

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): 7/19/21- 7/20/21

calibration 7/19/21

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|---------------------------------|------------|-----------------|-----------------|-------------------|---|
| Level 1 | Jul-23 | 1907006 | 0.0764 | 0.0688-0.0840 | 0.0754 g/100cc 0.0788 g/100cc g/100cc |
| Level 2 | Jul-23 | 1907007 | 0.2170 | 0.1953-0.2387 | 0.2109 g/100cc 0.2104 g/100cc g/100cc |
| Multi-Component mixture: | | | Lot # | FN07101701 | acceptable |
| Curve Fit: | | Column 1 | Column 1 | 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 | 0.0529 | 0.0530 | 1E-04 | 0.0529 |
| 100 | 0.100 | 0.090 - 0.110 | 0.0998 | 0.0995 | 0.0003 | 0.0996 |
| 200 | 0.200 | 0.180 - 0.220 | 0.1973 | 0.1972 | 0.0001 | 0.1972 |
| 300 | 0.300 | 0.270 - 0.330 | 0.2977 | 0.2983 | 0.0006 | 0.298 |
| 400 | 0.400 | 0.360 - 0.440 | | | 0 | #DIV/0! |
| 500 | 0.500 | 0.450 - 0.550 | 0.5021 | 0.5019 | 0.0002 | 0.502 |

Aqueous Controls

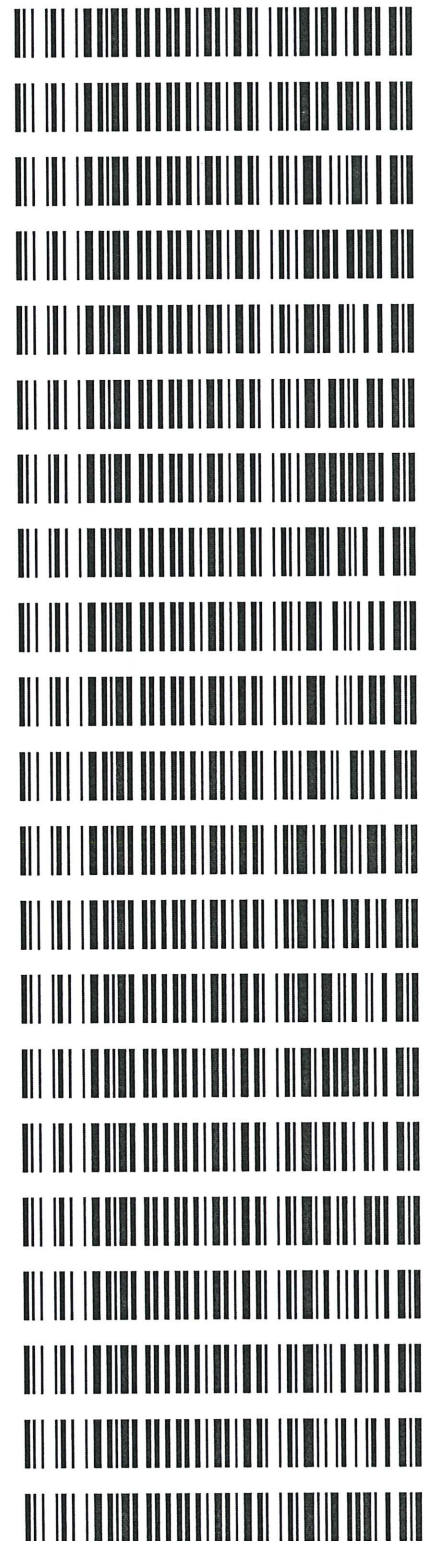
| Control level | Target Value | Acceptable Range | Overall Results |
|---------------|--------------|------------------|-----------------|
| 80 | 0.080 | 0.076 - 0.084 | 0.083 g/100cc |

REVIEWED

By Galina Giso at 12:53 pm, Jul 20, 2021

Worklist: 5114

| <u>LAB_CASE</u> | <u>ITEM</u> | <u>ITEM_TYPE</u> | <u>DESCRIPTION</u> |
|-----------------|-------------|------------------|--------------------|
| M2021-3079 | 1 | BCK | Alcohol Analysis |
| M2021-3080 | 1 | BCK | Alcohol Analysis |
| M2021-3105 | 1 | BCK | Alcohol Analysis |
| M2021-3106 | 1 | BCK | Alcohol Analysis |
| M2021-3107 | 1 | BCK | Alcohol Analysis |
| M2021-3108 | 1 | BCK | Alcohol Analysis |
| M2021-3109 | 1 | BCK | Alcohol Analysis |
| M2021-3110 | 1 | BCK | Alcohol Analysis |
| M2021-3117 | 1 | BCK | Alcohol Analysis |
| M2021-3118 | 1 | BCK | Alcohol Analysis |
| M2021-3119 | 1 | BCK | Alcohol Analysis |
| M2021-3135 | 1 | BCK | Alcohol Analysis |
| M2021-3136 | 1 | BCK | Alcohol Analysis |
| M2021-3142 | 1 | BCK | Alcohol Analysis |
| M2021-3143 | 1 | BCK | Alcohol Analysis |
| M2021-3143 | 2 | BCK | Alcohol Analysis |
| M2021-3143 | 3 | BCK | Alcohol Analysis |
| M2021-3143 | 4 | BCK | Alcohol Analysis |
| M2021-3143 | 5 | BCK | Alcohol Analysis |
| M2021-3143 | 6 | BCK | Alcohol Analysis |
| M2021-3148 | 1 | BCK | Alcohol Analysis |



NB

Worklist: 5114

| <u>LAB_CASE</u> | <u>ITEM</u> | <u>ITEM_TYPE</u> | <u>DESCRIPTION</u> |
|-----------------|-------------|------------------|--------------------|
| M2021-3167 | 1 | BCK | Alcohol Analysis |
| M2021-3176 | 1 | BCK | Alcohol Analysis |

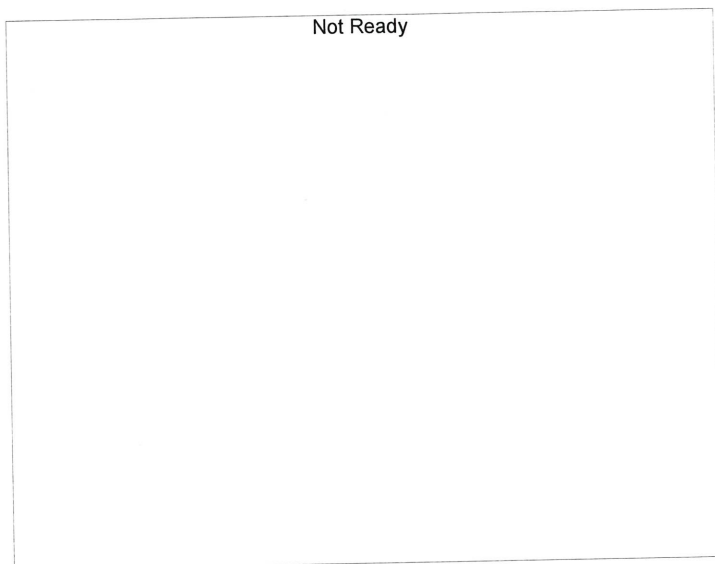


NB

Calibration Table

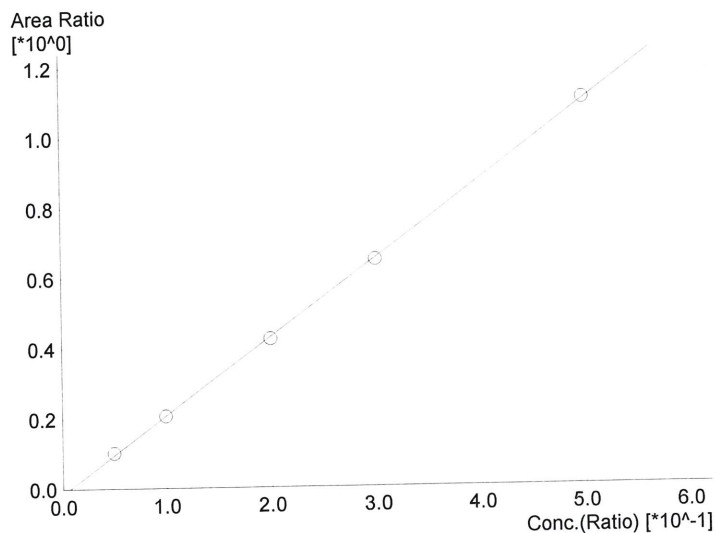
Laboratory : MERIDIAN
 Instrument Name : GC-HS
 Instrument Serial # : C12595800409 / C12255750548

<<Data File>>
 Method File : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Batch File : C:\LabSolutions\Data\210719\CALIBRATION\CALCURVE_TEMPLATE.gcb
 Date Acquired : 7/19/2021 3:55:02 PM
 Date Created : 7/19/2021 3:50:25 PM
 Date Modified : 7/19/2021 3:58:04 PM



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

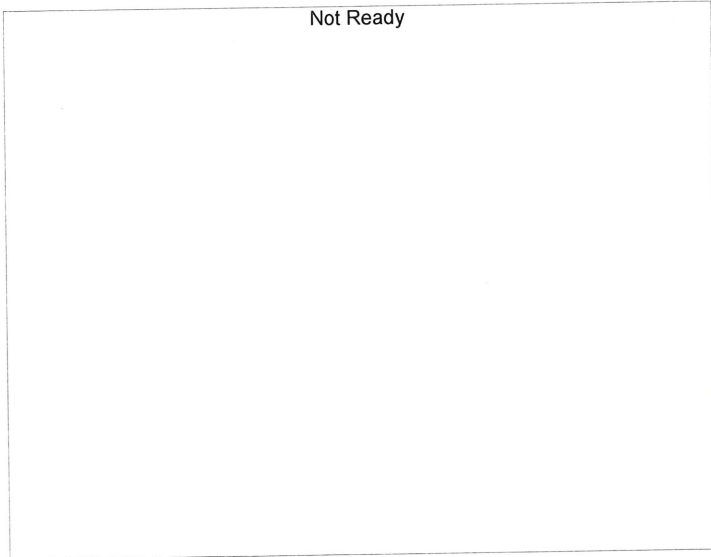
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



Name : Ethanol
 Detector Name: FID1
 Function : $f(x)=2.22643*x-0.0164228$
 R² value= 0.9998057
 FitType: Linear
 ZeroThrough: Not Through

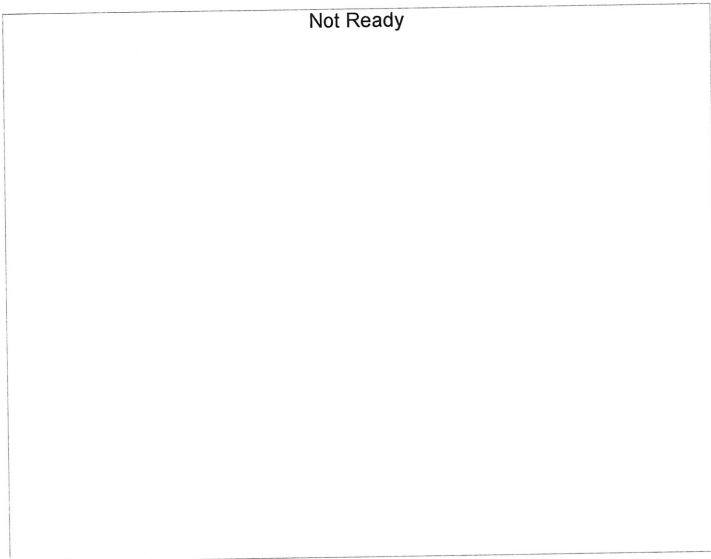
| # | Conc. | Area | Std. Conc. |
|---|-------|--------|------------|
| 1 | 0.050 | 20182 | 0.0529 |
| 2 | 0.100 | 41028 | 0.0998 |
| 3 | 0.200 | 83046 | 0.1973 |
| 4 | 0.300 | 127362 | 0.2977 |
| 5 | 0.500 | 225269 | 0.5021 |

NB



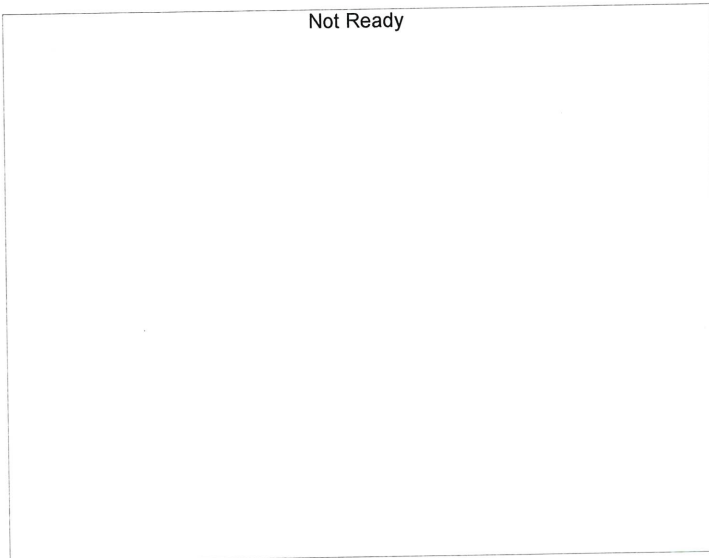
Name : Isopropyl Alcohol
Detector Name: FID1
Function : $f(x)=0*x+0$
R² value= 0
FitType: Linear
ZeroThrough: Not Through

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



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

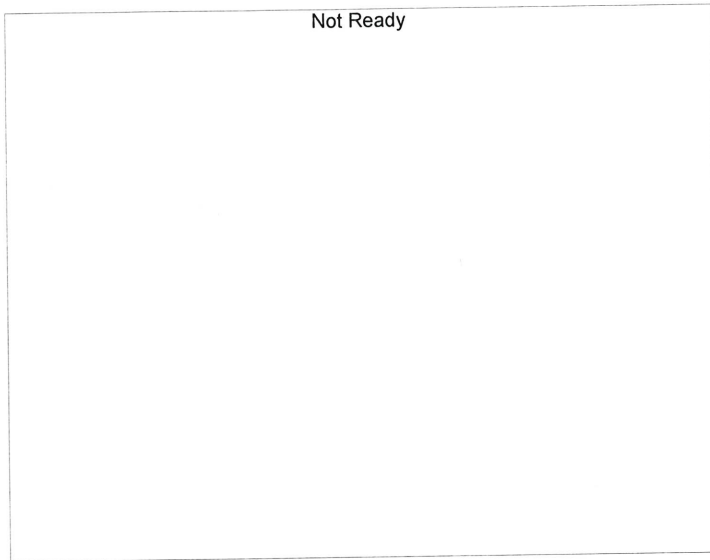
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



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

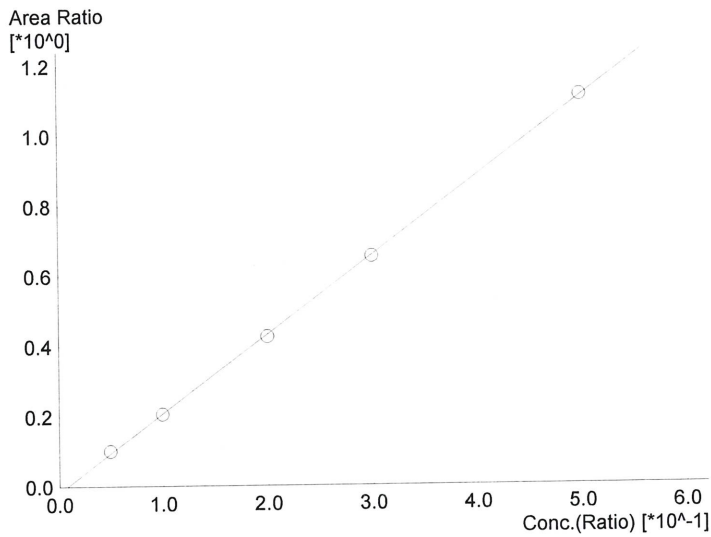
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|

NB



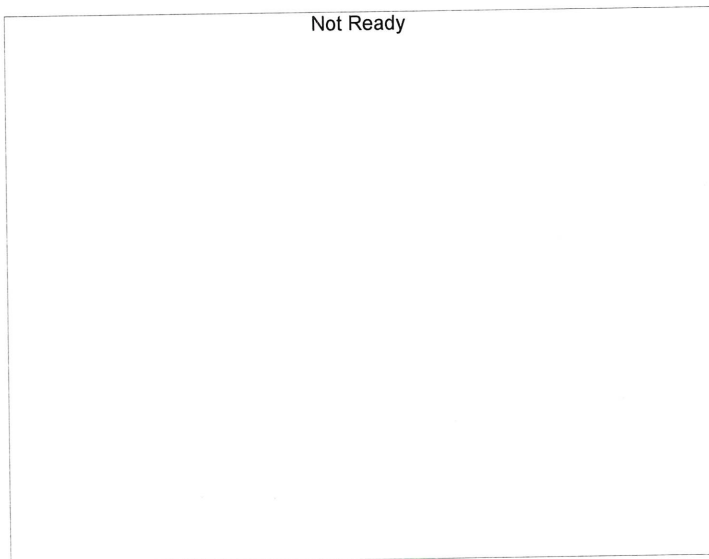
Name : Methanol
 Detector Name: FID2
 Function : $f(x)=0*x+0$
 R² value= 0
 FitType: Linear
 ZeroThrough: Not Through

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



Name : Ethanol
 Detector Name: FID2
 Function : $f(x)=2.24810*x-0.0188207$
 R² value= 0.9998173
 FitType: Linear
 ZeroThrough: Not Through

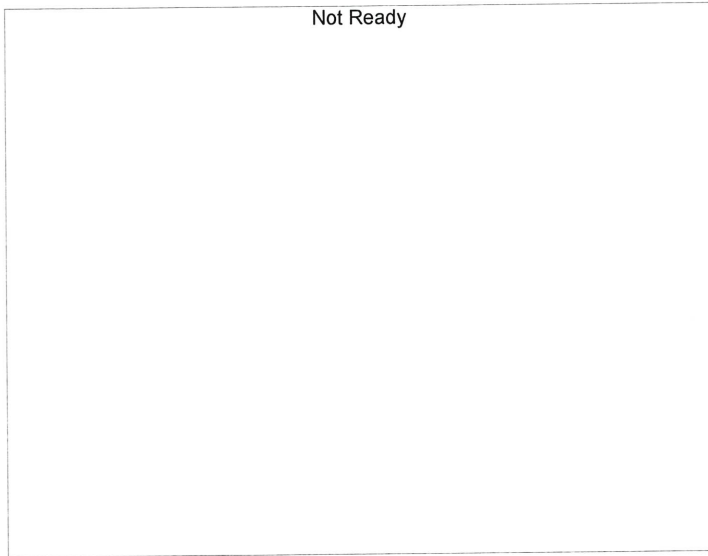
| # | Conc. | Area | Std. Conc. |
|---|-------|--------|------------|
| 1 | 0.050 | 17817 | 0.0530 |
| 2 | 0.100 | 36452 | 0.0995 |
| 3 | 0.200 | 74519 | 0.1972 |
| 4 | 0.300 | 114785 | 0.2983 |
| 5 | 0.500 | 203004 | 0.5019 |



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

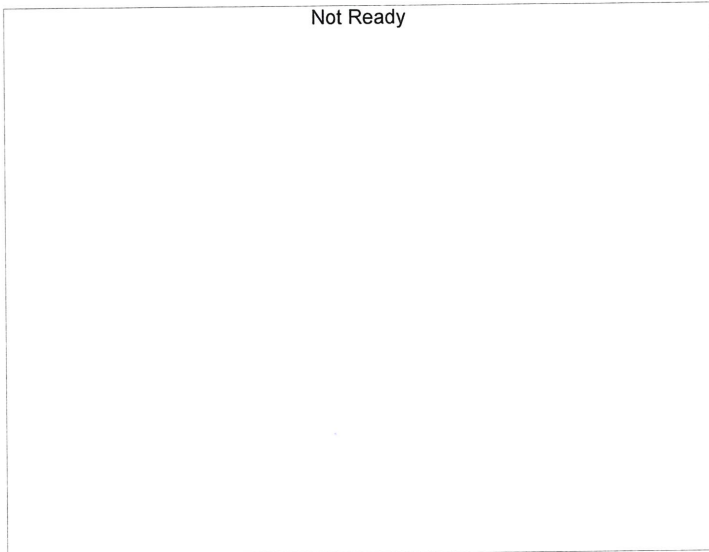
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|

NB



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

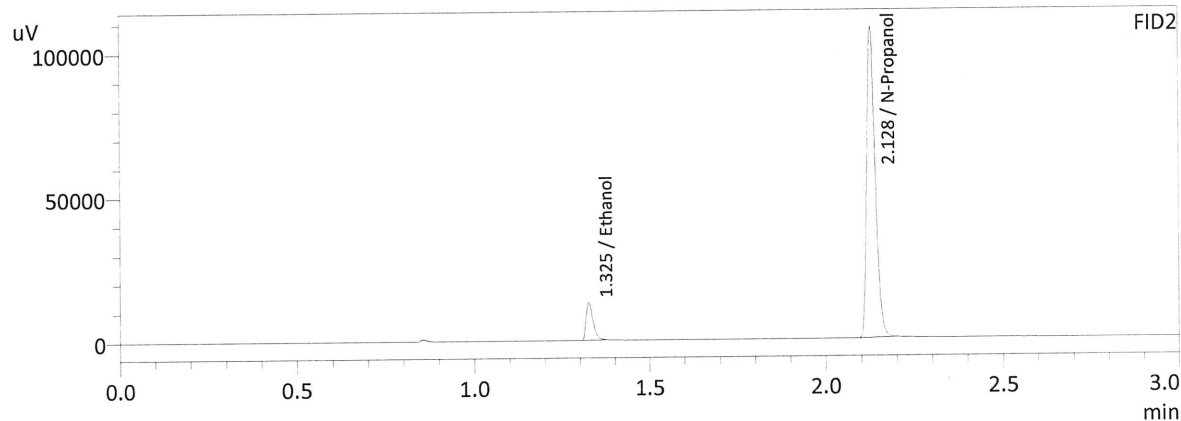
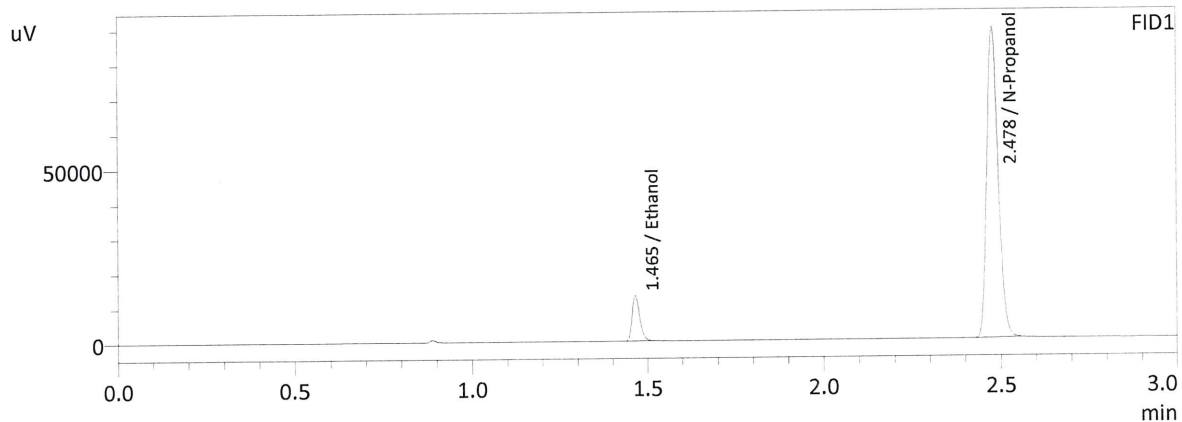
| # | Conc. | Area | Std. Conc. |
|---|-------|------|------------|
|---|-------|------|------------|



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. |
|---|-------|------|------------|
|---|-------|------|------------|

Sample Name : 0.050
 Laboratory : Meridian
 Injection Date : 7/19/2021 3:23:53 PM
 Vial # : 1
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

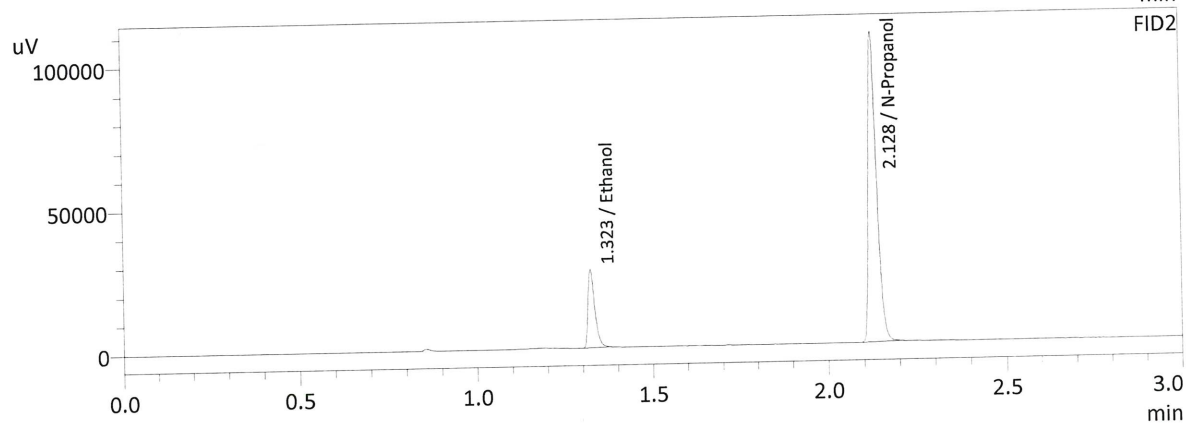
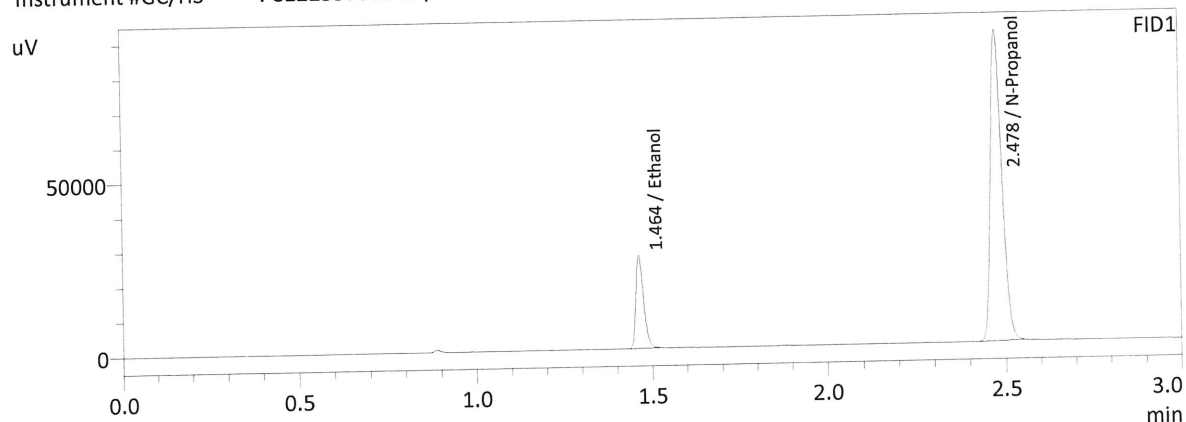
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0529 | 20182 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 199074 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0530 | 17817 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 177528 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

LB

Sample Name : 0.100
 Laboratory : Meridian
 Injection Date : 7/19/2021 3:31:14 PM
 Vial # : 2
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

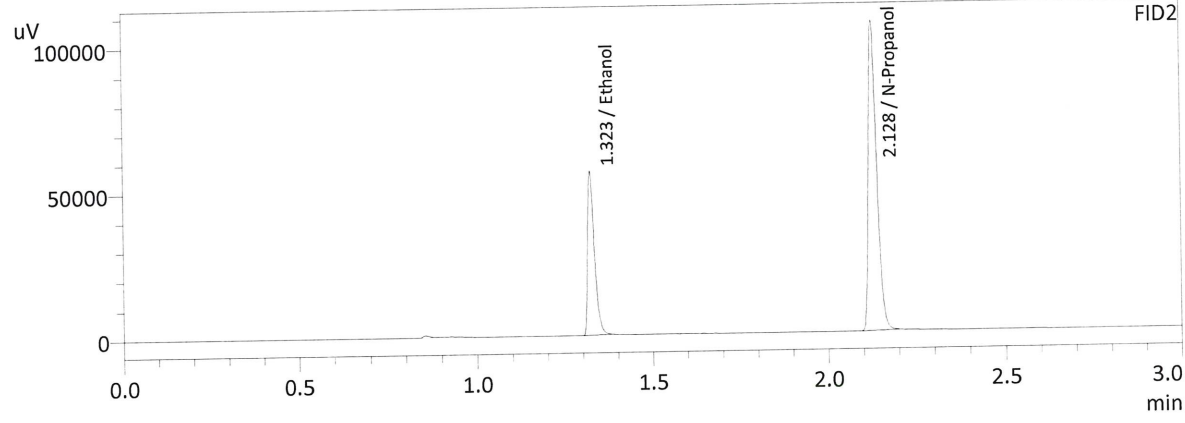
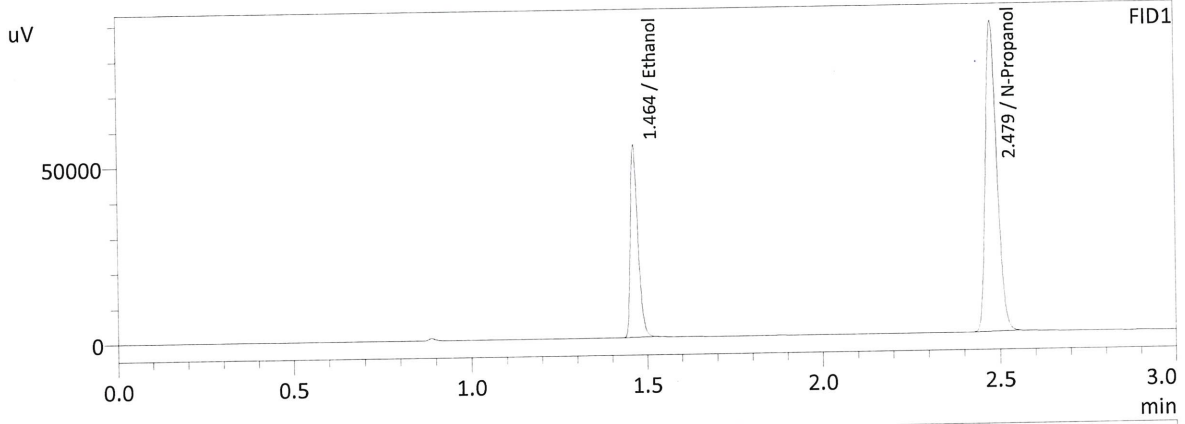
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0998 | 41028 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 199370 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0995 | 36452 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 177896 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : 0.200
 Laboratory : Meridian
 Injection Date : 7/19/2021 3:38:50 PM
 Vial # : 3
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

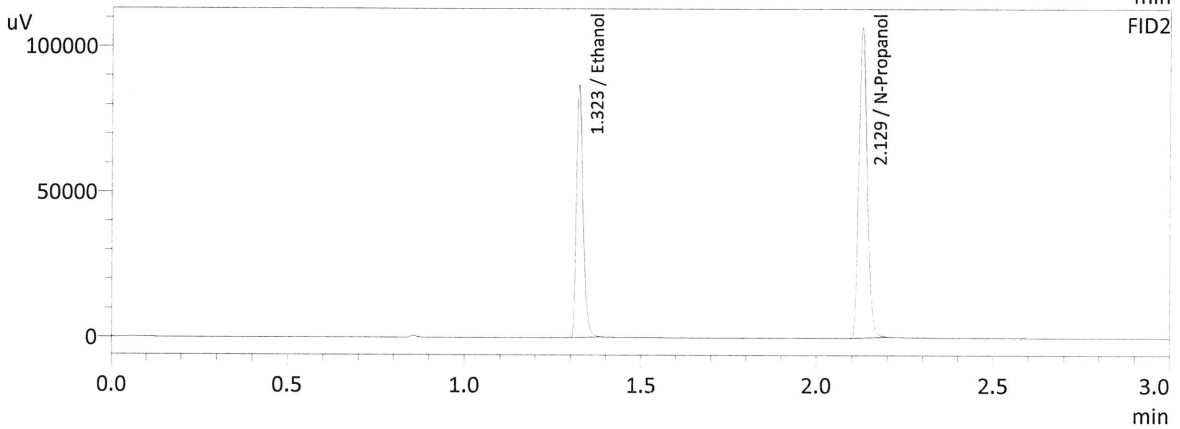
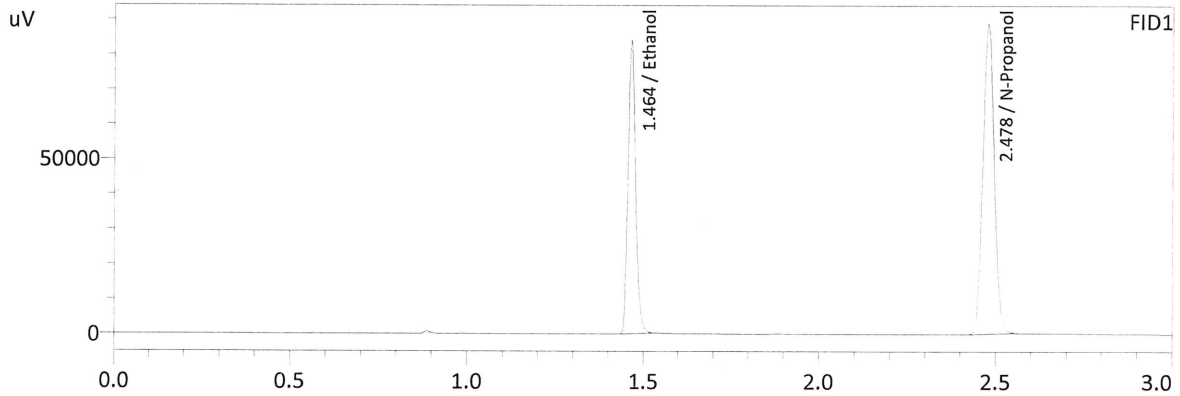
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1973 | 83046 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 196315 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.1972 | 74519 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 175496 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

LB

Sample Name : 0.300
 Laboratory : Meridian
 Injection Date : 7/19/2021 3:47:17 PM
 Vial # : 4
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

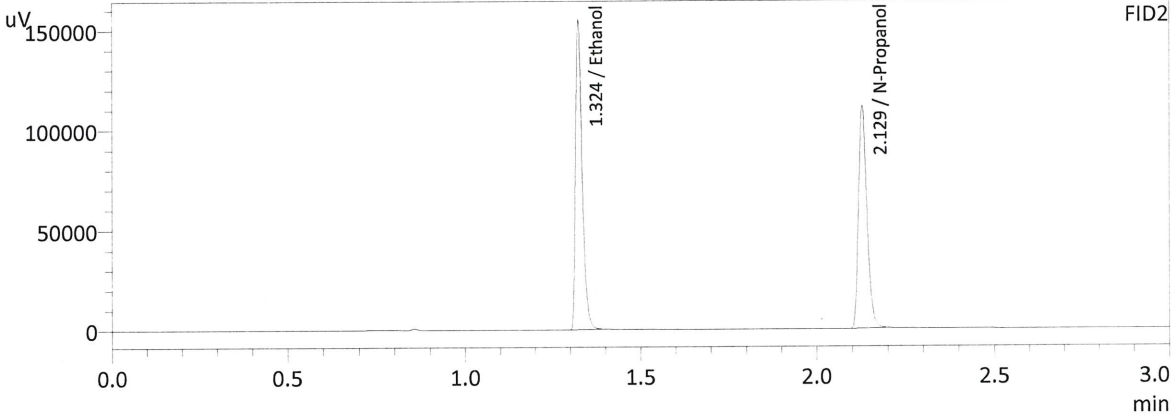
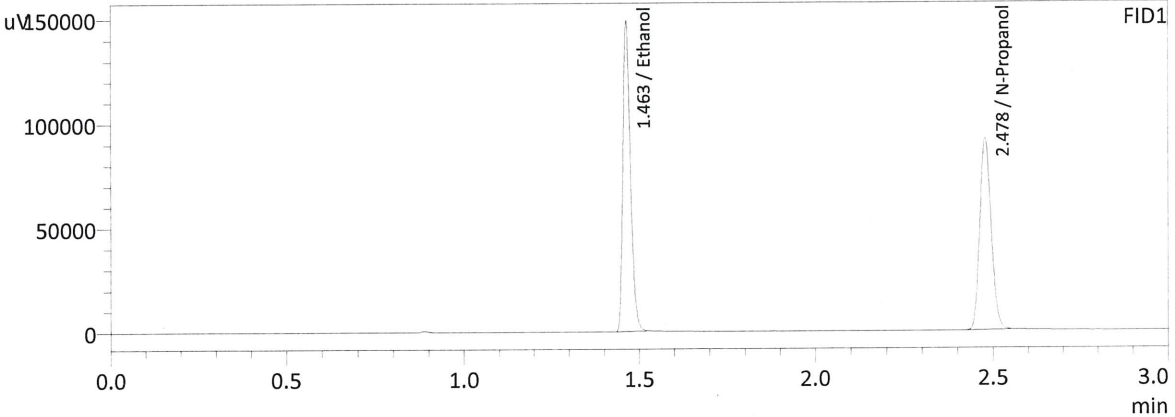
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2977 | 127362 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 196986 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2983 | 114785 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 176104 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : 0.500
 Laboratory : Meridian
 Injection Date : 7/19/2021 3:55:02 PM
 Vial # : 5
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

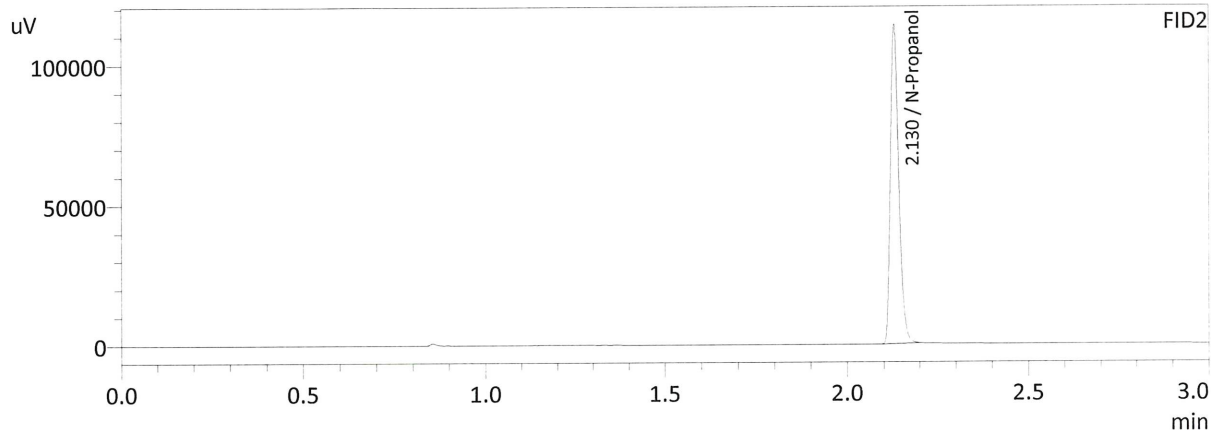
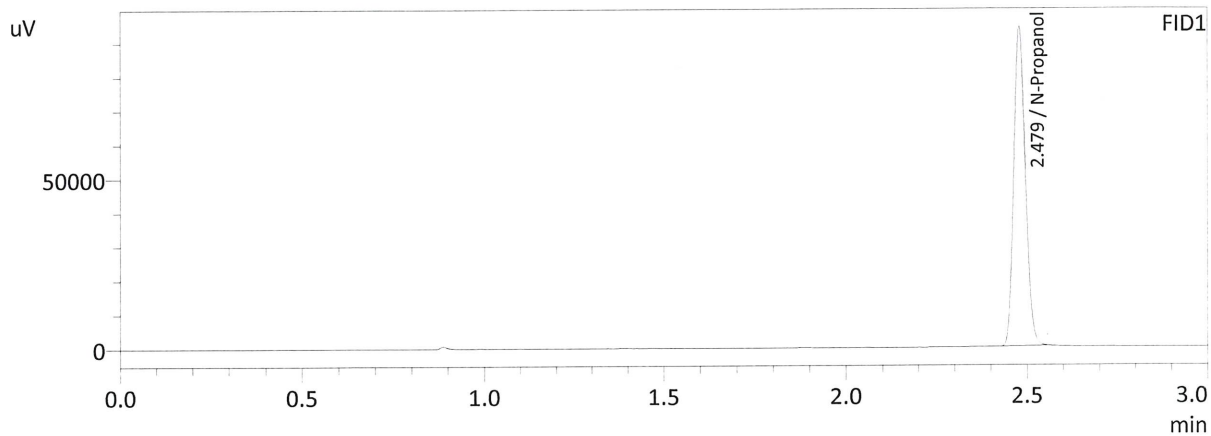
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.5021 | 225269 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 204504 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.5019 | 203004 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 182964 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : INT STD BLNK
 Laboratory : Meridian
 Injection Date : 7/19/2021 4:03:41 PM
 Vial # : 6
 Method Filename : C:\LabSolutions\Data\210719\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 | 209819 | 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 | 187419 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

NB

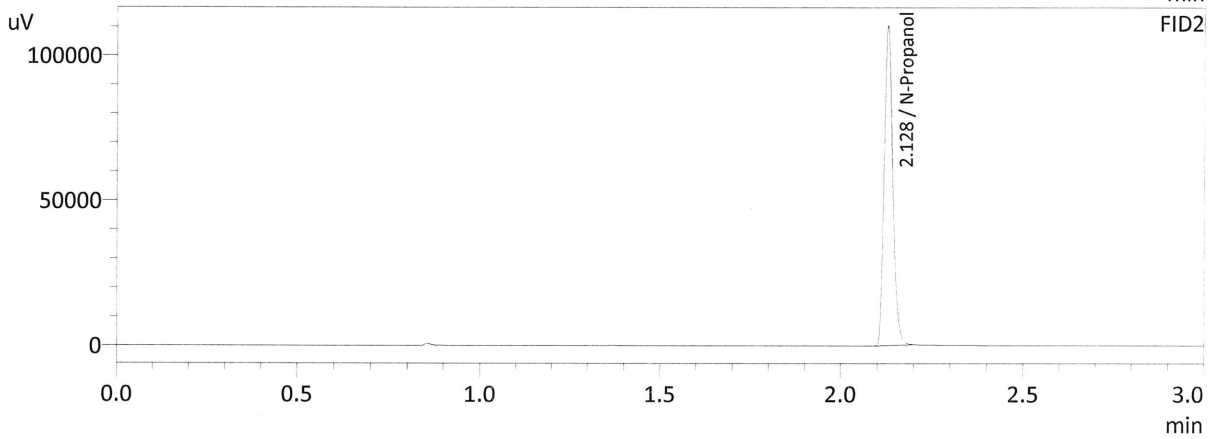
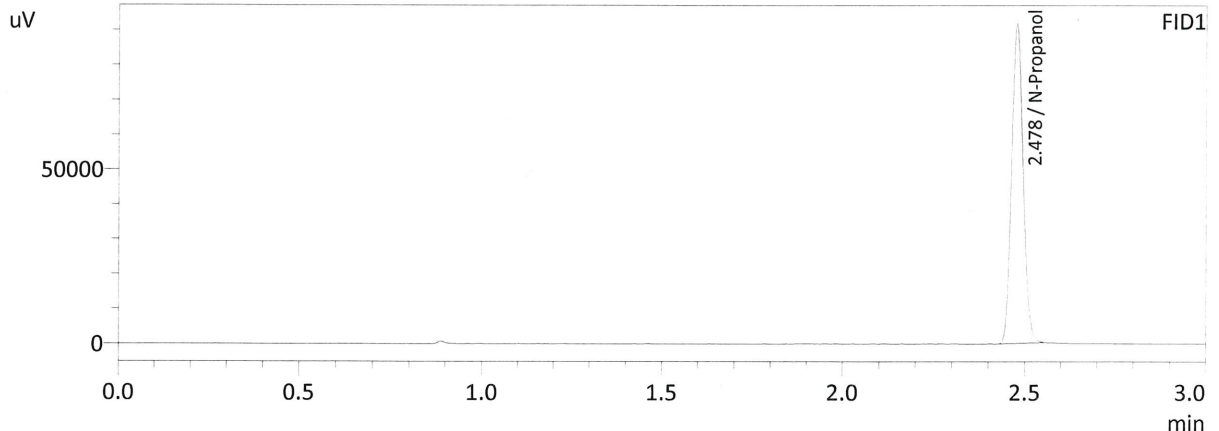
Meridian Blood Alcohol Analysis Batch Table

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:(I) | 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 |



Sample Name : INT STD BLK 1
 Laboratory : Meridian
 Injection Date : 7/19/2021 5:07:17 PM
 Vial # : 1
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

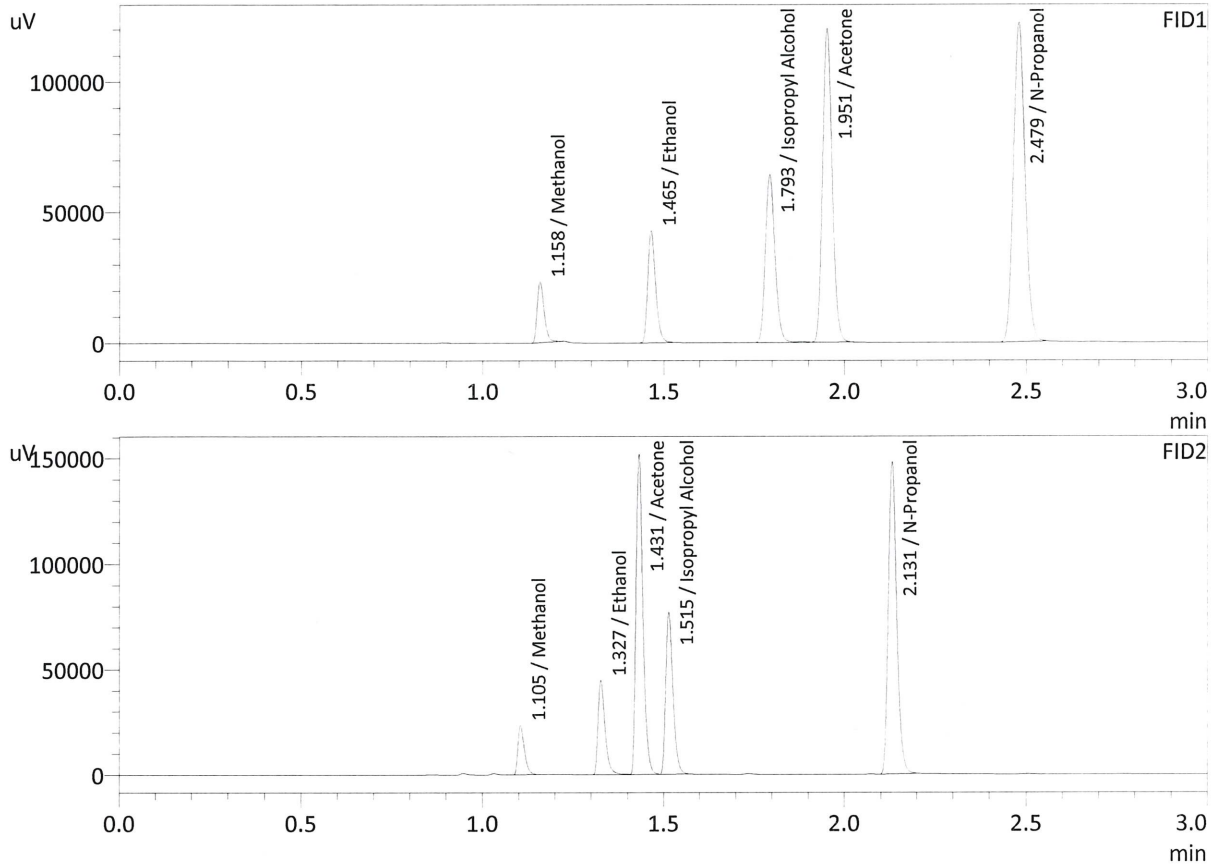
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 203670 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 181842 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : MIXED VOLATILES FN 07101701
 Laboratory : Meridian
 Injection Date : 7/19/2021 5:14:37 PM
 Vial # : 2
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | 0.0000 | 31318 | g/100cc |
| Ethanol | 0.1160 | 65667 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 119281 | g/100cc |
| Acetone | 0.0000 | 223043 | g/100cc |
| N-Propanol | 0.0000 | 271508 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | 0.0000 | 29387 | g/100cc |
| Ethanol | 0.1188 | 60253 | g/100cc |
| Acetone | 0.0000 | 203914 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 107656 | g/100cc |
| N-Propanol | 0.0000 | 242615 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

MB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-1

Analysis Date(s): 7/19/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0754 | 0.0758 | 0.0004 | 0.0756 | 0.0004 | 0.0754 |
| (g/100cc) | 0.0750 | 0.0755 | 0.0005 | 0.0752 | | |

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

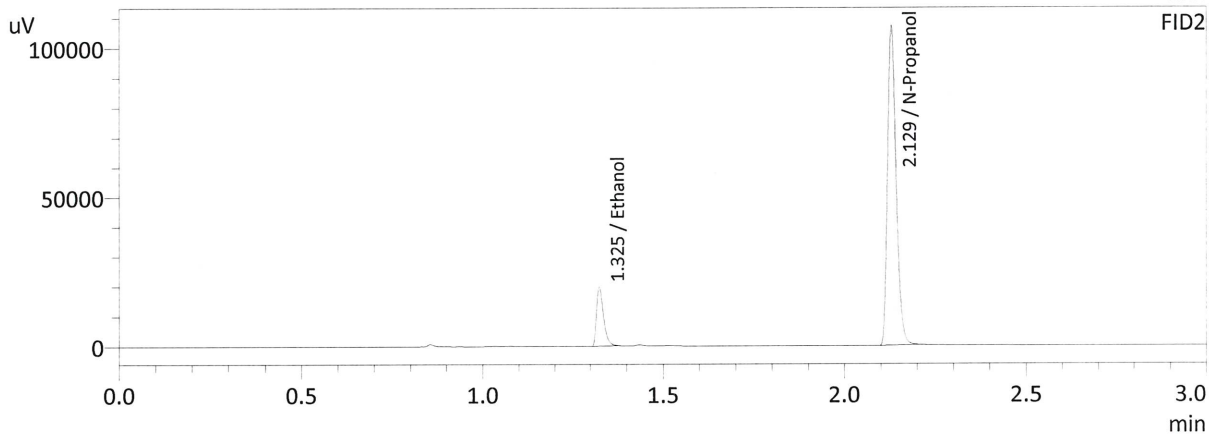
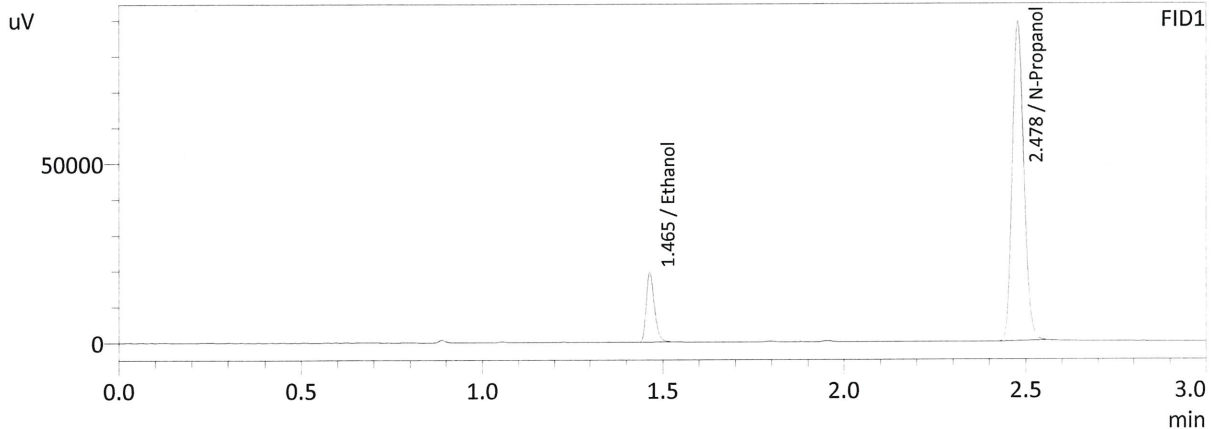
Uncertainty of Measurement (UM%): 5.00%

| 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.

Sample Name : QC-1-1-A
 Laboratory : Meridian
 Injection Date : 7/19/2021 5:22:18 PM
 Vial # : 3
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

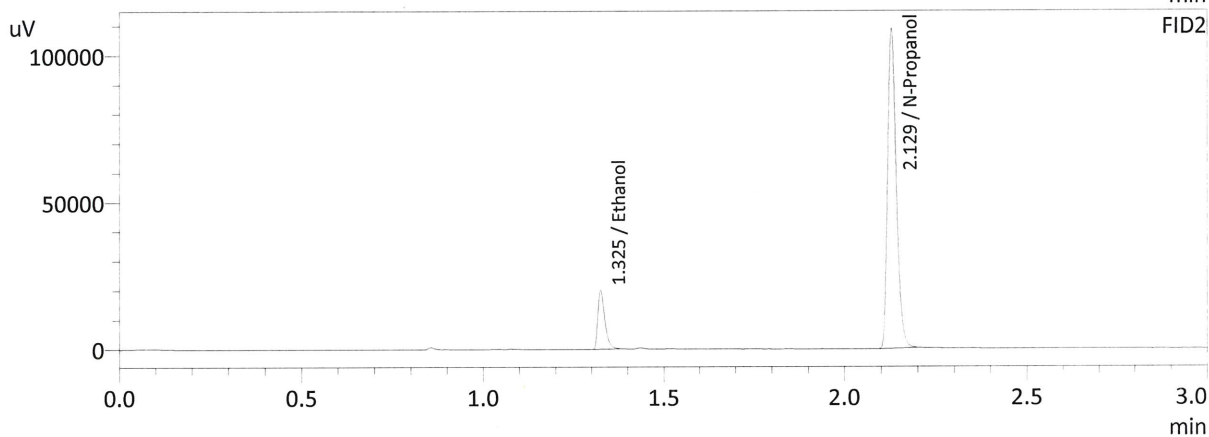
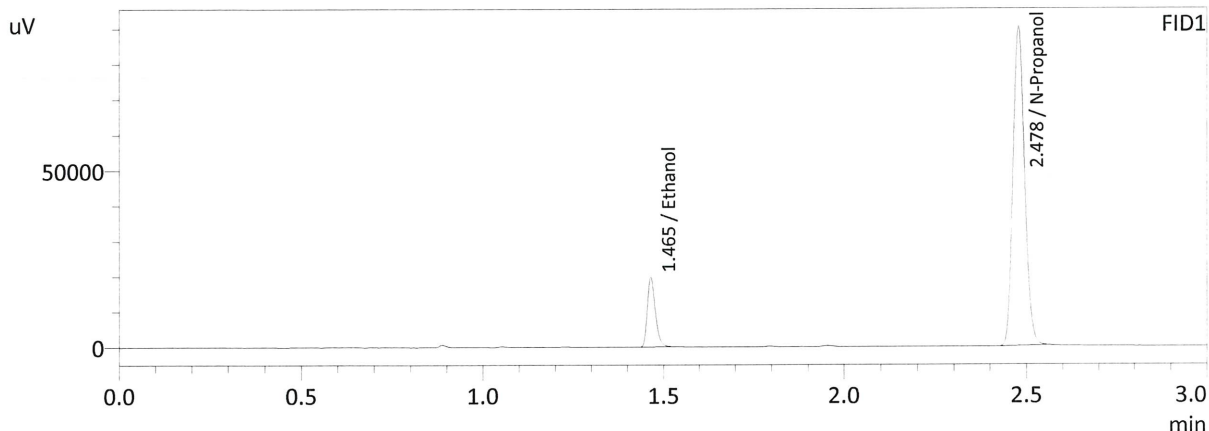
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0754 | 29896 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 197288 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0758 | 26748 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 176283 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : QC-1-1-B
 Laboratory : Meridian
 Injection Date : 7/19/2021 5:30:45 PM
 Vial # : 4
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0750 | 30205 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 200399 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0755 | 27020 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 179030 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

MB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.080 QA

Analysis Date(s): 7/19/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0828 | 0.0831 | 0.0003 | 0.0829 | 0.0008 | 0.0833 |
| (g/100cc) | 0.0833 | 0.0841 | 0.0008 | 0.0837 | | |

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

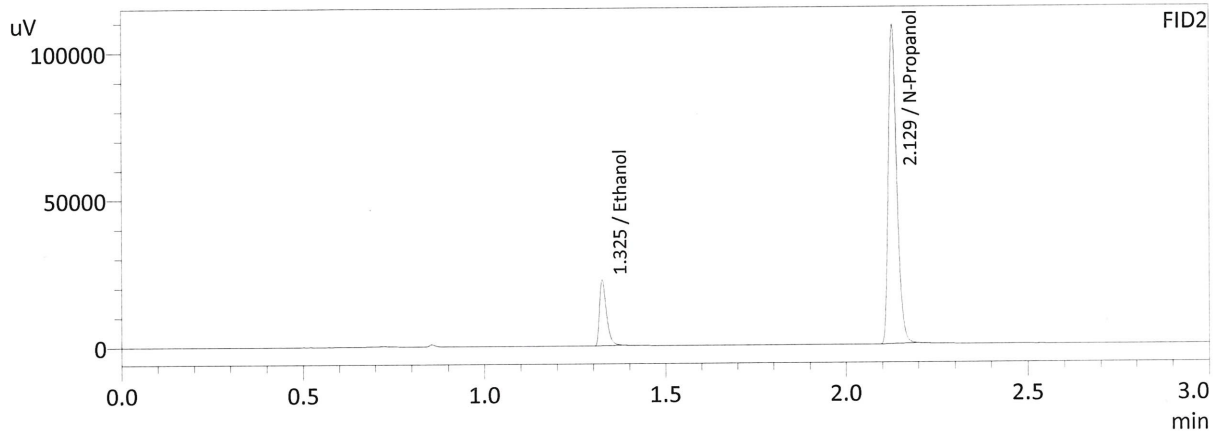
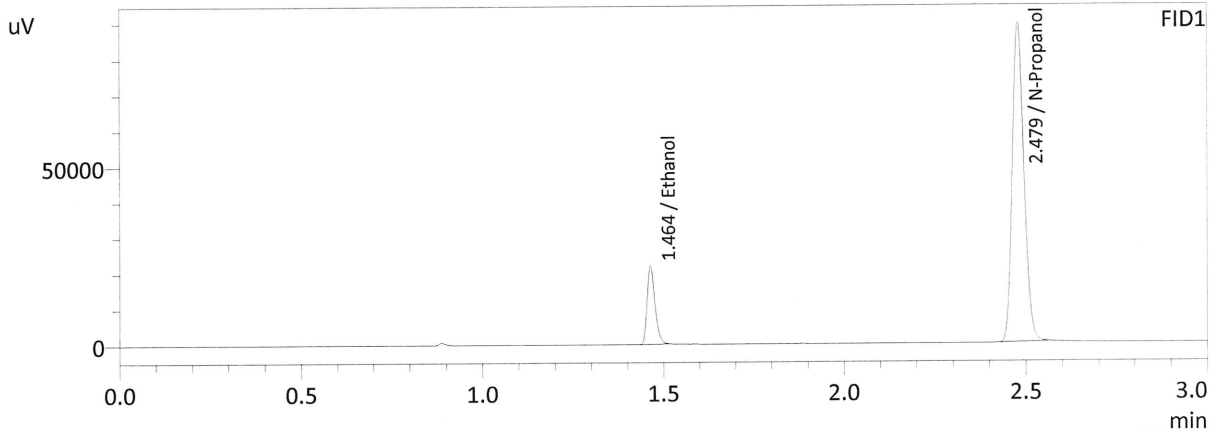
Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.083 | 0.078 | 0.088 | 0.005 |

| Reported Result | |
|-----------------|--|
| 0.083 | |

Calibration and control data are stored centrally.

Sample Name : 0.08 QA-A
 Laboratory : Meridian
 Injection Date : 7/19/2021 5:38:34 PM
 Vial # : 5
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

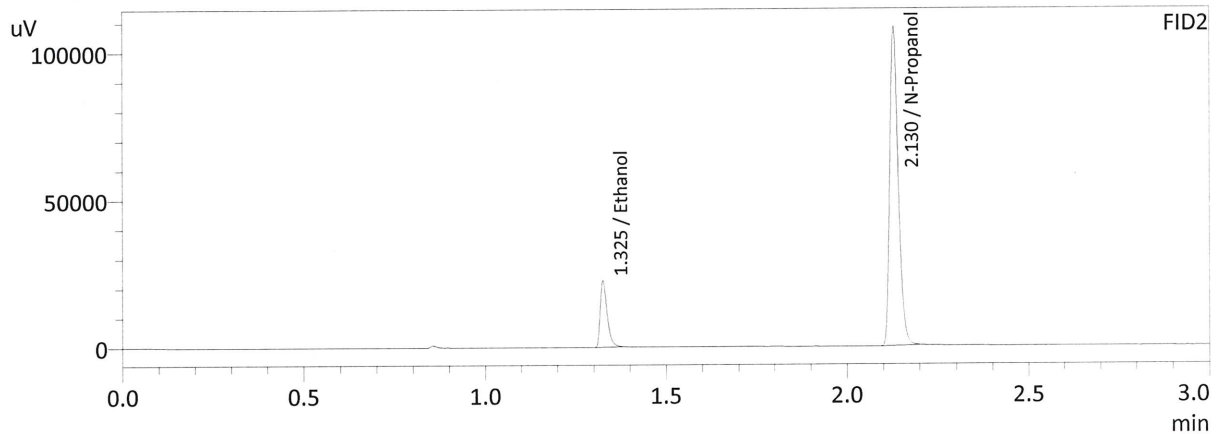
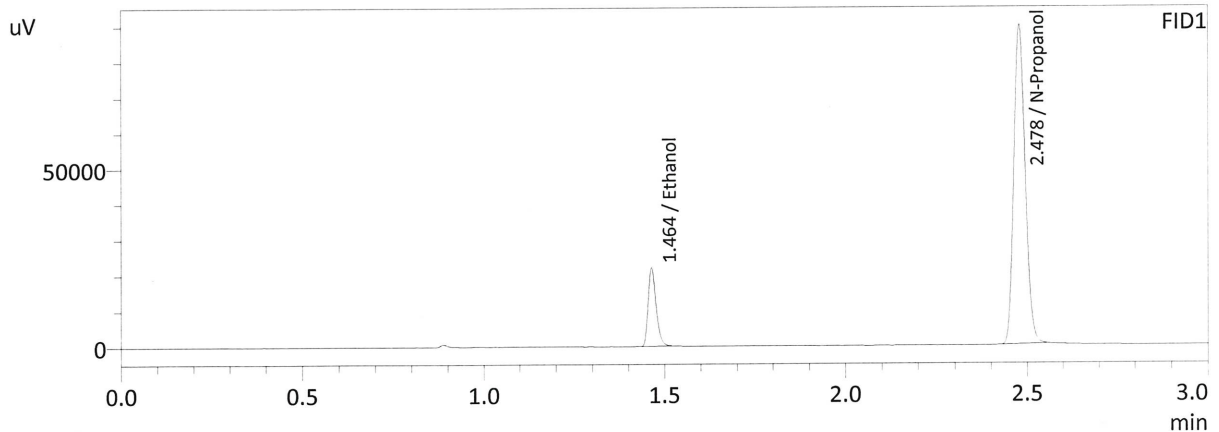
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0828 | 33541 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 199537 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0831 | 29985 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 178328 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

MB

Sample Name : 0.08 QA-B
 Laboratory : Meridian
 Injection Date : 7/19/2021 5:47:03 PM
 Vial # : 6
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0833 | 33794 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 199659 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0841 | 30419 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 178459 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

MB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-1

Analysis Date(s): 7/19/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.2086 | 0.2108 | 0.0022 | 0.2097 | 0.0015 | 0.2104 |
| (g/100cc) | 0.2102 | 0.2122 | 0.0020 | 0.2112 | | |

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%

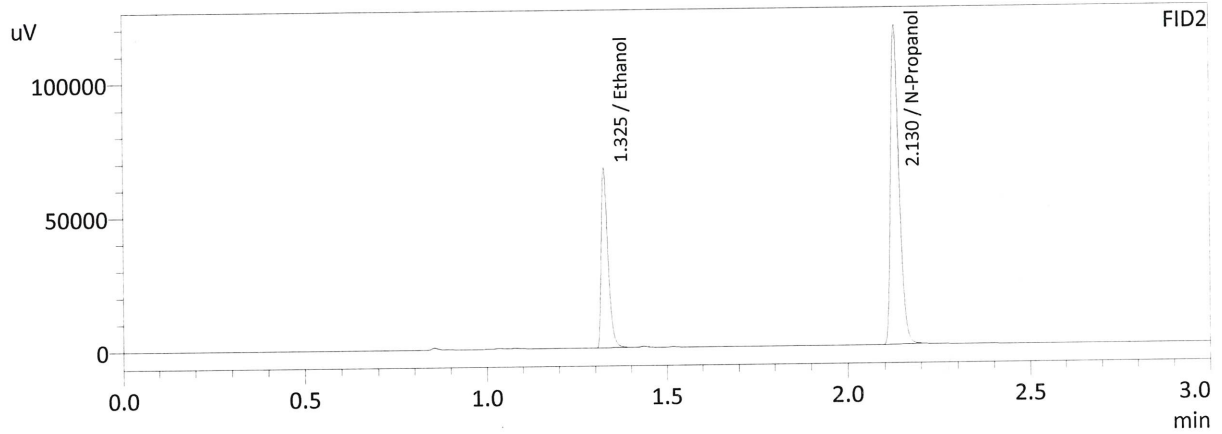
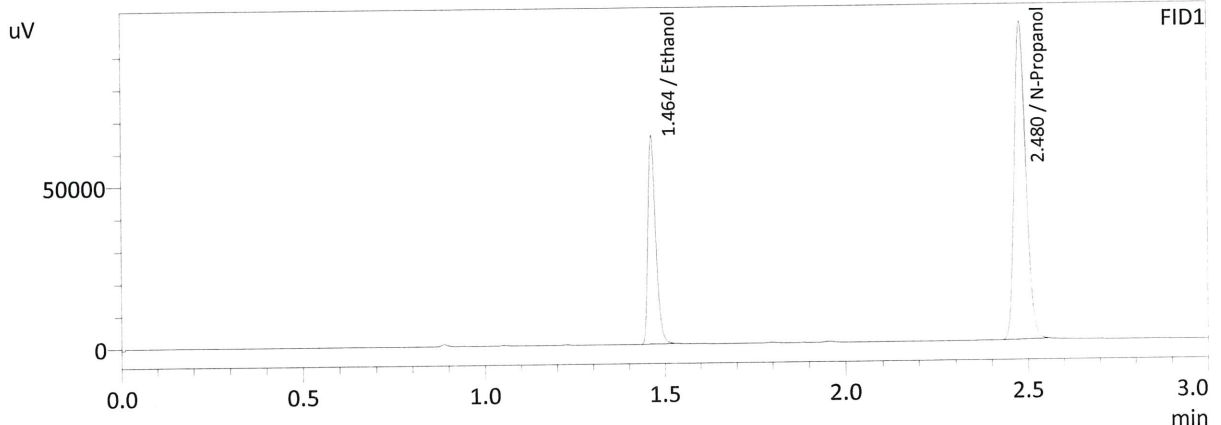
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.210 | 0.199 | 0.221 | 0.011 |

| Reported Result |
|-----------------|
| 0.210 |

Calibration and control data are stored centrally.

NB

Sample Name : QC-2-1-A
 Laboratory : Meridian
 Injection Date : 7/19/2021 8:17:49 PM
 Vial # : 25
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

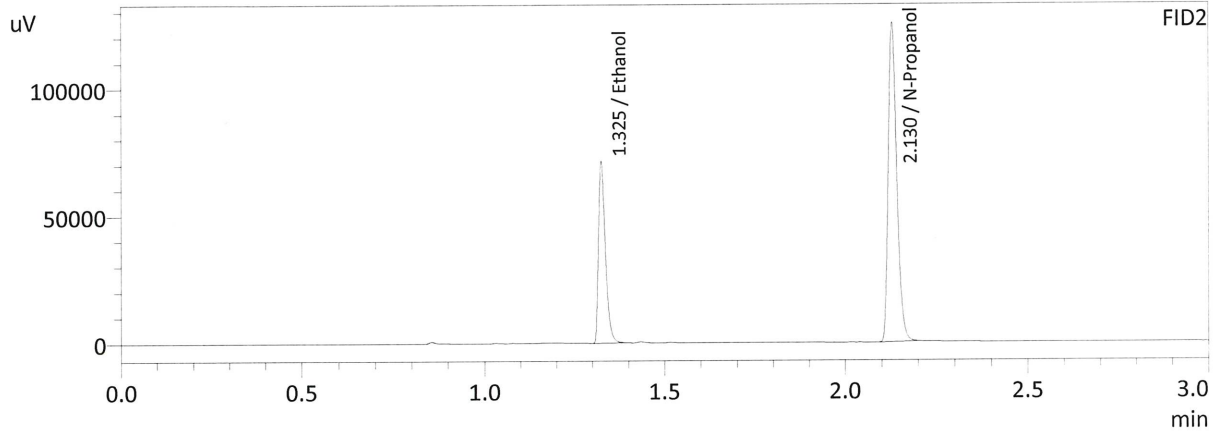
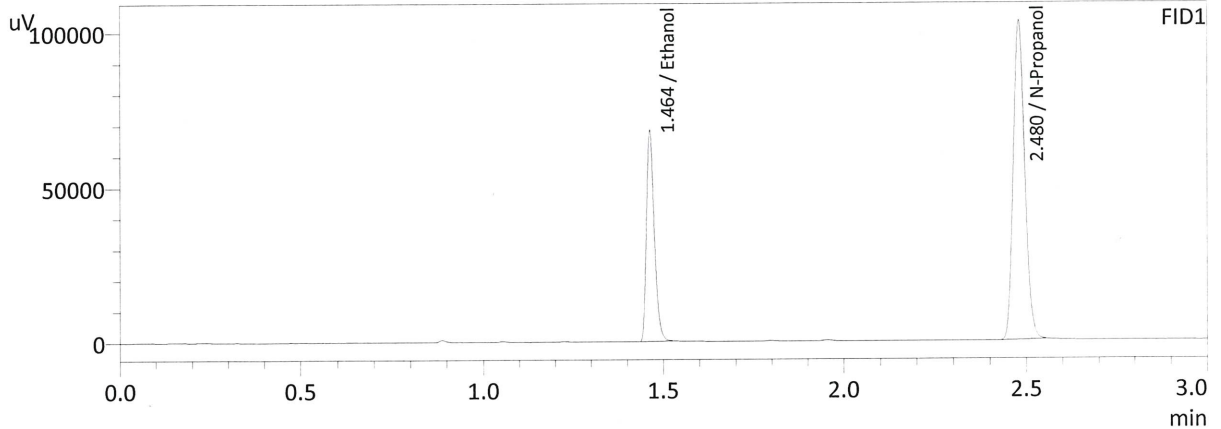
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2086 | 98229 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 219254 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2108 | 89094 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 195768 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

MB

Sample Name : QC-2-1-B
 Laboratory : Meridian
 Injection Date : 7/19/2021 8:25:10 PM
 Vial # : 26
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2102 | 103952 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 230159 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2122 | 94269 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 205686 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-2

Analysis Date(s): 7/19/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.0782 | 0.0793 | 0.0011 | 0.0787 | 0.0003 | 0.0788 |
| (g/100cc) | 0.0784 | 0.0796 | 0.0012 | 0.0790 | | |

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

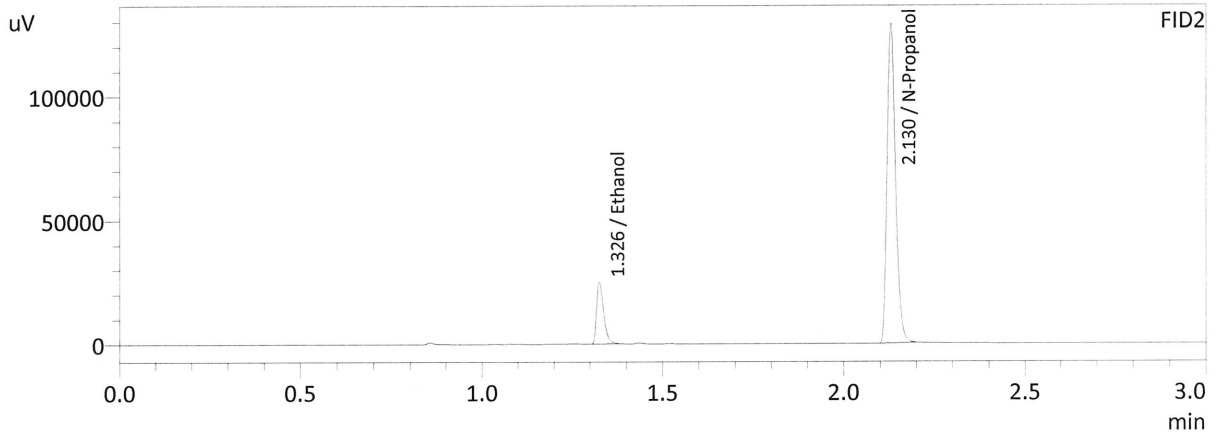
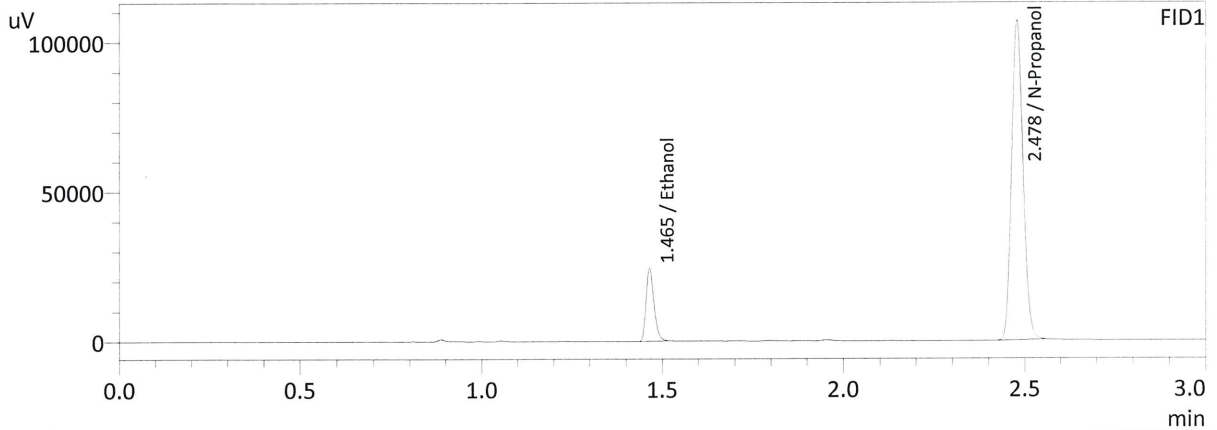
Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.078 | 0.074 | 0.082 | 0.004 |

| | | |
|--|------------------------|--|
| | Reported Result | |
| | 0.078 | |

Calibration and control data are stored centrally.

Sample Name : QC1-2-A
 Laboratory : Meridian
 Injection Date : 7/19/2021 11:12:26 PM
 Vial # : 47
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

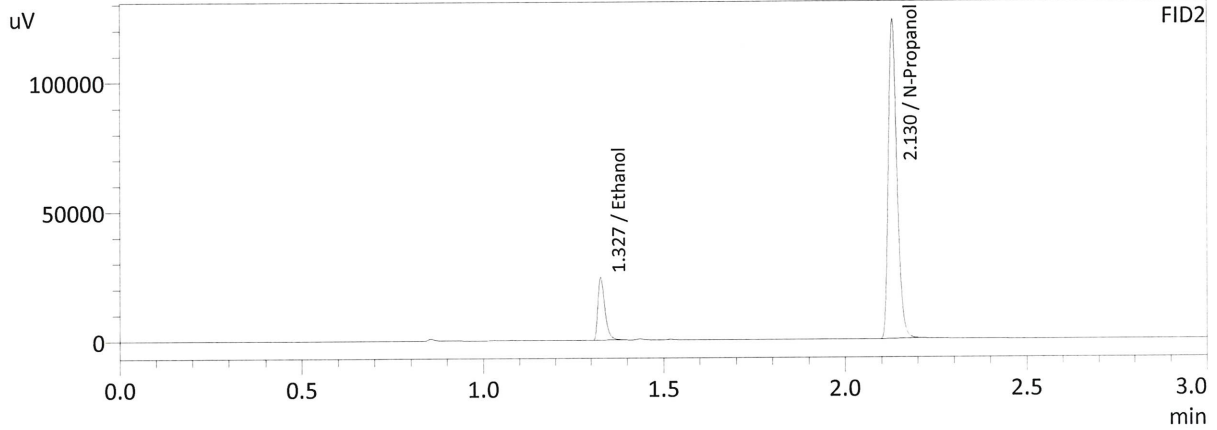
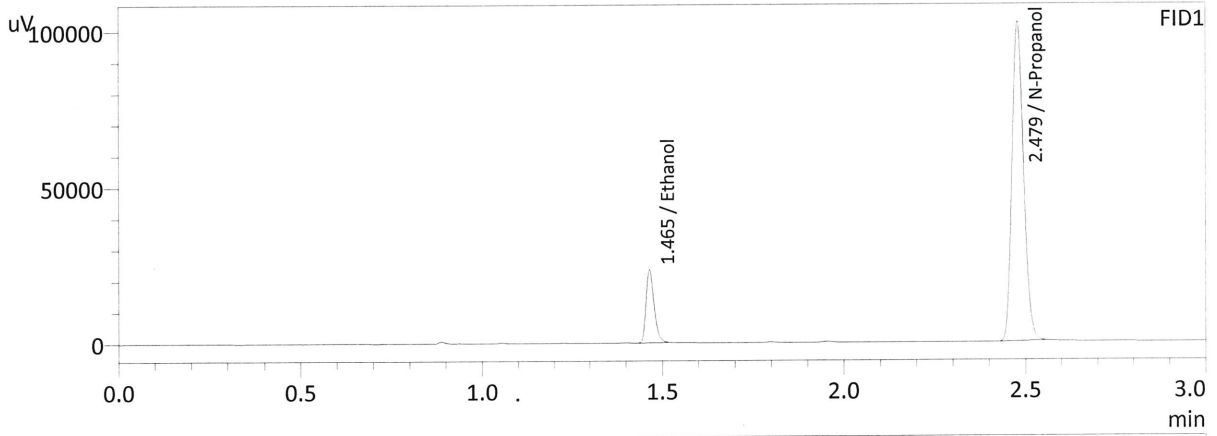
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0782 | 37426 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 237111 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0793 | 33750 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 211651 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

Handwritten signature/initials

Sample Name : QC1-2-B
 Laboratory : Meridian
 Injection Date : 7/19/2021 11:22:31 PM
 Vial # : 48
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0784 | 36063 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 227827 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0796 | 32554 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 203065 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

MB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-2

Analysis Date(s): ~~7/19/21~~ 7/20/21 NB 7/20/21

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|----------------|-------------------|-------------------|------------------|------------|--------------------------|---------------|
| Sample Results | 0.2100 | 0.2122 | 0.0022 | 0.2111 | 0.0001 | 0.2111 |
| (g/100cc) | 0.2100 | 0.2124 | 0.0024 | 0.2112 | | |

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%

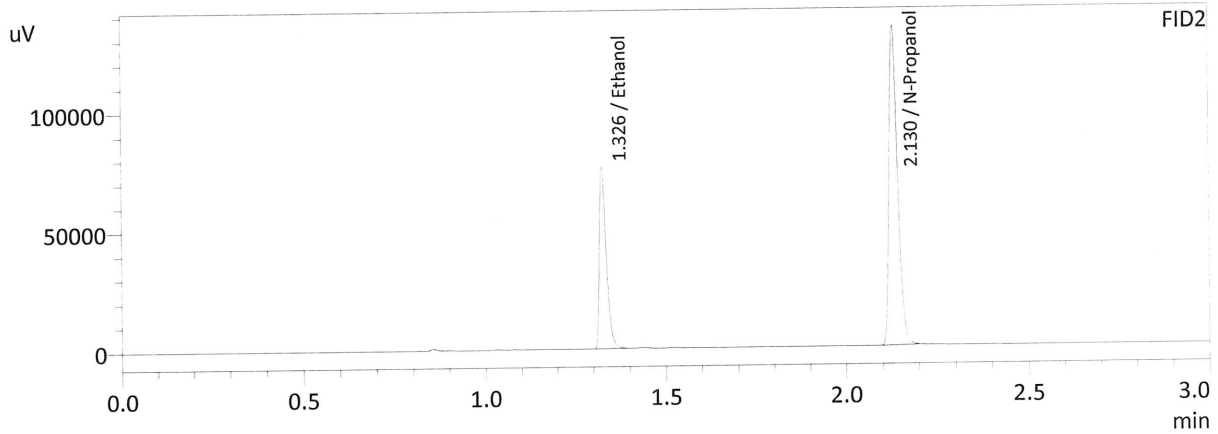
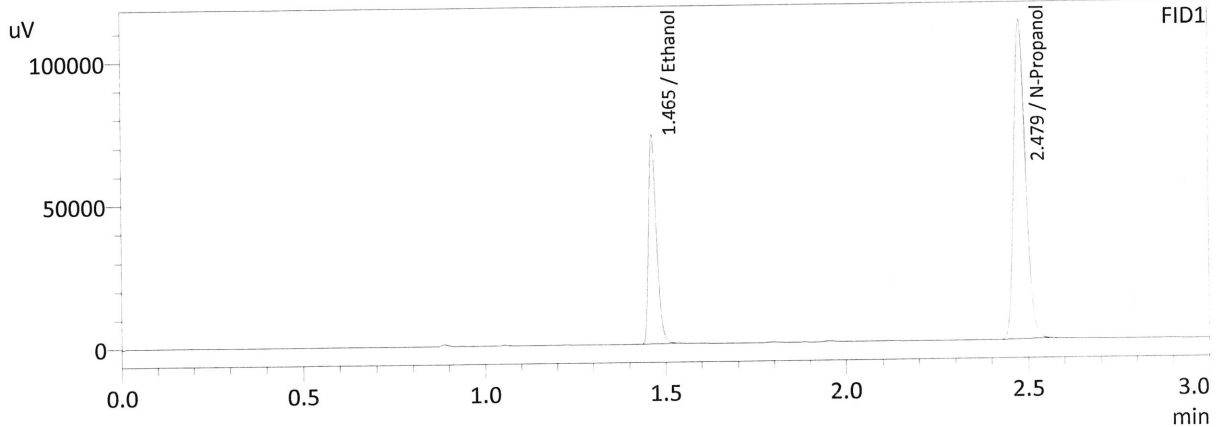
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.211 | 0.200 | 0.222 | 0.011 |

| Reported Result | |
|-----------------|--|
| 0.211 | |

Calibration and control data are stored centrally.

NB

Sample Name : QC2-2-A
 Laboratory : Meridian
 Injection Date : 7/20/2021 12:34:37 AM
 Vial # : 57
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

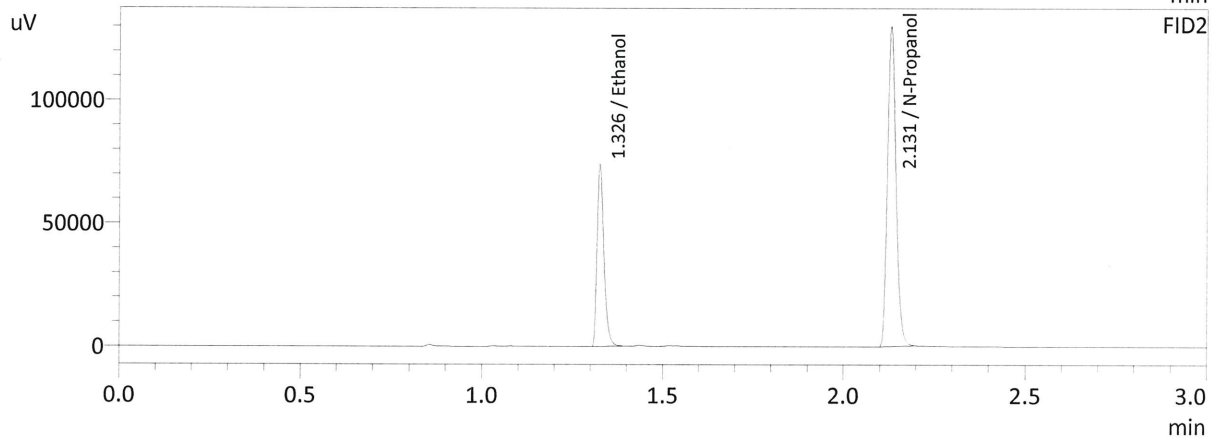
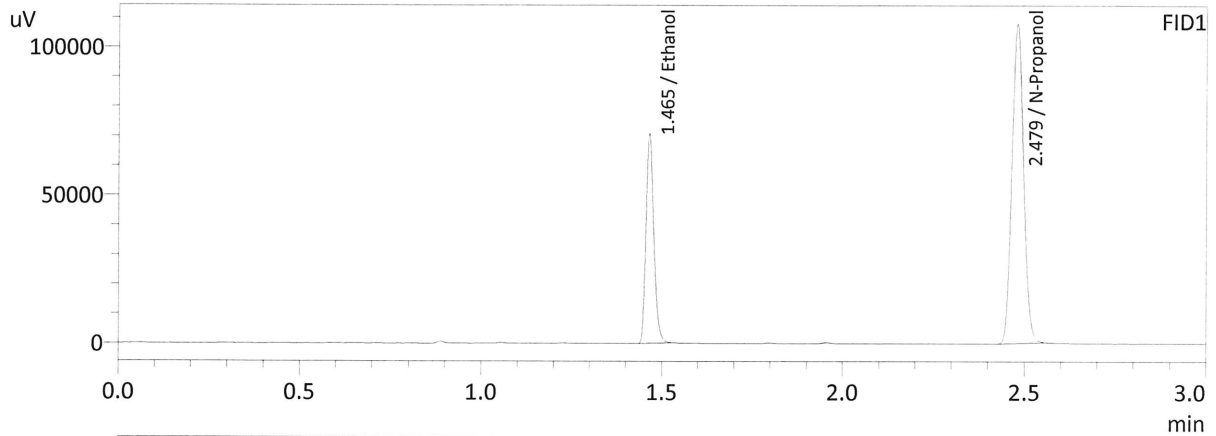
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2100 | 111282 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 246610 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2122 | 100940 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 220262 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

MB

Sample Name : QC2-2-B
 Laboratory : Meridian
 Injection Date : 7/20/2021 12:41:37 AM
 Vial # : 58
 Method Filename : C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM
 Instrument #GC/HS : C12255750548 / C12595800409



FID1

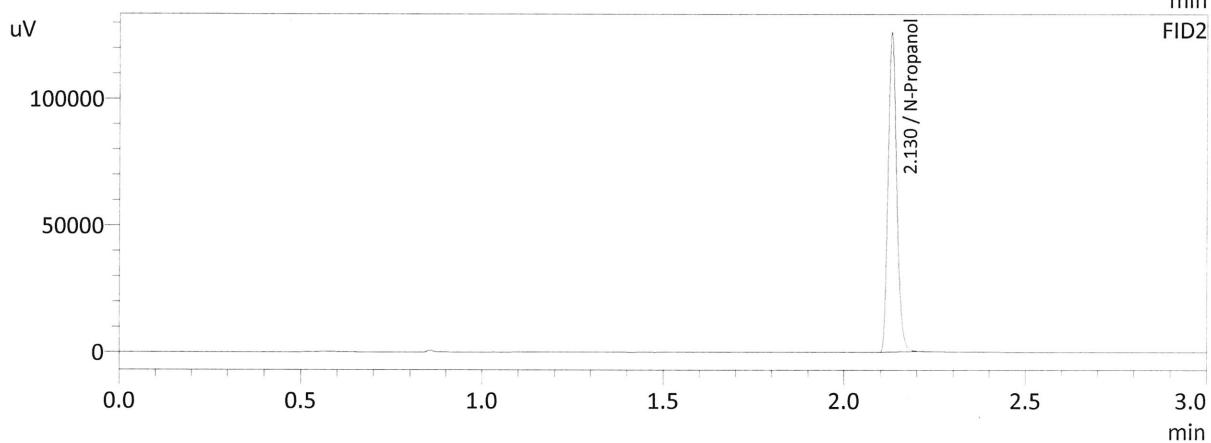
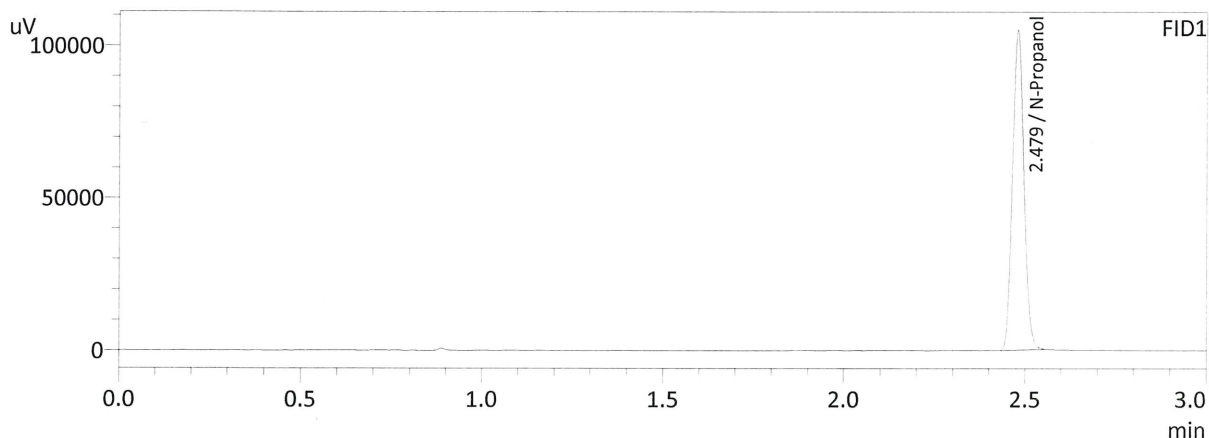
| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2100 | 107968 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 239228 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|-----------------------|--------|--------|---------|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2124 | 97903 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 213392 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

NB

Sample Name : INT STD BLNK
 Laboratory : Meridian
 Injection Date : 7/20/2021 12:49:33 AM
 Vial # : 59
 Method Filename : C:\LabSolutions\Data\210719\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 | 232387 | 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 | 207302 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

MB

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\210719\CALIBRATION\ALCOHOL.GCM |
| 2 | ED VOLATILES FN 0710 | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 3 | QC-1-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 4 | QC-1-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 5 | 0.08 QA-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 6 | 0.08 QA-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 7 | M2021-3079-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 8 | M2021-3079-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 9 | M2021-3080-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 10 | M2021-3080-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 11 | M2021-3105-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 12 | M2021-3105-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 13 | M2021-3106-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 14 | M2021-3106-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 15 | M2021-3107-1A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 16 | M2021-3107-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 17 | M2021-3108-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 18 | M2021-3108-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 19 | M2021-3109-1A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 20 | M2021-3109-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 21 | M2021-3110-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 22 | M2021-3110-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 23 | M2021-3117-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 24 | M2021-3117-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 25 | QC-2-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 26 | QC-2-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 27 | M2021-3118-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 28 | M2021-3118-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 29 | M2021-3119-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 30 | M2021-3119-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 31 | M2021-3135-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 32 | M2021-3135-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 33 | M2021-3136-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 34 | M2021-3136-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 35 | M2021-3142-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 36 | M2021-3142-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 37 | M2021-3143-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 38 | M2021-3143-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 39 | M2021-3143-2-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 40 | M2021-3143-2-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 41 | M2021-3143-3-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 42 | M2021-3143-3-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 43 | M2021-3143-4-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 44 | M2021-3143-4-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 45 | M2021-3143-5-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 46 | M2021-3143-5-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 47 | QC1-2-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 48 | QC1-2-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 49 | M2021-3143-6-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 50 | M2021-3143-6-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 51 | M2021-3148-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 52 | M2021-3148-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 53 | M2021-3167-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 54 | M2021-3167-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 55 | M2021-3176-1-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 56 | M2021-3176-1-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 57 | QC2-2-A | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 58 | QC2-2-B | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |
| 59 | INT STD BLNK | C:\LabSolutions\Data\210719\CALIBRATION\ALCOHOL.GCM |