REVIEWED
By Galina Giso at 2:43 pm, Jun 16, 2022

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): 6/15/22**

Calibration Date: 6/15/22

Worklist #: 5992

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Jul-23	1907006	0.0764	0.0688-0.0840	0.0743 g/100cc
					0.0774 g/100cc
					g/100cc
Level 2	Jul-23	1907007	0.2170	0.1953-0.2387	0.2146 g/100cc
					g/100cc
					g/100cc

Multi-Component mixture:	**Exp:**	**Jul-22**	**Lot #**	FN07101701		acceptable
Curve Fit:		**Column 1**	0.99977		**Column2**	0.99975

Ethanol Calibration Reference Material

Calibrator level	Target Value	Acceptable Range	Column 1	Column 2	Precision	Mean
50	0.050	0.045 - 0.055	0.0519	0.0518	0.0001	0.0518
100	0.100	0.090 - 0.110	0.0981	0.0980	0.0001	0.098
200	0.200	0.180 - 0.220	0.1971	0.1971	0	0.1971
300	0.300	0.270 - 0.330	0.3036	0.3039	0.0003	0.3037
400	0.400	0.360 - 0.440			0	#DIV/0!
500	0.500	0.450 - 0.550	0.4991	0.4989	0.0002	0.499

Internal Standard	Average	(-) 20%	(+) 20%
N-Propanol:	240192.2	192153.8	288230.6

Aqueous Controls

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

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

Internal Standard Monitoring Worksheet

Worklist #:	5992	Run Date(s):	6/15/22

Internal Standard Solution:	Prep Date: 5/13/22	Exp Date: 11/13/22

Sample Name	Column 1 Value	Column 2 Value	Average
0.080A	205665	225378	215521.5
0.080B	205905	225529	215717
QC1-1A	209369	229444	219406.5
QC1-1B	206541	226443	216492
QC1-2A	256760	281429	269094.5
QC1-2B	266016	291660	278838
QC2-1A	241722	264532	253127
QC2-1B	241963	264719	253341
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!

Combined Average	(-)20%	(+)20%
240192.2	192153.8	288230.6

NB

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

Idaho State Police
Forensic Services

Request for Departure from an Analytical Method or Quality Standard

Deviation Number (assigned by QM): **BLA-22-01**

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: Date: 1/21/22
Title: Discipline Lead

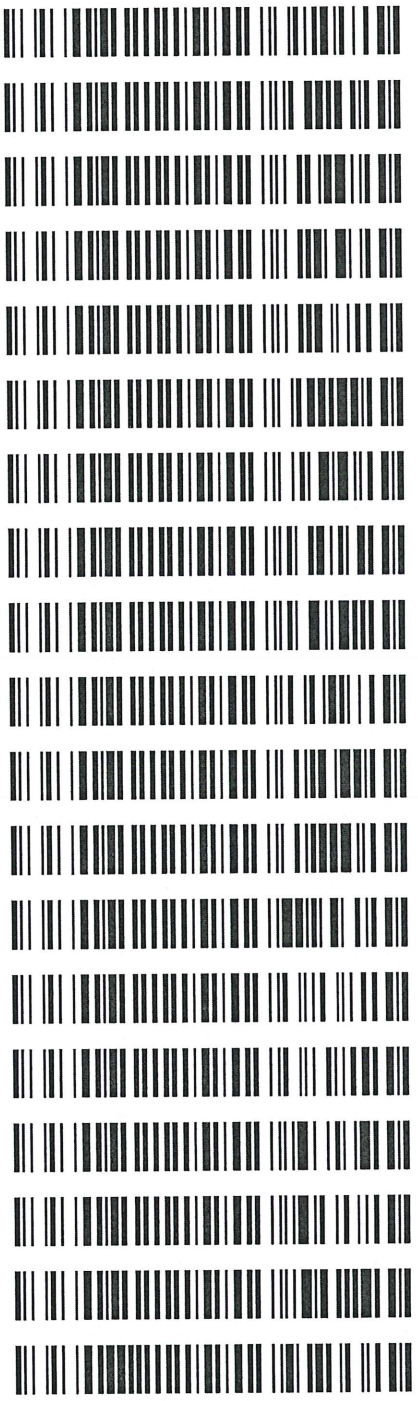
Quality Review

Quality Approver: Jason Crowe
Title: Quality Manager
Date: 01/24/2022

6/15/2022

Worklist: 5992

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION	
M2022-2004	3	BCK	Alcohol Analysis	
M2022-2257	1	BCK	Alcohol Analysis	
M2022-2265	1	BCK	Alcohol Analysis	
M2022-2266	1	BCK	Alcohol Analysis	
M2022-2267	1	BCK	Alcohol Analysis	
M2022-2290	2	BCK	Alcohol Analysis	
M2022-2302	2	BCK	Alcohol Analysis	
M2022-2316	1	BCK	Alcohol Analysis	
M2022-2323	1	BCK	Alcohol Analysis	
M2022-2332	1	BCK	Alcohol Analysis	
M2022-2348	1	BCK	Alcohol Analysis	
M2022-2349	1	BCK	Alcohol Analysis	
M2022-2400	1	BCK	Alcohol Analysis	
M2022-2419	1	BCK	Alcohol Analysis	not analyzed unsuitable sample for analysis
M2022-2420	1	BCK	Alcohol Analysis	NB 6/15/22
M2022-2447	1	BCK	Alcohol Analysis	
M2022-2448	1	BCK	Alcohol Analysis	
M2022-2453	1	BCK	Alcohol Analysis	
P2022-1642	1	BCK	Alcohol Analysis	

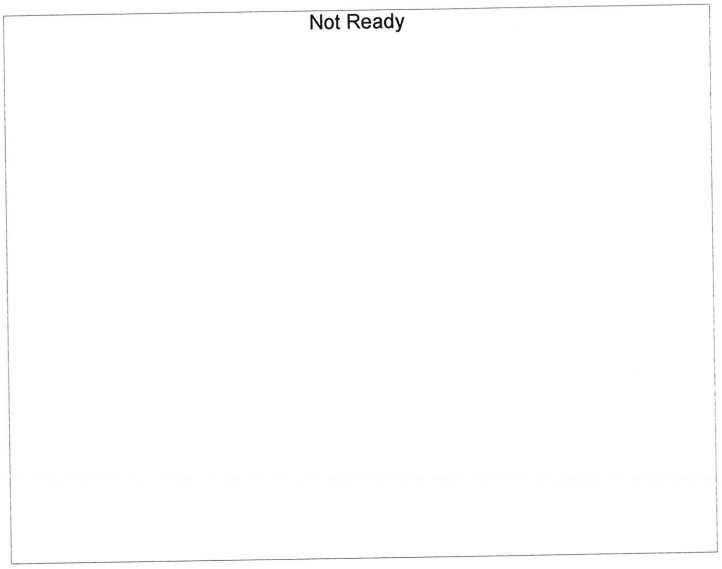


NB

Calibration Table

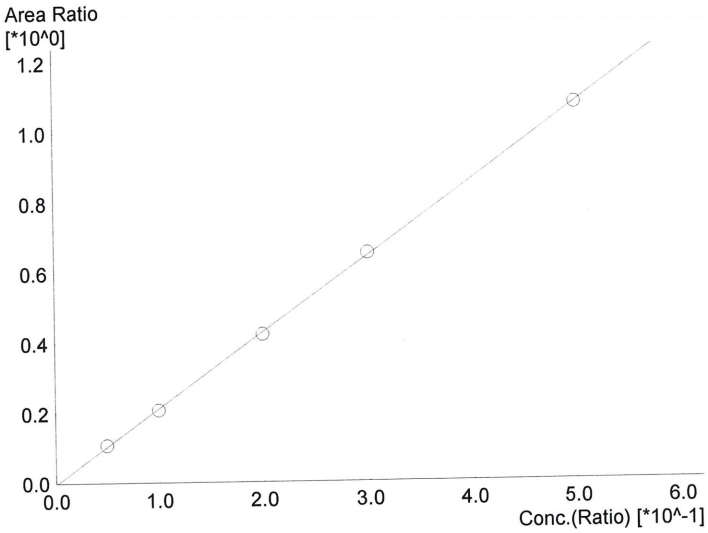
Laboratory : MERIDIAN
Instrument Name : GC-HS
Instrument Serial # : C12595800409 / C12255750548

<<Data File>>
Method File :C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Batch File :C:\LabSolutions\Data\220615\CALIBRATION\CALCURVE_TEMPLATE.gcb
Date Acquired :6/15/2022 2:23:39 PM
Date Created :6/15/2022 2:19:18 PM
Date Modified :6/15/2022 2:26:41 PM



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

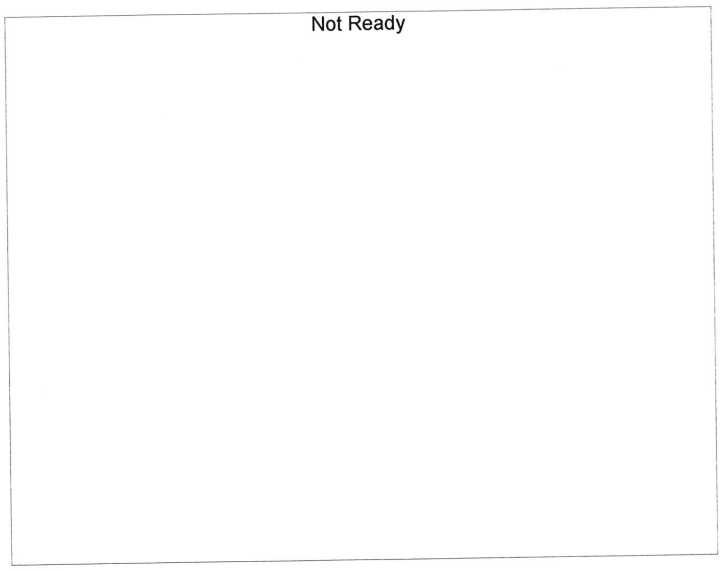
#	Conc.	Area	Std. Conc.



Name : Ethanol
Detector Name: FID1
Function : f(x)=2.16578*x-0.00518339
R^2 value= 0.9997703
FitType: Linear
ZeroThrough: Not Through

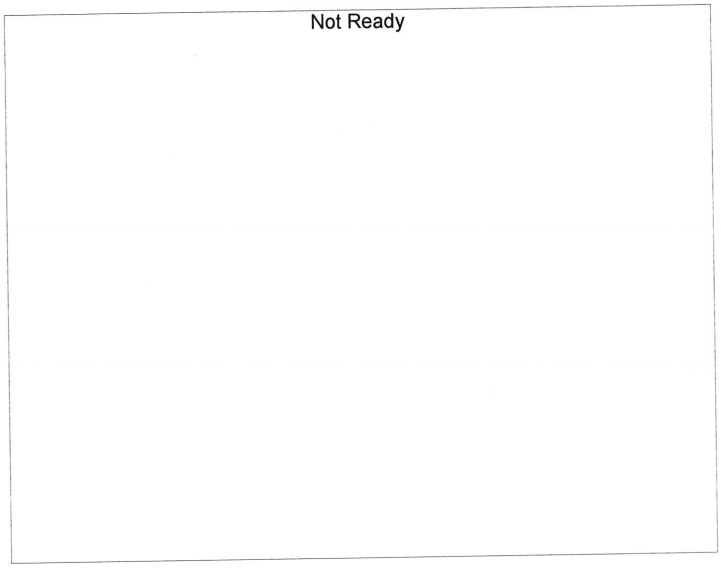
#	Conc.	Area	Std. Conc.
1	0.050	22780	0.0519
2	0.100	43008	0.0981
3	0.200	85327	0.1971
4	0.300	134249	0.3036
5	0.500	229399	0.4991

NB



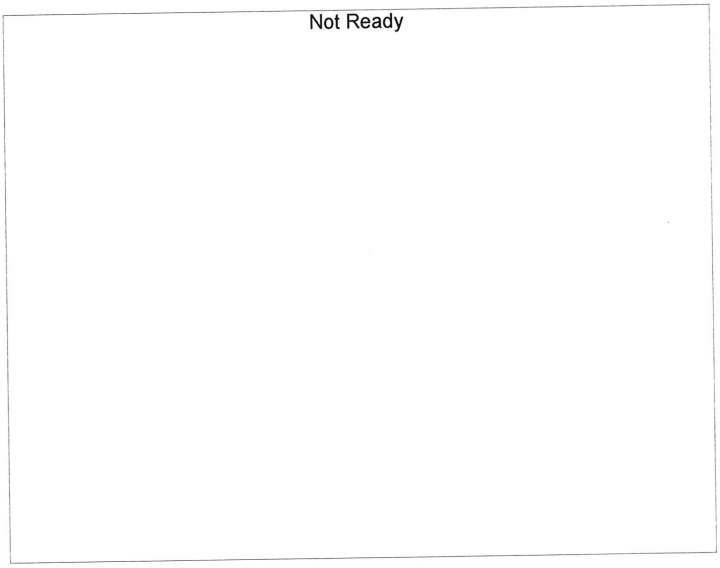
Name : Isopropyl Alcohol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



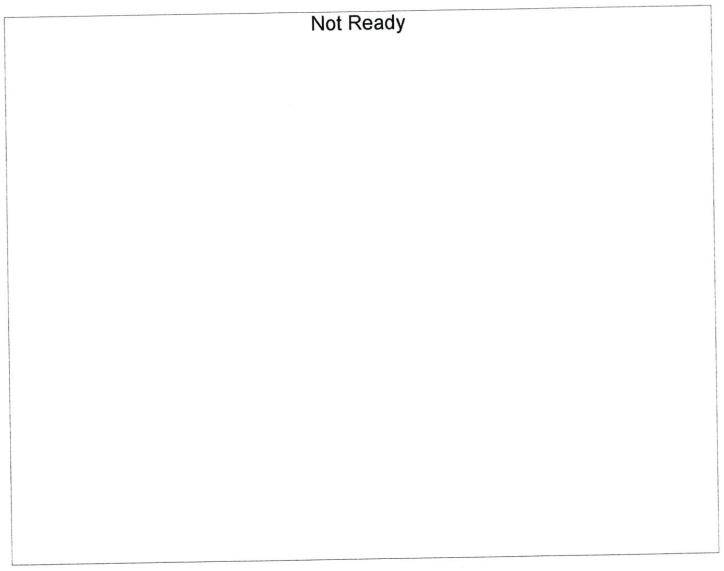
Name : Acetone
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



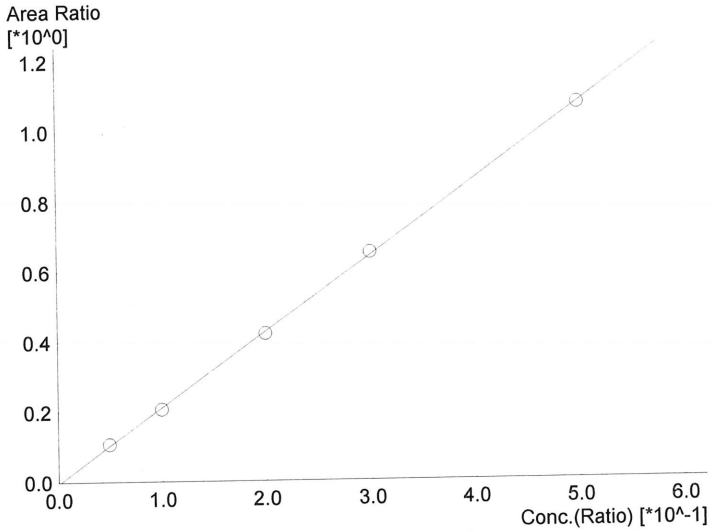
Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



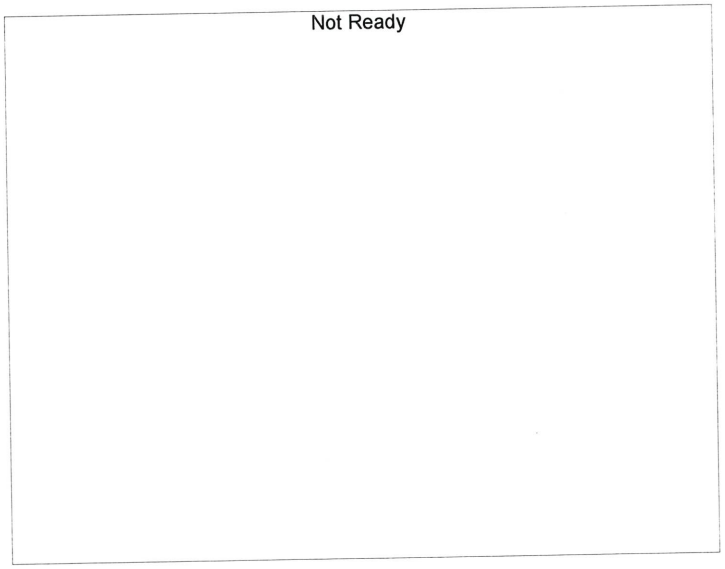
Name : Methanol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



Name : Ethanol
Detector Name: FID2
Function : f(x)=2.15704*x-0.00542688
R^2 value= 0.9997528
FitType: Linear
ZeroThrough: Not Through

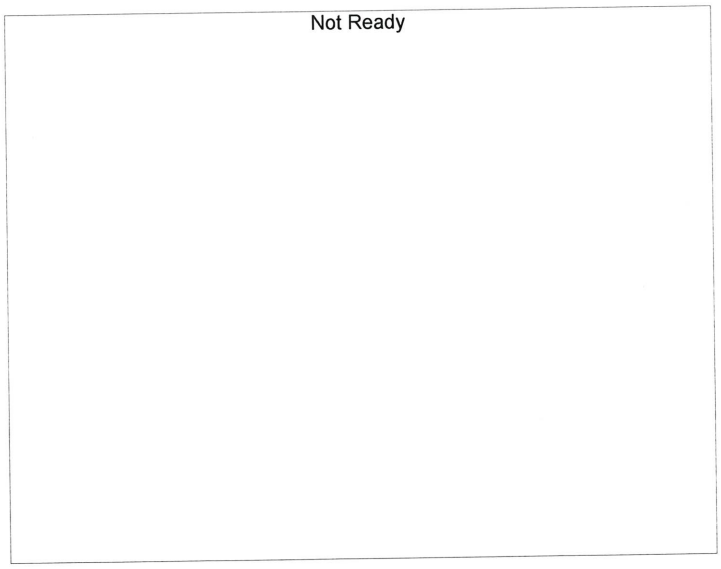
#	Conc.	Area	Std. Conc.
1	0.050	24759	0.0518
2	0.100	46823	0.0980
3	0.200	92939	0.1971
4	0.300	146263	0.3039
5	0.500	249493	0.4989



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

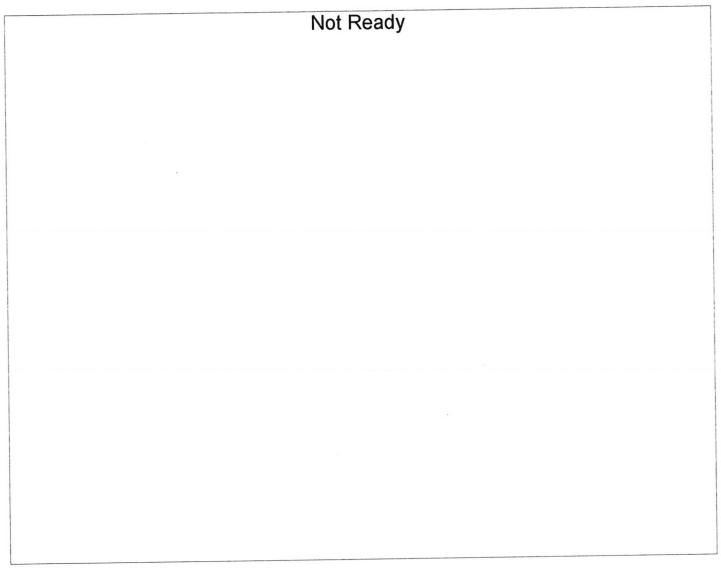
#	Conc.	Area	Std. Conc.

NB



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

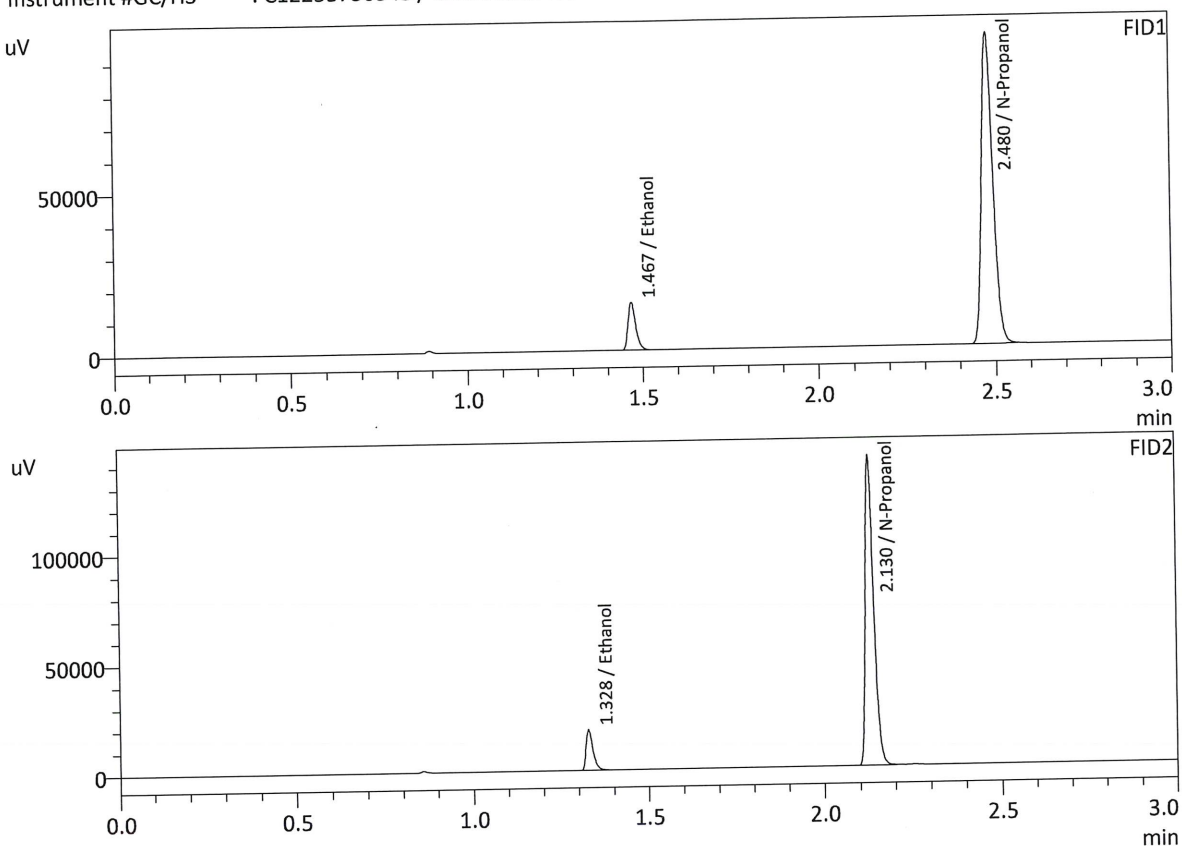
#	Conc.	Area	Std. Conc.



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.

Sample Name : 0.050
Laboratory : Meridian
Injection Date : 6/15/2022 1:52:28 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

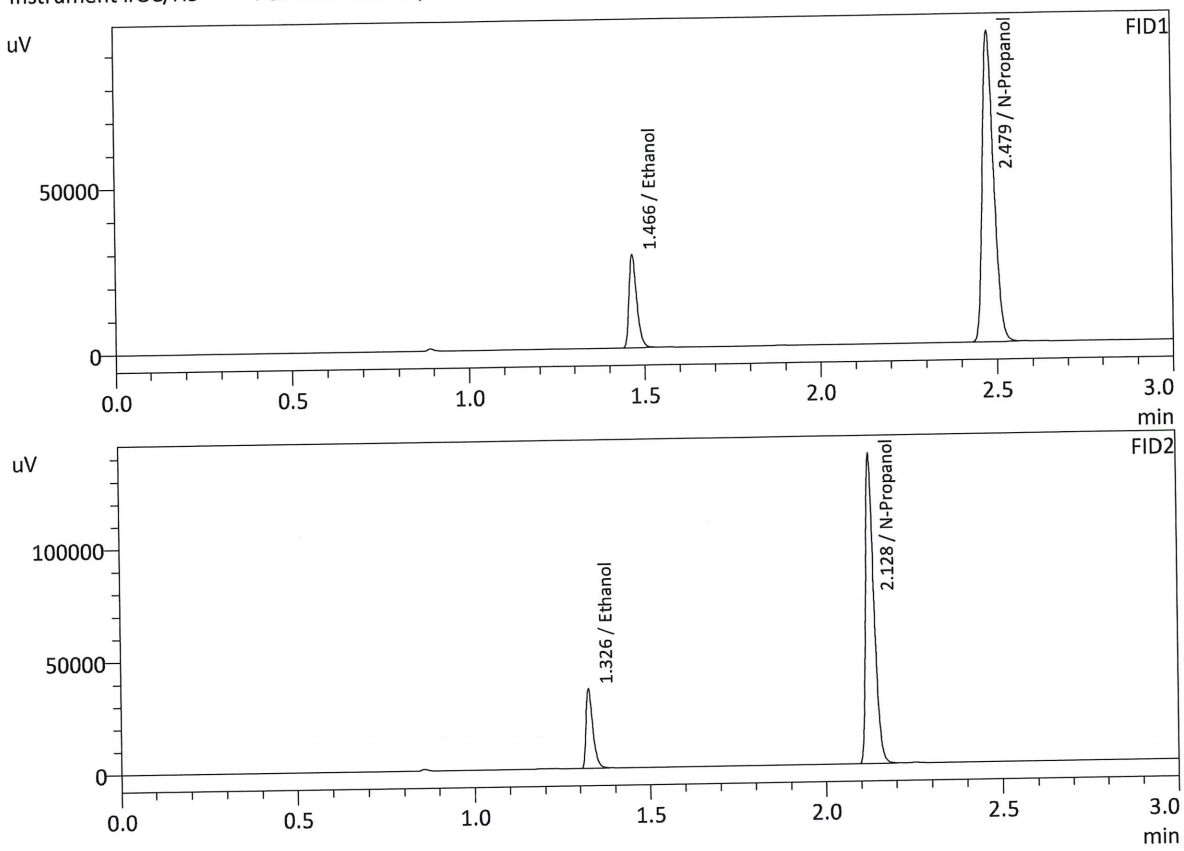
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0519	22780	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	212334	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0518	24759	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	232725	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : 0.100
Laboratory : Meridian
Injection Date : 6/15/2022 1:59:48 PM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

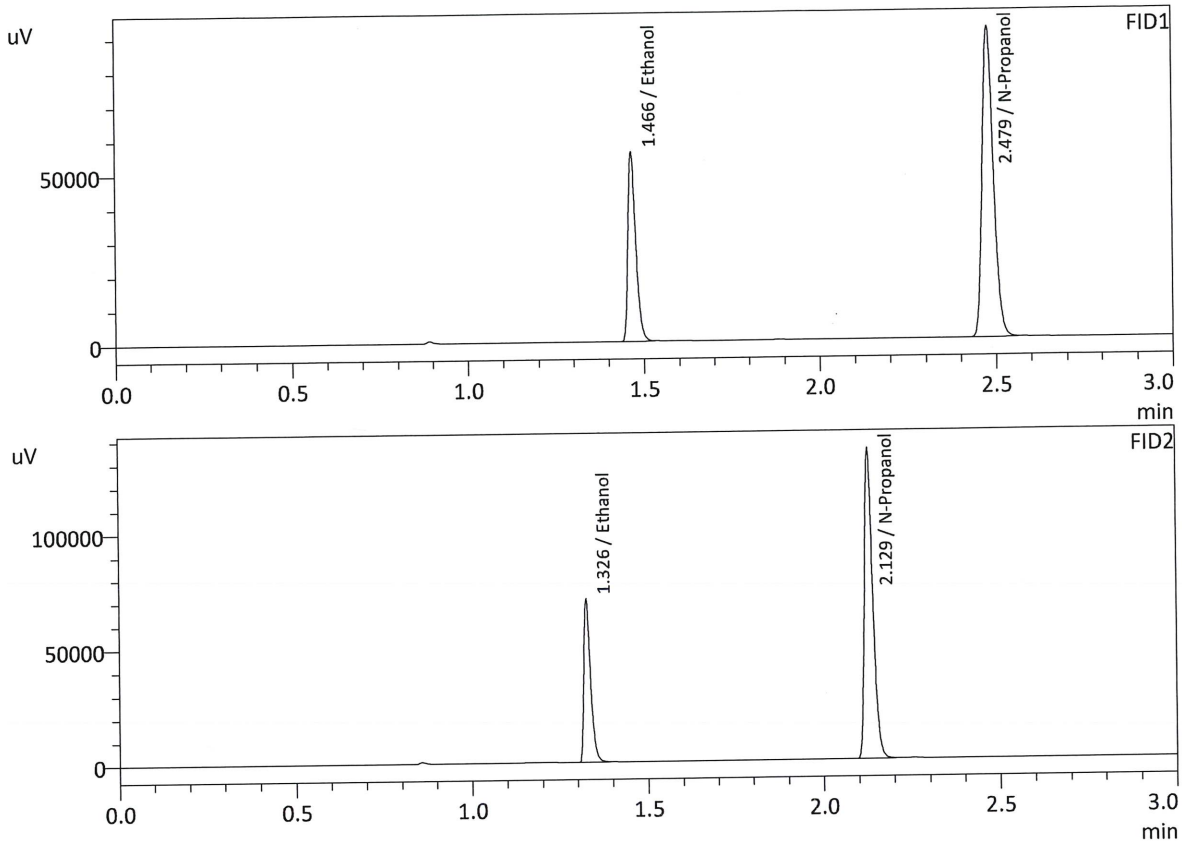
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0981	43008	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	207326	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0980	46823	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	227135	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : 0.200
Laboratory : Meridian
Injection Date : 6/15/2022 2:07:09 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

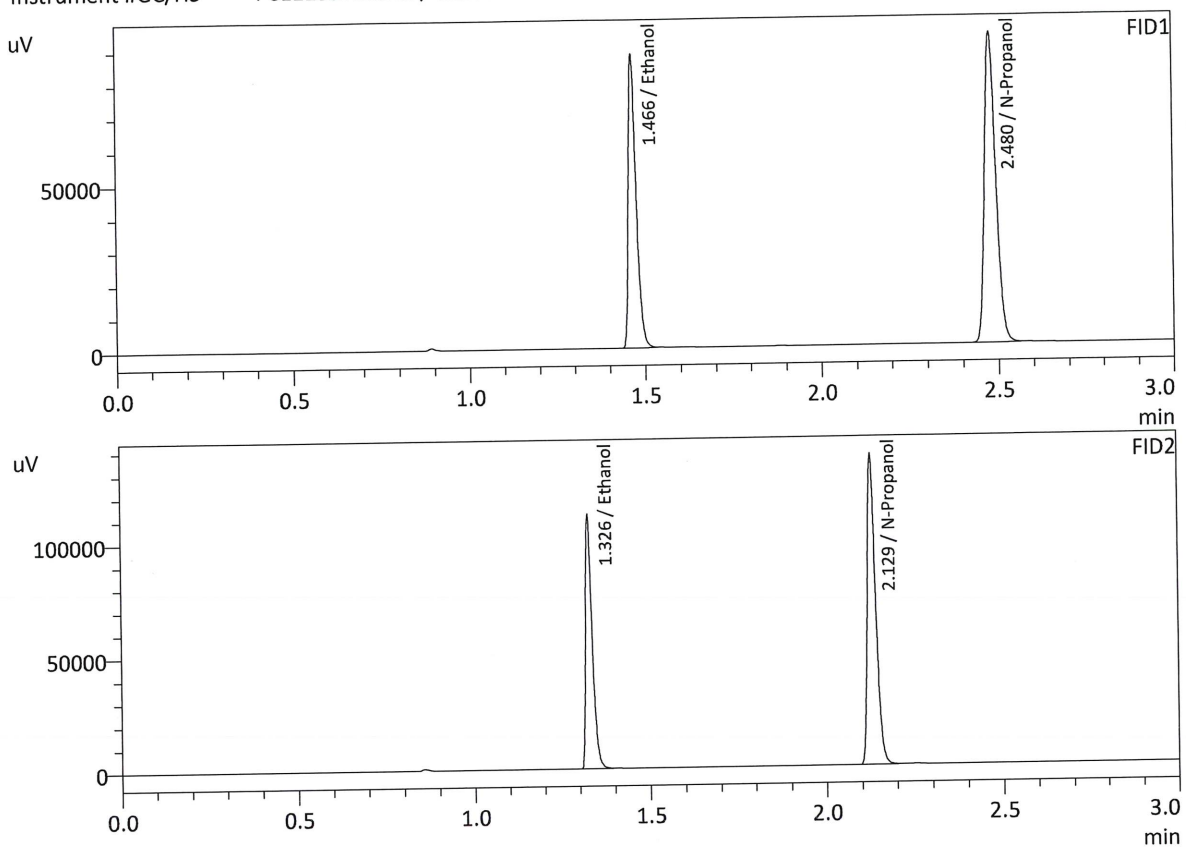
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1971	85327	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	202332	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1971	92939	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	221347	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : 0.300
Laboratory : Meridian
Injection Date : 6/15/2022 2:16:10 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

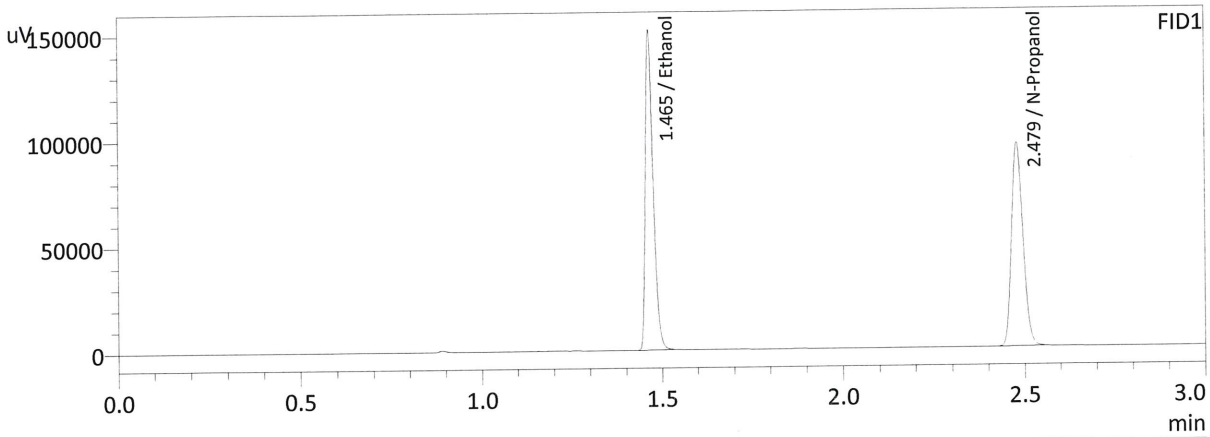
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.3036	134249	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	205764	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

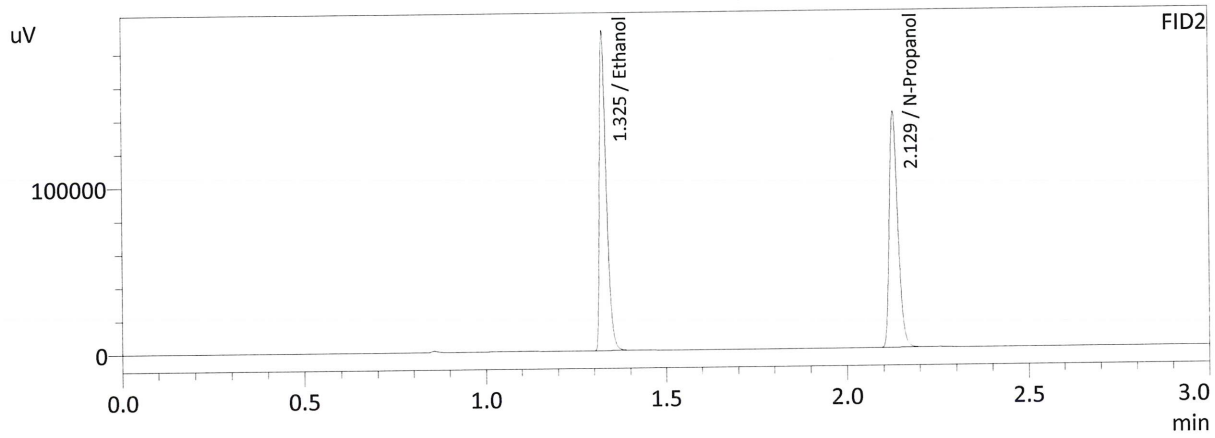
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.3039	146263	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	224955	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : 0.500
Laboratory : Meridian
Injection Date : 6/15/2022 2:23:39 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





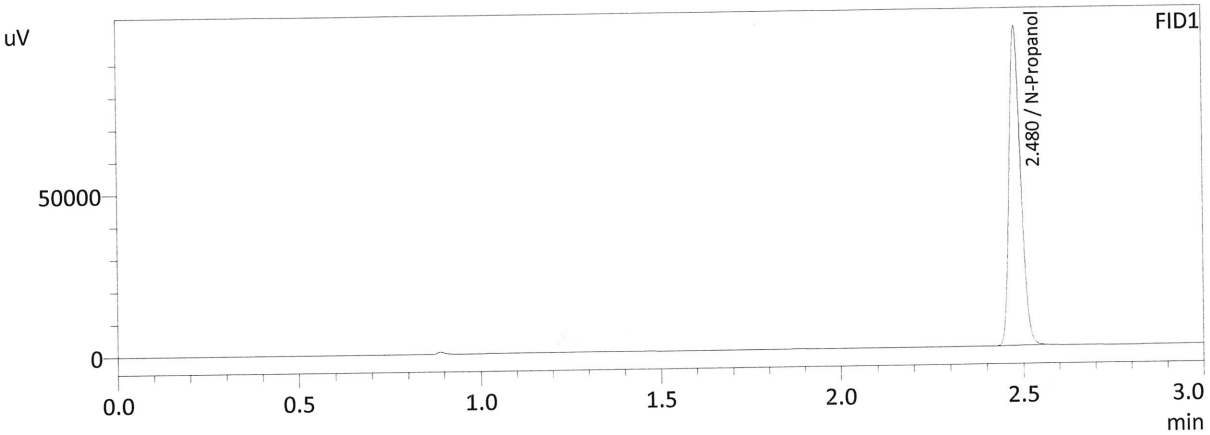
FID1

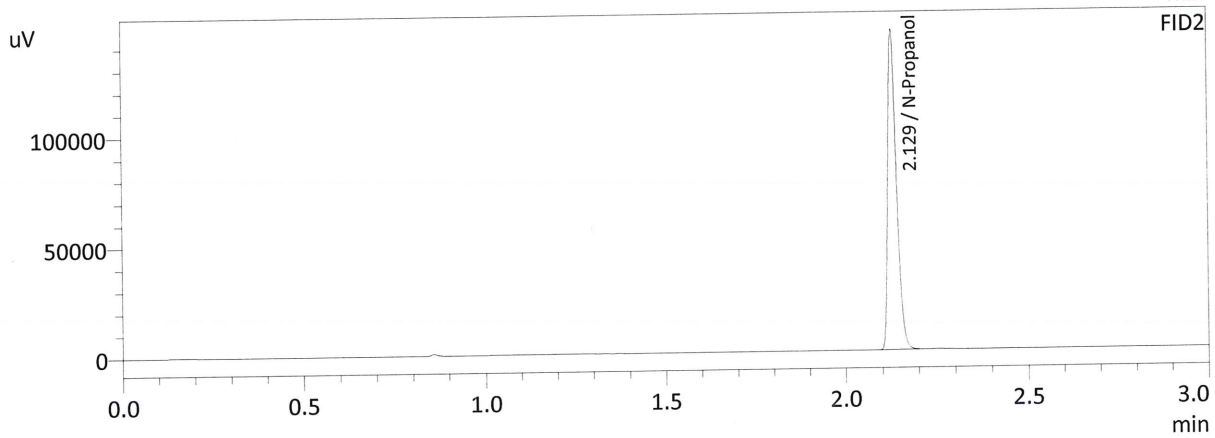
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.4991	229399	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	213227	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.4989	249493	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	232984	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 6/15/2022 2:32:01 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220615\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	218398	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	239313	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

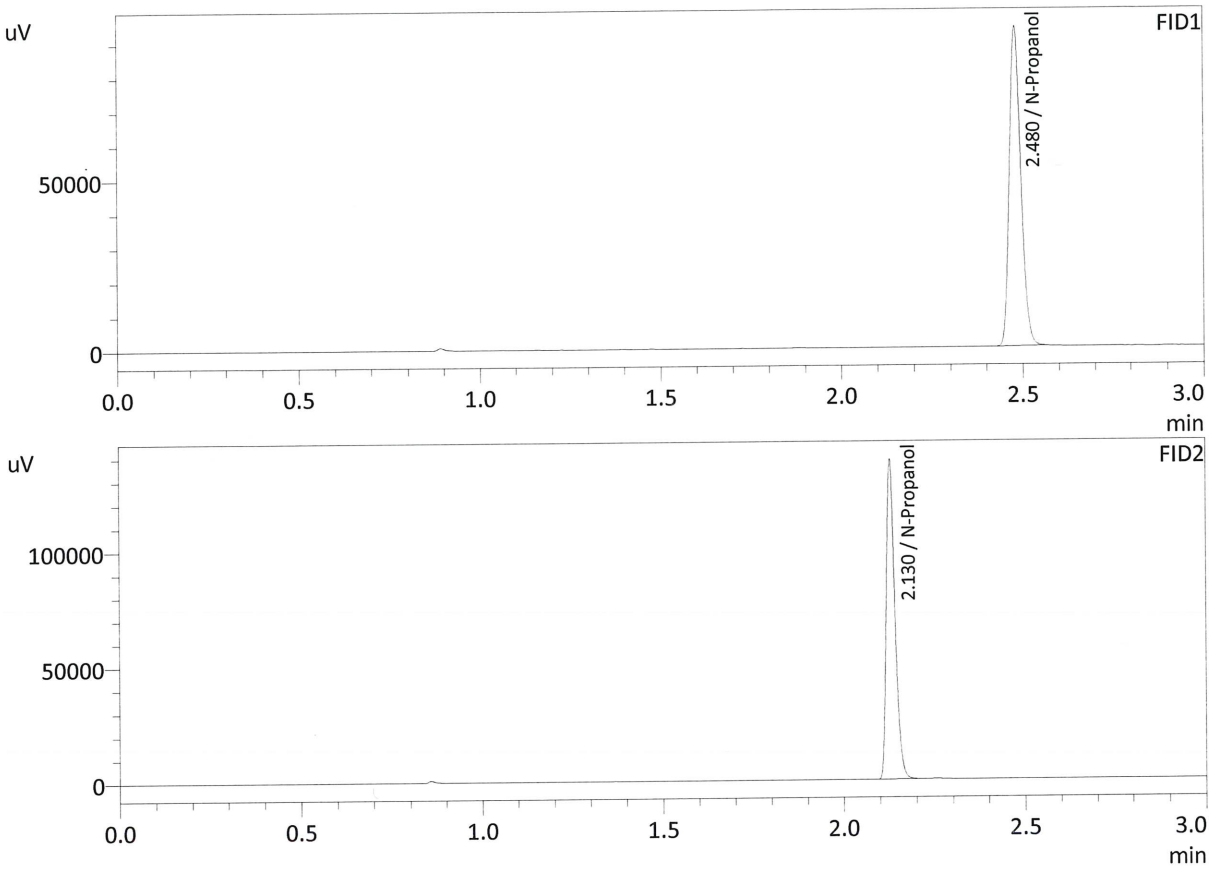
NB

Meridian Blood Alcohol Analysis Batch Table

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

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 BLK	0:Unknown	0	ALCOHOL.GCM

Sample Name : INT STD BLK 1
Laboratory : Meridian
Injection Date : 6/15/2022 4:11:39 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



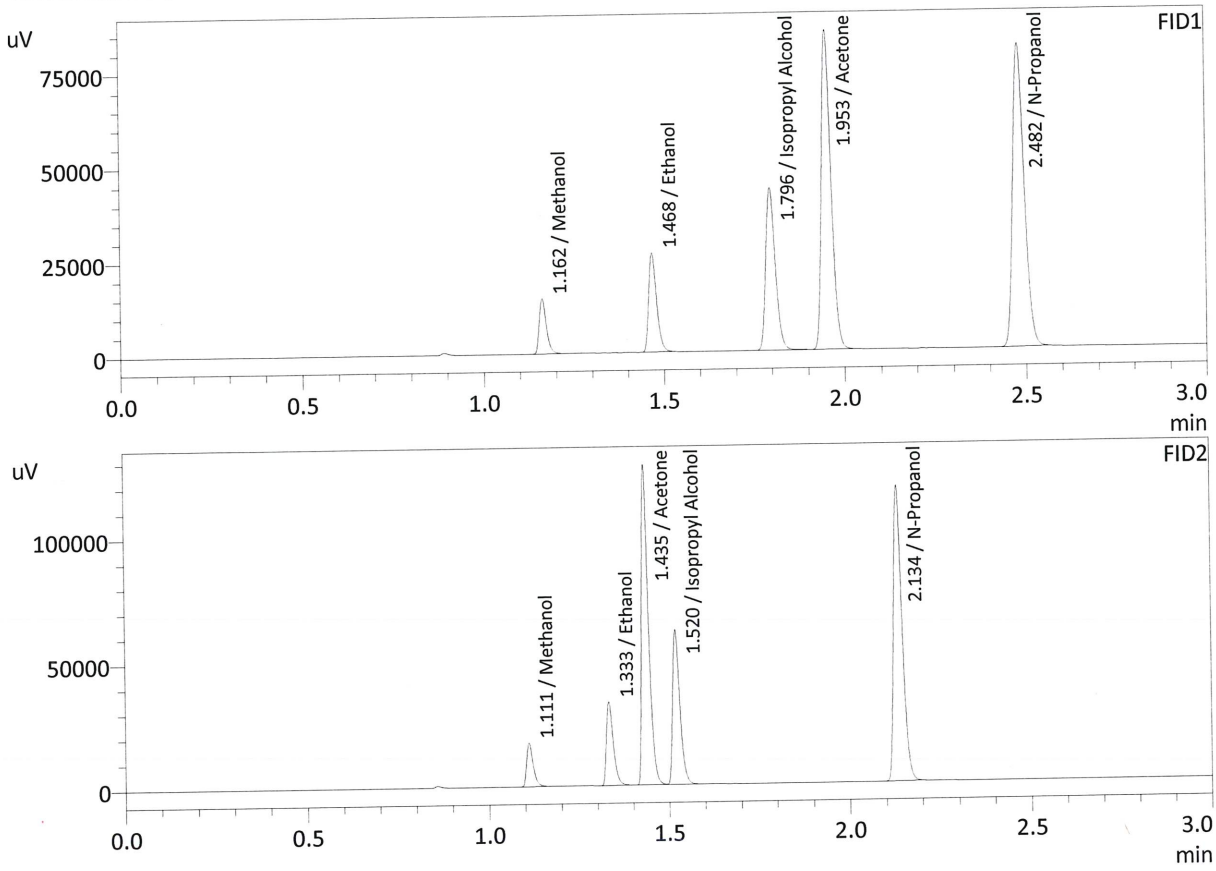
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	207597	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	227673	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : MIXED VOLATILES FN 07101701
Laboratory : Meridian
Injection Date : 6/15/2022 4:18:59 PM
Vial # : 2
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	0.0000	19899	g/100cc
Ethanol	0.1078	40603	g/100cc
Isopropyl Alcohol	0.0000	79648	g/100cc
Acetone	0.0000	156260	g/100cc
N-Propanol	0.0000	177845	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	0.0000	21918	g/100cc
Ethanol	0.1081	44443	g/100cc
Acetone	0.0000	171444	g/100cc
Isopropyl Alcohol	0.0000	86777	g/100cc
N-Propanol	0.0000	195079	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: 0.080 **Item #** **Analysis Date(s): 6/15/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0789	0.0788	0.0001	0.0788	0.0015	0.0795
(g/100cc)	0.0804	0.0802	0.0002	0.0803		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information *Instrument information is stored centrally.*

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

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

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

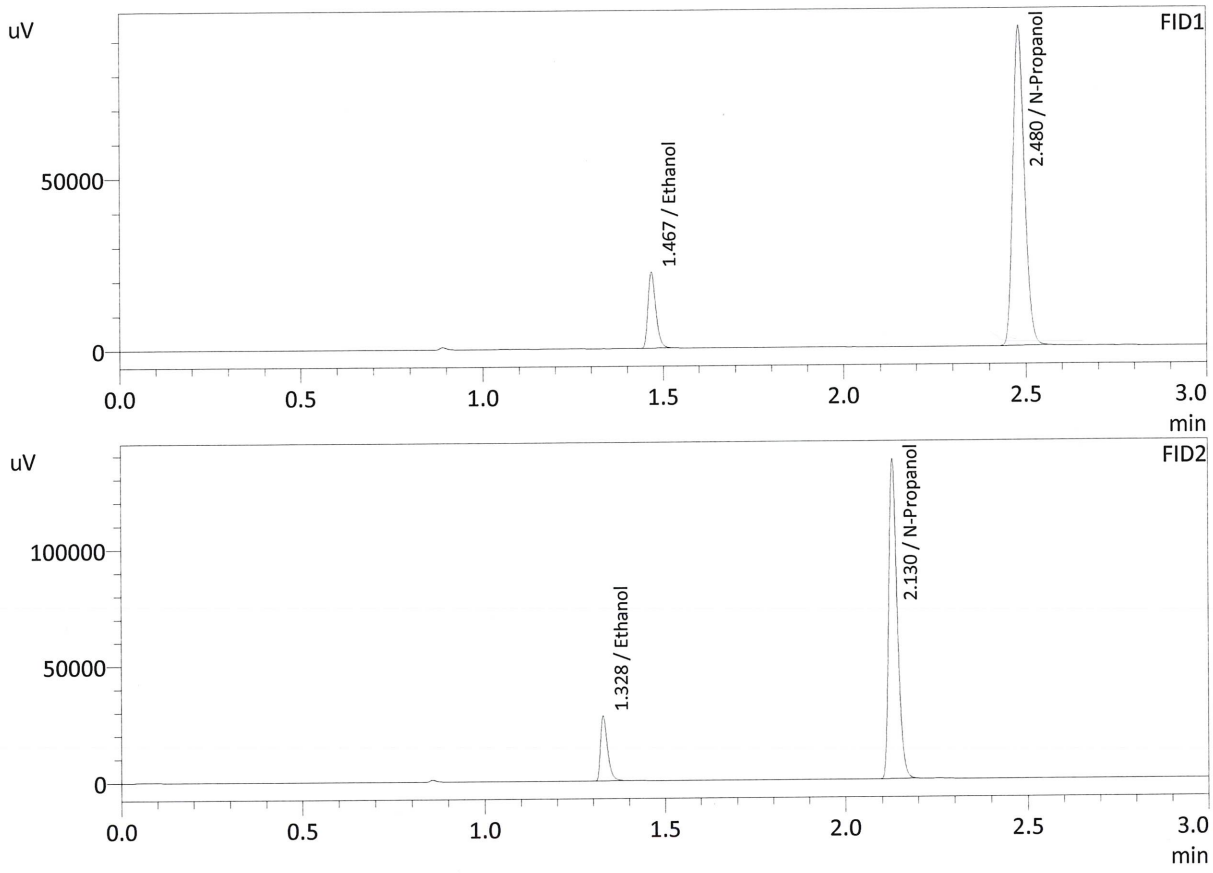
Reported Result

0.079

Calibration and control data are stored centrally.

NB

Sample Name : 0.08 QA-A
Laboratory : Meridian
Injection Date : 6/15/2022 4:43:37 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

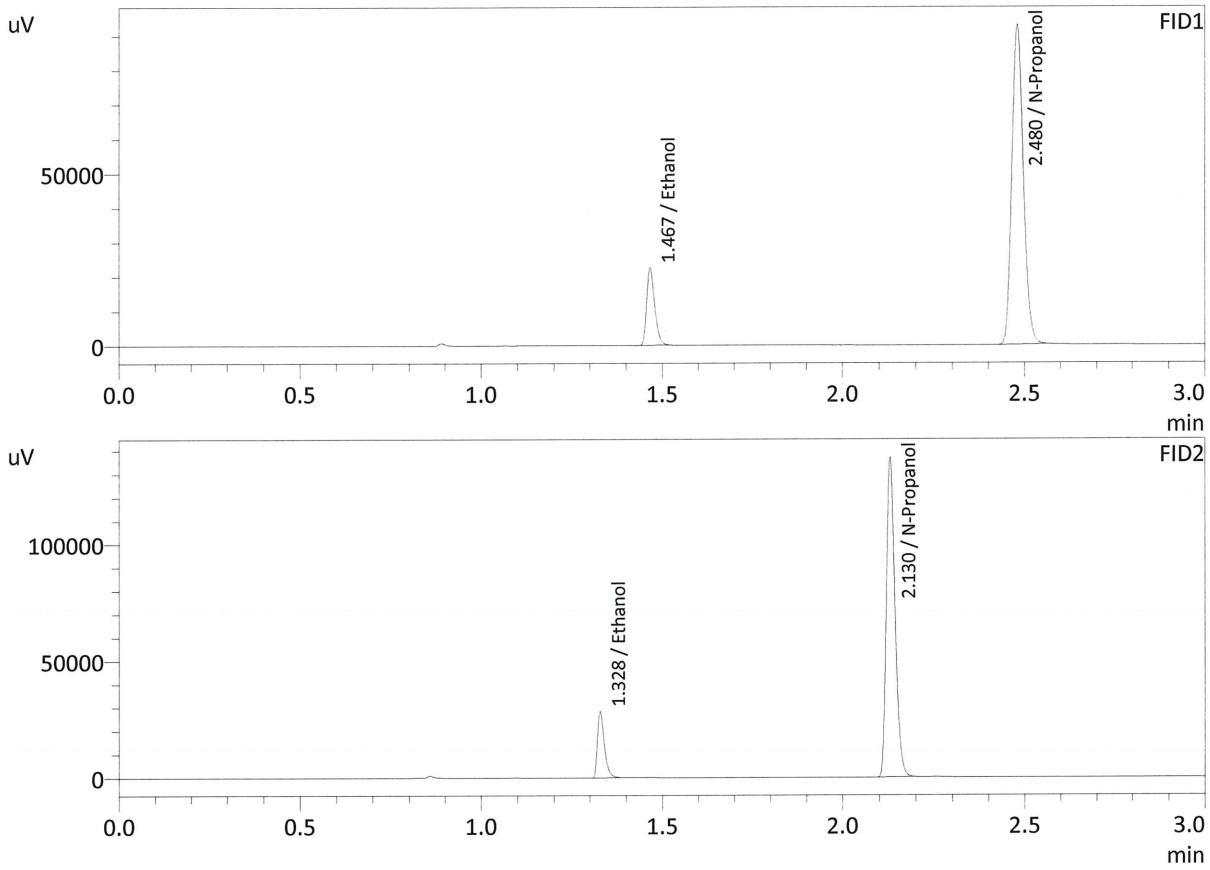
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0789	34119	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	205665	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0788	37100	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	225378	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : 0.08 QA-B
Laboratory : Meridian
Injection Date : 6/15/2022 4:51:18 PM
Vial # : 6
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0804	34791	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	205905	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0802	37804	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	225529	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-1 **Item #** **Analysis Date(s): 6/15/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0747	0.0745	0.0002	0.0746	0.0005	0.0743
(g/100cc)	0.0742	0.0740	0.0002	0.0741		

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**

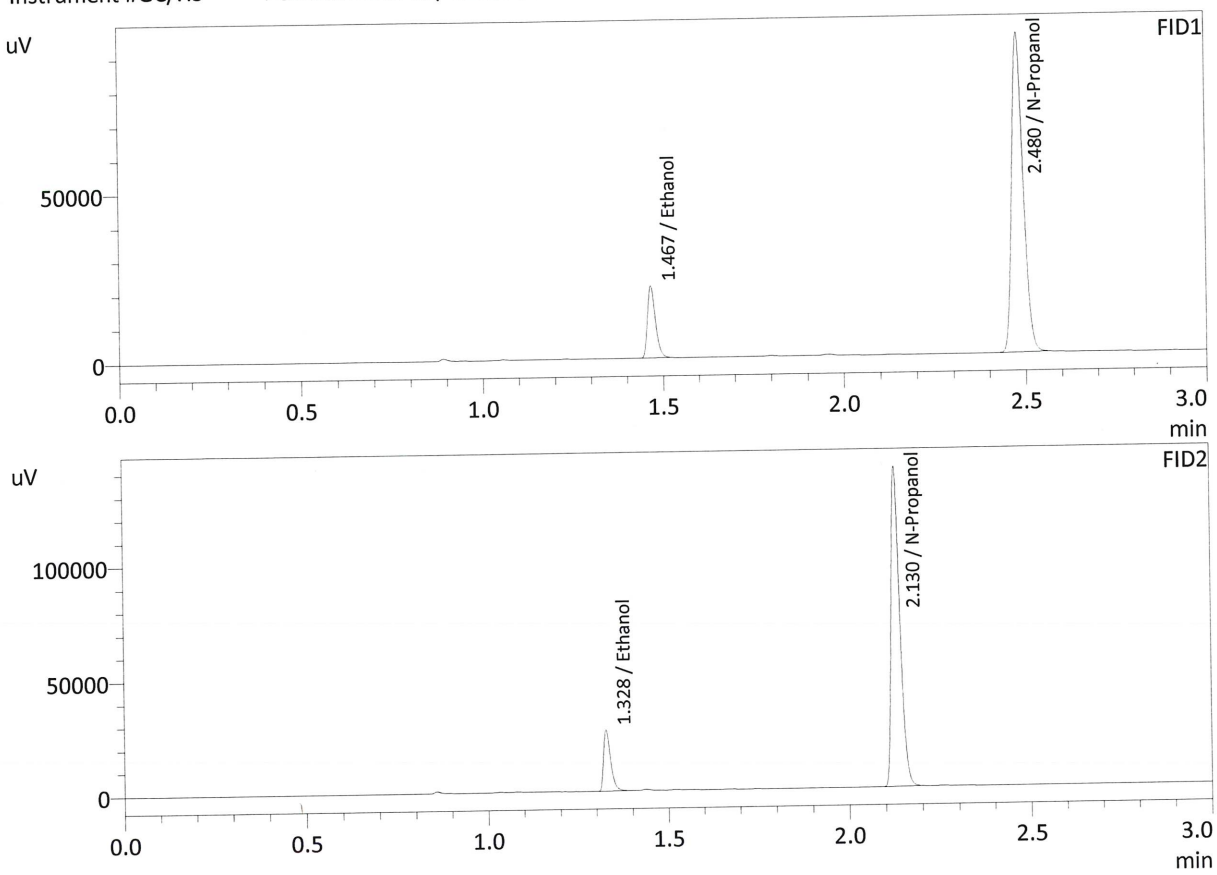
Reported Result

0.074

Calibration and control data are stored centrally.

NB

Sample Name : QC-1-1-A
Laboratory : Meridian
Injection Date : 6/15/2022 4:26:24 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

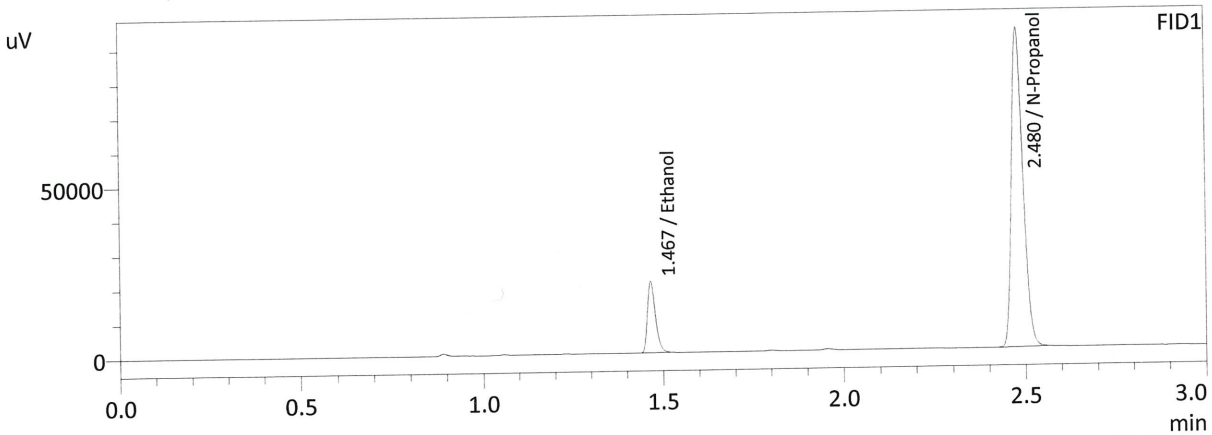
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0747	32800	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	209369	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

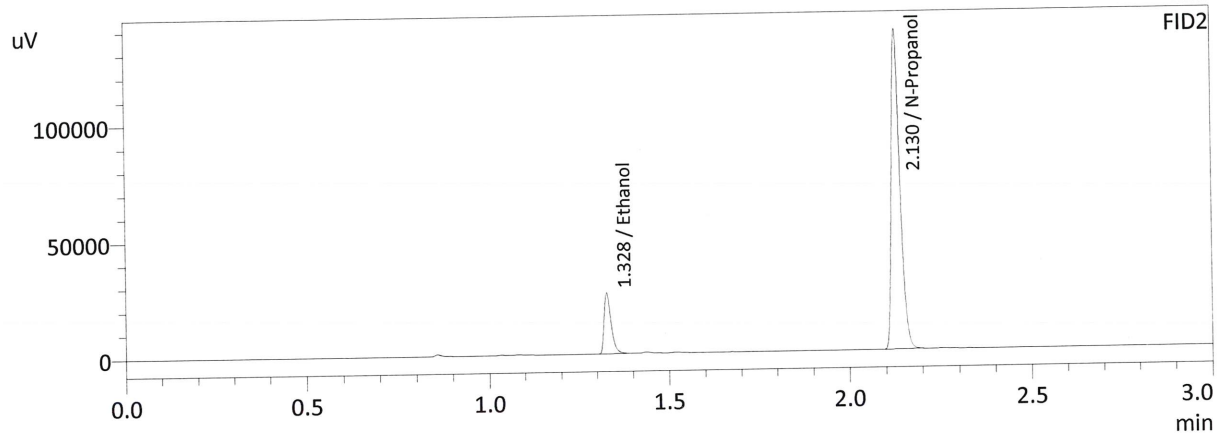
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0745	35658	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	229444	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

MB

Sample Name : QC-1-1-B
Laboratory : Meridian
Injection Date : 6/15/2022 4:35:09 PM
Vial # : 4
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0742	32145	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	206541	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0740	34959	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	226443	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-2 **Item #** **Analysis Date(s): 6/15/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0774	0.0772	0.0002	0.0773	0.0002	0.0774
(g/100cc)	0.0776	0.0774	0.0002	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**

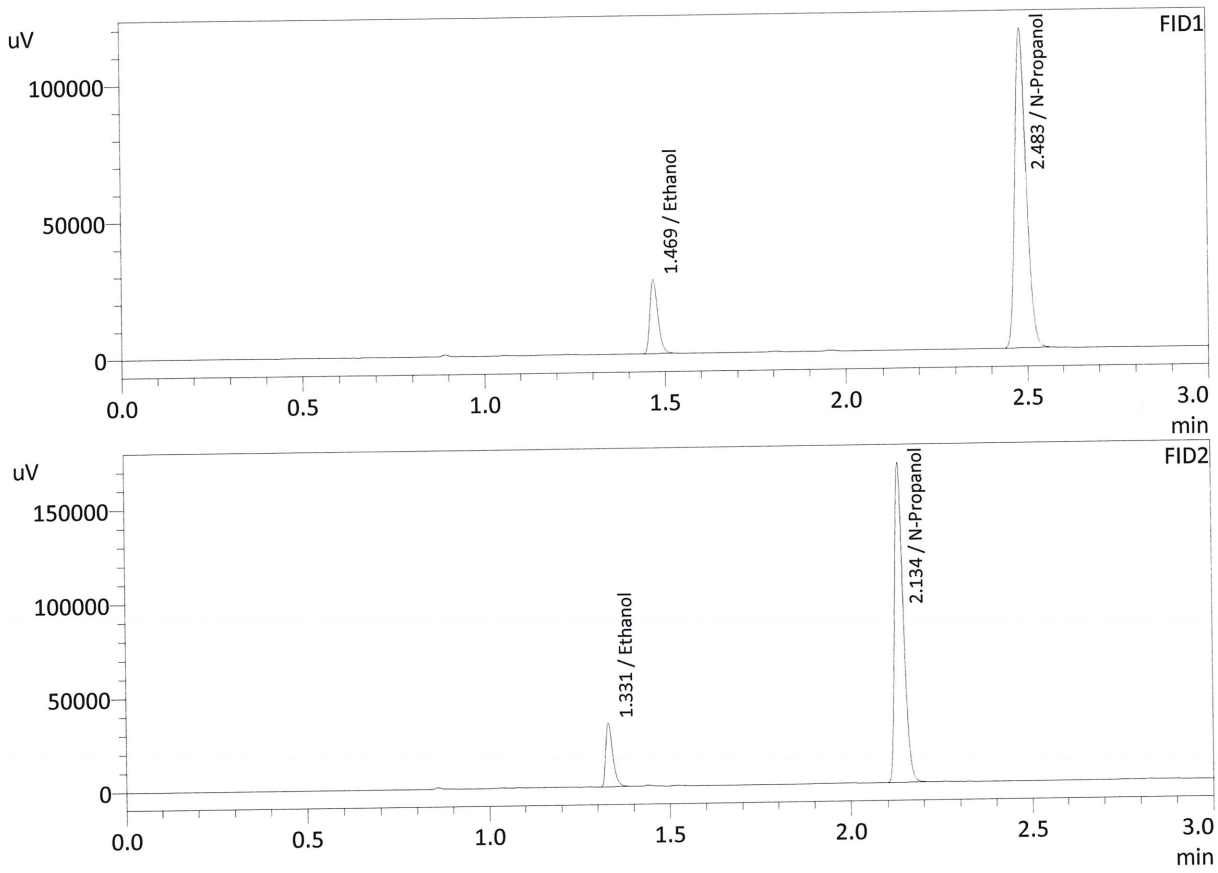
Reported Result

0.077

Calibration and control data are stored centrally.

MB

Sample Name : QC1-2-A
Laboratory : Meridian
Injection Date : 6/15/2022 10:08:07 PM
Vial # : 45
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

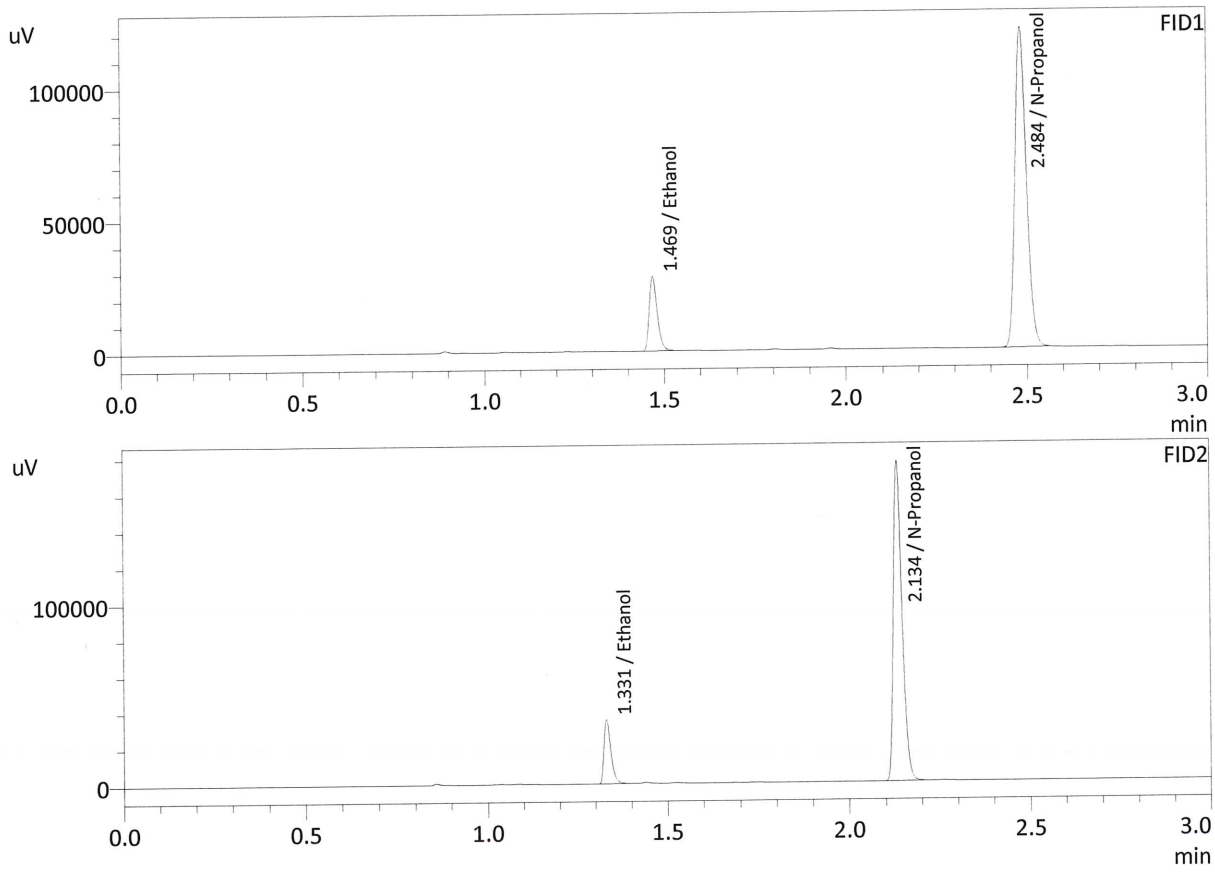
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0774	41723	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	256760	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0772	45397	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	281429	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : 6/15/2022 10:15:37 PM
Vial # : 46
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0776	43333	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	266016	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0774	47174	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	291660 *	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

QC control

MB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC2-1 **Item #** **Analysis Date(s): 6/15/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2150	0.2151	0.0001	0.2150	0.0008	0.2146
(g/100cc)	0.2141	0.2143	0.0002	0.2142		

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%**

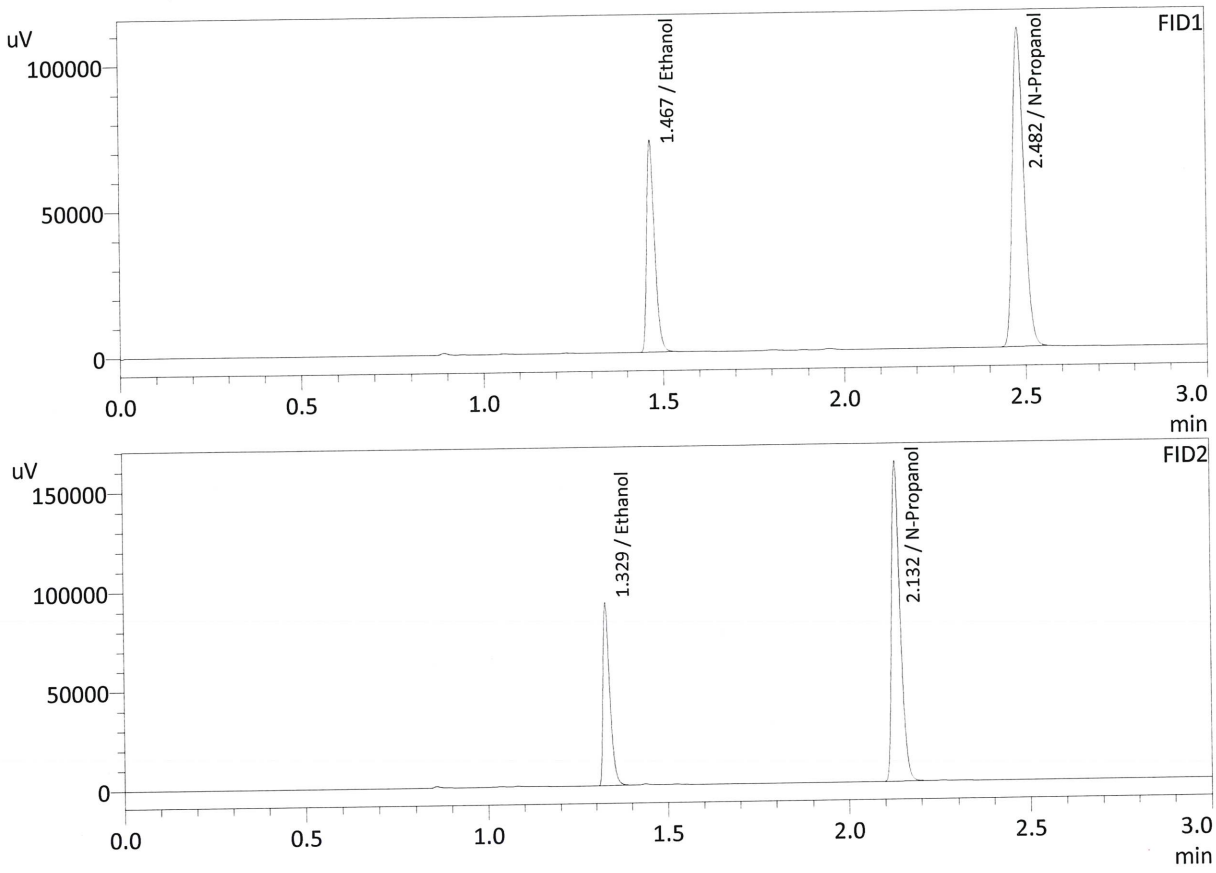
Overall Mean (g/100cc)	Low	High	5% of Mean
0.214	0.203	0.225	0.011

Reported Result

0.214

Calibration and control data are stored centrally.

Sample Name : QC-2-1-A
Laboratory : Meridian
Injection Date : 6/15/2022 7:24:04 PM
Vial # : 25
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



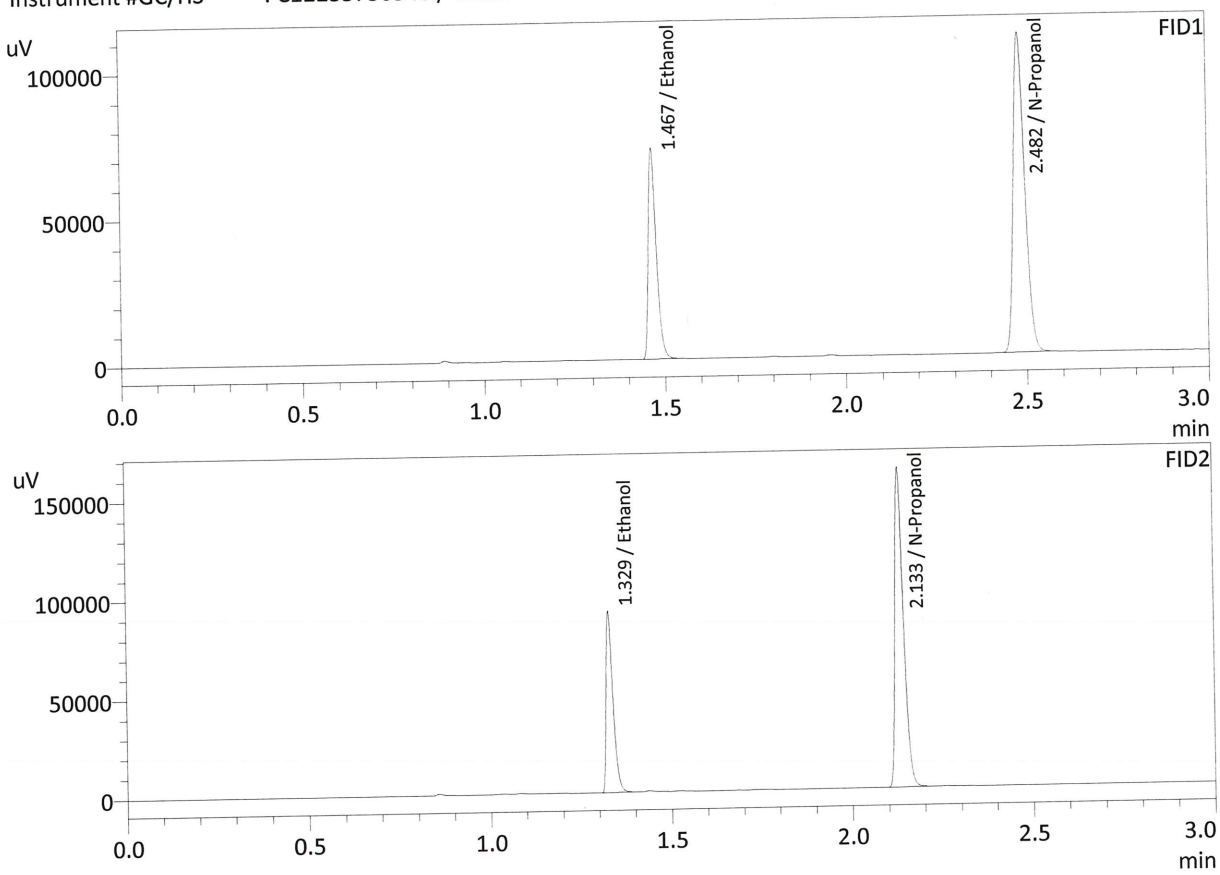
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2150	111318	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	241722	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2151	121342	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	264532	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : QC-2-1-B
Laboratory : Meridian
Injection Date : 6/15/2022 7:31:33 PM
Vial # : 26
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

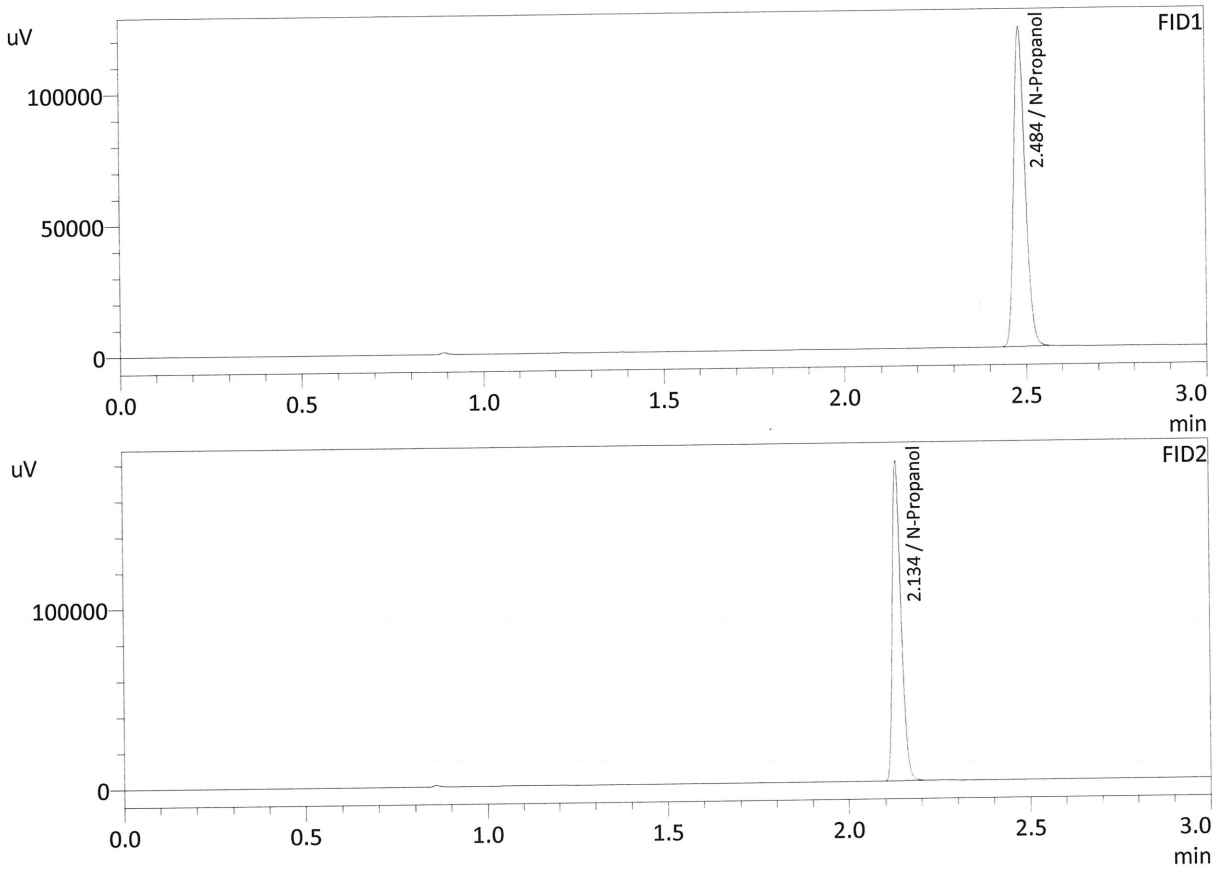
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2141	110966	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	241963	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2143	120966	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	264719	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : INT STD BLNK → Blank 2
Laboratory : Meridian
Injection Date : 6/15/2022 10:23:00 PM
Vial # : 47
Method Filename : C:\LabSolutions\Data\220615\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	268062	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	293931 *	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Quantative only

average ISTD: $\frac{268062 + 293931}{2}$

$= 280,996.5$

NB

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\220615\CALIBRATION\ALCOHOL.GCM
2	ED VOLATILES FN 0710	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
3	QC-1-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
4	QC-1-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
5	0.08 QA-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
6	0.08 QA-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
7	M2022-2004-3-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
8	M2022-2004-3-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
9	M2022-2257-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
10	M2022-2257-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
11	M2022-2265-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
12	M2022-2265-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
13	M2022-2266-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
14	M2022-2266-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
15	M2022-2267-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
16	M2022-2267-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
17	M2022-2290-2-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
18	M2022-2290-2-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
19	M2022-2302-2-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
20	M2022-2302-2-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
21	M2022-2316-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
22	M2022-2316-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
23	M2022-2323-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
24	M2022-2323-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
25	QC-2-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
26	QC-2-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
27	M2022-2332-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
28	M2022-2332-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
29	M2022-2348-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
30	M2022-2348-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
31	M2022-2349-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
32	M2022-2349-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
33	M2022-2400-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
34	M2022-2400-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
35	M2022-2420-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
36	M2022-2420-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
37	M2022-2447-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
38	M2022-2447-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
39	M2022-2448-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
40	M2022-2448-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
41	M2022-2453-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
42	M2022-2453-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
43	P2022-1642-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
44	P2022-1642-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
45	QC1-2-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
46	QC1-2-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
47	INT STD BLNK	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM