## 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): 11/22/22**

**Calibration Date:** *(if different)* **11/22/22**

**Worklist #: 6174**

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|---|---|---|---|---|---|
| Level 1 | Jul-23 | 1907006 | 0.0764 | 0.0688-0.0840 | 0.0699 g/100cc |
| | | | | | 0.0741 g/100cc |
| | | | | | g/100cc |
| Level 2 | Jul-23 | 1907007 | 0.2170 | 0.1953-0.2387 | 0.2189 g/100cc |
| | | | | | 0.2197 g/100cc |
| | | | | | g/100cc |

| Multi-Component mixture: | Exp: | Oct. 2024 | Lot # | FN06041902 | |
|---|---|---|---|---|---|
| **Curve Fit:** | | **Column 1** | 0.99981 | **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 | 0.0474 | 0.0476 | 0.0002 | 0.0475 |
| 100 | 0.100 | 0.090 - 0.110 | 0.0996 | 0.0994 | 0.0002 | 0.0995 |
| 200 | 0.200 | 0.180 - 0.220 | 0.2033 | 0.2032 | 0.0001 | 0.2032 |
| 300 | 0.300 | 0.270 - 0.330 | 0.3014 | 0.3015 | 1E-04 | 0.3014 |
| 400 | 0.400 | 0.360 - 0.440 | N/A | N/A | ######## | #DIV/0! |
| 500 | 0.500 | 0.450 - 0.550 | 0.4981 | 0.4980 | 1E-04 | 0.498 |

### Aqueous Controls

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

***REVIEWED***

***By Jeremy Johnston at 6:50 pm, Nov 24, 2022***

JG



Revision: 5
Issue Date: 07/05/2022
Issuing Authority: Quality Manager

# Internal Standard Monitoring Worksheet

**Worklist #:** **6174** **Run Date(s):** **11/22/22**

| Internal Standard Solution: | Prep Date: 8/31/2022 | Exp Date: 2/31/23 |
|---|---|---|

| Sample Name | Column 1 Value | Column 2 Value |
|---|---|---|
| 0.080 | 189149 | 206141 |
| 0.080 | 189716 | 206642 |
| QC1 | 191431 | 208567 |
| QC1 | 195240 | 212708 |
| QC1 | 236414 | 258127 |
| QC1 | 236692 | 258263 |
| QC1 | | |
| QC1 | | |
| QC2 | 209989 | 229017 |
| QC2 | 213080 | 232284 |
| QC2 | 252404 | 275367 |
| QC2 | 262620 | 286202 |
| QC2 | | |
| QC2 | | |

| | Average | (-)20% | (+)20% |
|---|---|---|---|
| Column 1 | 217673.5 | 174138.8 | 261208.2 |
| Column 2 | 237331.8 | 189865.4 | 284798.2 |

JG

Revision: 5

Issue Date: 07/05/2022

Issuing Authority: Quality Manager

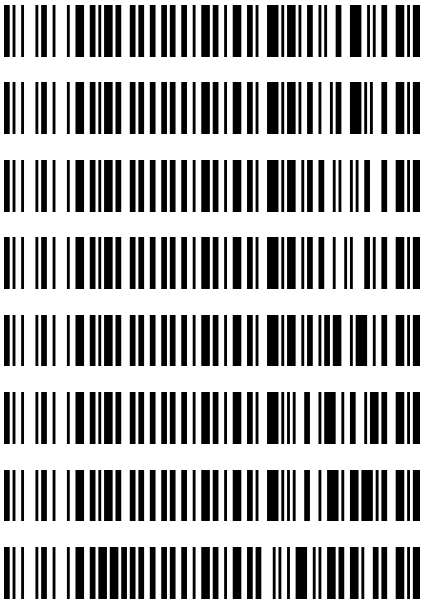
**Worklist: 6174**

| LAB_CASE | ITEM | ITEM_TYPE | DESCRIPTION |
|---|---|---|---|
| M2022-4629 | 1 | BCK | Alcohol Analysis |
| M2022-4633 | 1 | BCK | Alcohol Analysis |
| M2022-4638 | 1 | BCK | Alcohol Analysis |
| M2022-4641 | 1 | BCK | Alcohol Analysis |
| M2022-4658 | 1 | BCK | Alcohol Analysis |
| M2022-4666 | 1 | BCK | Alcohol Analysis |
| M2022-4667 | 1 | BCK | Alcohol Analysis |
| M2022-4675 | 1 | BCK | Alcohol Analysis |
| M2022-4676 | 1 | BCK | Alcohol Analysis |
| M2022-4679 | 1 | BCK | Alcohol Analysis |
| M2022-4680 | 1 | BCK | Alcohol Analysis |
| M2022-4701 | 1 | BCK | Alcohol Analysis |
| M2022-4702 | 1 | BCK | Alcohol Analysis |
| M2022-4703 | 1 | BCK | Alcohol Analysis |
| M2022-4704 | 1 | BCK | Alcohol Analysis |
| M2022-4709 | 2 | BCK | Alcohol Analysis |
| M2022-4713 | 1 | BCK | Alcohol Analysis |
| M2022-4737 | 1 | BCK | Alcohol Analysis |
| M2022-4738 | 1 | BCK | Alcohol Analysis |
| M2022-4739 | 1 | BCK | Alcohol Analysis |
| M2022-4740 | 1 | BCK | Alcohol Analysis |

JG

**Worklist: 6174**

| LAB_CASE | ITEM | ITEM_TYPE | DESCRIPTION |
|---|---|---|---|
| M2022-4741 | 1 | BCK | Alcohol Analysis |
| M2022-4742 | 1 | BCK | Alcohol Analysis |
| M2022-4757 | 1 | BCK | Alcohol Analysis |
| M2022-4758 | 1 | BCK | Alcohol Analysis |
| M2022-4759 | 1 | BCK | Alcohol Analysis |
| M2022-4816 | 1 | BCK | Alcohol Analysis |
| M2022-4817 | 1 | BCK | Alcohol Analysis |
| P2022-3374 | 1 | BCK | Alcohol Analysis |



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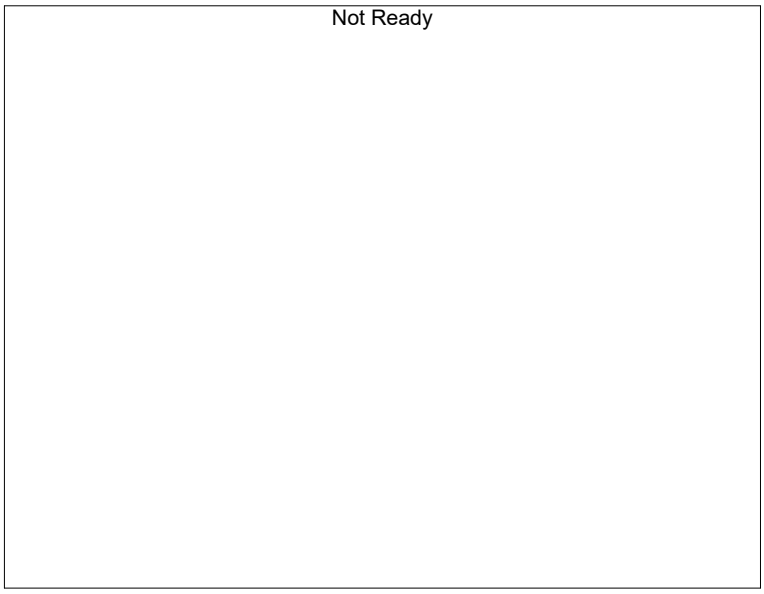
# Calibration Table

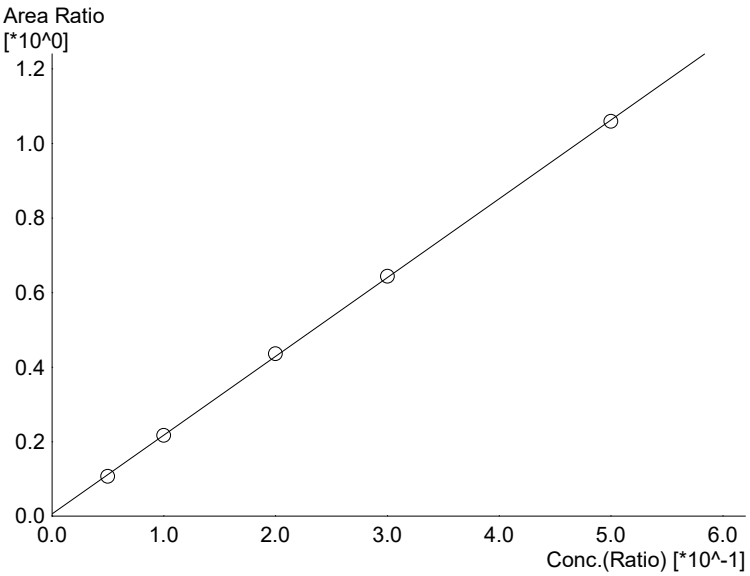
Laboratory : MERIDIAN
Instrument Name : GC-HS
Instrument Serial # : C12595800409 / C12255750548

<<Data File>>
Method File :C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Batch File :C:\LabSolutions\Data\221122\CALIBRATION\CALCURVE_TEMPLATE.gcb
Date Acquired :11/22/2022 2:36:29 PM
Date Created :11/22/2022 2:31:08 PM
Date Modified :11/22/2022 2:39:31 PM




Name : Methanol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

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




Name : Ethanol
Detector Name: FID1
Function : f(x)=2.11292*x+0.00633554
R^2 value= 0.9998194
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 1 | 0.050 | 21371 | 0.0474 |
| 2 | 0.100 | 42899 | 0.0996 |
| 3 | 0.200 | 83283 | 0.2033 |
| 4 | 0.300 | 124281 | 0.3014 |
| 5 | 0.500 | 212169 | 0.4981 |

JG

Not Ready

Name : Isopropyl Alcohol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

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

Not Ready

Name : Acetone
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

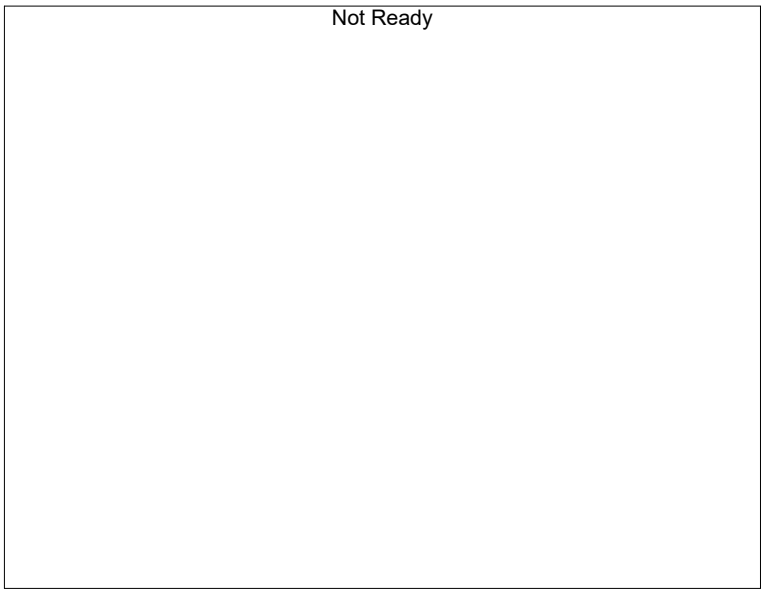
| # | Conc. | Area | Std. Conc. |
|---|---|---|---|

Not Ready

Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

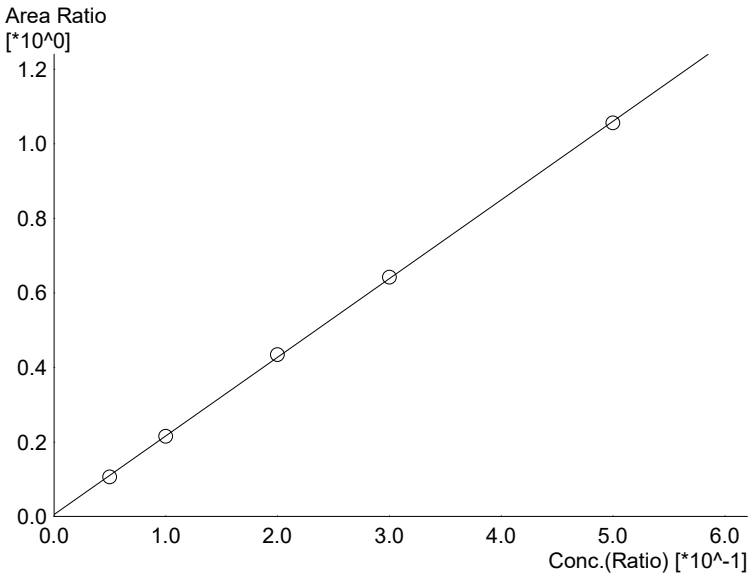
| # | Conc. | Area | Std. Conc. |
|---|---|---|---|

JG



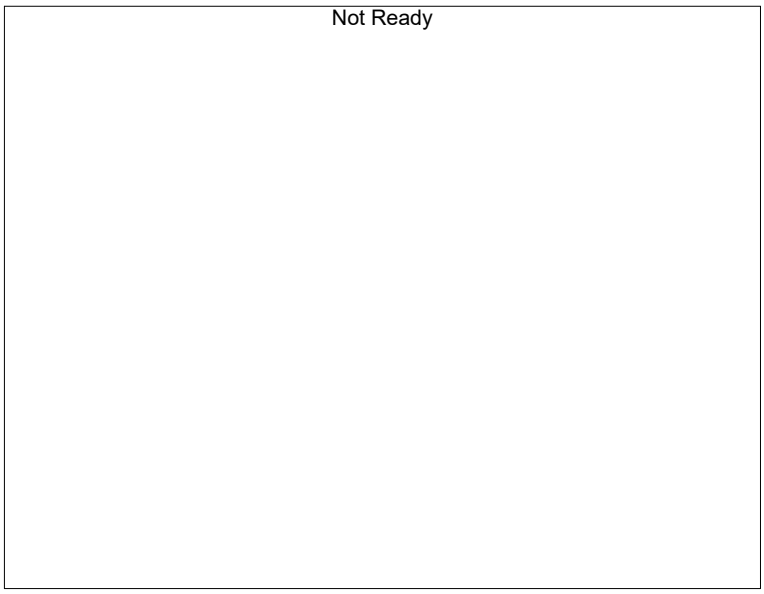

Name : Methanol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

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




Name : Ethanol
Detector Name: FID2
Function : f(x)=2.10884*x+0.00577663
R^2 value= 0.9998225
FitType: Linear
ZeroThrough: Not Through

| # | Conc. | Area | Std. Conc. |
|---|---|---|---|
| 1 | 0.050 | 23153 | 0.0476 |
| 2 | 0.100 | 46373 | 0.0994 |
| 3 | 0.200 | 90256 | 0.2032 |
| 4 | 0.300 | 134815 | 0.3015 |
| 5 | 0.500 | 229952 | 0.4980 |




Name : Acetone
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

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

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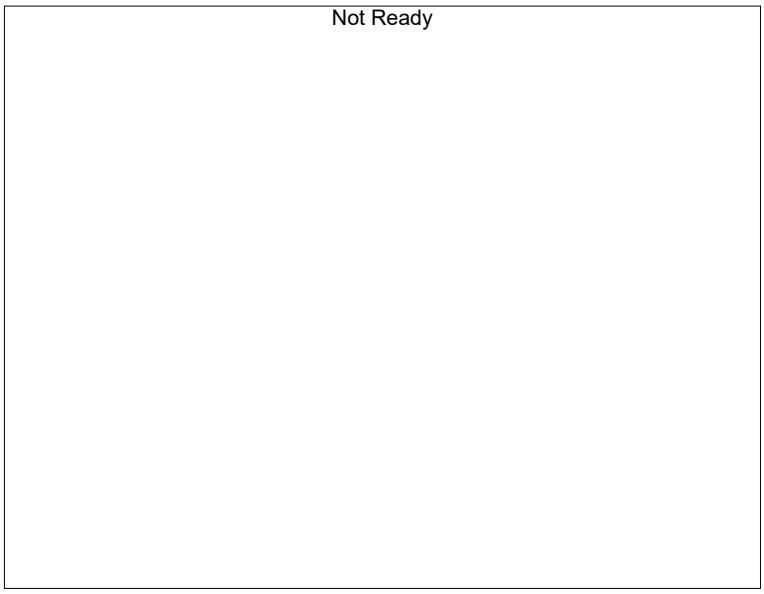
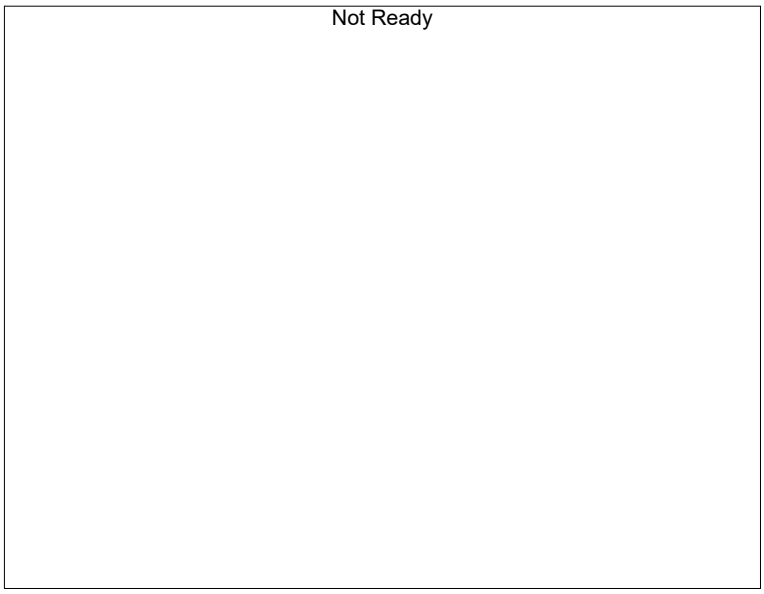



Name : Isopropyl Alcohol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

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

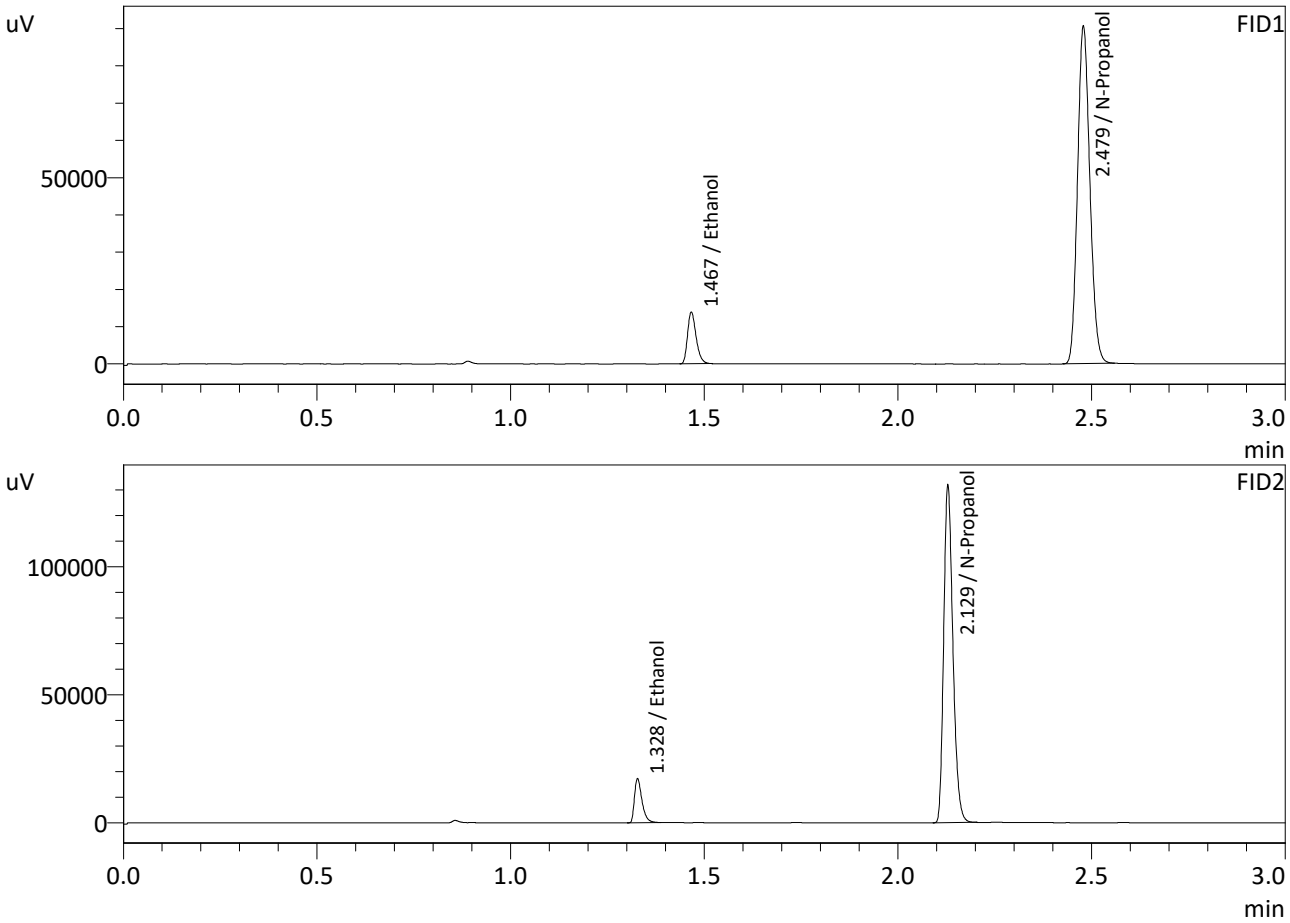



Name : Flour. Hydrocarbon(s)
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

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

JG

Sample Name : 0.050
Laboratory : Meridian
Injection Date : 11/22/2022 1:56:56 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

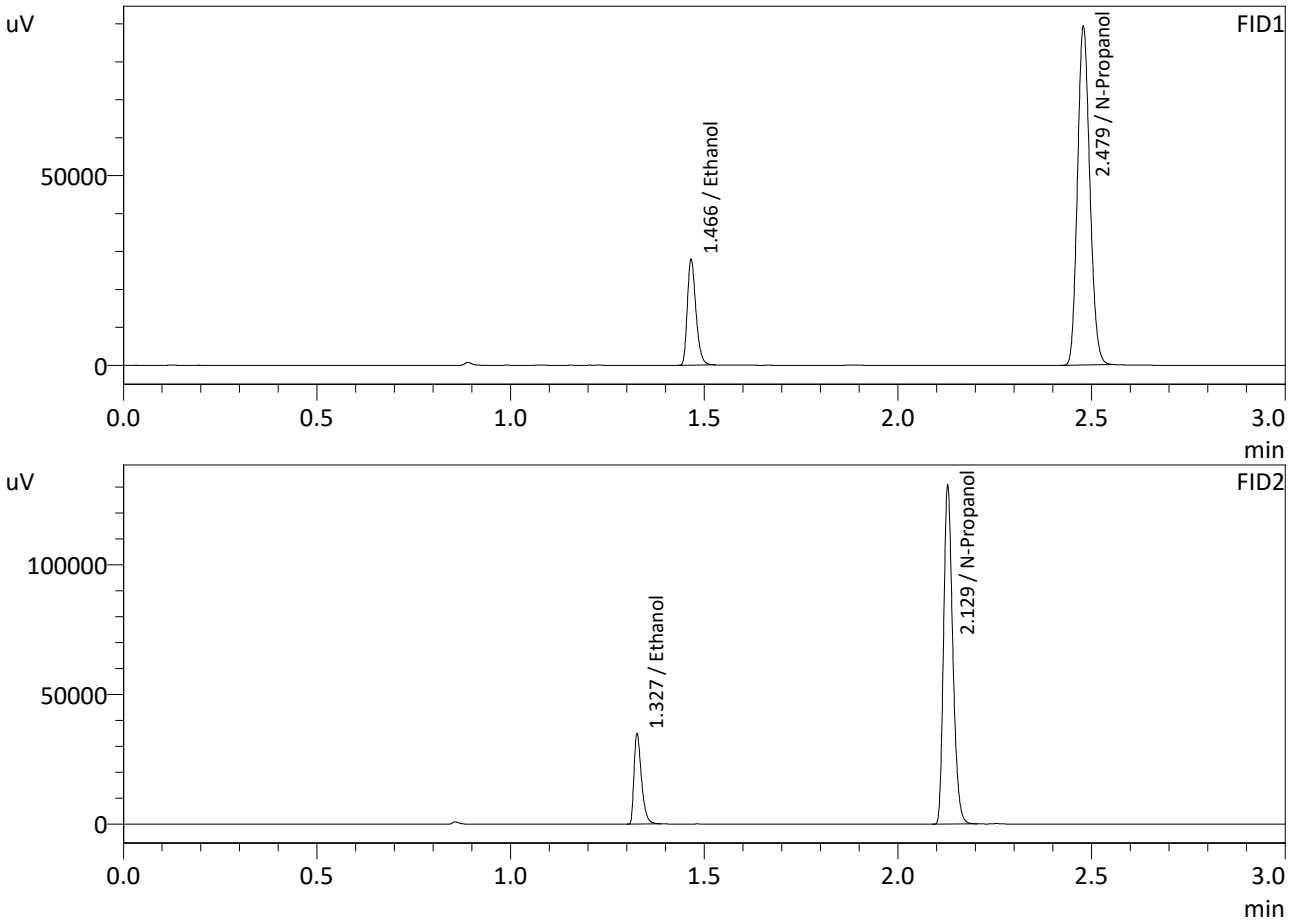
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0474 | 21371 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 200322 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0476 | 23153 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 217910 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : 0.100
Laboratory : Meridian
Injection Date : 11/22/2022 2:04:16 PM
Vial # : 2
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409







FID1

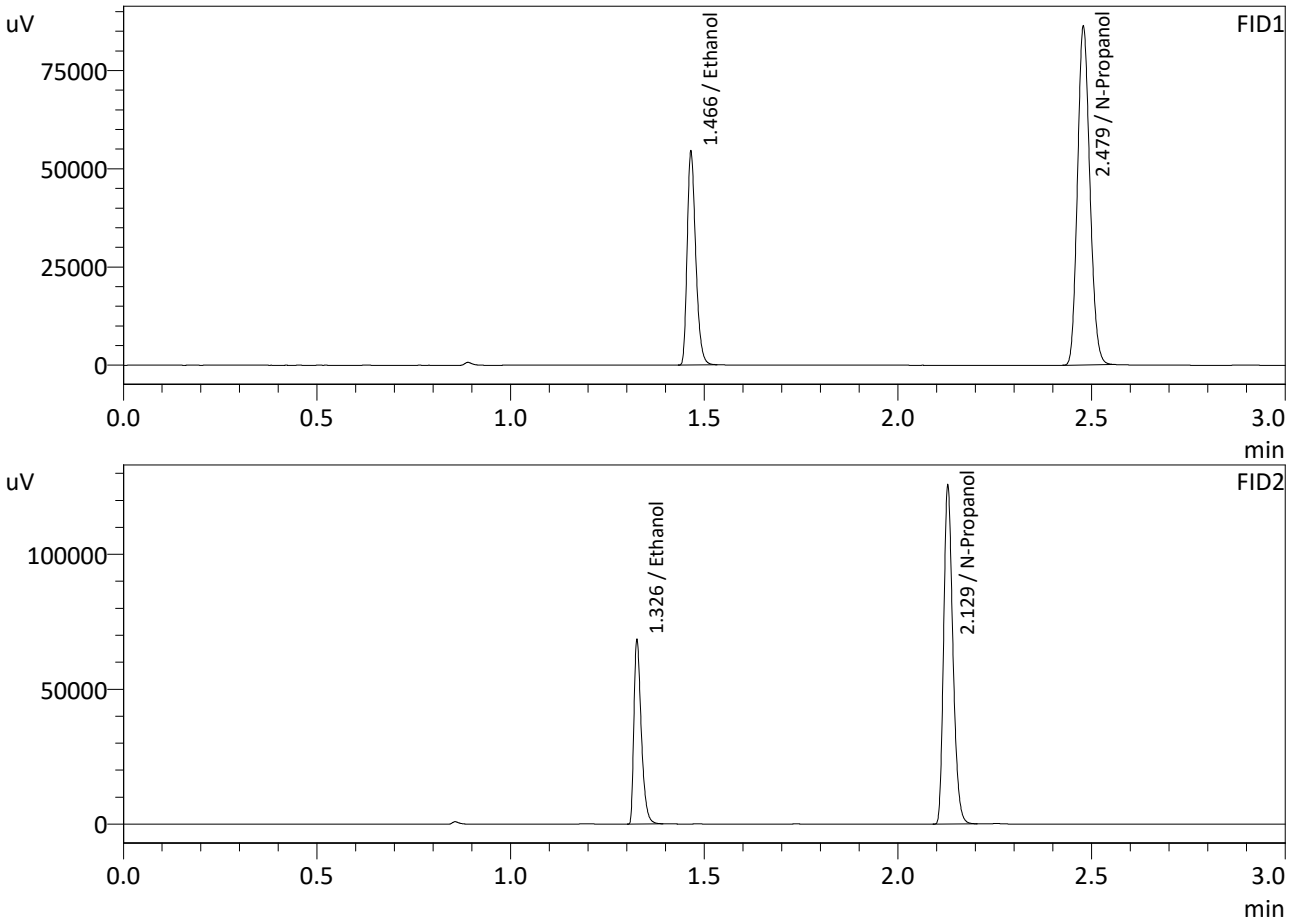
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0996 | 42899 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 197888 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0994 | 46373 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 215277 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : 0.200
Laboratory : Meridian
Injection Date : 11/22/2022 2:11:36 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

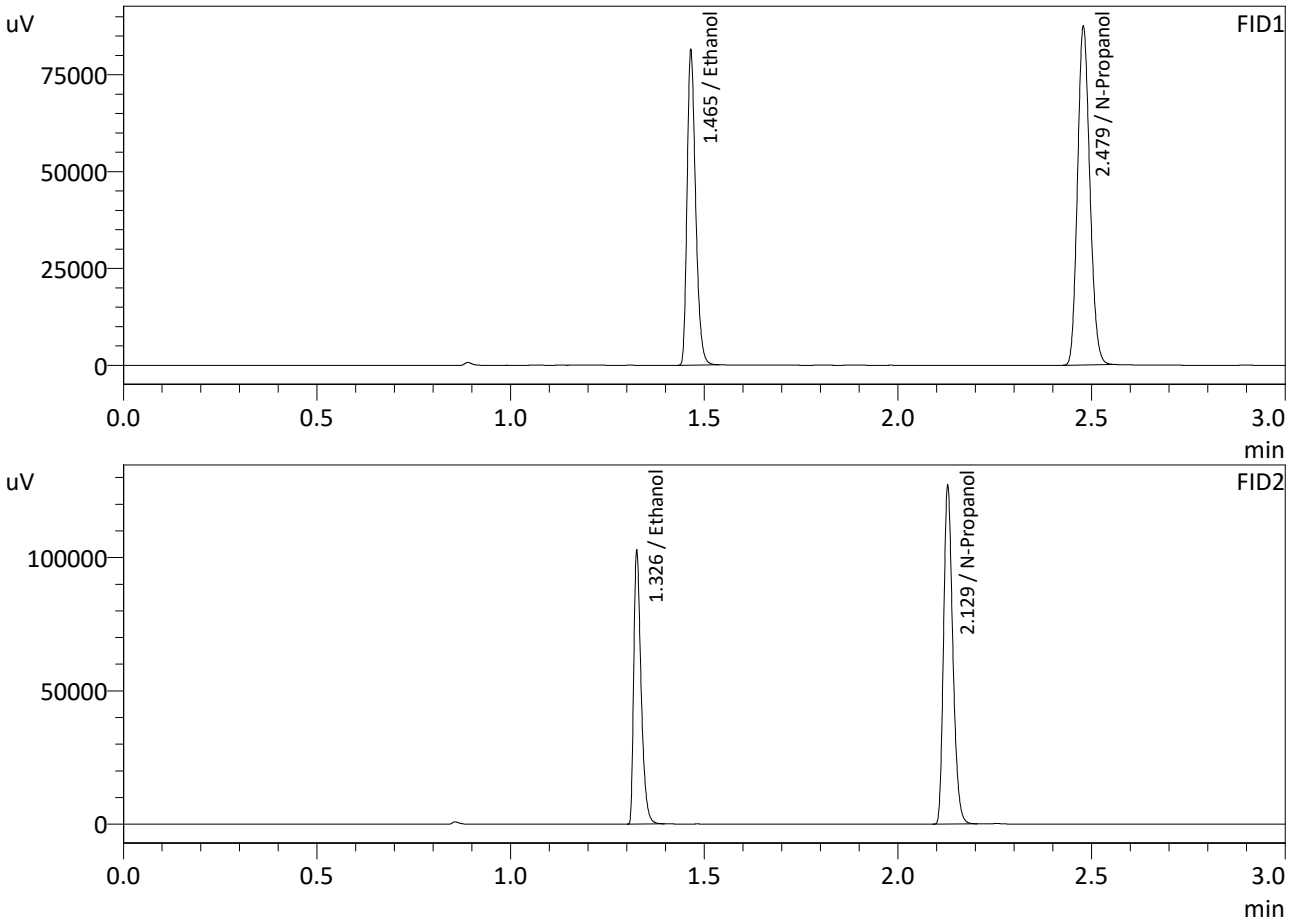
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2033 | 83283 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 191026 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2032 | 90256 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 207754 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : 0.300
Laboratory : Meridian
Injection Date : 11/22/2022 2:20:28 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409







FID1

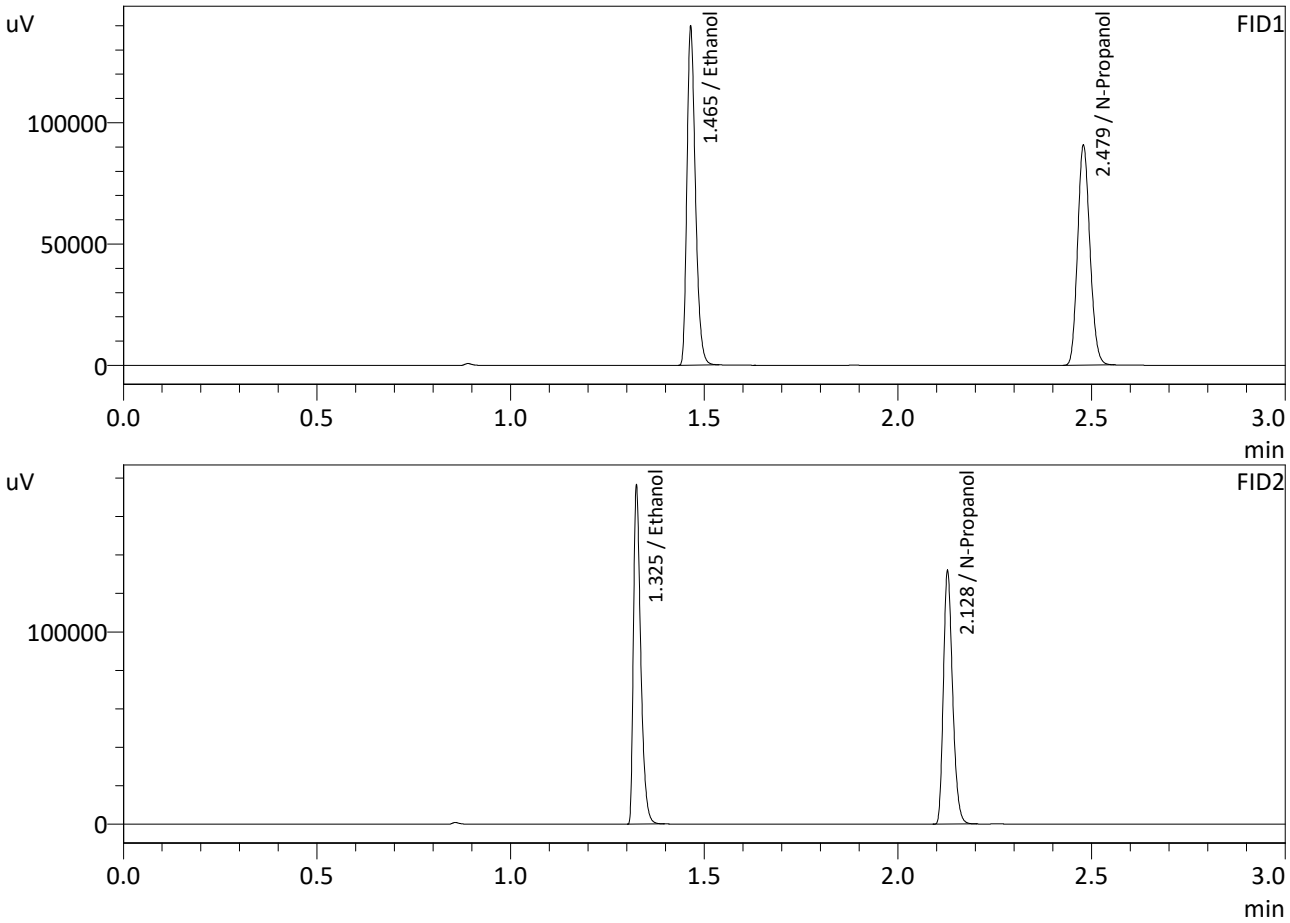
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.3014 | 124281 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 193213 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.3015 | 134815 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 210068 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : 0.500
Laboratory : Meridian
Injection Date : 11/22/2022 2:28:01 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

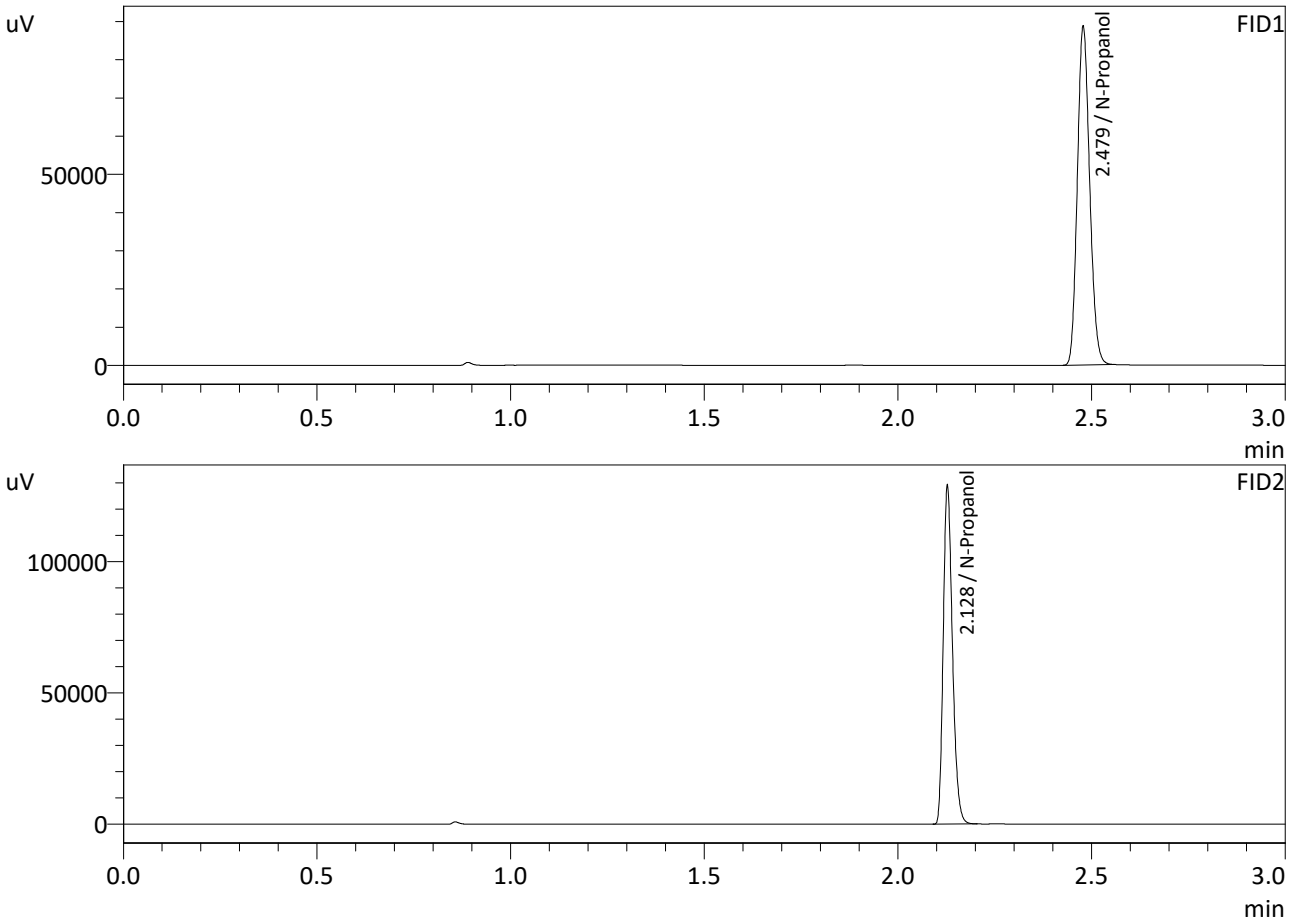
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.4981 | 212169 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 200376 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.4980 | 229952 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 217720 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 11/22/2022 2:36:29 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\221122\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 | 195690 | 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 | 212948 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

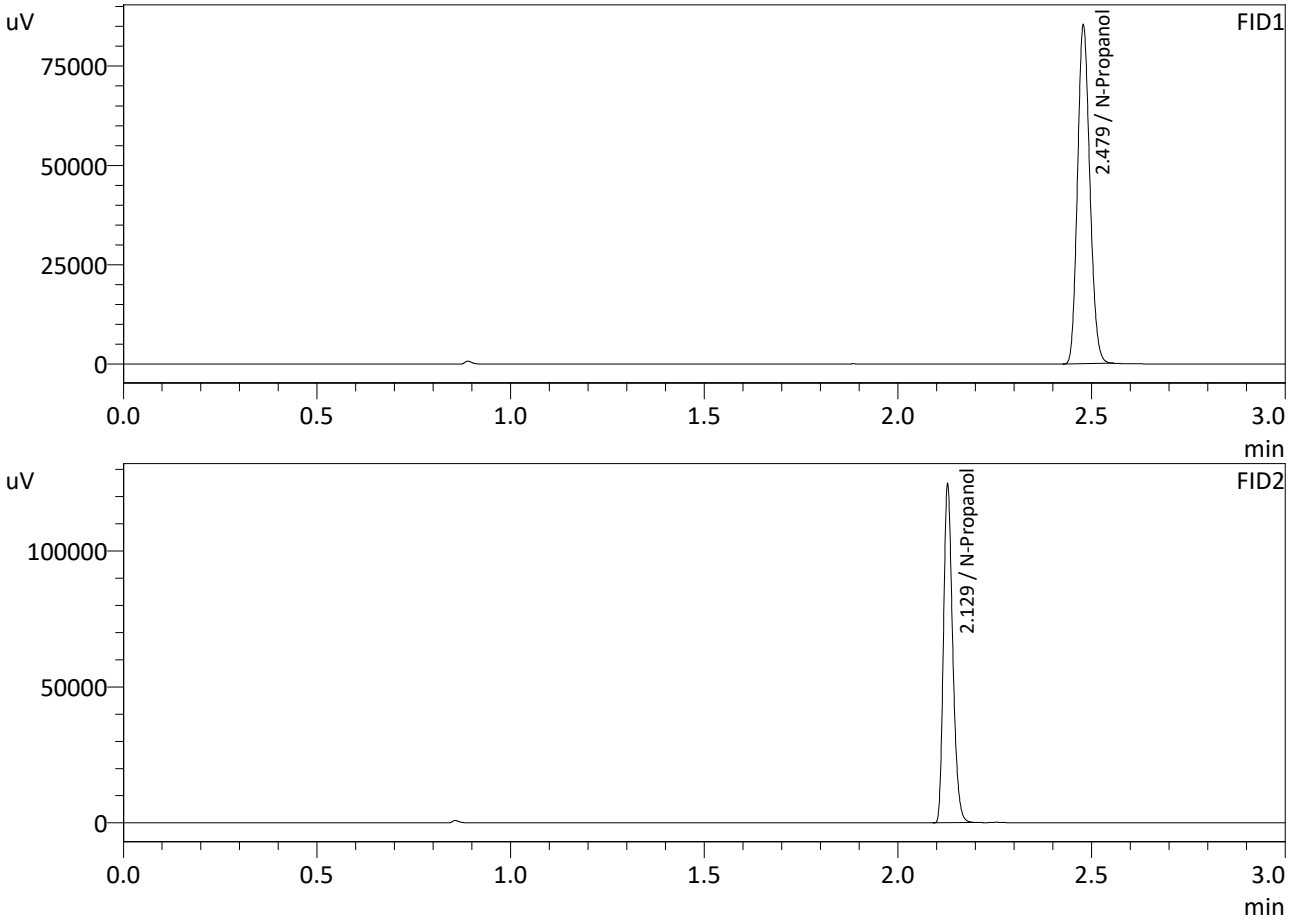
# Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
Shimadzu HS-20 Serial #C12595800409
Lab Solutions Software Ver. 5.99


| Vial# | Sample Name | Method File |
|---|---|---|
| 1 | 0.050 | ALCOHOL.GCM |
| 2 | 0.100 | ALCOHOL.GCM |
| 3 | 0.200 | ALCOHOL.GCM |
| 4 | 0.300 | ALCOHOL.GCM |
| 5 | 0.500 | ALCOHOL.GCM |
| 6 | INT STD BLK | ALCOHOL.GCM |

JG

Sample Name : INT STD BLK 1
Laboratory : Meridian
Injection Date : 11/22/2022 4:04:50 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

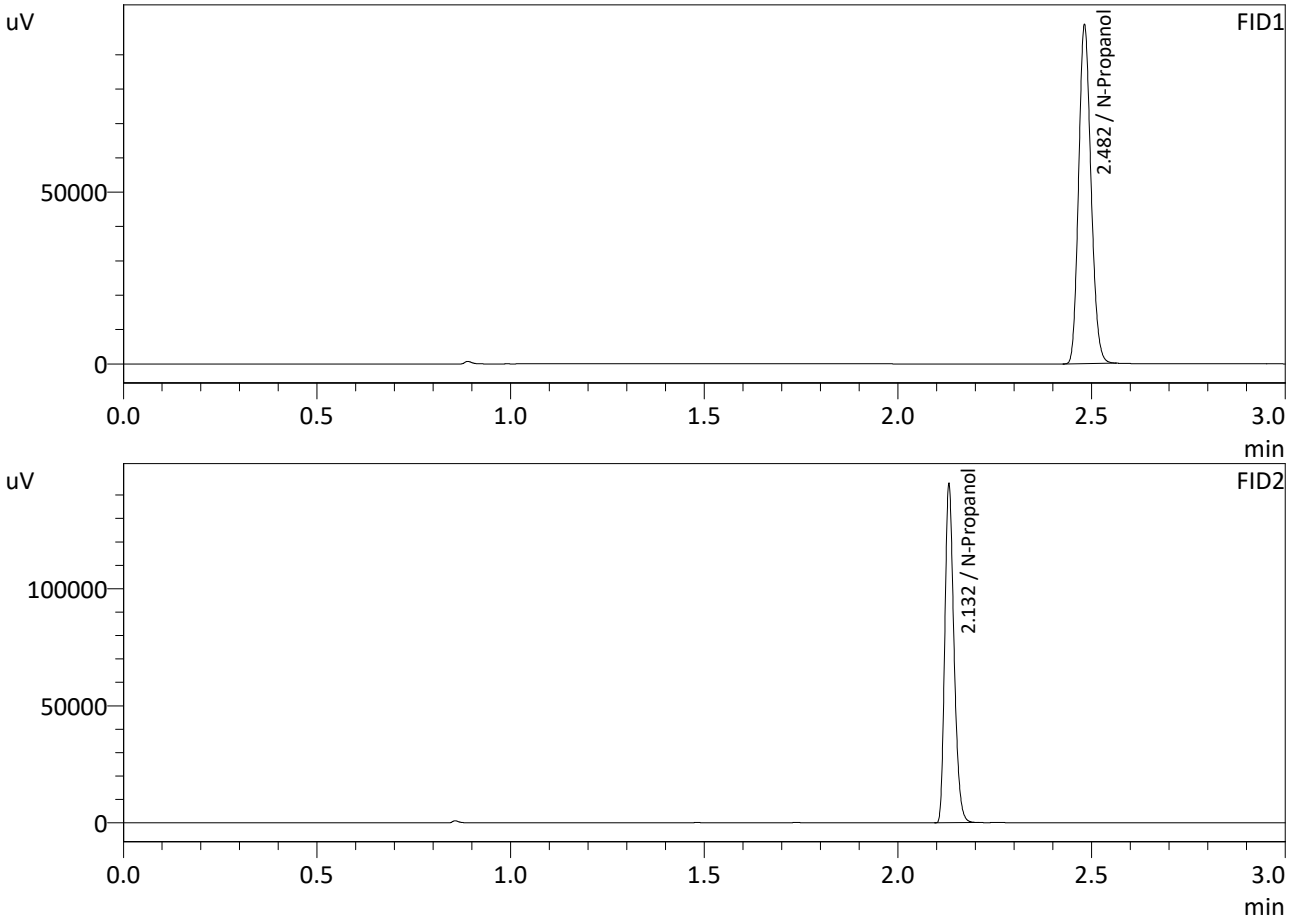
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 188666 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 205681 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 11/23/2022 1:35:36 AM
Vial # : 71
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

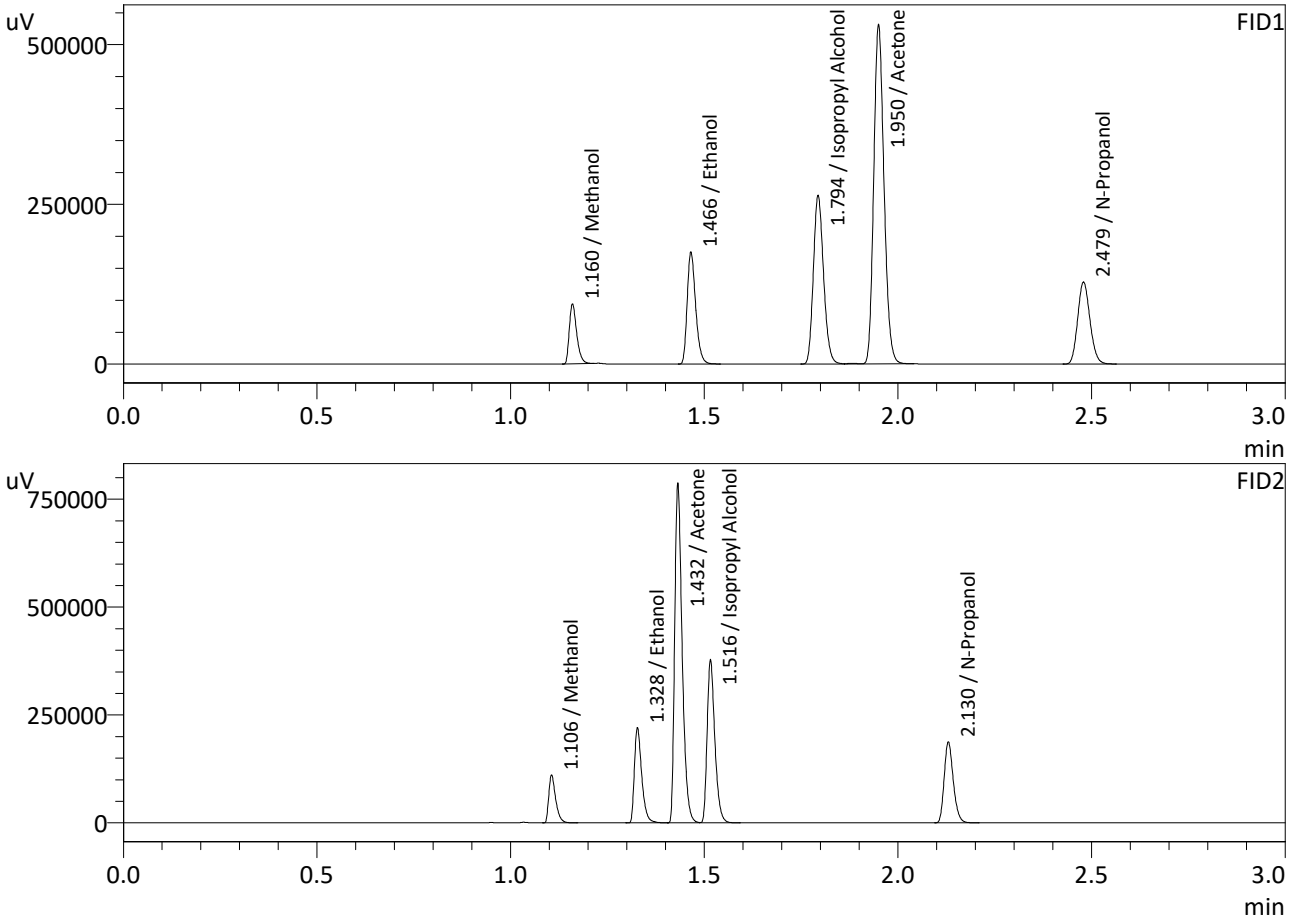
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 218267 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 238341 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : MIXED VOLATILES FN 06041902
Laboratory : Meridian
Injection Date : 11/22/2022 4:12:11 PM
Vial # : 2
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | 0.0000 | 125377 | g/100cc |
| Ethanol | 0.4437 | 267089 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 483234 | g/100cc |
| Acetone | 0.0000 | 979109 | g/100cc |
| N-Propanol | 0.0000 | 282934 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | 0.0000 | 137707 | g/100cc |
| Ethanol | 0.4471 | 291067 | g/100cc |
| Acetone | 0.0000 | 1054464 | g/100cc |
| Isopropyl Alcohol | 0.0000 | 522711 | g/100cc |
| N-Propanol | 0.0000 | 306795 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.:QC 1-1** **Item #** **Analysis Date(s): 11/22/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.0693 | 0.0693 | 0.0000 | 0.0693 | 0.0012 | 0.0699 |
| (g/100cc) | 0.0706 | 0.0705 | 0.0001 | 0.0705 | | |

**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 |
|---|---|---|---|
| **0.069** | **0.065** | **0.073** | **0.004** |

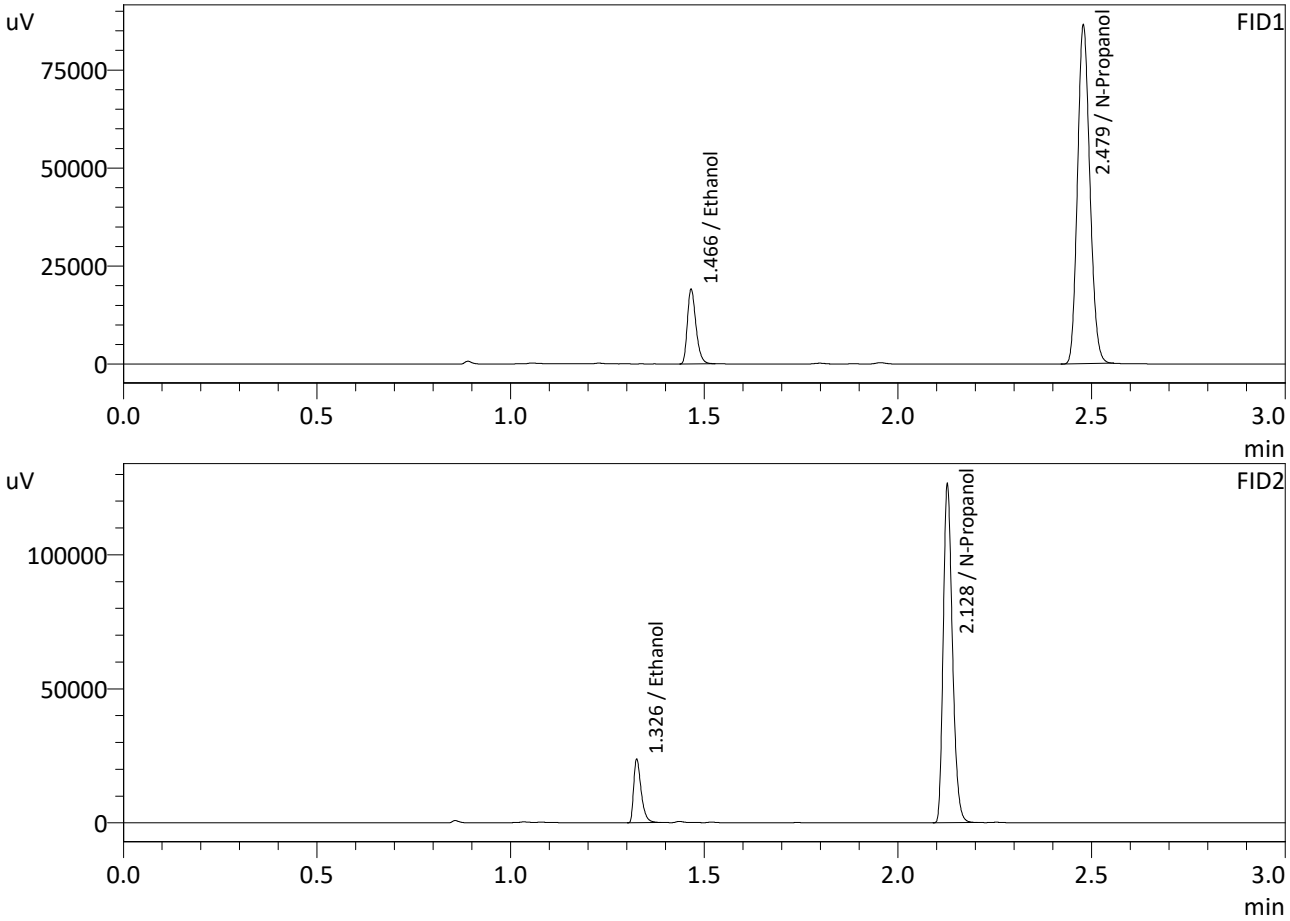
**Reported Result**

**0.069**

***Calibration and control data are stored centrally.***

JG

Sample Name : QC-1-1-A
Laboratory : Meridian
Injection Date : 11/22/2022 4:19:33 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

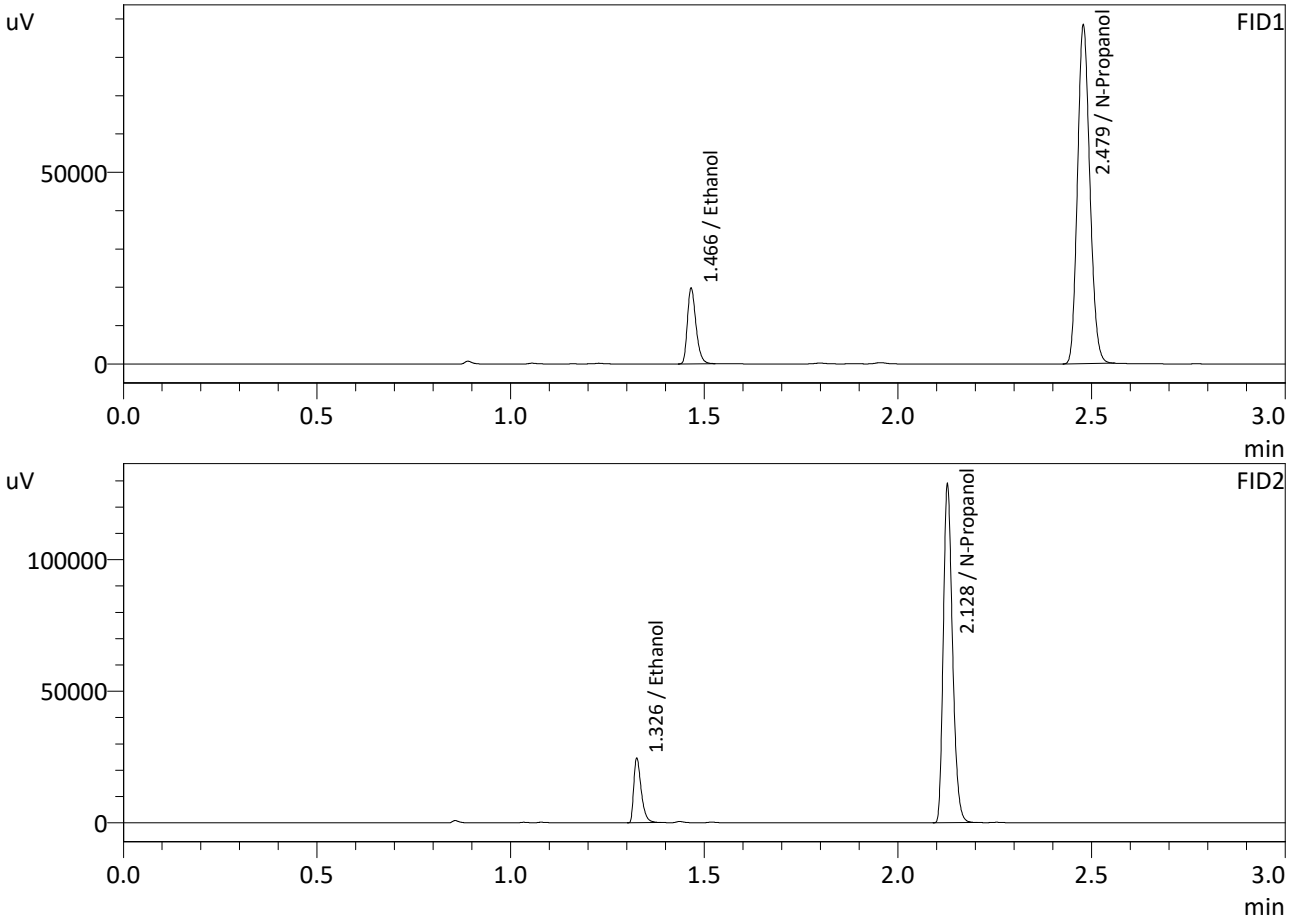
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0693 | 29282 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 191431 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0693 | 31687 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 208567 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : QC-1-1-B
Laboratory : Meridian
Injection Date : 11/22/2022 4:28:22 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0706 | 30362 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 195240 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0705 | 32858 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 212708 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.:QC 1-2** **Item #** **Analysis Date(s): 11/22/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.0746 | 0.0746 | 0.0000 | 0.0746 | 0.0009 | 0.0741 |
| (g/100cc) | 0.0737 | 0.0737 | 0.0000 | 0.0737 | | |

## 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 |
|---|---|---|---|
| **0.074** | **0.070** | **0.078** | **0.004** |

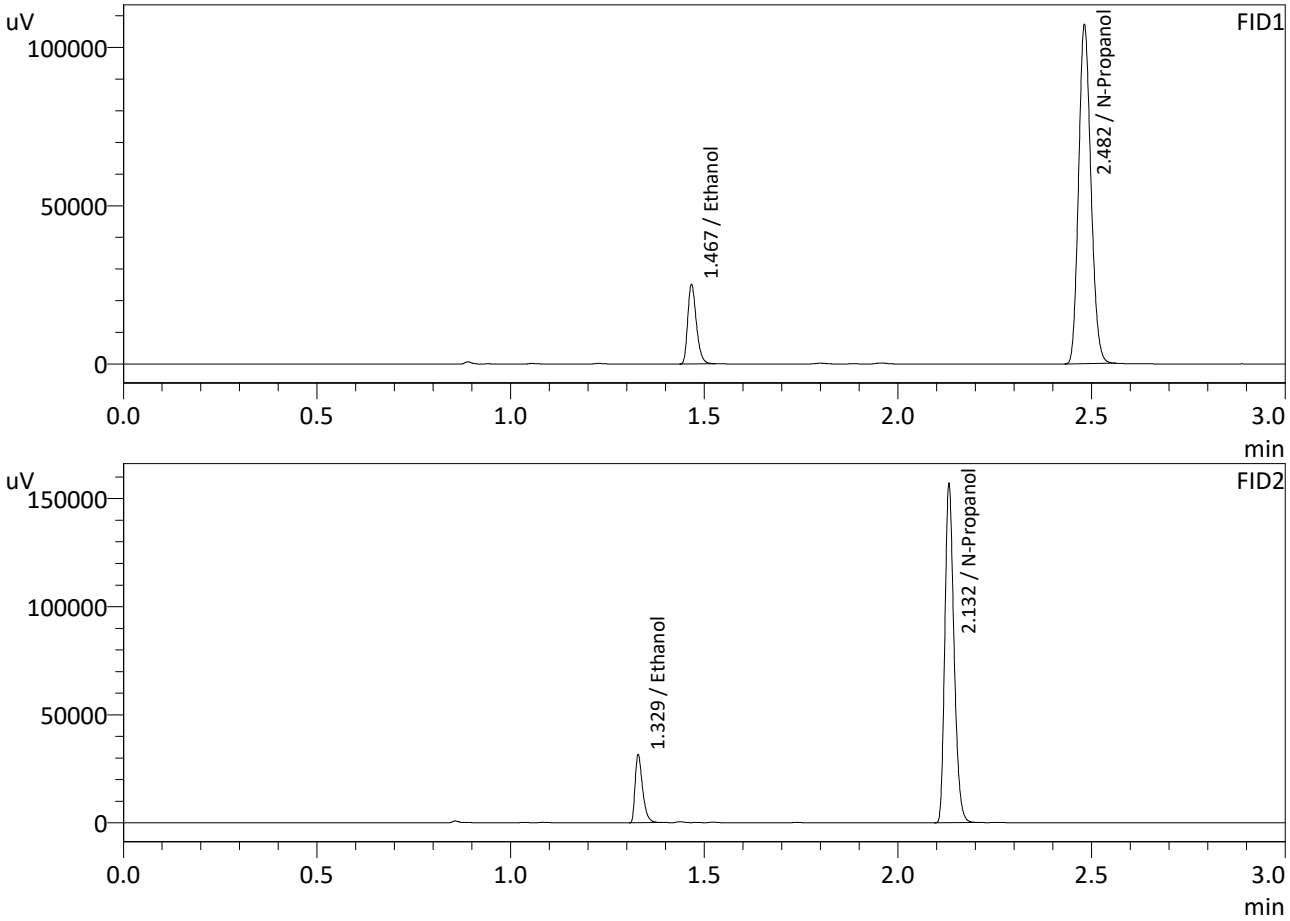
**Reported Result**

**0.074**

***Calibration and control data are stored centrally.***

JG

Sample Name : QC1-2-A
Laboratory : Meridian
Injection Date : 11/22/2022 10:18:39 PM
Vial # : 47
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

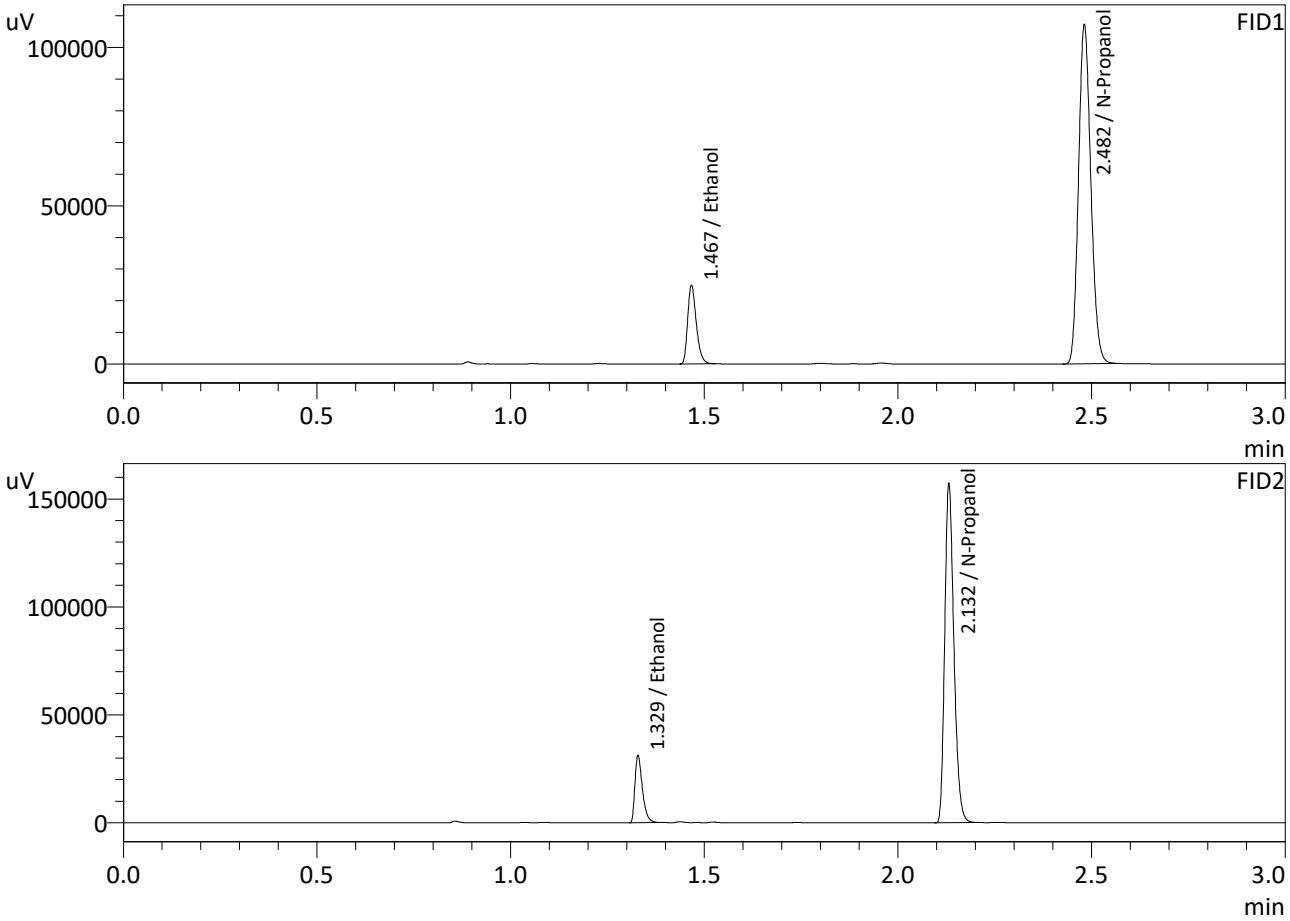
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0746 | 38791 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 236414 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0746 | 42120 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 258127 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : 11/22/2022 10:27:39 PM
Vial # : 48
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0737 | 38406 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 236692 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0737 | 41671 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 258263 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.:QC 2-1** **Item #** **Analysis Date(s): 11/22/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.2175 | 0.2177 | 0.0002 | 0.2176 | 0.0027 | 0.2189 |
| (g/100cc) | 0.2202 | 0.2204 | 0.0002 | 0.2203 | | |

**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 |
|---|---|---|---|
| **0.218** | **0.207** | **0.229** | **0.011** |

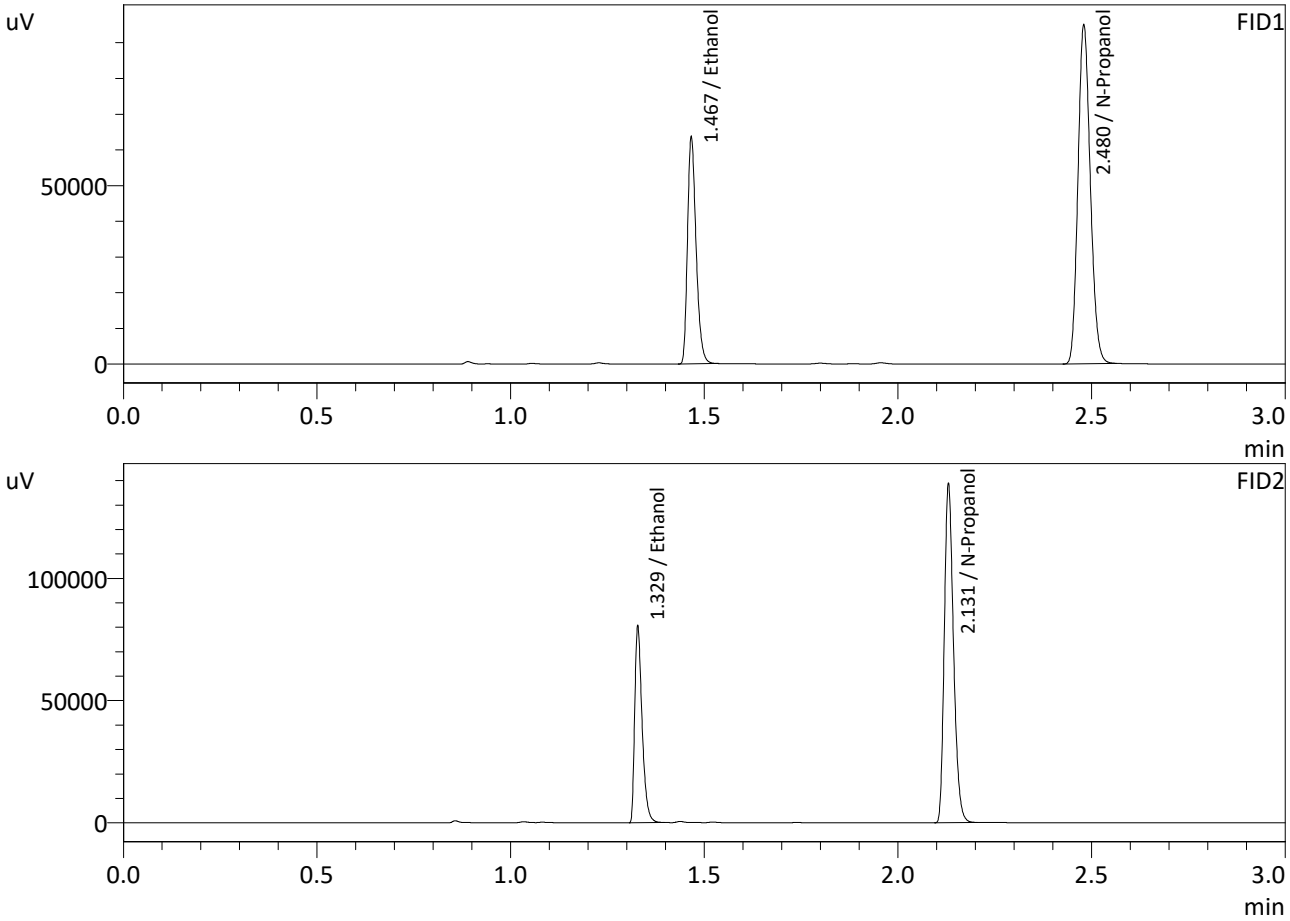
**Reported Result**

**0.218**

***Calibration and control data are stored centrally.***

JG

Sample Name : QC-2-1-A
Laboratory : Meridian
Injection Date : 11/22/2022 7:19:44 PM
Vial # : 25
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

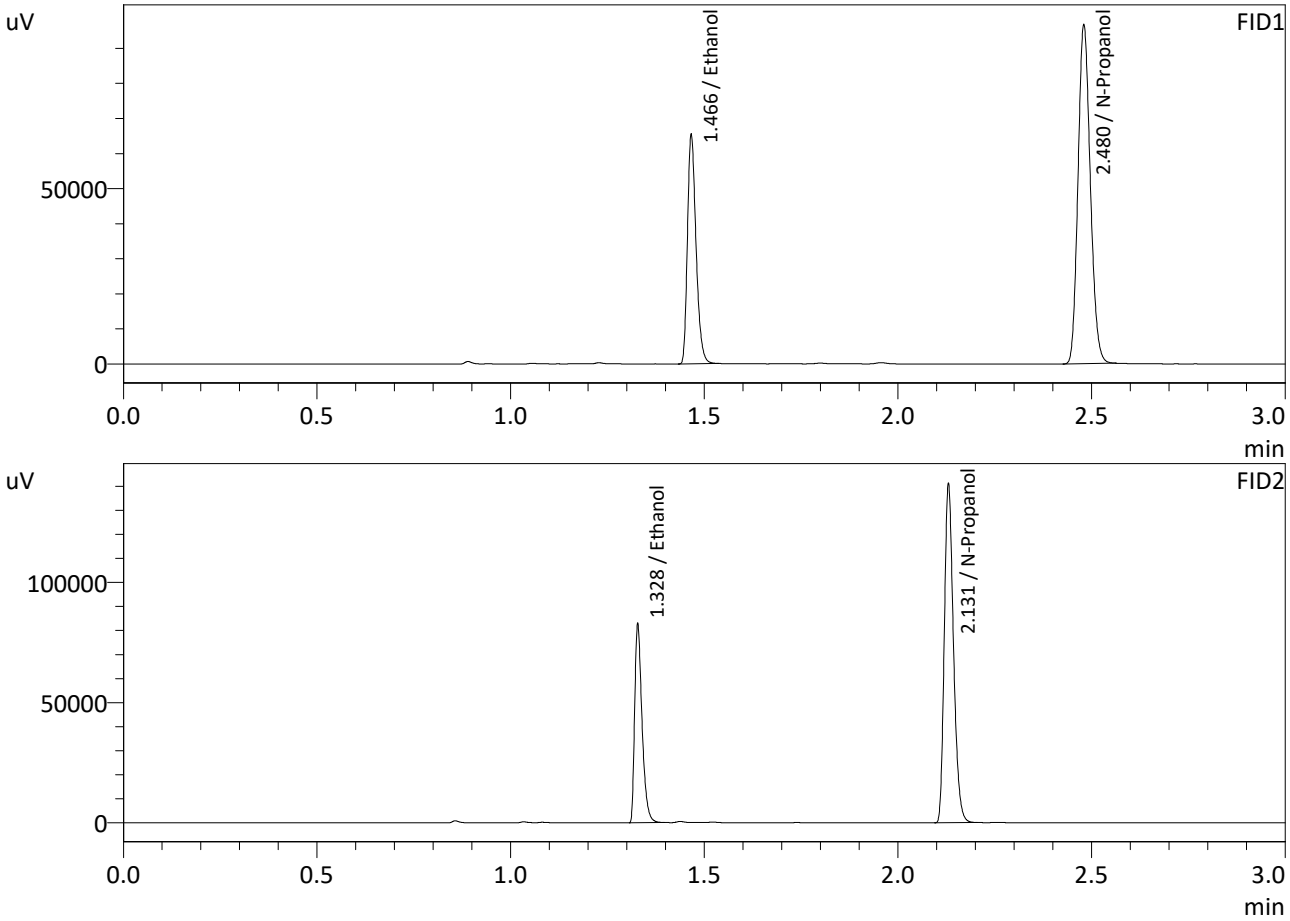
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2175 | 97835 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 209989 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2177 | 106477 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 229017 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : QC-2-1-B
Laboratory : Meridian
Injection Date : 11/22/2022 7:27:28 PM
Vial # : 26
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2202 | 100494 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 213080 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2204 | 109307 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 232284 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.:QC 2-2** **Item #** **Analysis Date(s): 11/22/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.2175 | 0.2175 | 0.0000 | 0.2175 | 0.0045 | 0.2197 |
| (g/100cc) | 0.2219 | 0.2221 | 0.0002 | 0.2220 | | |

## 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 |
|---|---|---|---|
| **0.219** | **0.208** | **0.230** | **0.011** |

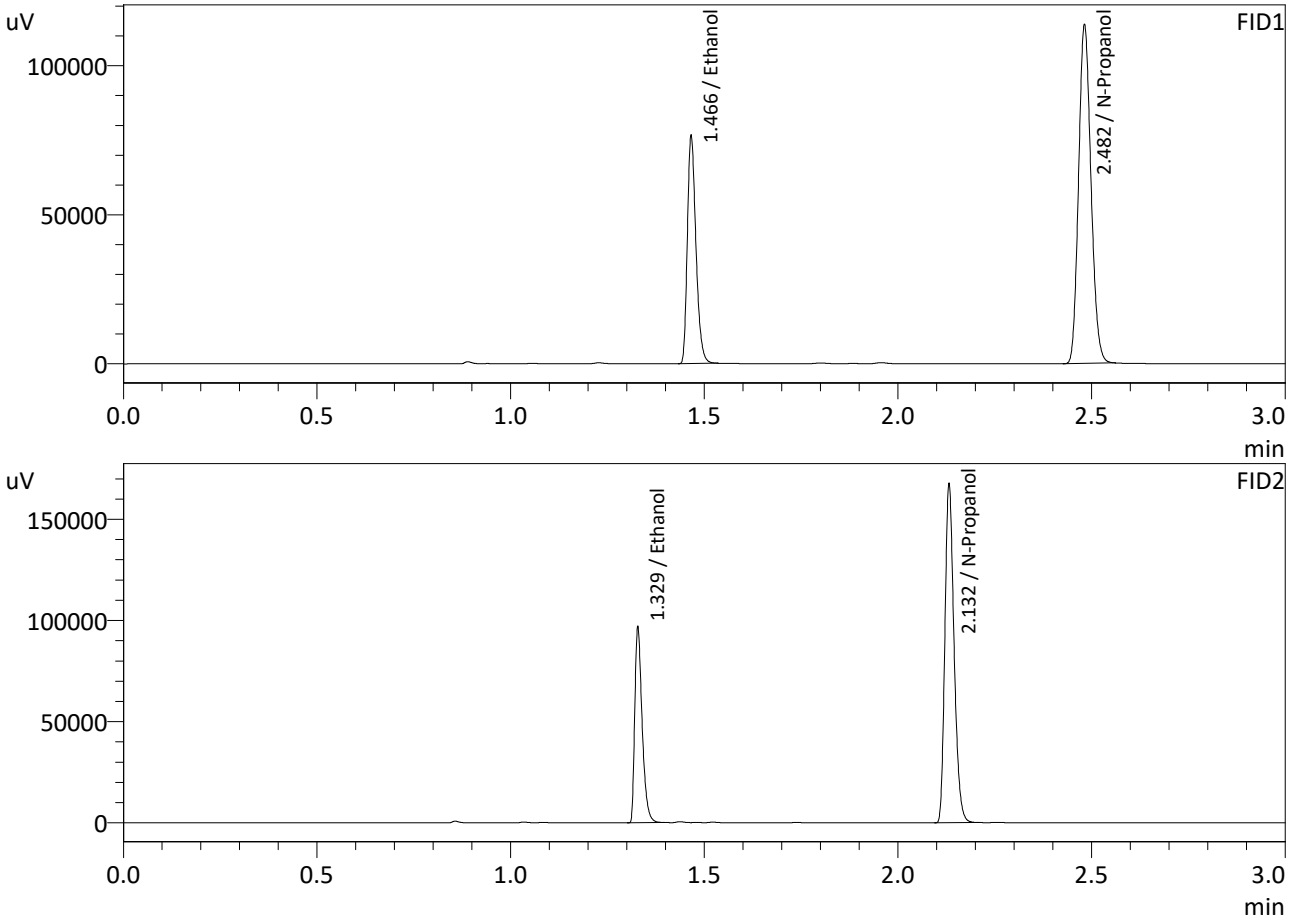
**Reported Result**

**0.219**

***Calibration and control data are stored centrally.***

JG

Sample Name : QC2-2-A
Laboratory : Meridian
Injection Date : 11/23/2022 1:19:46 AM
Vial # : 69
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

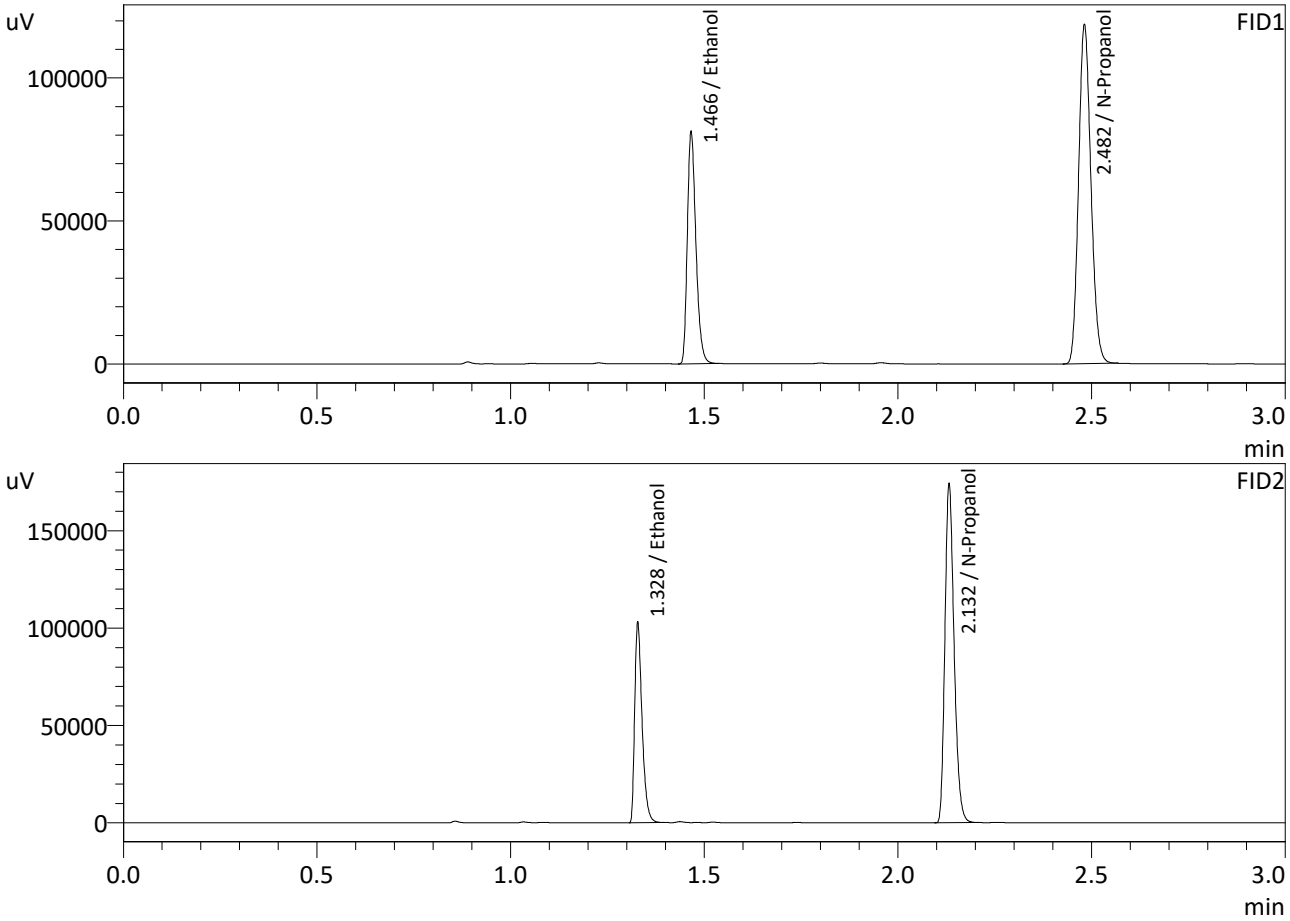
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2175 | 117630 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 252404 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2175 | 127927 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 275367 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : QC2-2-B
Laboratory : Meridian
Injection Date : 11/23/2022 1:27:02 AM
Vial # : 70
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2219 | 124840 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 262620 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.2221 | 135704 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 286202 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

# VOLATILES BAC CASEFILE WORKSHEET

**Laboratory No.:0.080 QA** **Item #** **Analysis Date(s): 11/22/22**

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Sample A-B Difference | Over-all Mean |
|---|---|---|---|---|---|---|
| Sample Results | 0.0757 | 0.0756 | 0.0001 | 0.0756 | 0.0016 | 0.0764 |
| (g/100cc) | 0.0773 | 0.0771 | 0.0002 | 0.0772 | | |

**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 |
|---|---|---|---|
| **0.076** | **0.072** | **0.080** | **0.004** |

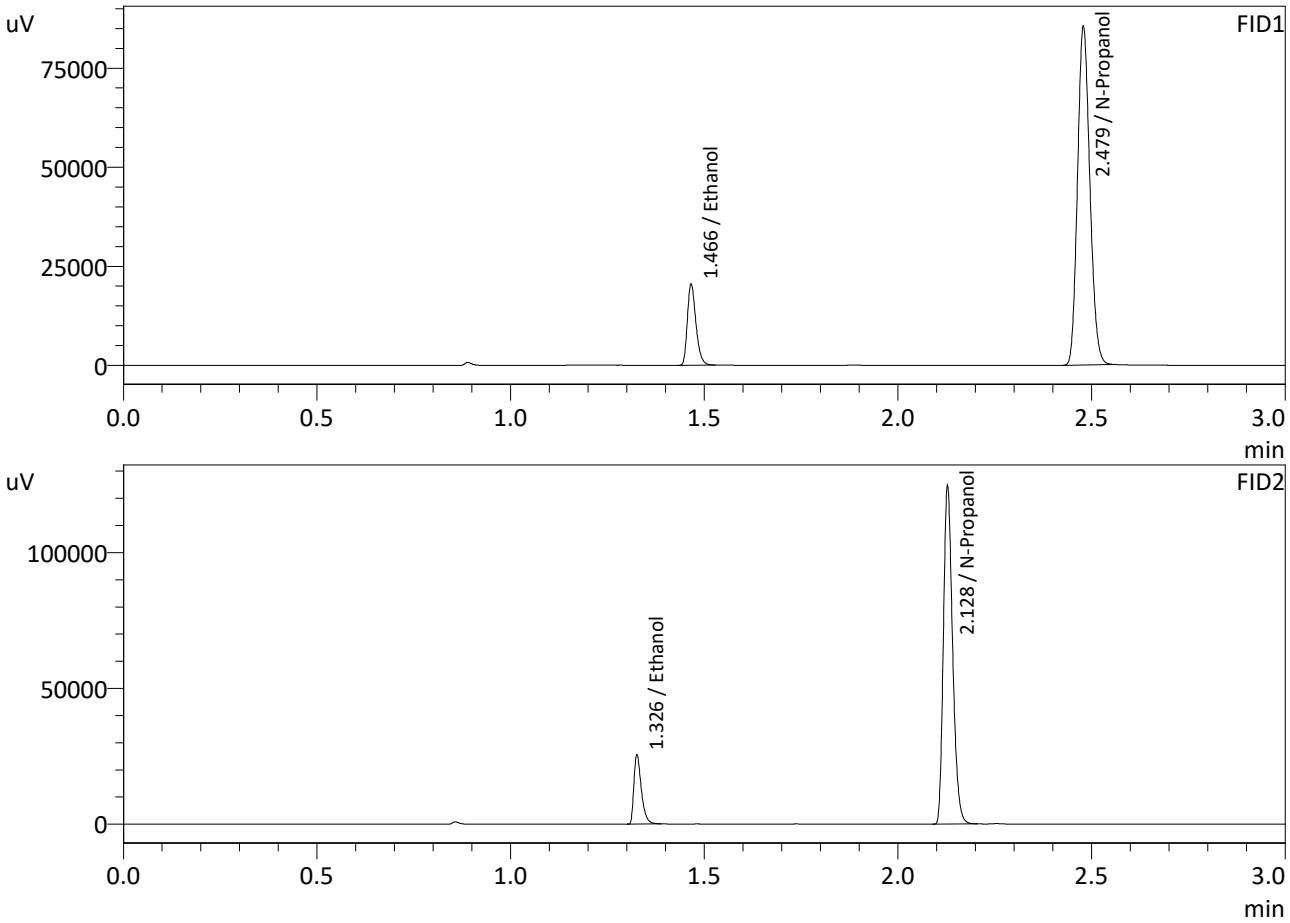
**Reported Result**

**0.076**

***Calibration and control data are stored centrally.***

JG

Sample Name : 0.08 QA-A
Laboratory : Meridian
Injection Date : 11/22/2022 4:35:46 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

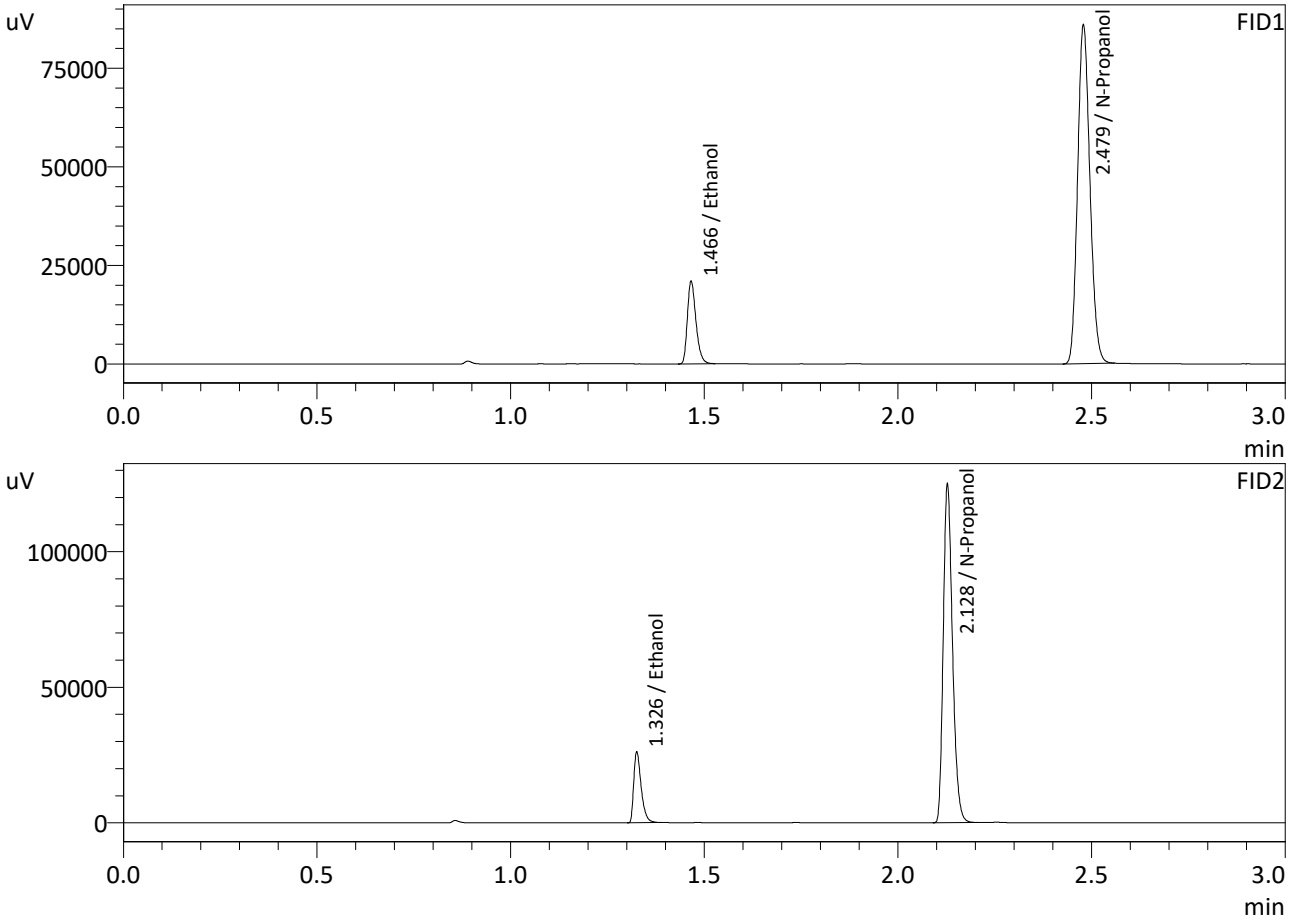
| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0757 | 31486 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 189149 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0756 | 34073 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 206141 | g/100cc |
| Flour. Hydrocarbon(s) | -- | -- | g/100cc |

JG

Sample Name : 0.08 QA-B
Laboratory : Meridian
Injection Date : 11/22/2022 4:44:34 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\221122\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409




FID1

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0773 | 32218 | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| Acetone | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 189716 | g/100cc |
| Fluor. Hydrocarbon(s) | -- | -- | g/100cc |

FID2

| Name | Conc. | Area | Unit |
|---|---|---|---|
| Methanol | -- | -- | g/100cc |
| Ethanol | 0.0771 | 34830 | g/100cc |
| Acetone | -- | -- | g/100cc |
| Isopropyl Alcohol | -- | -- | g/100cc |
| N-Propanol | 0.0000 | 206642 | 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


| Vial# | Sample Name | Sample Type | Level# | Method File |
|---|---|---|---|---|
| 1 | INT STD BLK 1 | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 2 | ED VOLATILES FN 0604 | 0:Unknown | 1 | s\Data\221122\CALIBRATION\AI |
| 3 | QC-1-1-A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 4 | QC-1-1-B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 5 | 0.08 QA-A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 6 | 0.08 QA-B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 7 | M2022-4629-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 8 | M2022-4629-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 9 | M2022-4633-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 10 | M2022-4633-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 11 | M2022-4638-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 12 | M2022-4638-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 13 | M2022-4641-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 14 | M2022-4641-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 15 | M2022-4658-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 16 | M2022-4658-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 17 | M2022-4666-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 18 | M2022-4666-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 19 | M2022-4667-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 20 | M2022-4667-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 21 | M2022-4675-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 22 | M2022-4675-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 23 | M2022-4676-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 24 | M2022-4676-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 25 | QC-2-1-A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 26 | QC-2-1-B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 27 | M2022-4679-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 28 | M2022-4679-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 29 | M2022-4680-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 30 | M2022-4680-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 31 | M2022-4701-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 32 | M2022-4701-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 33 | M2022-4702-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 34 | M2022-4702-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 35 | M2022-4703-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 36 | M2022-4703-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 37 | M2022-4704-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 38 | M2022-4704-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 39 | M2022-4709-2A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 40 | M2022-4709-2B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 41 | M2022-4713-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 42 | M2022-4713-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 43 | M2022-4737-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 44 | M2022-4737-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 45 | M2022-4738-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 46 | M2022-4738-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 47 | QC1-2-A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 48 | QC1-2-B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 49 | M2022-4739-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 50 | M2022-4739-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 51 | M2022-4740-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 52 | M2022-4740-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 53 | M2022-4741-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 54 | M2022-4741-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 55 | M2022-4742-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 56 | M2022-4742-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 57 | M2022-4757-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 58 | M2022-4757-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 59 | M2022-4758-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |

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| Vial# | Sample Name | Sample Type | Level# | Method File |
|---|---|---|---|---|
| 60 | M2022-4758-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 61 | M2022-4759-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 62 | M2022-4759-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 63 | M2022-4816-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 64 | M2022-4816-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 65 | M2022-4817-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 66 | M2022-4817-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 67 | P2022-3374-1A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 68 | P2022-3374-1B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 69 | QC2-2-A | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 70 | QC2-2-B | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |
| 71 | INT STD BLK | 0:Unknown | 0 | s\Data\221122\CALIBRATION\AI |

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