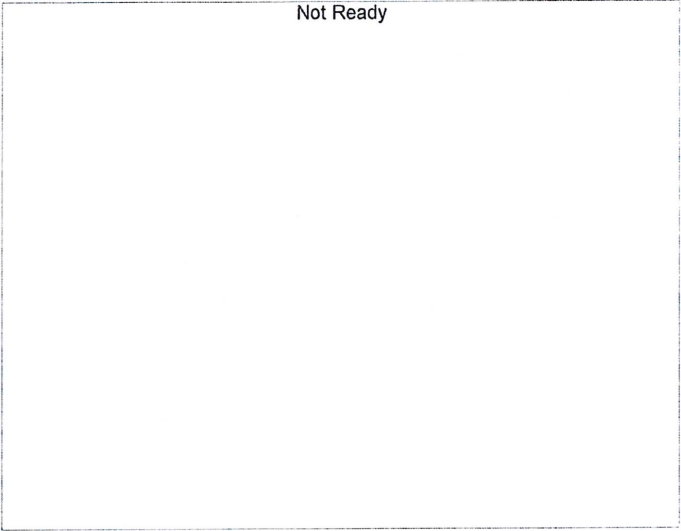
| # | Conc. | Area | Std. Conc. |
|---|-------|--------|------------|
| 1 | 0.050 | 20302 | 0.0511 |
| 2 | 0.100 | 41082 | 0.0973 |
| 3 | 0.200 | 87010 | 0.2003 |
| 4 | 0.300 | 129260 | 0.3022 |
| 5 | 0.500 | 221445 | 0.4989 |

JK



Name : Isopropyl Alcohol
Detector Name: FID1
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Acetone
Detector Name: FID1
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



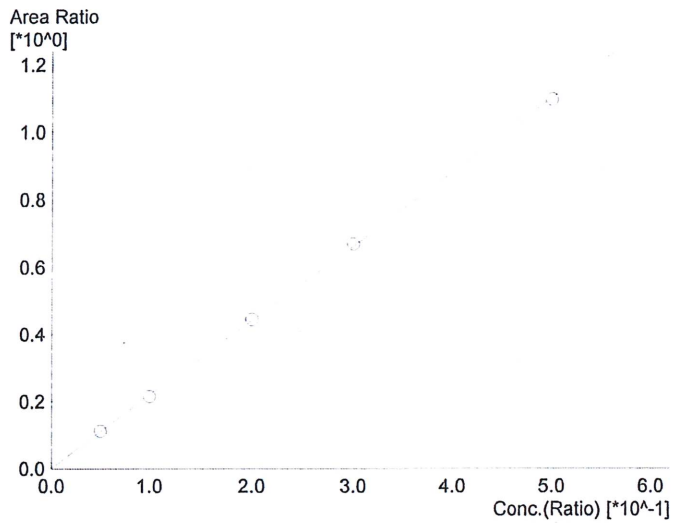
Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



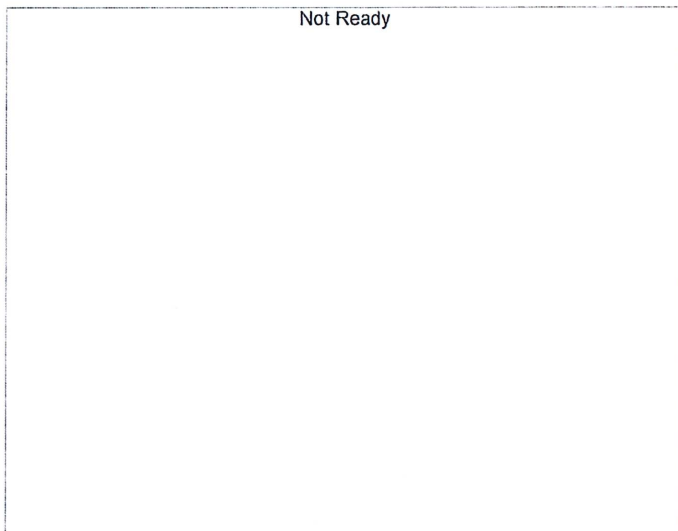
Name : Methanol
 Detector Name: FID2
 Function : $f(x)=0*x+0$
 R² value= 0
 FitType: Linear
 ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Ethanol
 Detector Name: FID2
 Function : $f(x)=2.19823*x+0.00152408$
 R² value= 0.9998211
 FitType: Linear
 ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|--------|------------|
| 1 | 0.050 | 20360 | 0.0501 |
| 2 | 0.100 | 40395 | 0.0972 |
| 3 | 0.200 | 83873 | 0.2013 |
| 4 | 0.300 | 123191 | 0.3031 |
| 5 | 0.500 | 207935 | 0.4980 |



Name : Acetone
 Detector Name: FID2
 Function : $f(x)=0*x+0$
 R² value= 0
 FitType: Linear
 ZeroThrough: Not Through

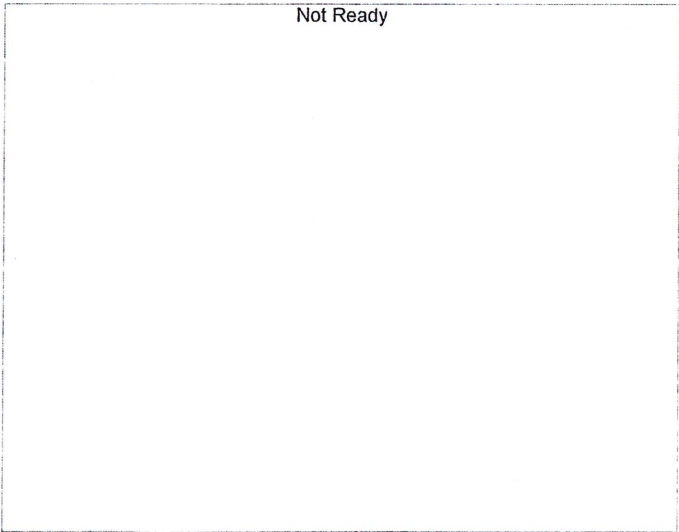
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|

JG



Name : Isopropyl Alcohol
Detector Name: FID2
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Flour. Hydrocarbon(s)
Detector Name: FID2
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|

JK

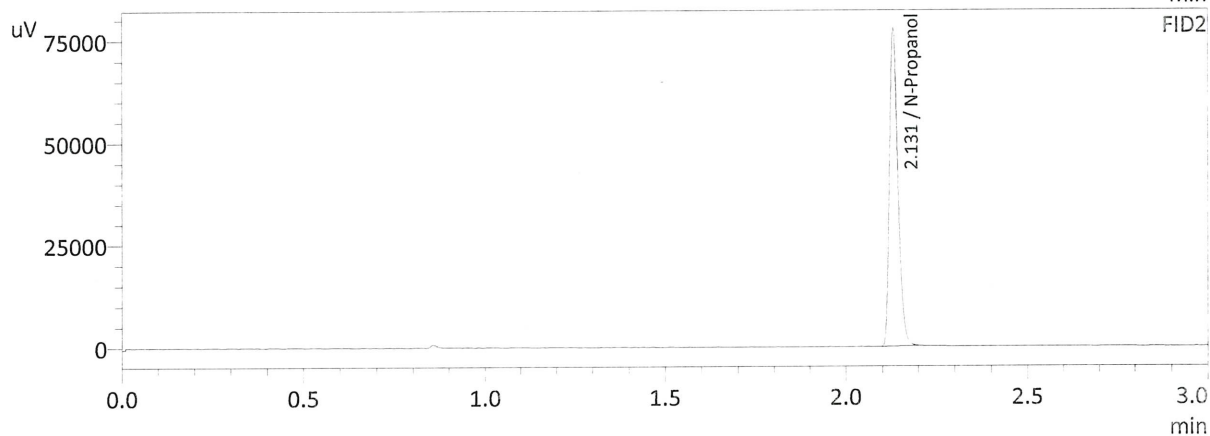
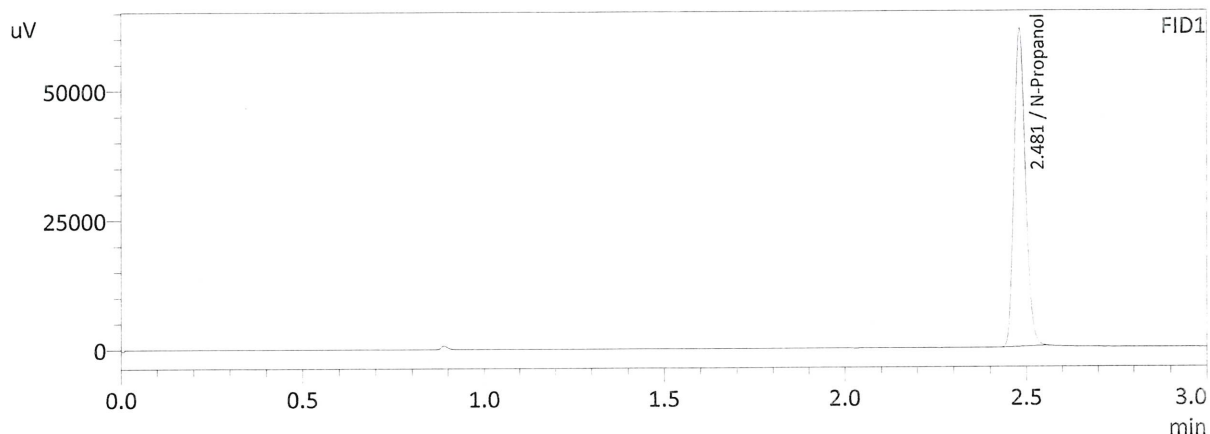
Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
Shimadzu HS-20 Serial #C12595800409
Lab Solutions Software Ver. 5.99
Copyright (C) 2008-2020 Shimadzu Corporation

| Vial# | Sample Name | Sample Type | Level# | Method File |
|-------|--------------|----------------|--------|-------------|
| 1 | 0.050 | 1:Standard:(1) | 1 | ALCOHOL.GCM |
| 2 | 0.100 | 1:Standard | 2 | ALCOHOL.GCM |
| 3 | 0.200 | 1:Standard | 3 | ALCOHOL.GCM |
| 4 | 0.300 | 1:Standard | 4 | ALCOHOL.GCM |
| 5 | 0.500 | 1:Standard | 5 | ALCOHOL.GCM |
| 6 | INT STD BLNK | 0:Unknown | 0 | ALCOHOL.GCM |

JK

Sample Name : INT STD BLK 1
 Laboratory : Meridian
 Injection Date : 10/4/2021 3:26:10 PM
 Vial # : 1
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

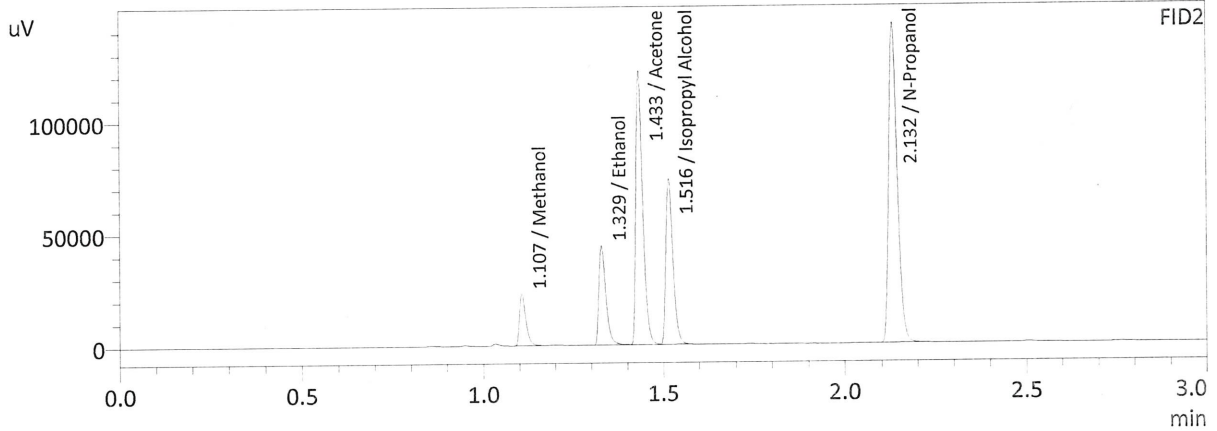
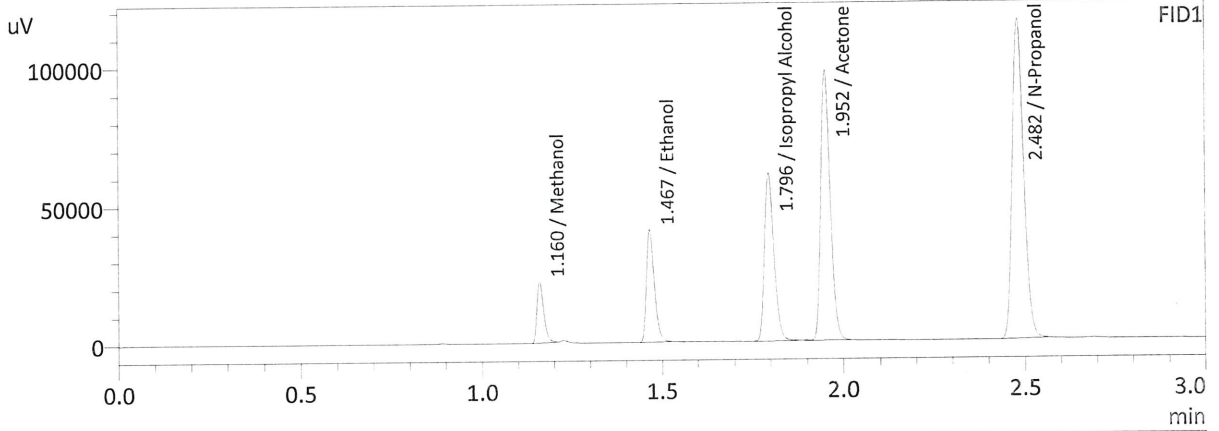
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 135517 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 129356 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JK

Sample Name : MIXED VOLATILES FN 07101701
 Laboratory : Meridian
 Injection Date : 10/4/2021 3:33:30 PM
 Vial # : 2
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | 0.0000 | 29721 | g/100cc |
| Ethanol | 0.1113 | 62057 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 111985 | g/100cc |
| Acetone | 0.0000 | 179829 | g/100cc |
| N-Propanol | 0.0000 | 253176 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | 0.0000 | 28690 | g/100cc |
| Ethanol | 0.1134 | 59171 | g/100cc |
| Acetone | 0.0000 | 164109 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 103322 | g/100cc |
| N-Propanol | 0.0000 | 235917 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

JC

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC 1-1

Analysis Date(s): 10/4/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0708 | 0.0700 | 0.0008 | 0.0704 | 0.0006 | 0.0707 |
| (g/100cc) | 0.0713 | 0.0707 | 0.0006 | 0.0710 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.070 | 0.066 | 0.074 | 0.004 |

| Reported Result |
|-----------------|
| 0.070 |

Calibration and control data are stored centrally.

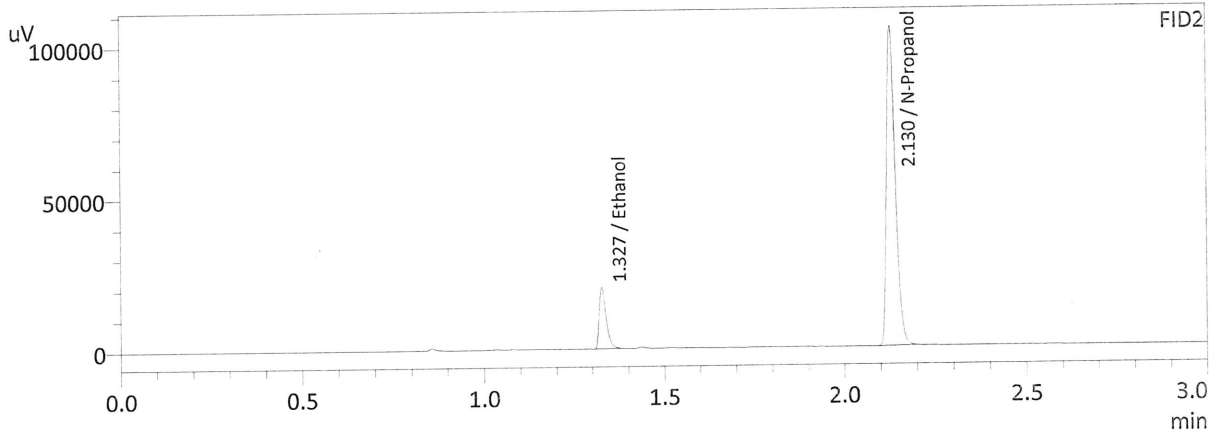
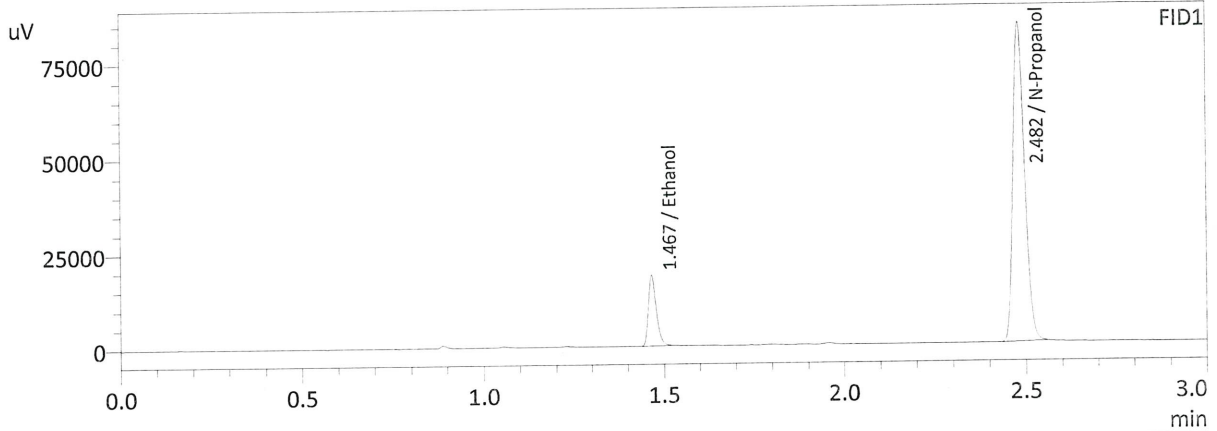


Revision: 3

Issue Date: 12/28/2020

Issuing Authority: Quality Manager

Sample Name : QC-1-1-A
 Laboratory : Meridian
 Injection Date : 10/4/2021 3:40:53 PM
 Vial # : 3
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

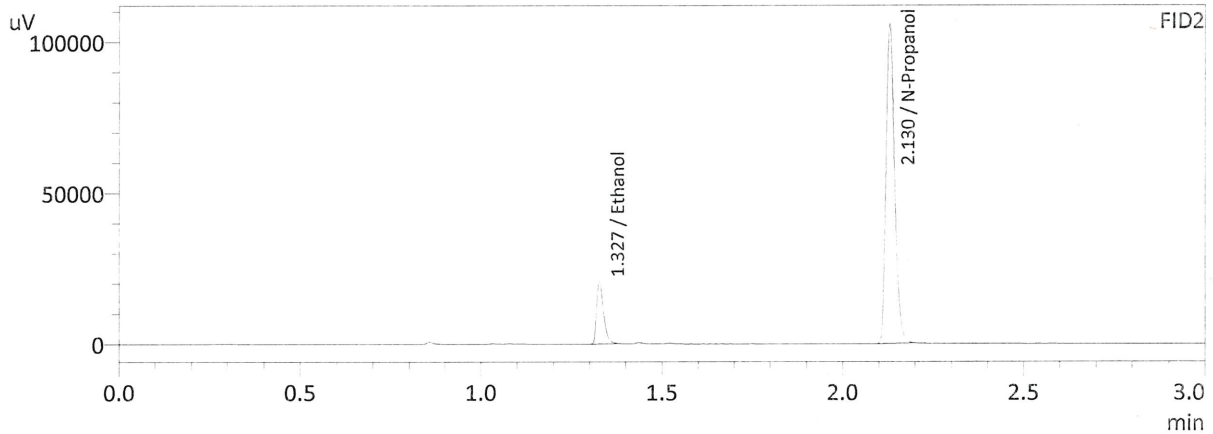
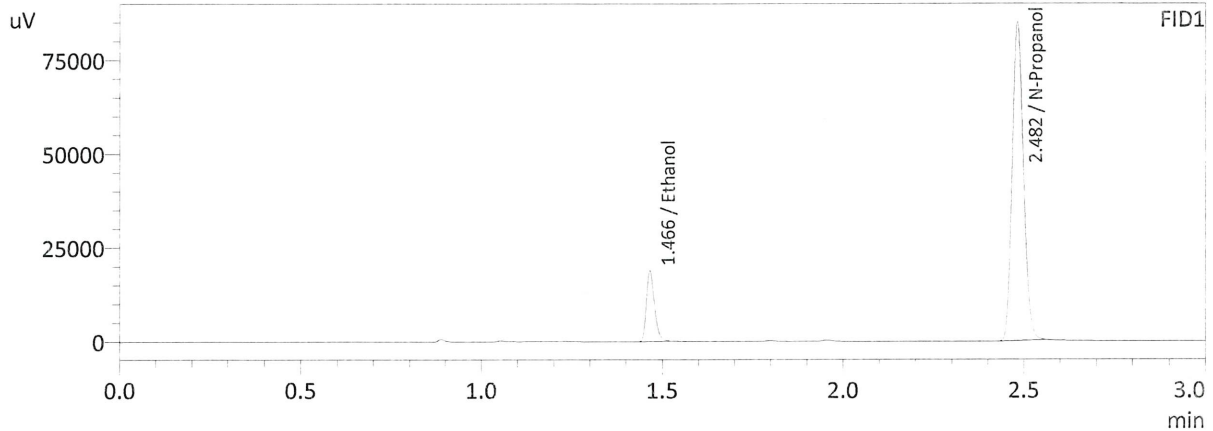
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0708 | 28467 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 185284 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0700 | 27156 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 174644 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : QC-1-1-B
 Laboratory : Meridian
 Injection Date : 10/4/2021 3:49:48 PM
 Vial # : 4
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0713 | 28906 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 186805 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0707 | 27614 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 175950 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

6

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.080 QA

Analysis Date(s): 10/4/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0791 | 0.0787 | 0.0004 | 0.0789 | 0.0017 | 0.0797 |
| (g/100cc) | 0.0808 | 0.0805 | 0.0003 | 0.0806 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

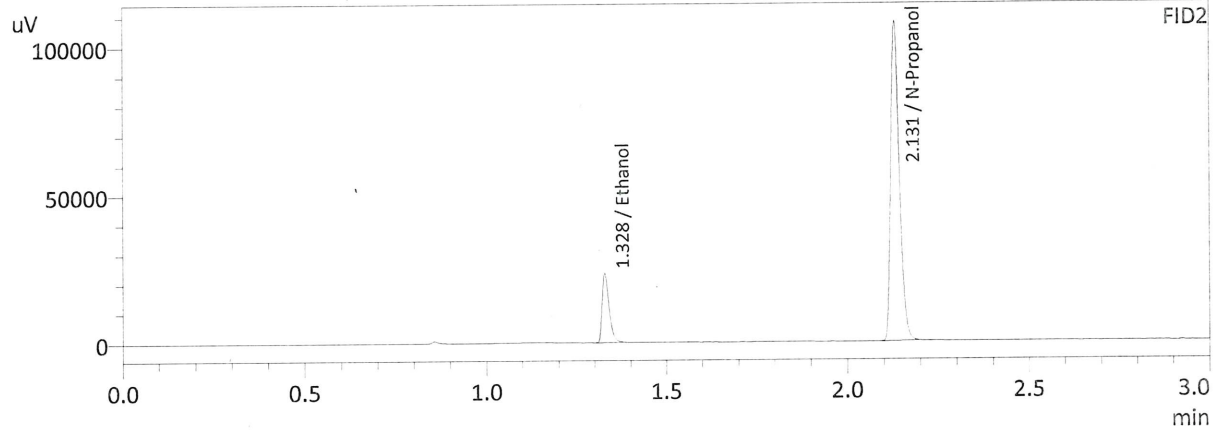
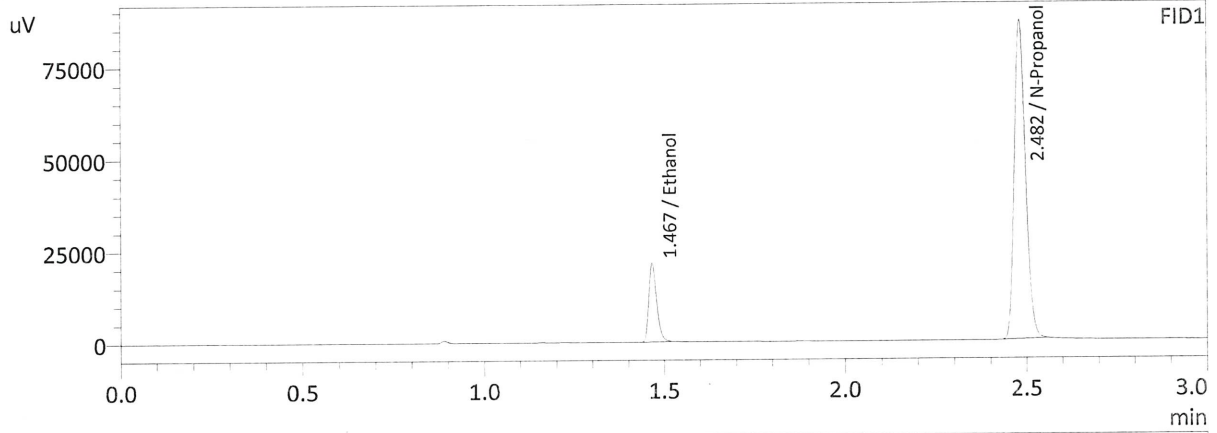
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.079 | 0.075 | 0.083 | 0.004 |

| | Reported Result | |
|--|-----------------|--|
| | 0.079 | |

Calibration and control data are stored centrally.

JG

Sample Name : 0.08 QA-A
 Laboratory : Meridian
 Injection Date : 10/4/2021 3:57:12 PM
 Vial # : 5
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

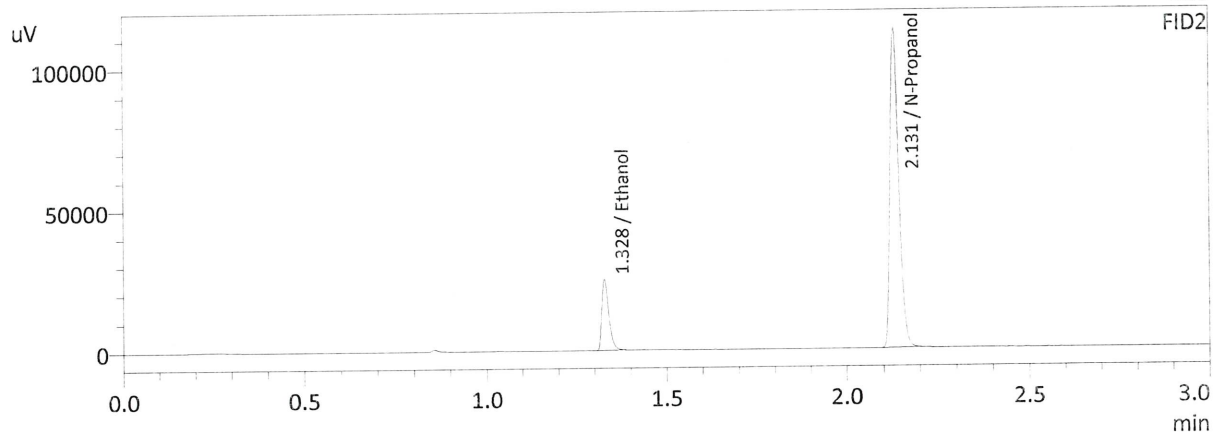
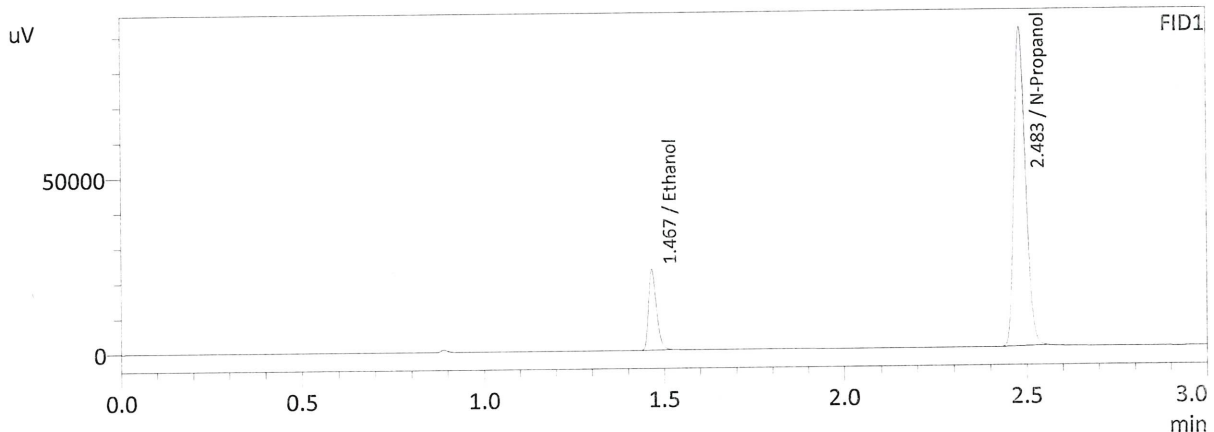
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0791 | 32793 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 190298 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0787 | 31278 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 179175 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

J6

Sample Name : 0.08 QA-B
 Laboratory : Meridian
 Injection Date : 10/4/2021 4:05:29 PM
 Vial # : 6
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0808 | 35172 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 199640 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0805 | 33527 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 187735 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

UG

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC 2-1

Analysis Date(s): 10/4/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.2052 | 0.2087 | 0.0035 | 0.2069 | 0.0006 | 0.2072 |
| (g/100cc) | 0.2061 | 0.2089 | 0.0028 | 0.2075 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

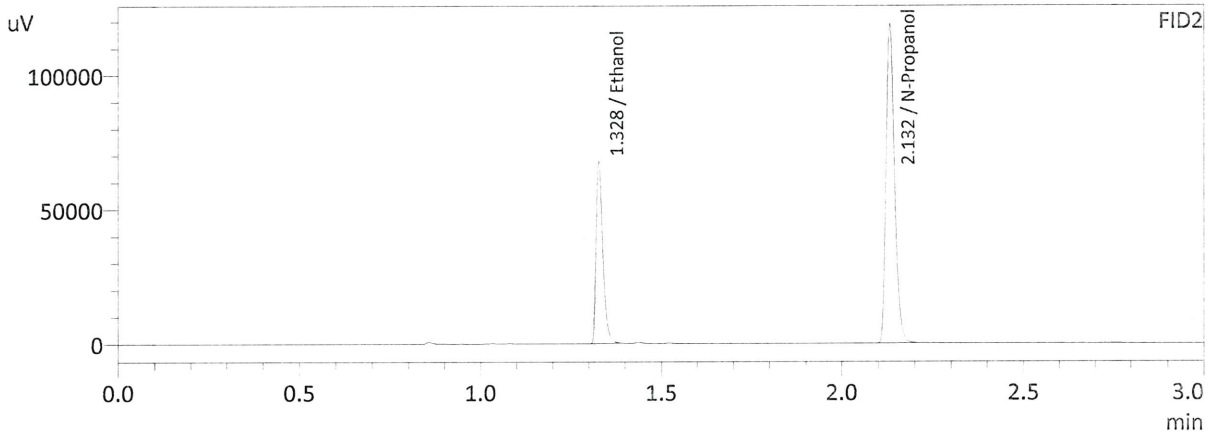
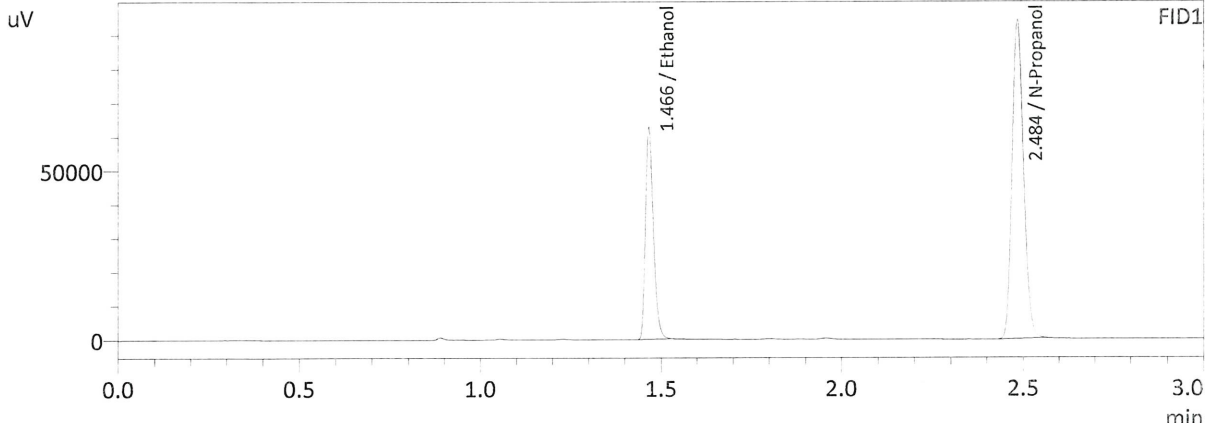
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.207 | 0.196 | 0.218 | 0.011 |

| Reported Result | |
|-----------------|--|
| 0.207 | |

Calibration and control data are stored centrally.

JG

Sample Name : QC-2-1-A
 Laboratory : Meridian
 Injection Date : 10/4/2021 6:36:06 PM
 Vial # : 25
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

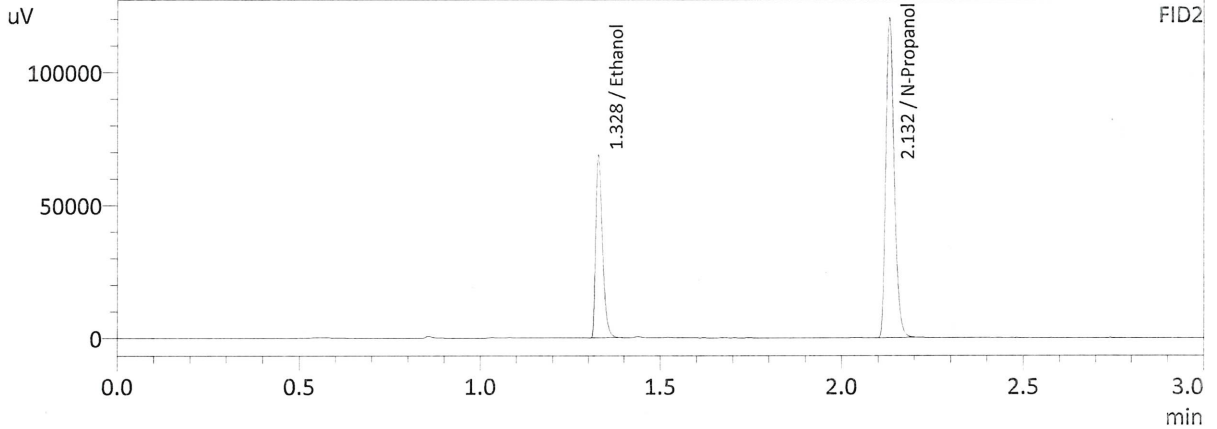
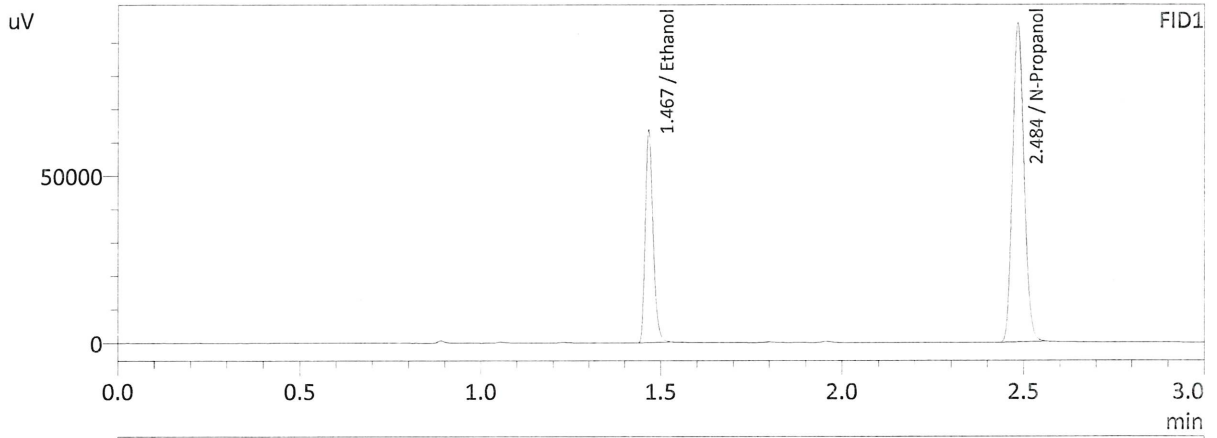
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2052 | 95569 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 208890 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2087 | 90045 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 195561 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

JK

Sample Name : QC-2-1-B
 Laboratory : Meridian
 Injection Date : 10/4/2021 6:44:04 PM
 Vial # : 26
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2061 | 97152 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 211383 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2089 | 91152 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 197768 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

JG

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC 1-2

Analysis Date(s): 10/4/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0760 | 0.0758 | 0.0002 | 0.0759 | 0.0011 | 0.0753 |
| (g/100cc) | 0.0749 | 0.0748 | 0.0001 | 0.0748 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

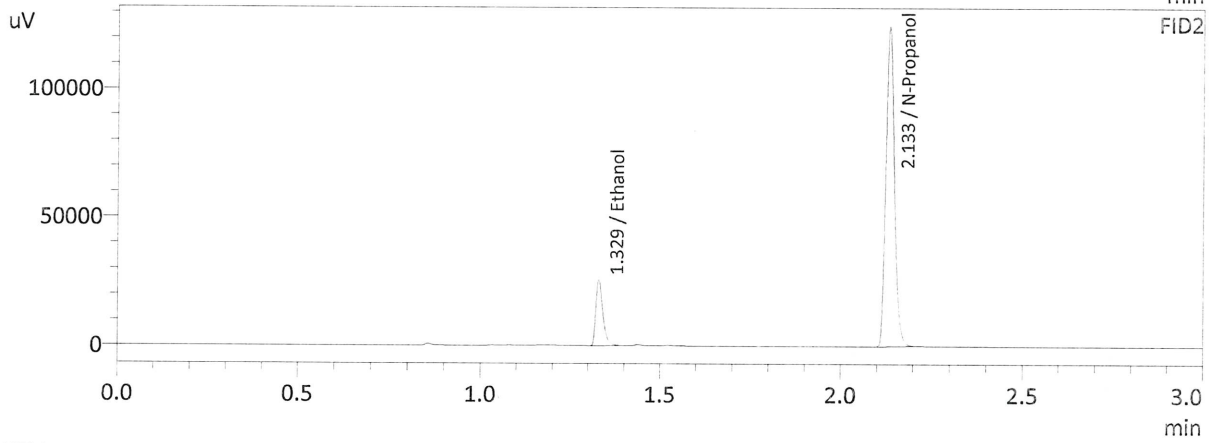
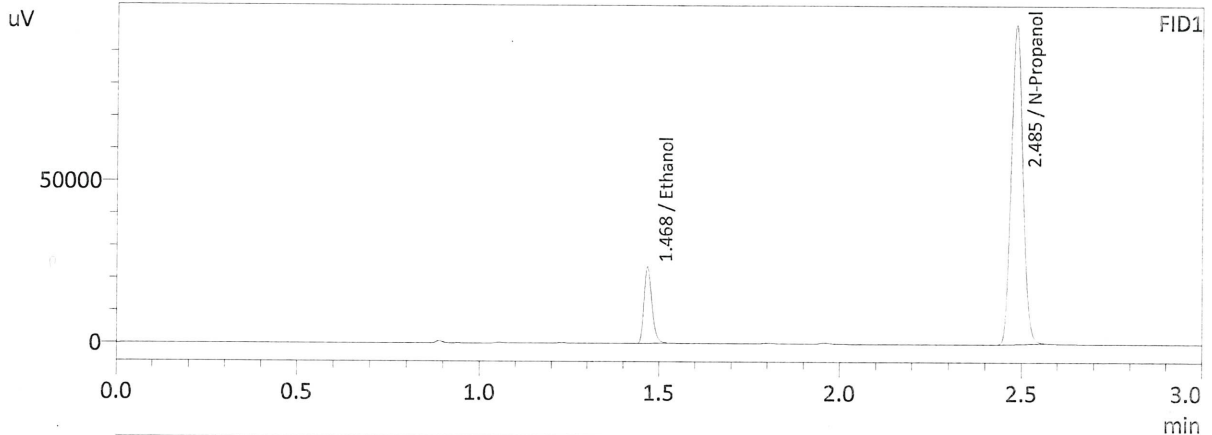
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.075 | 0.071 | 0.079 | 0.004 |

| Reported Result | |
|-----------------|--|
| 0.075 | |

Calibration and control data are stored centrally.

26

Sample Name : QC1-2-A
 Laboratory : Meridian
 Injection Date : 10/4/2021 9:34:41 PM
 Vial # : 47
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



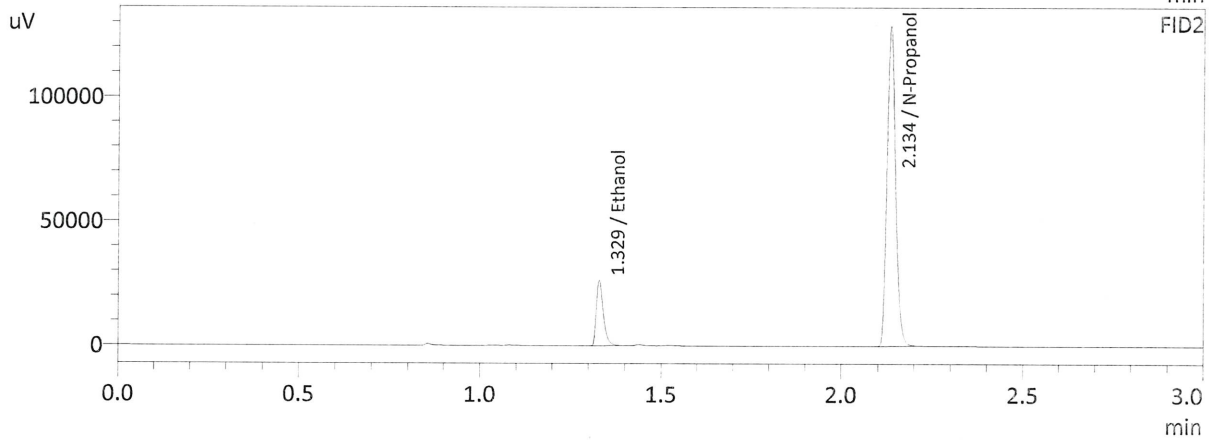
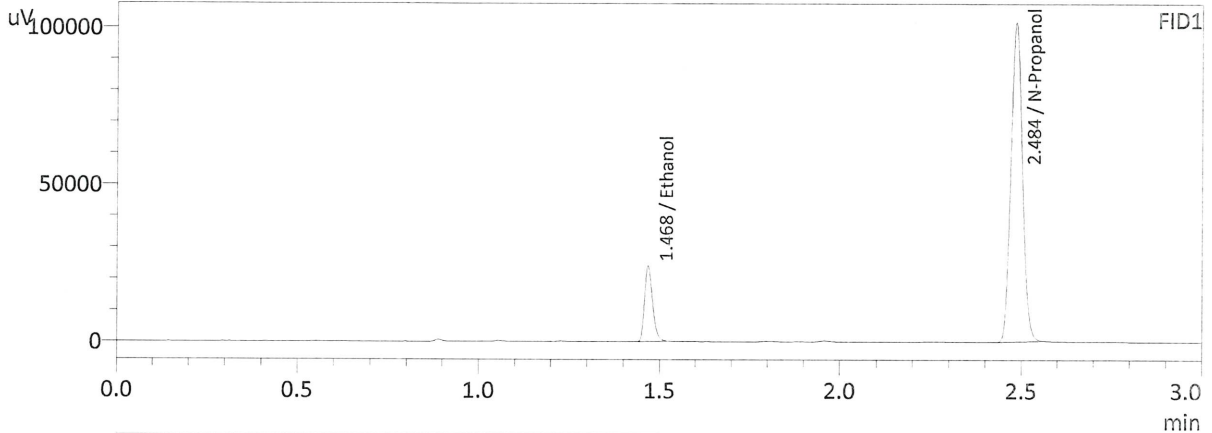
FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0760 | 36202 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 219027 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0758 | 34596 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 205614 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

Sample Name : QC1-2-B
 Laboratory : Meridian
 Injection Date : 10/4/2021 9:43:53 PM
 Vial # : 48
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0749 | 36874 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 226313 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0748 | 35270 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 212304 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

66

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: ~~QC-1-2~~ ^{JG} QC2-2 10/5/21 Analysis Date(s): 10/4/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.2048 | 0.2079 | 0.0031 | 0.2063 | 0.0002 | 0.2064 |
| (g/100cc) | 0.2049 | 0.2082 | 0.0033 | 0.2065 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument information is stored centrally.

Refer to Instrument Method: Alcohol.m/.gcm, Volatiles.m/.gcm

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

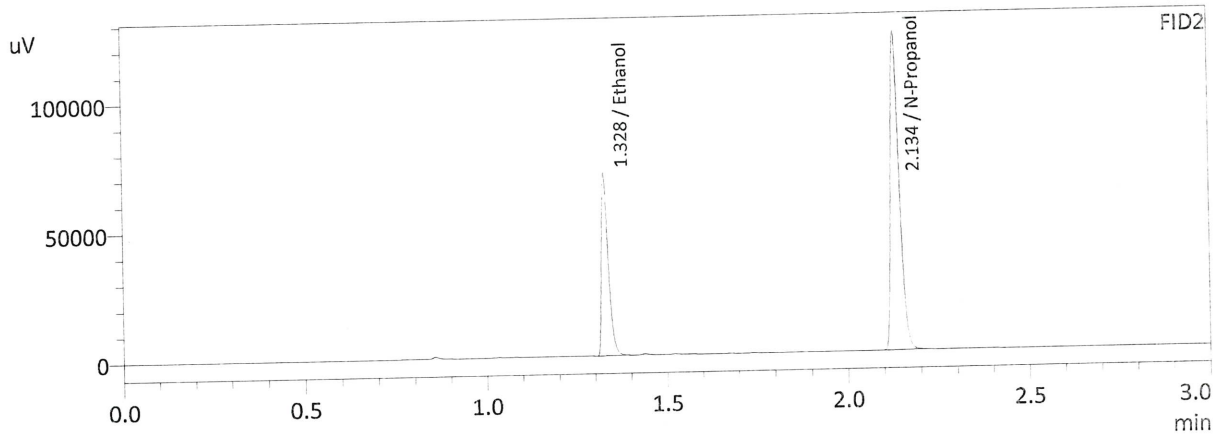
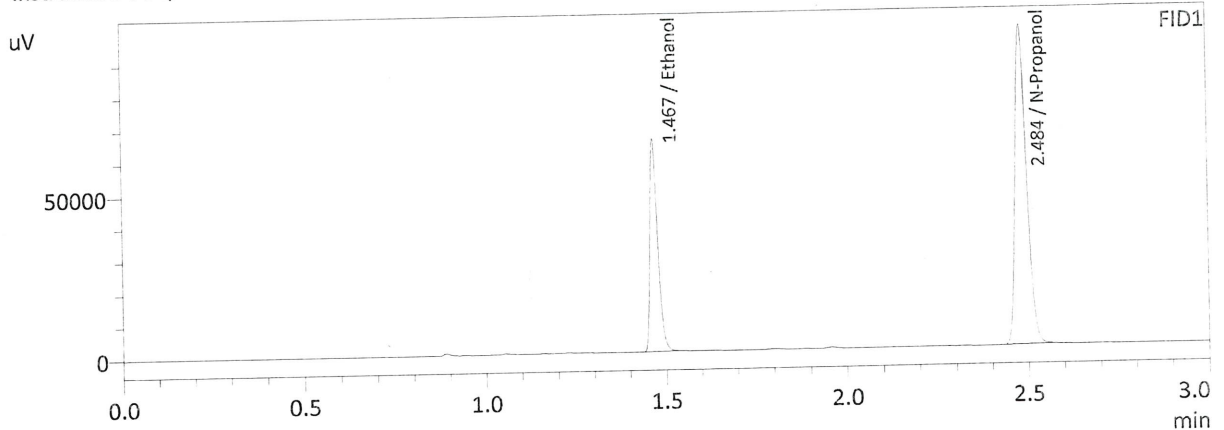
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.206 | 0.195 | 0.217 | 0.011 |

| | Reported Result | |
|--|-----------------|--|
| | 0.206 | |

Calibration and control data are stored centrally.

JG

Sample Name : QC2-2-A
 Laboratory : Meridian
 Injection Date : 10/4/2021 10:22:52 PM
 Vial # : 53
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

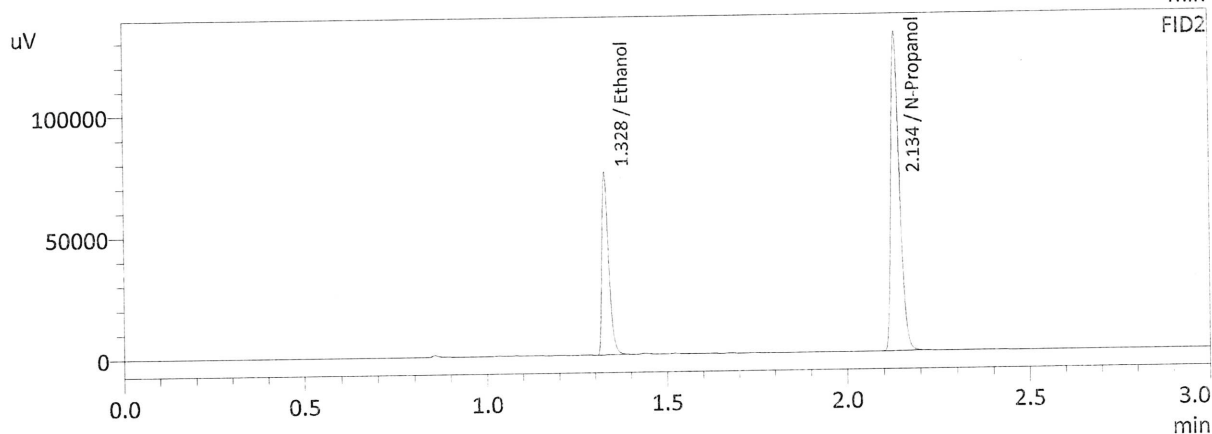
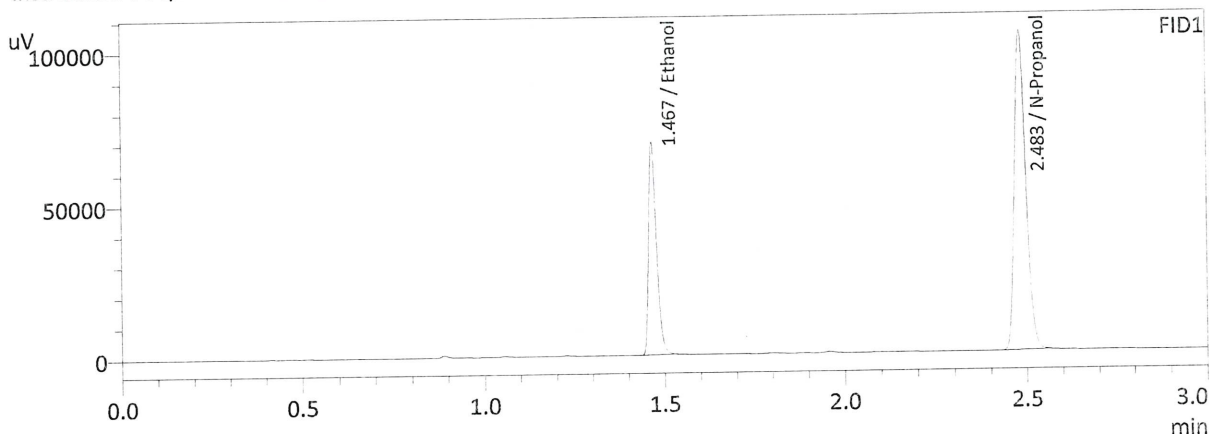
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2048 | 99707 | g/100cc |
| isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 218297 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2079 | 93624 | g/100cc |
| Acetone | -- | -- | g/100cc |
| isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 204100 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : QC2-2-B
 Laboratory : Meridian
 Injection Date : 10/4/2021 10:31:49 PM
 Vial # : 54
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



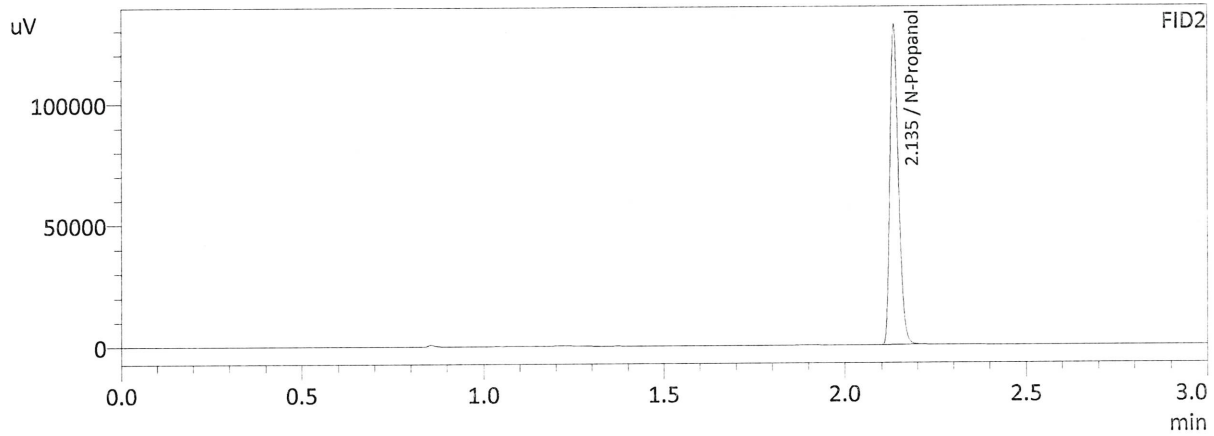
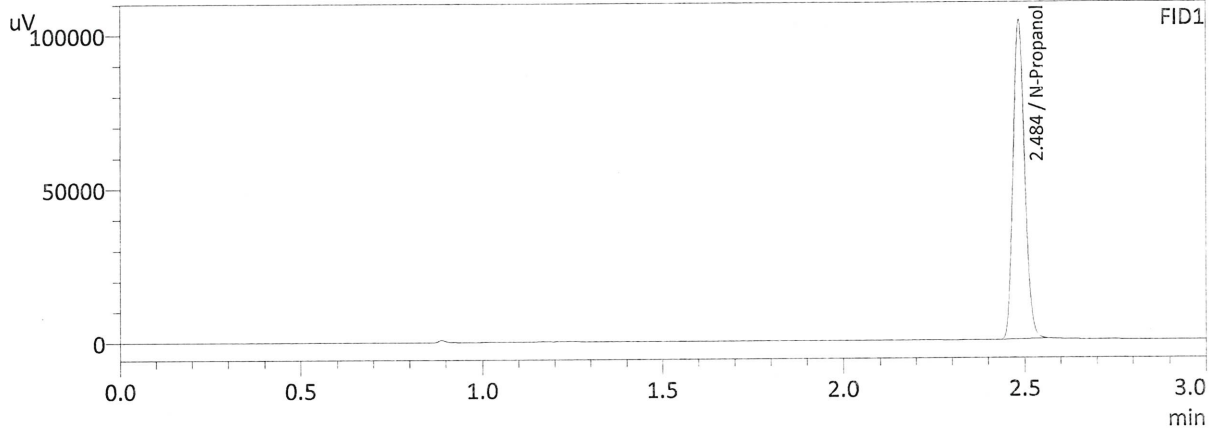
FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2049 | 106148 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 232278 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2082 | 99623 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 216858 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

Sample Name : INT STD BLNK
 Laboratory : Meridian
 Injection Date : 10/4/2021 10:39:09 PM
 Vial # : 55
 Method Filename : C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 231133 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 217194 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
 Shimadzu HS-20 Serial #C12595800409
 Lab Solutions Software Ver. 5.99
 Copyright (C) 2008-2020 Shimadzu Corporation

| Vial# | Sample Name | Method File |
|-------|----------------------|---|
| 1 | INT STD BLK 1 | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 2 | ED VOLATILES FN 0710 | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 3 | QC-1-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 4 | QC-1-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 5 | 0.08 QA-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 6 | 0.08 QA-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 7 | M2021-4216-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 8 | M2021-4216-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 9 | M2021-4217-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 10 | M2021-4217-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 11 | M2021-4225-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 12 | M2021-4225-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 13 | M2021-4258-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 14 | M2021-4258-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 15 | M2021-4259-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 16 | M2021-4259-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 17 | M2021-4264-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 18 | M2021-4264-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 19 | M2021-4265-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 20 | M2021-4265-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 21 | M2021-4273-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 22 | M2021-4273-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 23 | M2021-4279-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 24 | M2021-4279-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 25 | QC-2-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 26 | QC-2-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 27 | M2021-4290-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 28 | M2021-4290-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 29 | M2021-4291-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 30 | M2021-4291-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 31 | M2021-4292-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 32 | M2021-4292-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 33 | M2021-4303-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 34 | M2021-4303-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 35 | M2021-4304-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 36 | M2021-4304-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 37 | M2021-4377-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 38 | M2021-4377-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 39 | M2021-4378-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 40 | M2021-4378-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 41 | M2021-4379-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 42 | M2021-4379-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 43 | M2021-4380-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 44 | M2021-4380-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 45 | M2021-4381-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 46 | M2021-4381-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 47 | QC1-2-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 48 | QC1-2-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 49 | M2021-4386-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 50 | M2021-4386-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 51 | P2021-3065-1-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 52 | P2021-3065-1-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 53 | QC2-2-A | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 54 | QC2-2-B | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |
| 55 | INT STD BLNK | C:\LabSolutions\Data\210924\CALIBRATION\ALCOHOL.GCM |

JC