REVIEWED
By Melissa (Nikka) Bradley at 1:27 pm, May 04, 2022

NB

5/4/2022

Worklist: 5852

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2022-1607	1	BCK	Alcohol Analysis
M2022-1633	1	BCK	Alcohol Analysis
M2022-1634	1	BCK	Alcohol Analysis
M2022-1635	1	BCK	Alcohol Analysis
M2022-1636	1	BCK	Alcohol Analysis
M2022-1670	1	BCK	Alcohol Analysis
M2022-1689	1	BCK	Alcohol Analysis
M2022-1703	1	BCK	Alcohol Analysis
M2022-1707	1	BCK	Alcohol Analysis
M2022-1708	1	BCK	Alcohol Analysis
M2022-1739	1	BCK	Alcohol Analysis
M2022-1742	1	BCK	Alcohol Analysis
M2022-1775	1	BCK	Alcohol Analysis
M2022-1776	1	BCK	Alcohol Analysis
M2022-1783	1	BCK	Alcohol Analysis
M2022-1784	1	BCK	Alcohol Analysis
M2022-1785	1	BCK	Alcohol Analysis
M2022-1786	1	BCK	Alcohol Analysis

Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: L600HC11378

Volatiles Quality Assurance Controls

Run Date(s): 5/3/2022

Calibration Date: 5/3/2022

Worklist #: 5852

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Jul-23	1907006	0.0764	0.0688-0.0840	0.0770 g/100cc
					0.0802 g/100cc
					g/100cc
Level 2	Jul-23	1907007	0.2170	0.1953-0.2387	0.2094 g/100cc
					g/100cc
					g/100cc

Multi-Component mixture:	**Exp:**	**7/1/2022**	**Lot #**	FN07101701		OK
Curve Fit:		**Column 1**	0.99960	**Column2**		0.99973

Ethanol Calibration Reference Material

Calibrator level	Target Value	Acceptable Range	Column 1	Column 2	Precision	Mean
50	0.050	0.045 - 0.055	0.0543	0.0534	0.0009	0.0538
100	0.100	0.090 - 0.110	0.0991	0.0991	0	0.0991
200	0.200	0.180 - 0.220	0.1947	0.1955	0.0008	0.1951
300	0.300	0.270 - 0.330	0.2997	0.3006	0.0009	0.3001
400	0.400	0.360 - 0.440			0	#DIV/0!
500	0.500	0.450 - 0.550	0.5019	0.5012	0.0007	0.5015

Internal Standard	Average	(-) 20%	(+) 20%
N-Propanol:	210261.1	168208.9	252313.3

Aqueous Controls

Control level	Target Value	Acceptable Range	Overall Results
80	0.080	0.076 - 0.084	0.081 g/100cc

Revision: 4
Issue Date: 01/24/2022
Issuing Authority: Quality Manager

Internal Standard Monitoring Worksheet

Worklist #: 5852 **Run Date(s):** 5/3/2022

Internal Standard Solution:	Prep Date: 2/2/2022	Exp Date: 8/2/2022

Sample Name	Column 1 Value	Column 2 Value	Average
0.080	195537	184784	190160.5
0.080	191697	181067	186382
QC1-1 A	196337	185648	190992.5
QC1-1 B	193335	182998	188166.5
QC1-2 A	249228	234831	242029.5
QC1-2 B	254220	239072	246646
QC2-1 A	220002	207419	213710.5
QC2-1 B	230680	217322	224001
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!

Combined Average	(-)20%	(+)20%
210261.1	168208.9	252313.3

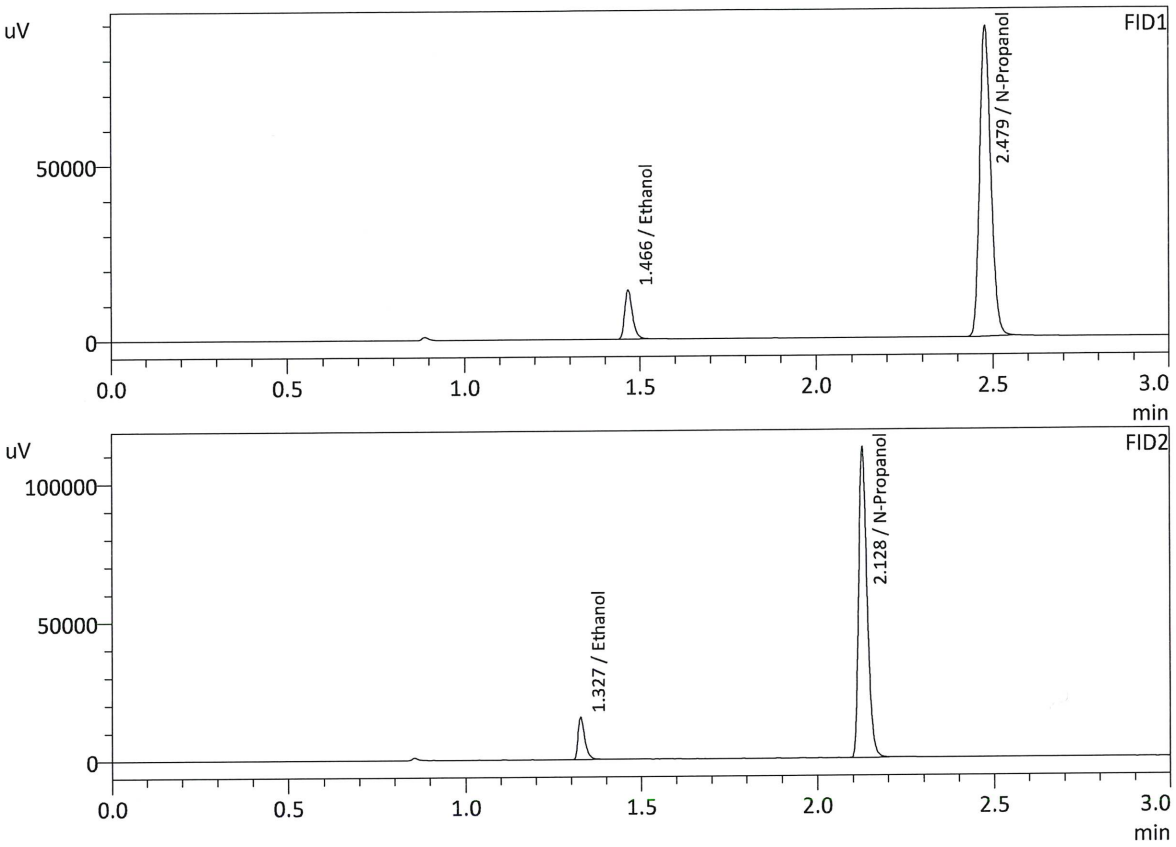
Revision: 4
Issue Date: 01/24/2022
Issuing Authority: Quality Manager

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	0.050	1:Standard:(I)	1	s\Data\220503\CALIBRATION\AI
2	0.100	1:Standard	2	s\Data\220503\CALIBRATION\AI
3	0.200	1:Standard	3	s\Data\220503\CALIBRATION\AI
4	0.300	1:Standard	4	s\Data\220503\CALIBRATION\AI
5	0.500	1:Standard	5	s\Data\220503\CALIBRATION\AI
6	INT STD BLNK	0:Unknown	0	s\Data\220503\CALIBRATION\AI

Sample Name : 0.050
Laboratory : Meridian
Injection Date : 5/3/2022 10:03:33 AM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



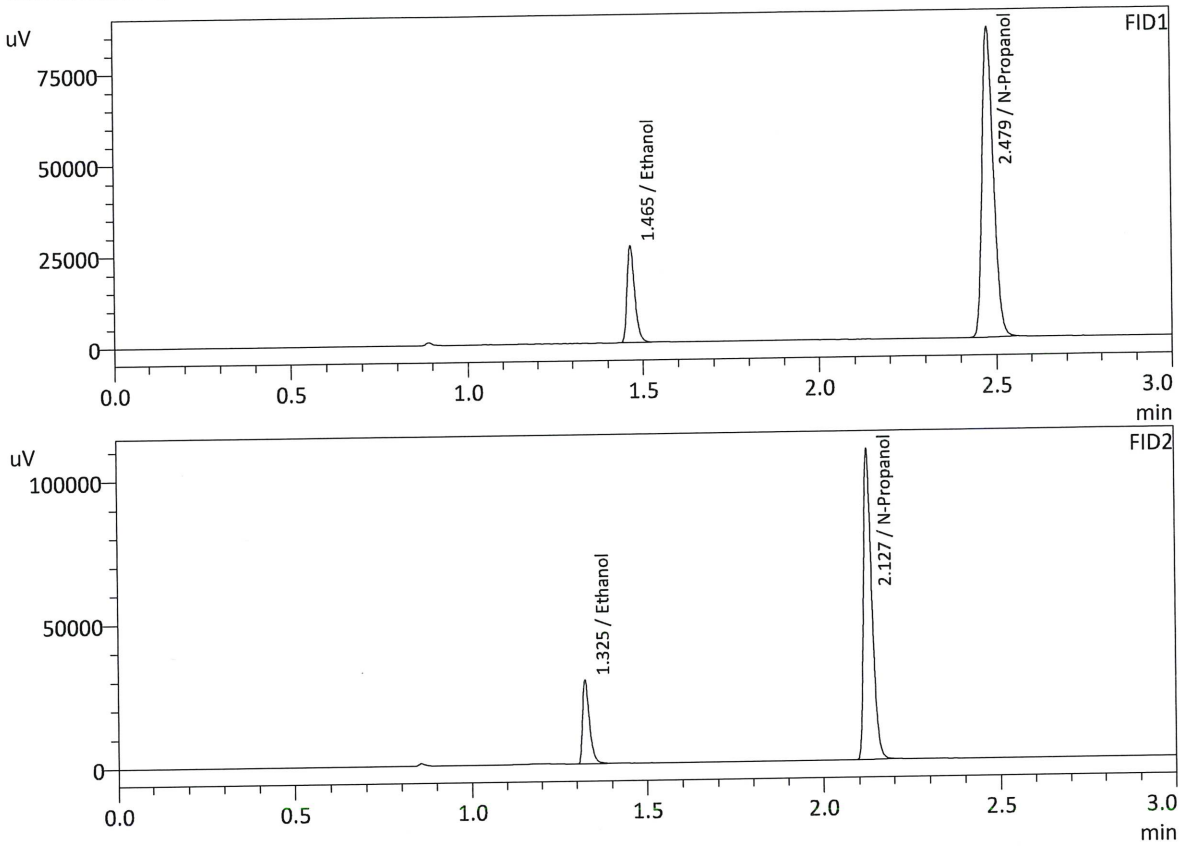
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0543	21185	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	195440	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0534	20423	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	185253	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 0.100
Laboratory : Meridian
Injection Date : 5/3/2022 10:10:54 AM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



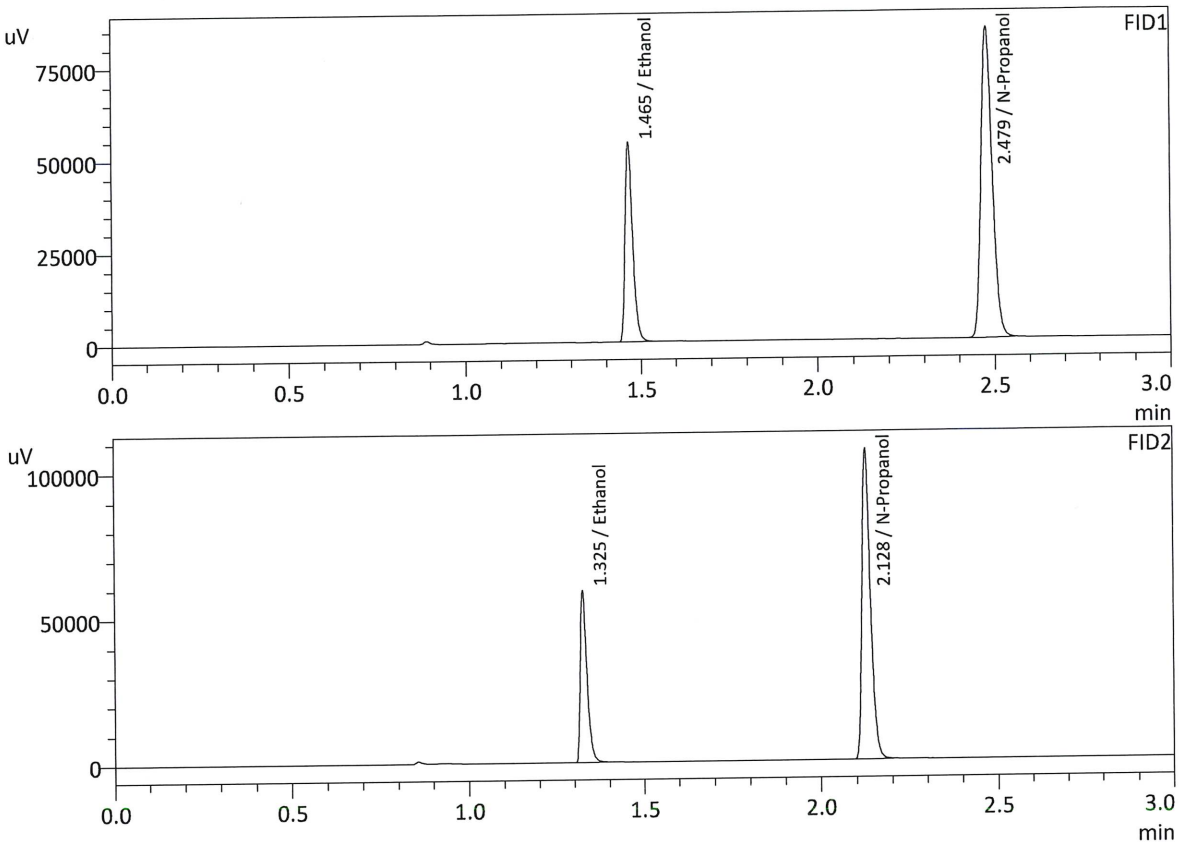
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0991	40275	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	187853	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0991	38551	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	177786	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 0.200
Laboratory : Meridian
Injection Date : 5/3/2022 10:18:30 AM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



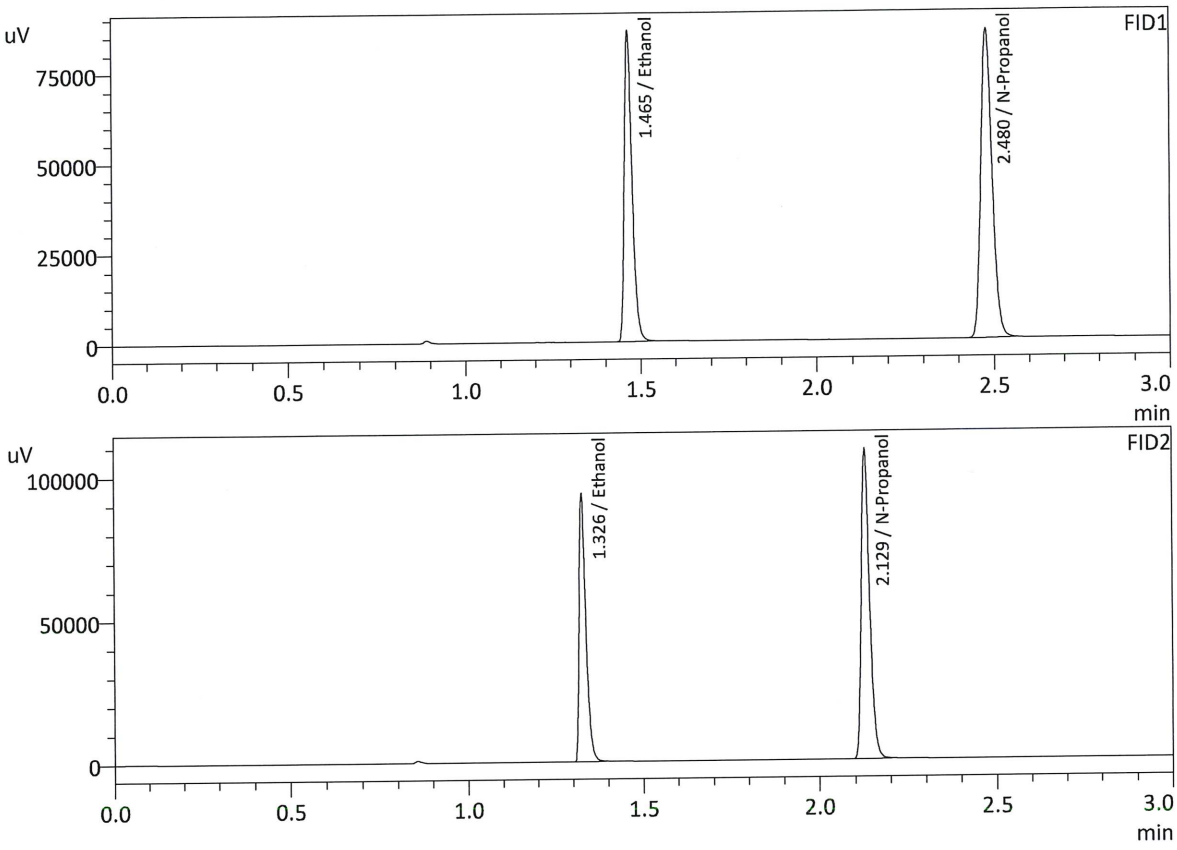
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1947	81818	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	185656	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1955	77552	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	175766	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 0.300
Laboratory : Meridian
Injection Date : 5/3/2022 10:26:57 AM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



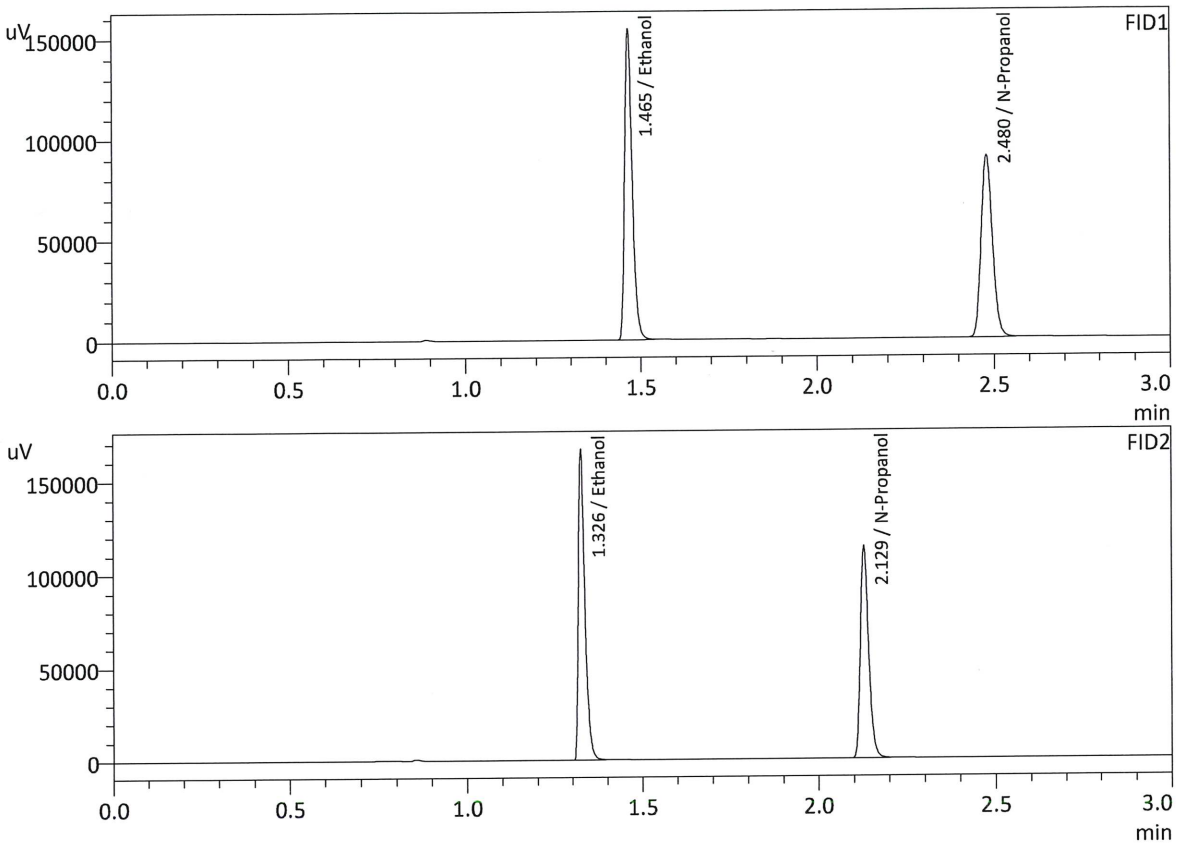
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2997	130498	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	189360	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.3006	122830	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	179031	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 0.500
Laboratory : Meridian
Injection Date : 5/3/2022 10:34:43 AM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



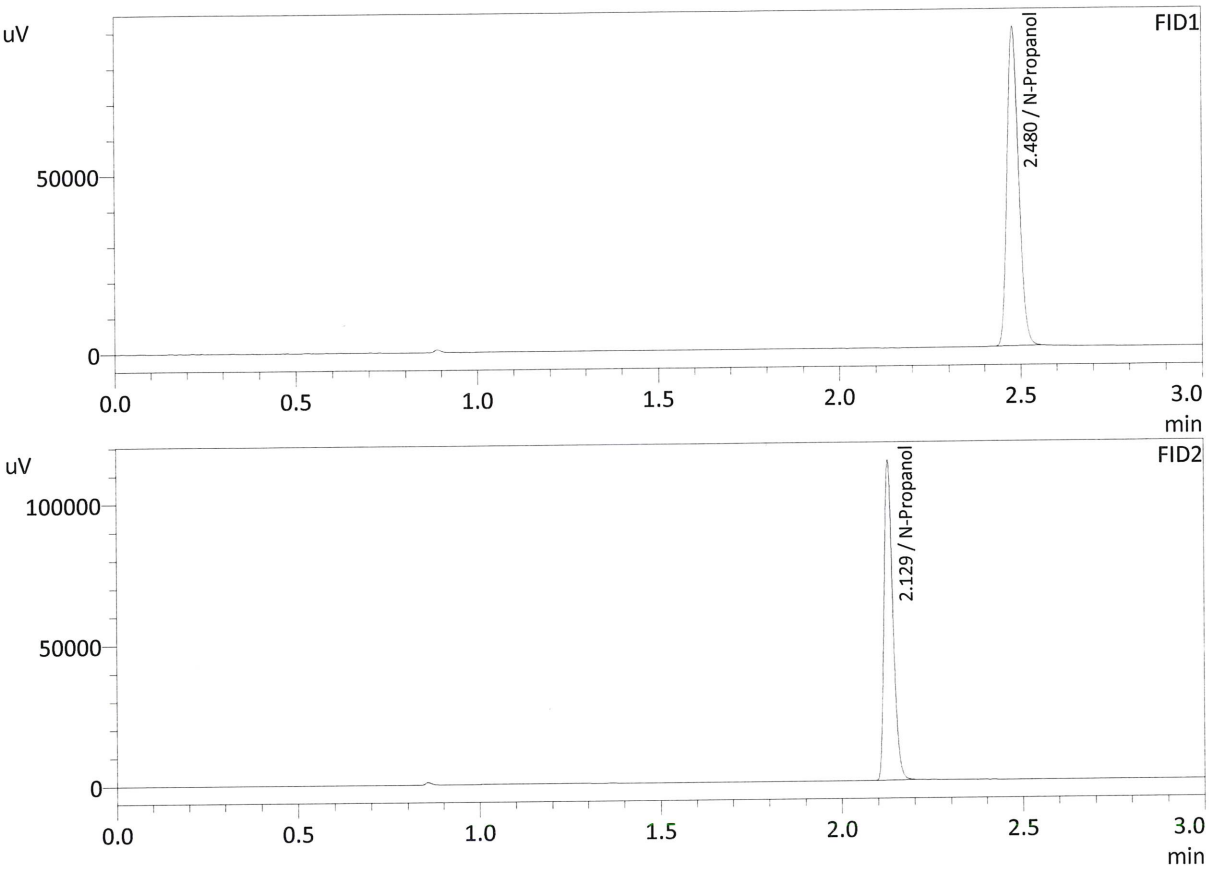
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.5019	232702	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	199308	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.5012	216806	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	188017	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : INT STD BLNK
Laboratory : Meridian
Injection Date : 5/3/2022 10:43:21 AM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220503\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	198294	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

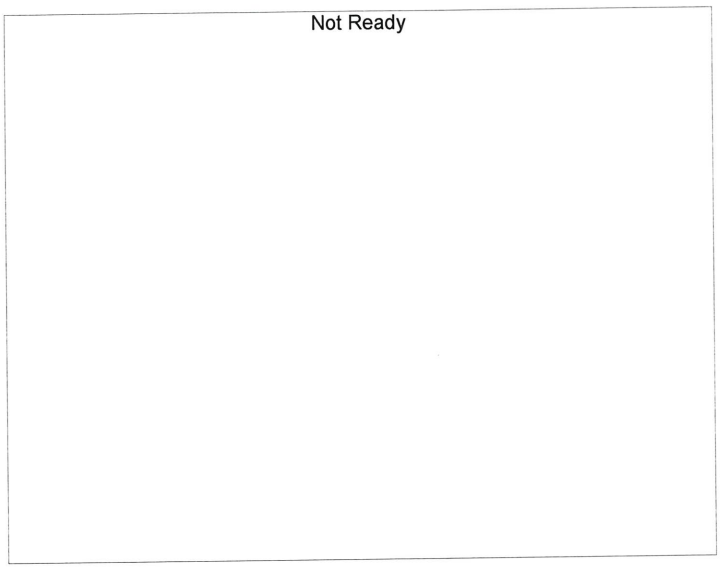
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	187627	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Calibration Table

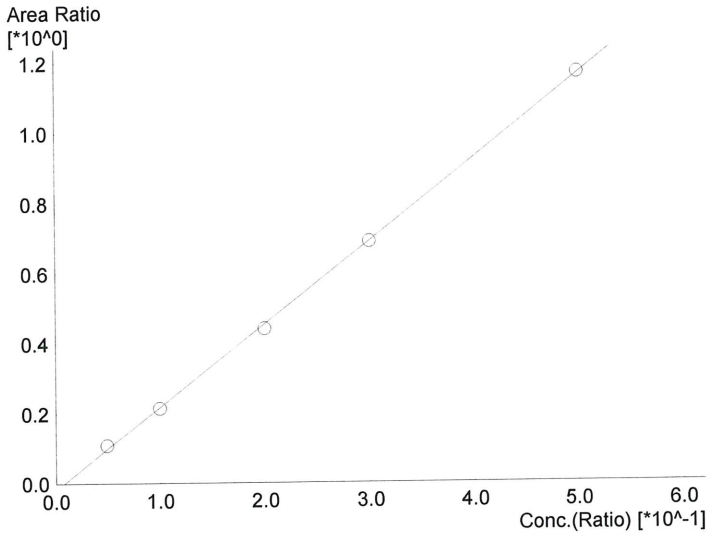
Laboratory : MERIDIAN
Instrument Name : GC-HS
Instrument Serial # : C12595800409 / C12255750548

<<Data File>>
Method File :C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Batch File :C:\LabSolutions\Data\220415\CALIBRATION\CALCURVE_TEMPLATE.gcb
Date Acquired :5/3/2022 10:34:43 AM
Date Created :5/3/2022 10:30:06 AM
Date Modified :5/3/2022 10:37:44 AM



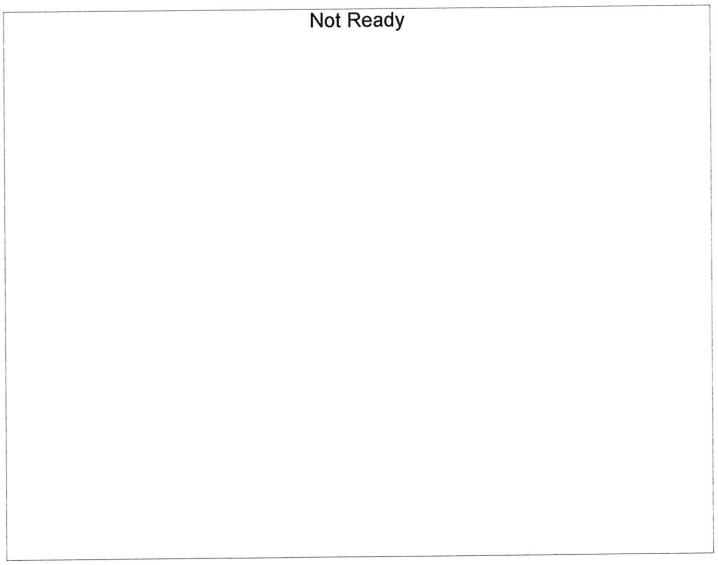
Name : Methanol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



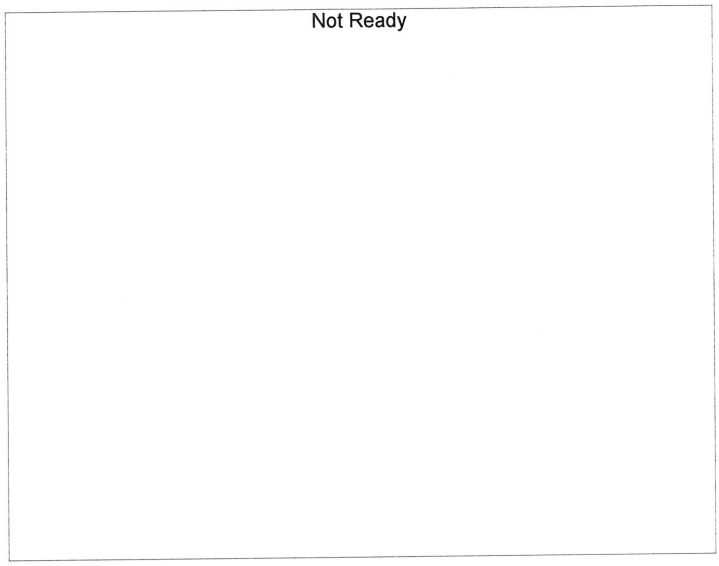
Name : Ethanol
Detector Name: FID1
Function : f(x)=2.36621*x-0.0201898
R^2 value= 0.9996036
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	21185	0.0543
2	0.100	40275	0.0991
3	0.200	81818	0.1947
4	0.300	130498	0.2997
5	0.500	232702	0.5019



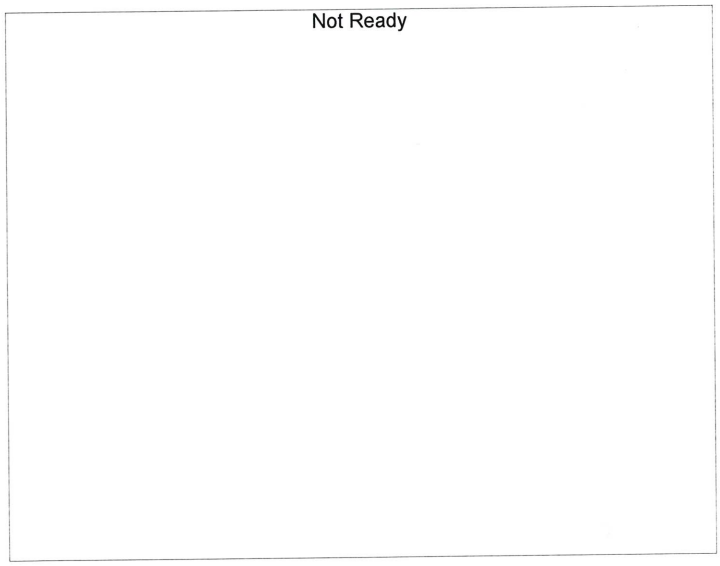
Name : Isopropyl Alcohol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



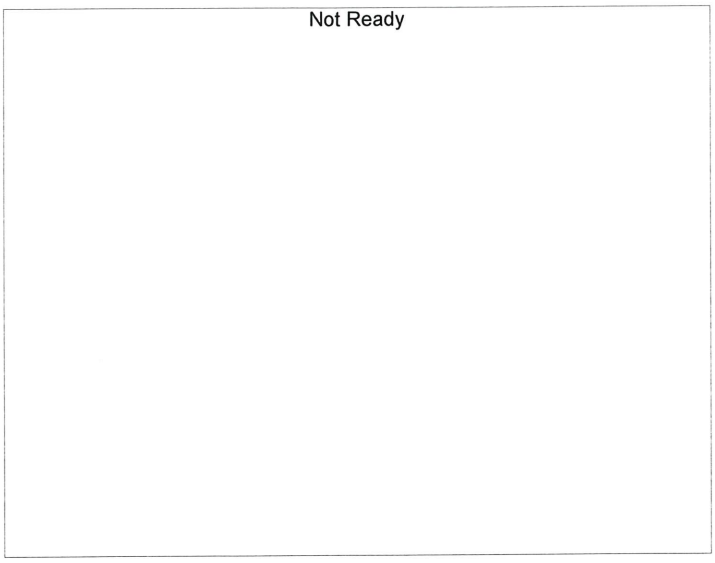
Name : Acetone
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



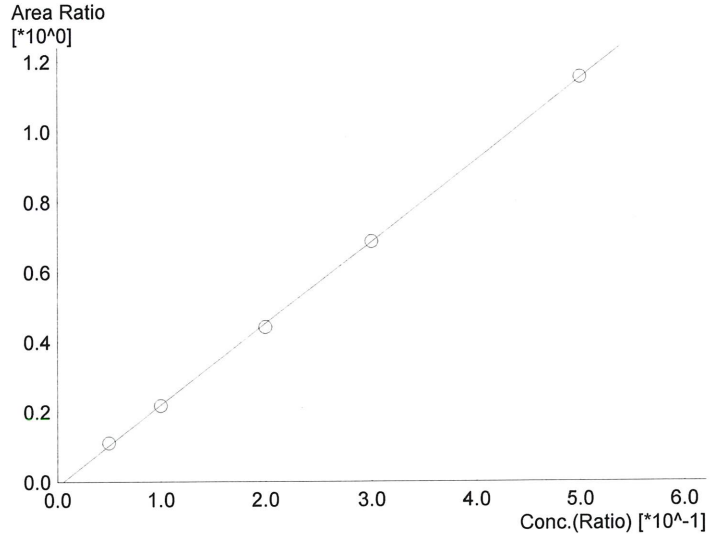
Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



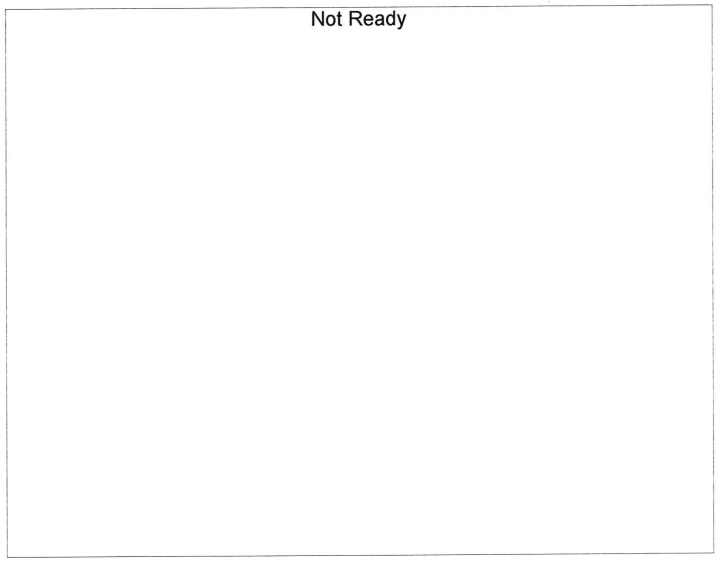
Name : Methanol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



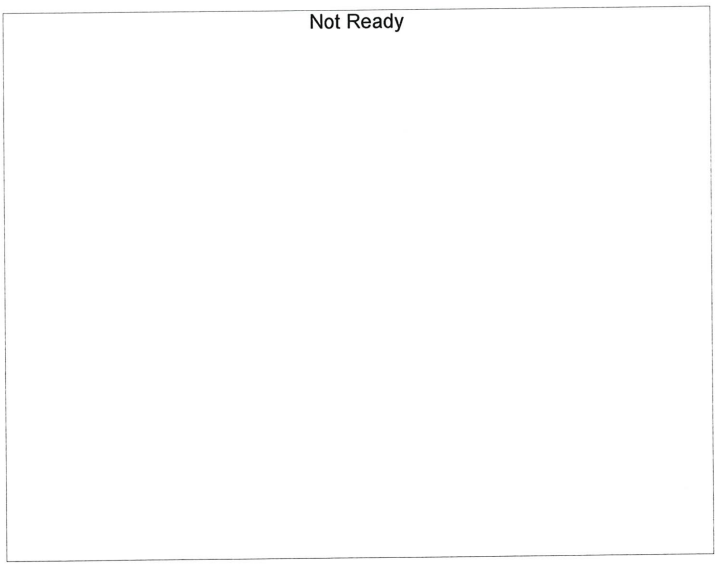
Name : Ethanol
Detector Name: FID2
Function : f(x)=2.32891*x-0.0141465
R^2 value= 0.9997329
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.
1	0.050	20423	0.0534
2	0.100	38551	0.0991
3	0.200	77552	0.1955
4	0.300	122830	0.3006
5	0.500	216806	0.5012



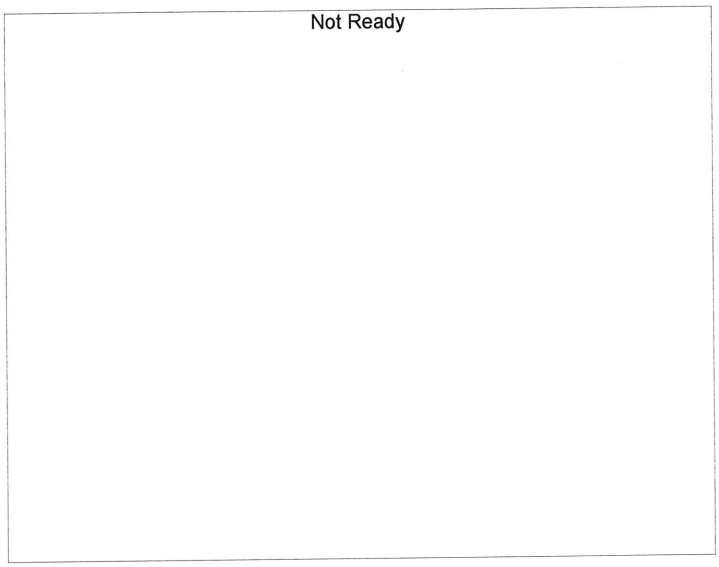
Name : Acetone
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



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.

Idaho State Police
Forensic Services

Request for Departure from an Analytical Method or Quality Standard

Deviation Number (assigned by QM):

Date of Request: **1/21/2022**

Requestor/Discipline: Melissa (Nikka) Bradley/Blood Alcohol

Analytical Method/Quality Standard, Revision #: AM#1 Analysis for Volatiles by Headspace GC/ 4.3.9

Temporary or Permanent Deviation: Permanent

Scope of Deviation There is a noticeable increased drift of internal standard (n-propanol signals) from the calibrators, beginning of the run and towards the end of the sample run that is consistent in multiple batches of blood alcohol runs. Because all the samples that are analyzed are being compared to calibrators that are performed at the beginning of the run, the n-propanol signal of end samples tend to be outside or close to being outside of the +/- 20% of the mean value from the calibration curve used Despite this drift the values of known control samples are within acceptable limits.

Deviation Request

4.3.9.1.1 The average values for the internal standard will be established by averaging the IS counts throughout the calibration curve samples.

Requesting that the internal standard monitoring average be changed to average the aqueous and matrix controls within the run.

> 4.3.9.1.1 The average values for the internal standard will be established by averaging the IS counts from the aqueous control and all matrix blood control samples.

Technical Justification for Analytical Method Deviations:
The designed purpose of the internal standard monitoring is to evaluate the quality of injection of each sample. There is a gradual increase of internal standard response from the beginning of the batch (calibrators and early samples) to the end that is inherent to the current instrument set up as shown in trends from previous batches in multiple laboratories. Attempts to pre-condition/warm up the instrument using by running a pre-batch sequence utilizing old calibrator/blank samples prior to running a new calibration curve did not appear to minimize this occurrence. Furthermore, it can be seen that the drifting trend is not due to the extraction procedure because some of the later batch samples were extracted prior to the samples that are injected during the run. It is worth noting that despite this

trend, the values of the known control samples are still within the specified acceptable range. By utilizing known control n-propanol signals throughout the batch, any potential drift will be taken into account while still being able to monitor a possible mis-injection or partial injection throughout the batch/sequence.

This deviation will have an expiration date of July 1st, 2022.

Technical Review

☒ Departure approved
Comments: Forms will be updated to reflect the new process concurrent with the deviation.

☐ Departure Not Approved
Comments:

Approver: Jeremy Foth Date: 1/21/22
Title: Discipline Lead

Quality Review

Quality Approver:
Title:
Date:

5/4/22

The final blank (vial #49) of the Worklist 5852 ran on 5/3/22 had Internal Standard values outside the specified range for both detectors. This sample type is only used to qualitatively detect a presence of ethanol, and the internal standard is not a factor in that determination. Therefore, the test results are valid and were not impacted by the Internal Standard recovery.

Additionally, the Blood Alcohol Analytical Method AM #1 section 4.2.2.3.1 (revision 9) requires each analysis run to contain an internal standard blank. This criterium was fulfilled with the blank at the beginning of the run (vial #1) having Internal Standard values in the specified range.

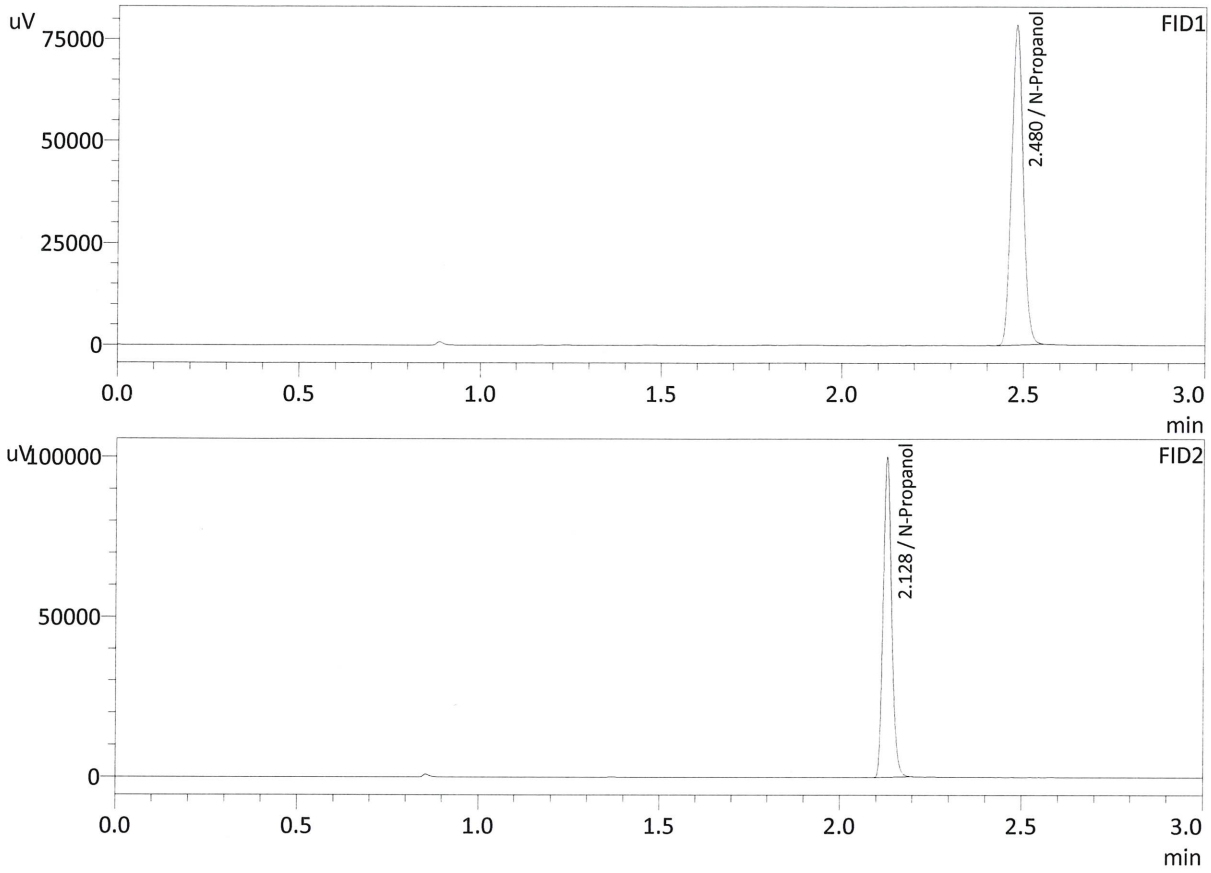
5/4/22

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	INT STD BLK 1	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
2	ED VOLATILES FN 0710	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
3	QC-1-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
4	QC-1-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
5	0.08 QA-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
6	0.08 QA-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
7	M2022-1607-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
8	M2022-1607-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
9	M2022-1633-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
10	M2022-1633-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
11	M2022-1634-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
12	M2022-1634-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
13	M2022-1635-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
14	M2022-1635-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
15	M2022-1636-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
16	M2022-1636-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
17	M2022-1670-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
18	M2022-1670-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
19	M2022-1689-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
20	M2022-1689-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
21	M2022-1703-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
22	M2022-1703-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
23	2110181-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
24	2110181-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
25	QC-2-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
26	QC-2-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
27	M2022-1707-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
28	M2022-1707-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
29	M2022-1708-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
30	M2022-1708-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
31	M2022-1739-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
32	M2022-1739-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
33	M2022-1742-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
34	M2022-1742-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
35	M2022-1775-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
36	M2022-1775-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
37	M2022-1776-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
38	M2022-1776-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
39	M2022-1783-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
40	M2022-1783-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
41	M2022-1784-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
42	M2022-1784-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
43	M2022-1785-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
44	M2022-1785-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
45	M2022-1786-1-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
46	M2022-1786-1-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
47	QC1-2-A	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
48	QC1-2-B	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
49	INT STD BLNK	C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM

Sample Name : INT STD BLK 1
Laboratory : Meridian
Injection Date : 5/3/2022 12:05:51 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



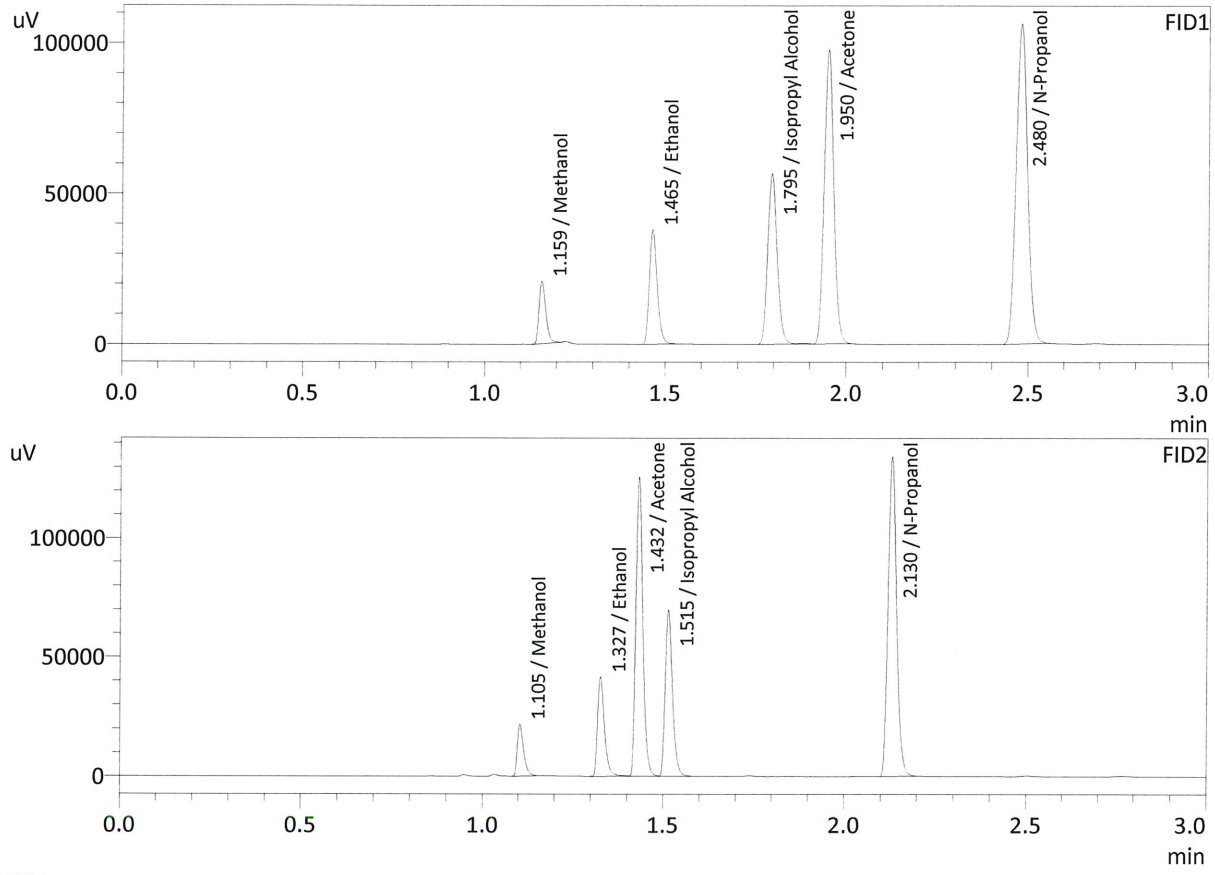
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	174434	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	165450	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : MIXED VOLATILES FN 07101701
Laboratory : Meridian
Injection Date : 5/3/2022 12:13:12 PM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	0.0000	27443	g/100cc
Ethanol	0.1120	57626	g/100cc
Isopropyl Alcohol	0.0000	103884	g/100cc
Acetone	0.0000	180107	g/100cc
N-Propanol	0.0000	235233	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	0.0000	27072	g/100cc
Ethanol	0.1138	55419	g/100cc
Acetone	0.0000	168048	g/100cc
Isopropyl Alcohol	0.0000	97649	g/100cc
N-Propanol	0.0000	220854	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

W

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QA 0.08 **Item #** **Analysis Date(s): 5/3/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0807	0.0805	0.0002	0.0806	0.0019	0.0815
(g/100cc)	0.0827	0.0824	0.0003	0.0825		

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

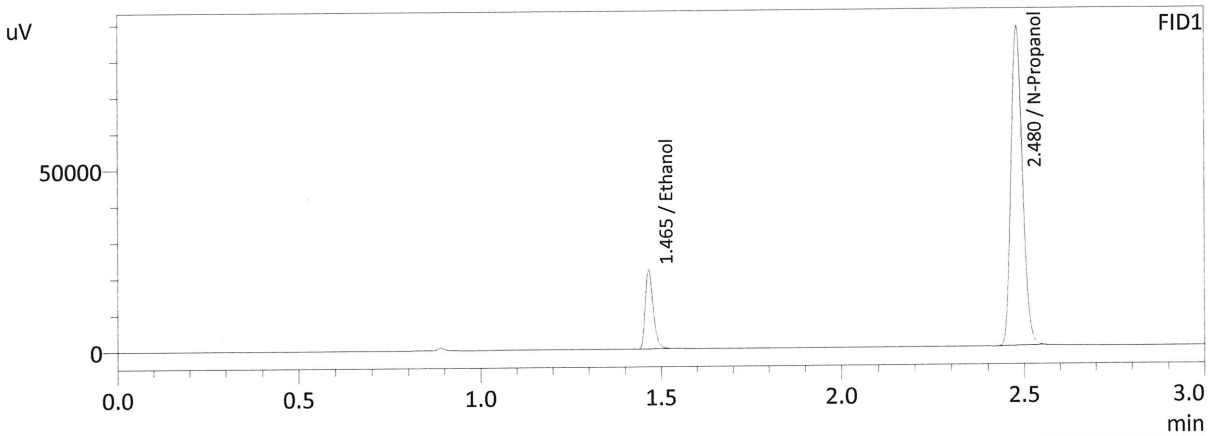
Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

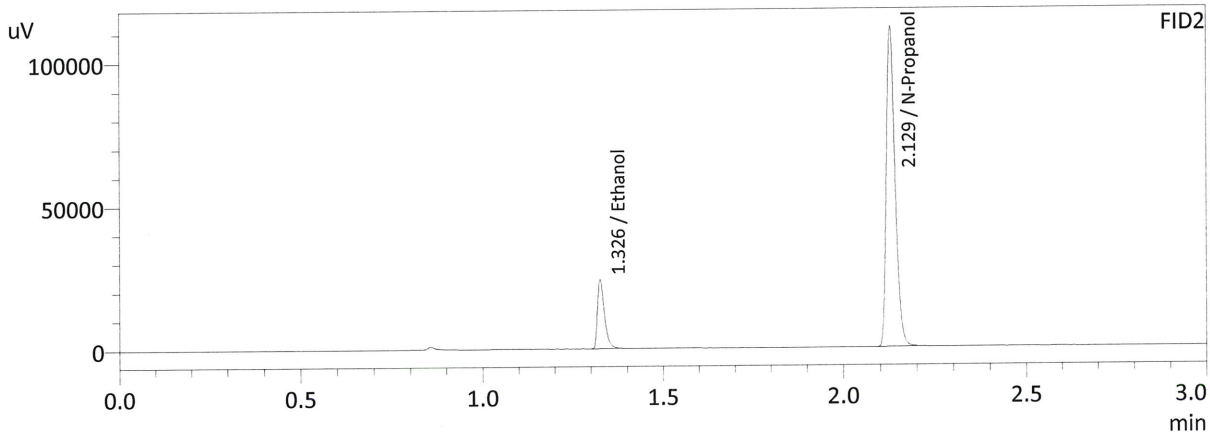
Overall Mean (g/100cc)	Low	High	5% of Mean
0.081	**0.076**	**0.086**	**0.005**

	Reported Result	
	0.081	

Calibration and control data are stored centrally.

Sample Name : 0.08 QA-A
Laboratory : Meridian
Injection Date : 5/3/2022 12:37:06 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





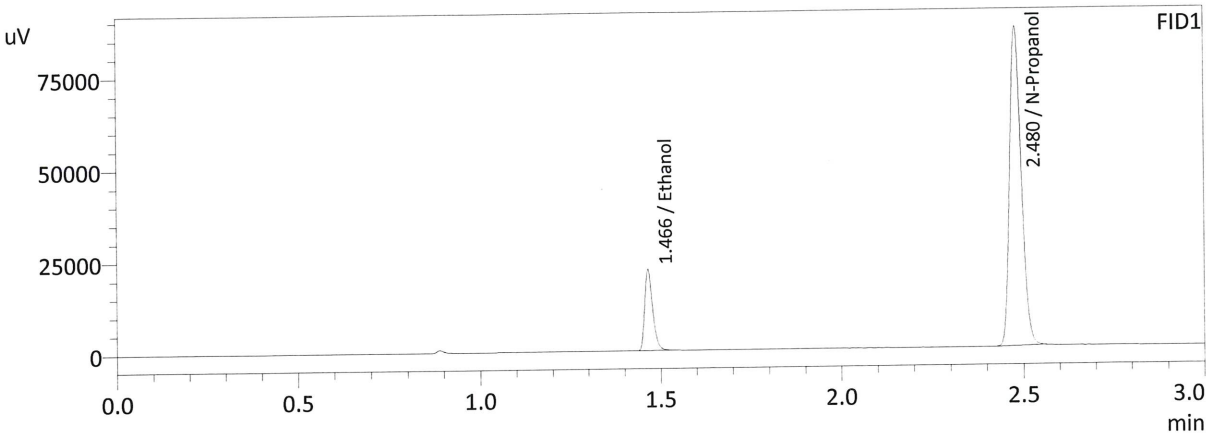
FID1

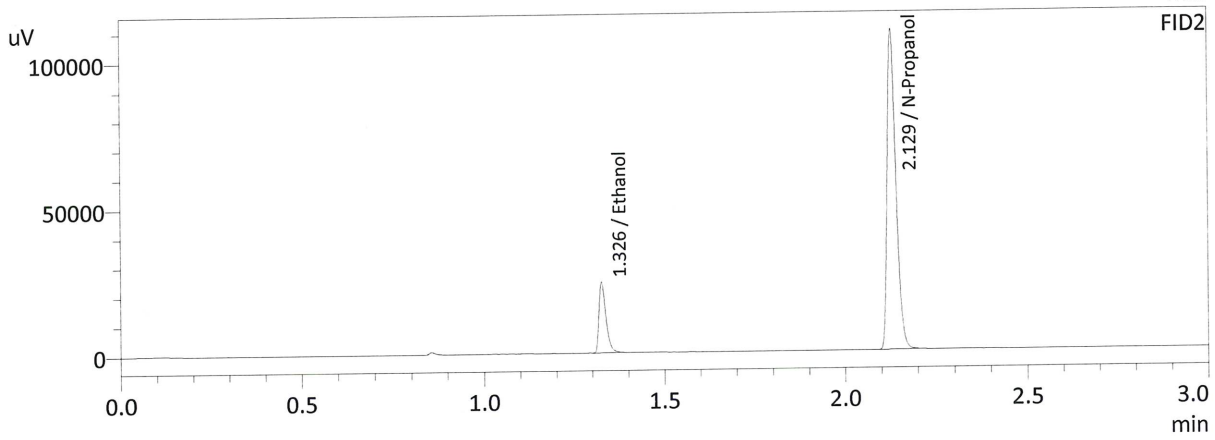
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0807	33434	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	195537	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0805	32029	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	184784	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 0.08 QA-B
Laboratory : Meridian
Injection Date : 5/3/2022 12:45:31 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0827	33648	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	191697	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0824	32210	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	181067	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-1 **Item #** **Analysis Date(s): 5/3/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0768	0.0765	0.0003	0.0766	0.0009	0.0770
(g/100cc)	0.0777	0.0773	0.0004	0.0775		

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%**

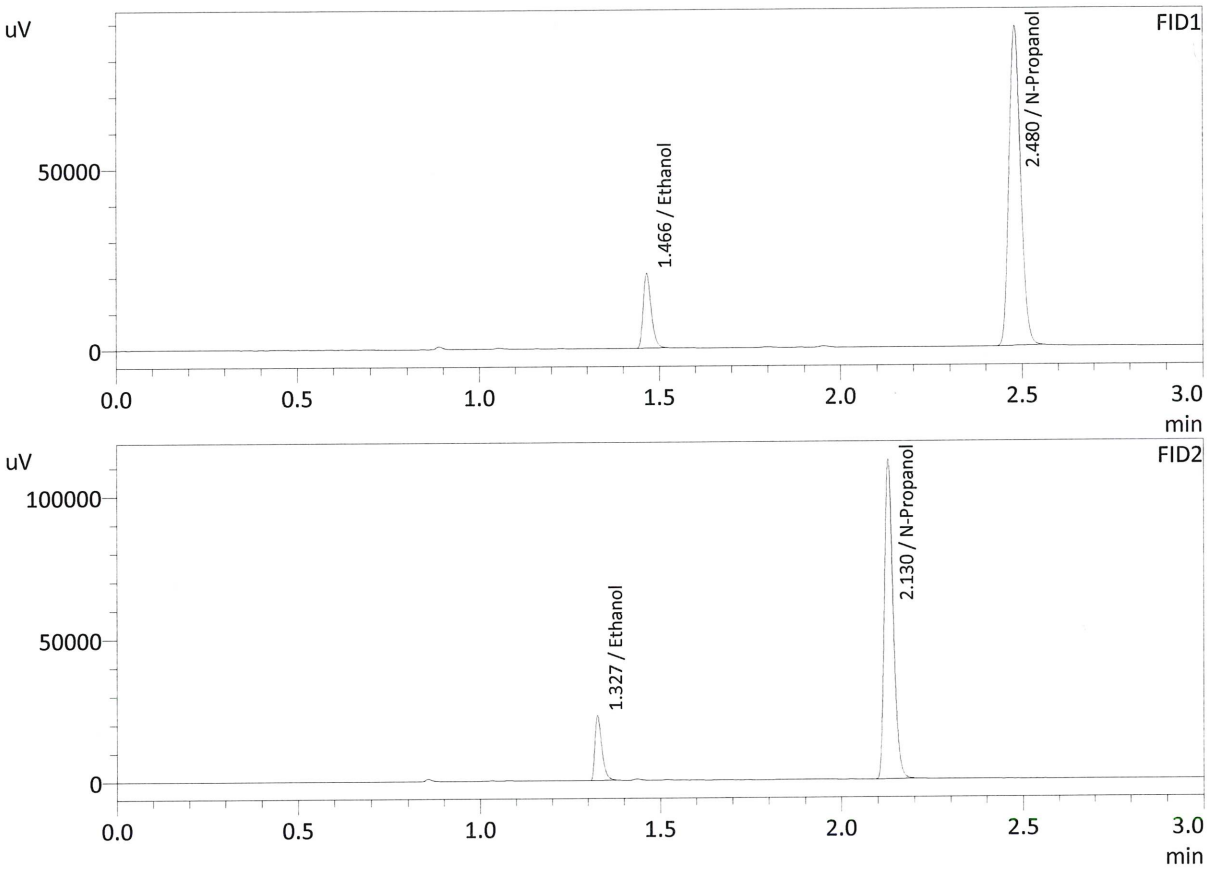
Overall Mean (g/100cc)	Low	High	5% of Mean
0.077	**0.073**	**0.081**	**0.004**

Reported Result

0.077

Calibration and control data are stored centrally.

Sample Name : QC-1-1-A
Laboratory : Meridian
Injection Date : 5/3/2022 12:20:30 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



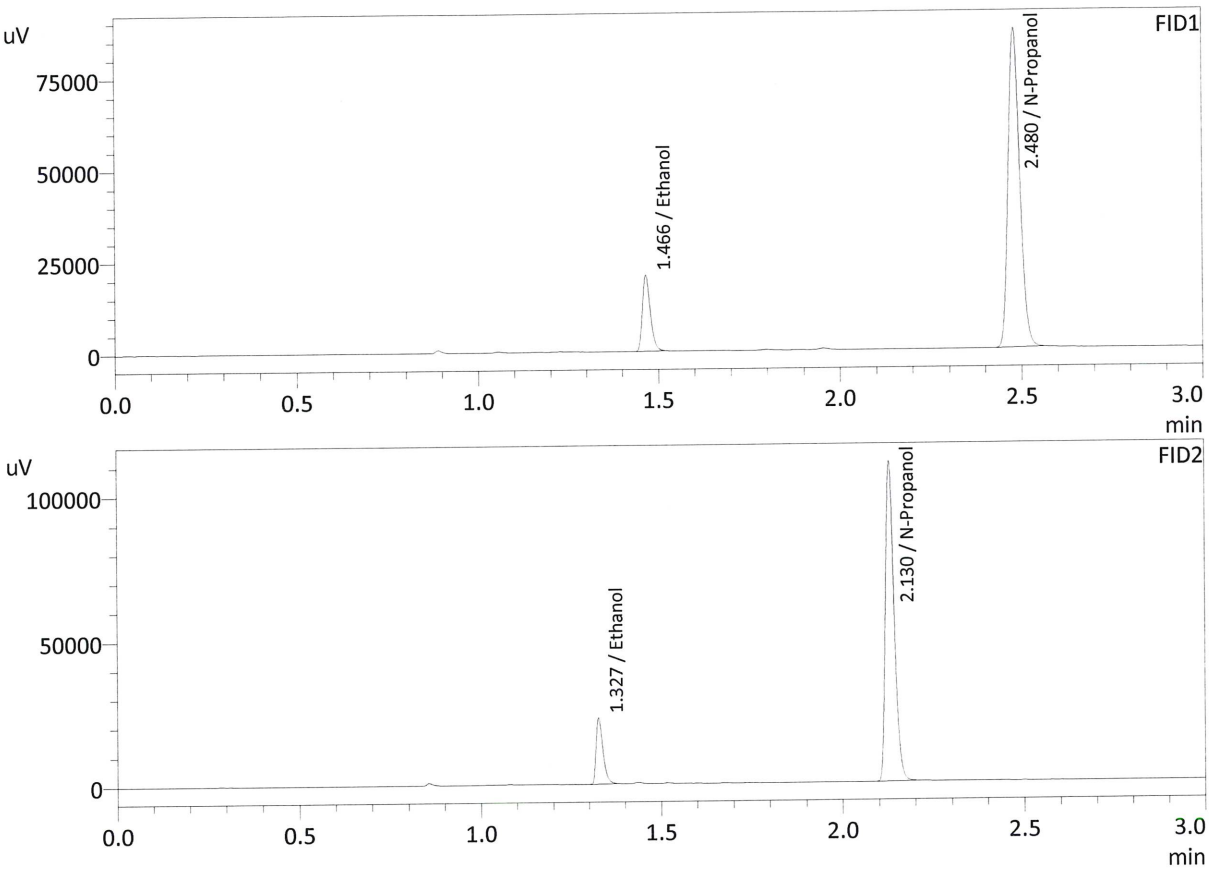
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0768	31758	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	196337	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0765	30464	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	185648	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : QC-1-1-B
Laboratory : Meridian
Injection Date : 5/3/2022 12:29:26 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0777	31682	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	193335	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0773	30395	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	182998	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC 1-2 **Item #** **Analysis Date(s): 5/3/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0806	0.0806	0.0000	0.0806	0.0007	0.0802
(g/100cc)	0.0798	0.0800	0.0002	0.0799		

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

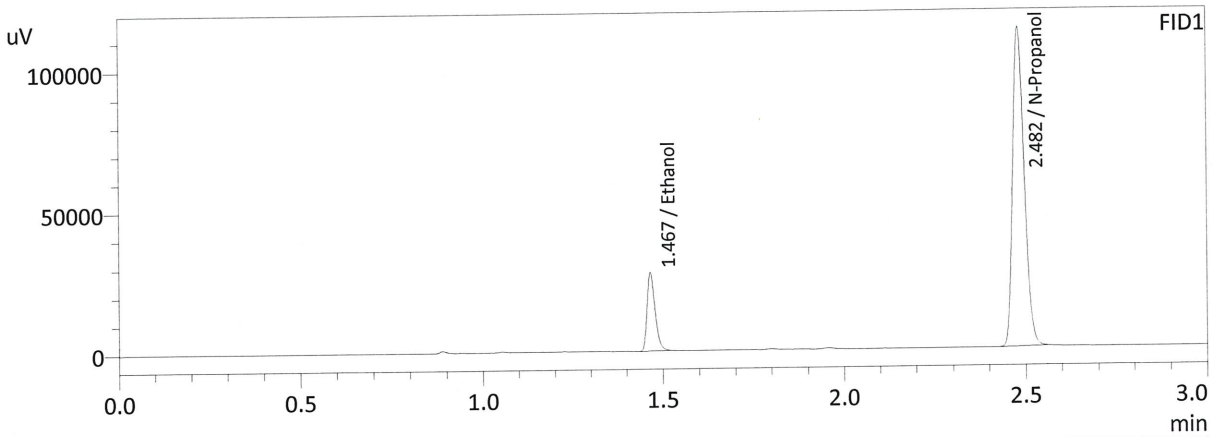
Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

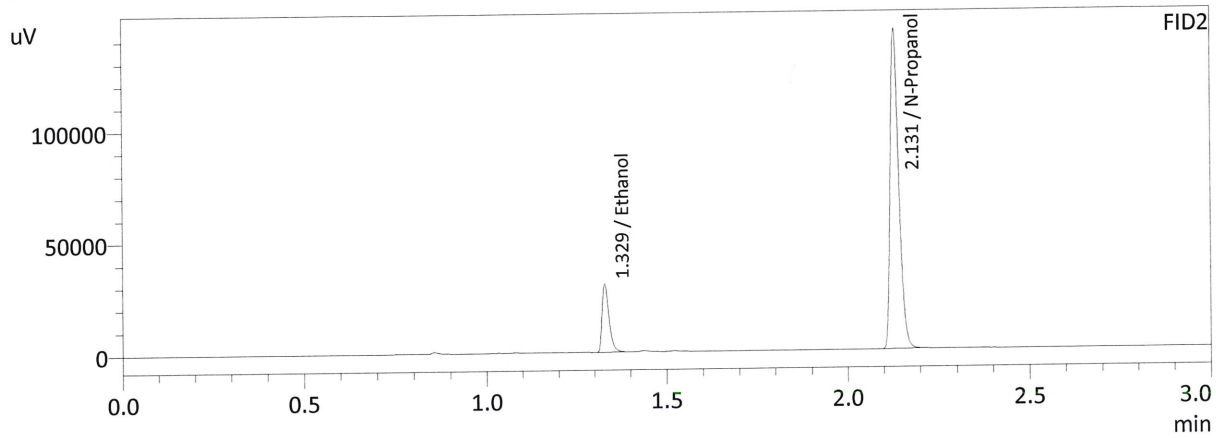
Overall Mean (g/100cc)	Low	High	5% of Mean
0.080	0.076	0.084	0.004

	Reported Result	
	0.080	

Calibration and control data are stored centrally.

Sample Name : QC1-2-A
Laboratory : Meridian
Injection Date : 5/3/2022 6:12:16 PM
Vial # : 47
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





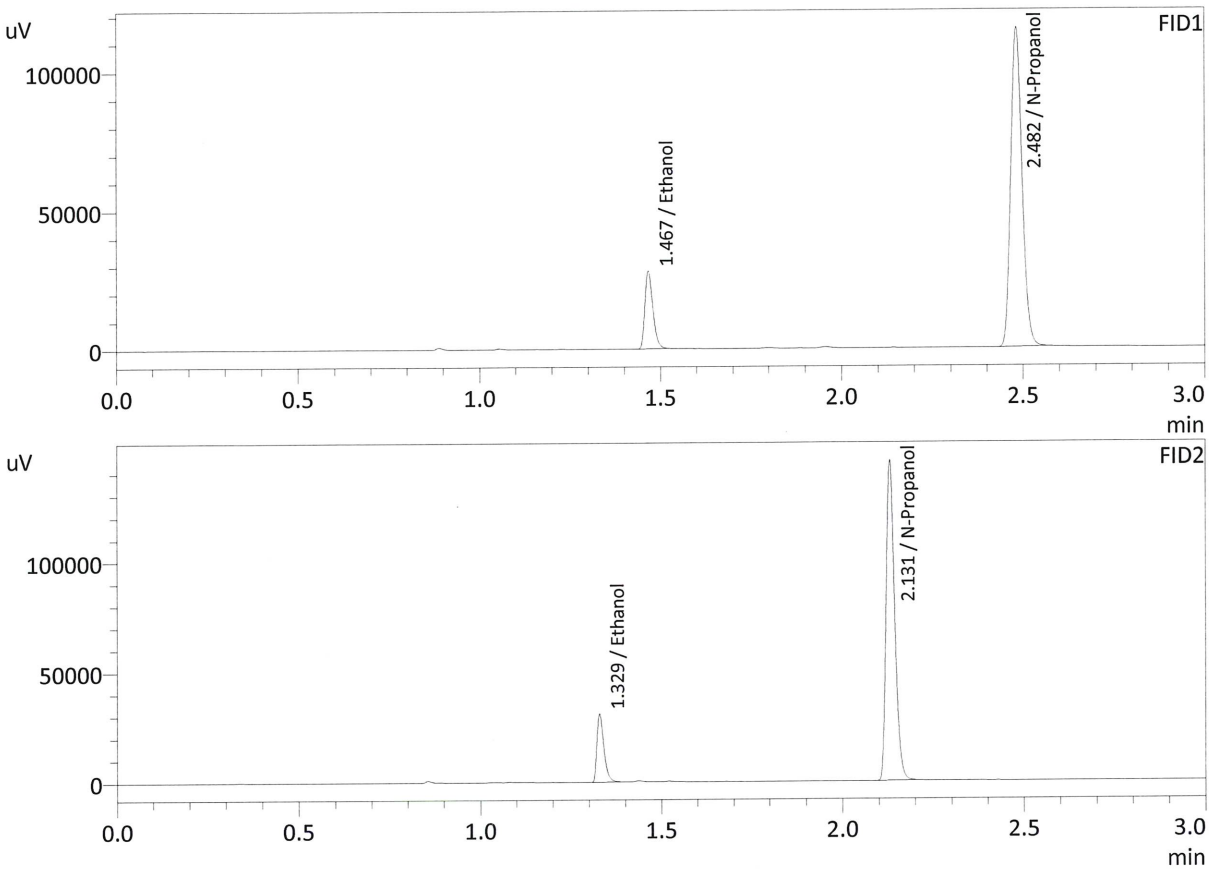
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0806	42513	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	249228	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0806	40803	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	234831	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : 5/3/2022 6:21:08 PM
Vial # : 48
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0798	42910	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	254220	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0800	41194	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	239072	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC 2-1 **Item #** **Analysis Date(s): 5/3/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2081	0.2101	0.0020	0.2091	0.0007	0.2094
(g/100cc)	0.2092	0.2104	0.0012	0.2098		

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%

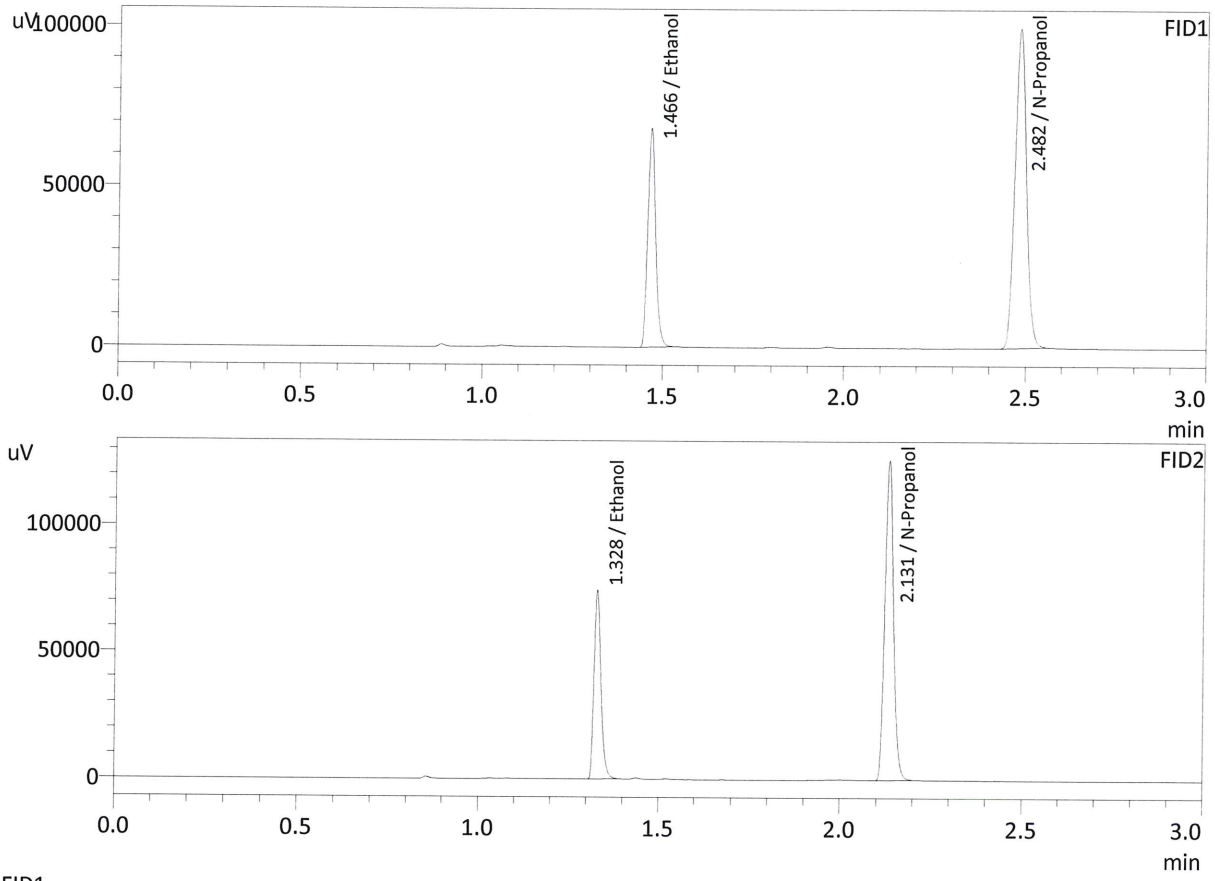
Overall Mean (g/100cc)	Low	High	5% of Mean
0.209	**0.198**	**0.220**	**0.011**

Reported Result

0.209

Calibration and control data are stored centrally.

Sample Name : QC-2-1-A
Laboratory : Meridian
Injection Date : 5/3/2022 3:17:02 PM
Vial # : 25
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



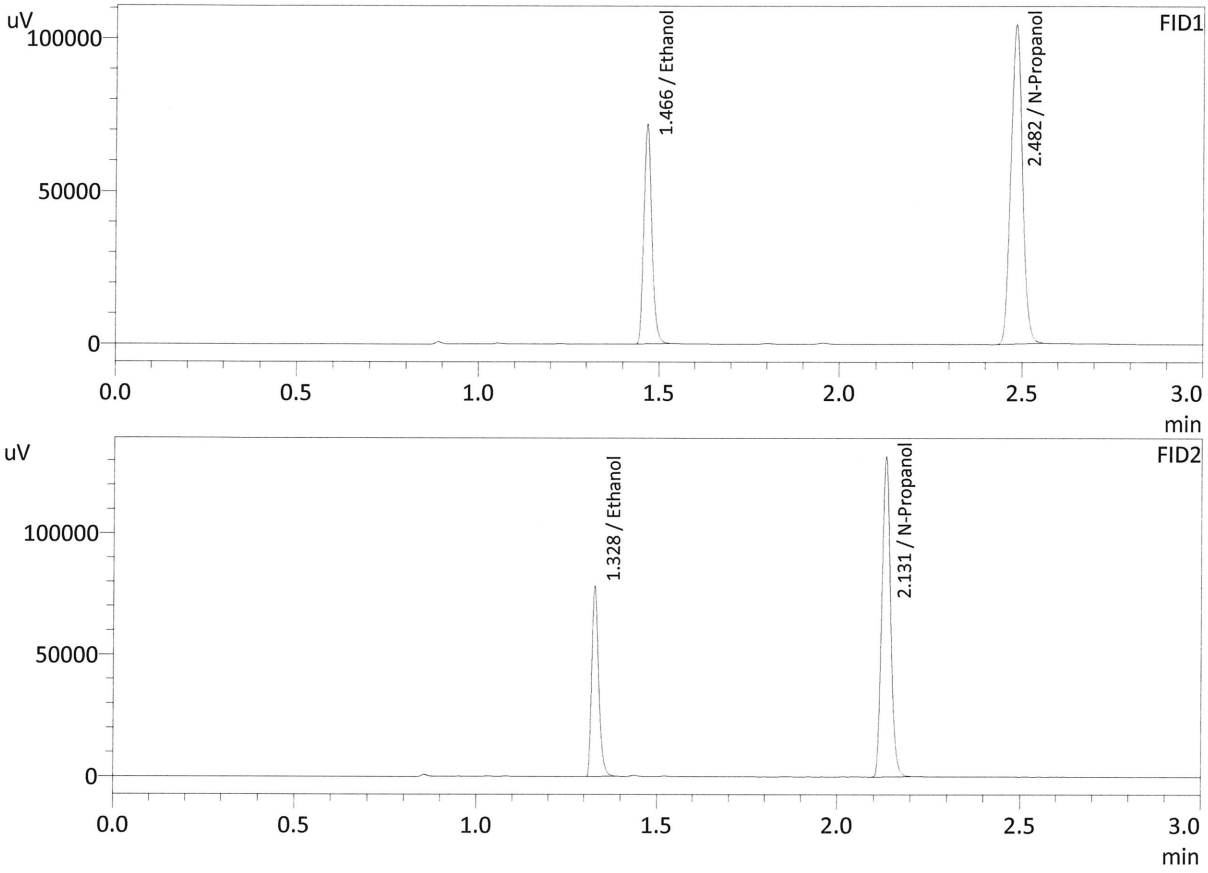
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2081	103923	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	220002	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2101	98559	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	207419	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : QC-2-1-B
Laboratory : Meridian
Injection Date : 5/3/2022 3:24:36 PM
Vial # : 26
Method Filename : C:\LabSolutions\Data\220503\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



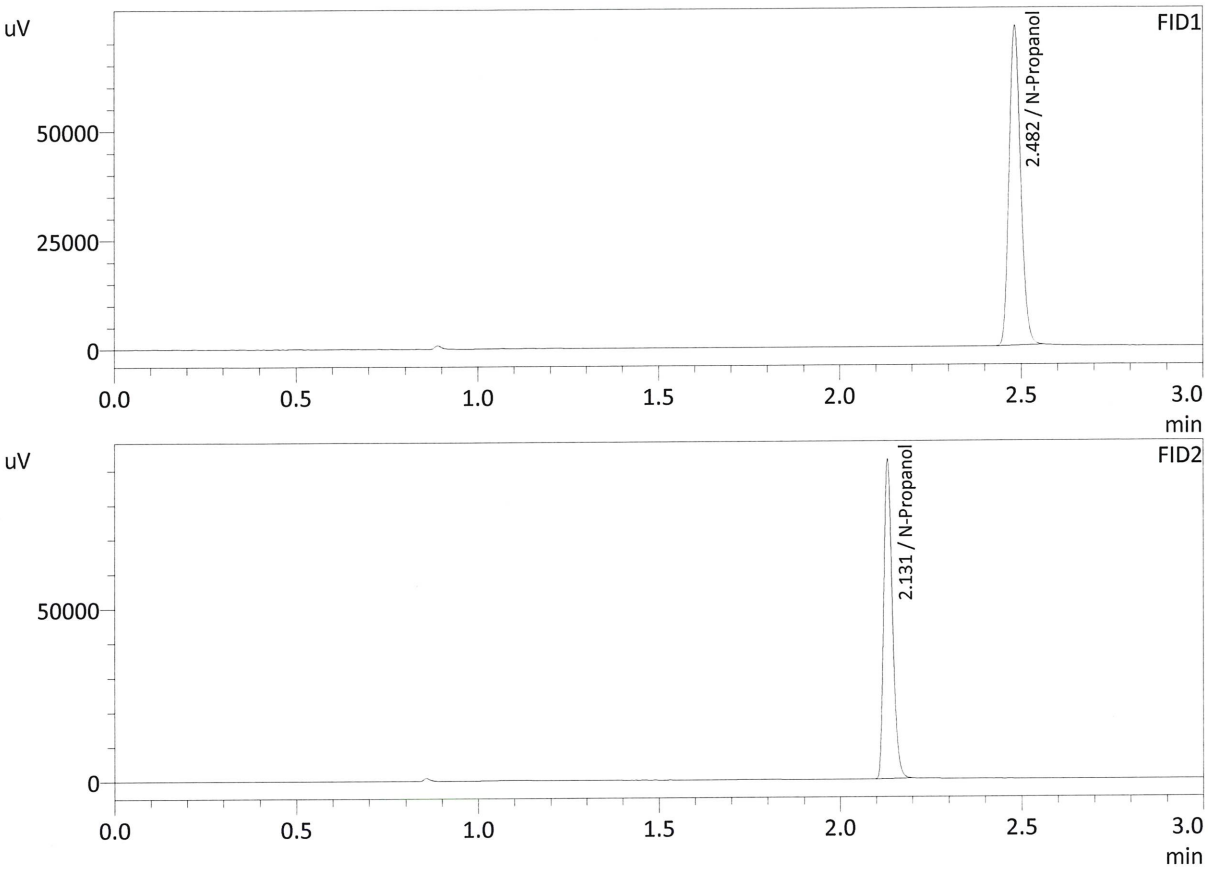
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2092	109557	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	230680	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2104	103434	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	217322	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : INT STD BLNK
Laboratory : Meridian
Injection Date : 5/3/2022 6:28:35 PM
Vial # : 49
Method Filename : C:\LabSolutions\Data\220503\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	161977	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	153713	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc