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): 6/24/22**

Calibration Date: 6/15/22

Worklist #: 6003

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Jul-23	1907006	0.0764	0.0688-0.0840	0.0728 g/100cc
					0.0772 g/100cc
					g/100cc
Level 2	Jul-23	1907007	0.2170	0.1953-0.2387	0.2110 g/100cc
					0.2146 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:	242225.8	193780.6	290671.0

Aqueous Controls

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

REVIEWED
By Galina Giso at 12:05 pm, Jun 27, 2022

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

Internal Standard Monitoring Worksheet

Worklist #:	6003	Run Date(s):	6/24/22

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

Sample Name	Column 1 Value	Column 2 Value	Average
0.080A	205873	224815	215344
0.080B	201816	220422	211119
QC1-1A	200574	219023	209798.5
QC1-1B	204563	223293	213928
QC1-2A	254026	277608	265817
QC1-2B	256812	280726	268769
QC2-1A	229519	250627	240073
QC2-1B	231329	252562	241945.5
QC2-2A	261112	285225	273168.5
QC2-2B	269905	294686	282295.5
			#DIV/0!
			#DIV/0!
			#DIV/0!
			#DIV/0!

Combined Average	(-)20%	(+)20%
242225.8	193780.6	290671.0

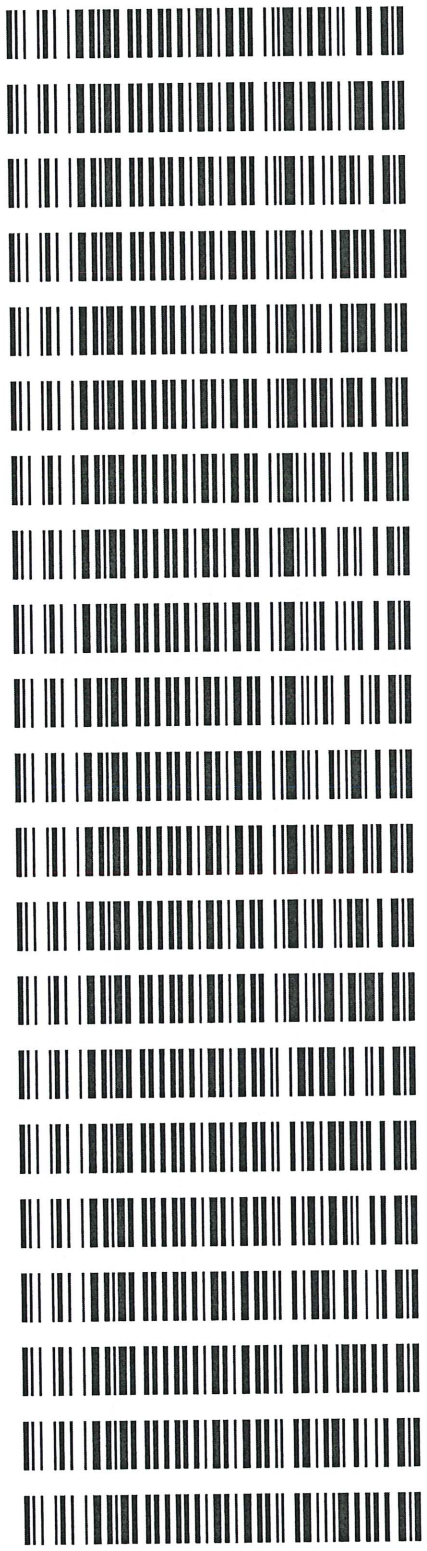
NB

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

6/24/2022

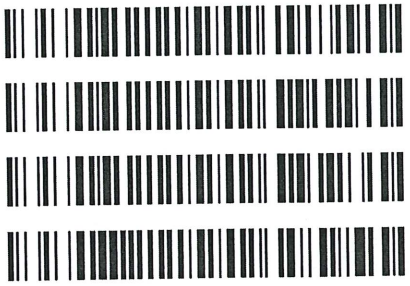
Worklist: 6003

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2022-2466	1	BLOOD	Alcohol Analysis
M2022-2467	1	BCK	Alcohol Analysis
M2022-2468	1	BCK	Alcohol Analysis
M2022-2469	1	BCK	Alcohol Analysis
M2022-2470	1	BCK	Alcohol Analysis
M2022-2471	1	BCK	Alcohol Analysis
M2022-2493	1	BCK	Alcohol Analysis
M2022-2494	1	BCK	Alcohol Analysis
M2022-2511	1	BCK	Alcohol Analysis
M2022-2512	1	BCK	Alcohol Analysis
M2022-2513	1	BCK	Alcohol Analysis
M2022-2519	1	BCK	Alcohol Analysis
M2022-2528	1	BCK	Alcohol Analysis
M2022-2529	1	BCK	Alcohol Analysis
M2022-2530	1	BCK	Alcohol Analysis
M2022-2551	1	BCK	Alcohol Analysis
M2022-2552	1	BCK	Alcohol Analysis
M2022-2585	1	BCK	Alcohol Analysis
M2022-2597	1	BCK	Alcohol Analysis
M2022-2598	1	BCK	Alcohol Analysis
M2022-2601	1	BCK	Alcohol Analysis

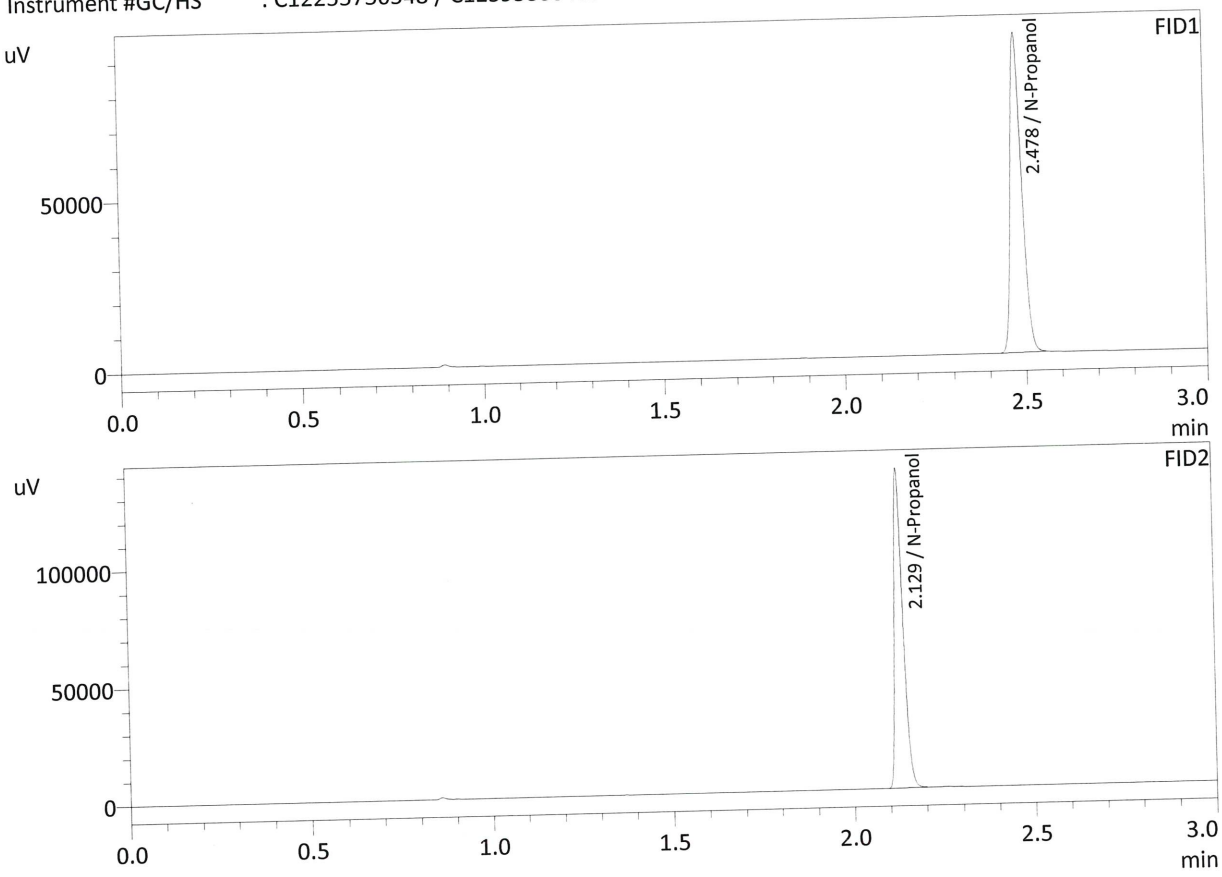


Worklist: 6003

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2022-2607	1	BCK	Alcohol Analysis
M2022-2608	1	BCK	Alcohol Analysis
M2022-2609	1	BCK	Alcohol Analysis
P2022-1892	2	BCK	Alcohol Analysis



Sample Name : INT STD BLK 1
Laboratory : Meridian
Injection Date : 6/24/2022 12:29:06 PM
Vial # : 1
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

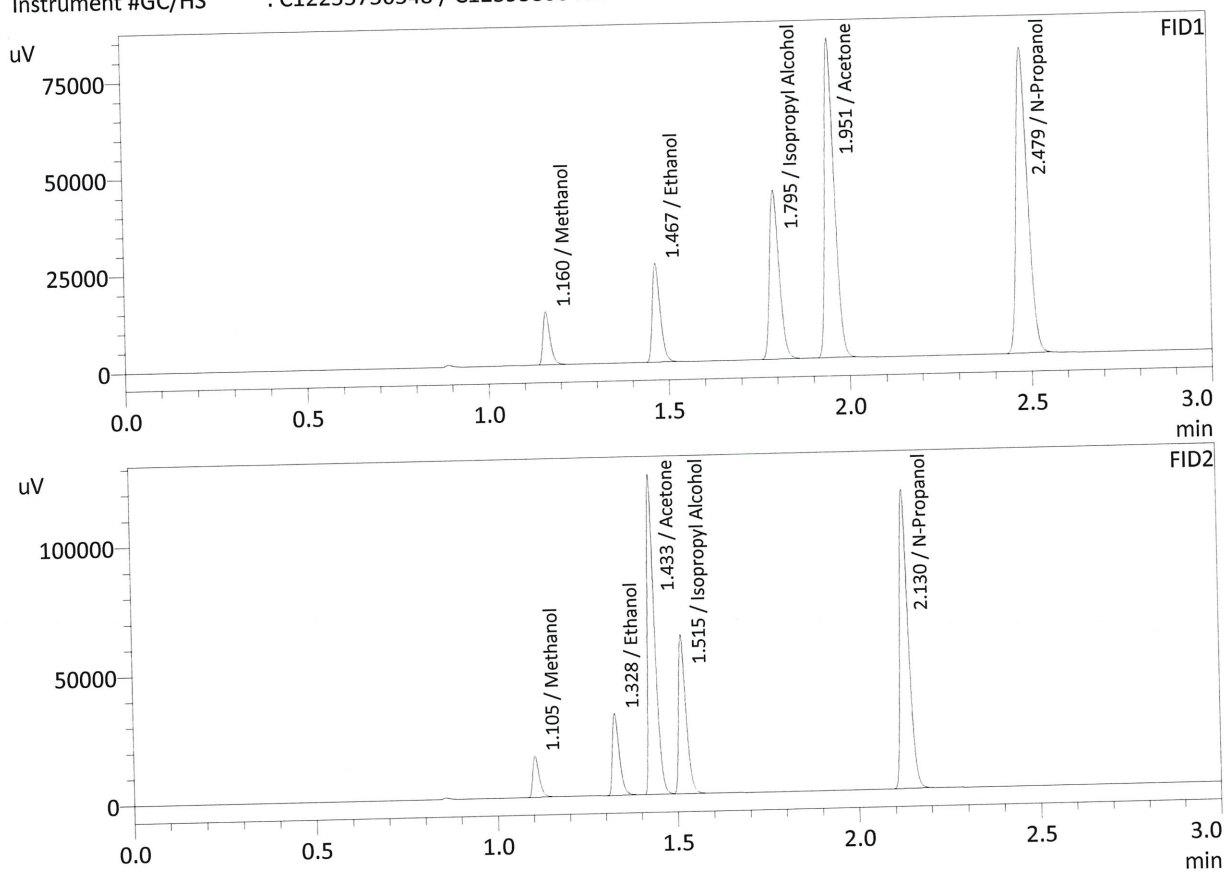
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	205849	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	224959	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : MIXED VOLATILES FN 07101701
Laboratory : Meridian
Injection Date : 6/24/2022 12:36:26 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	18450	g/100cc
Ethanol	0.1051	38887	g/100cc
Isopropyl Alcohol	0.0000	80343	g/100cc
Acetone	0.0000	152971	g/100cc
N-Propanol	0.0000	174694	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	0.0000	20014	g/100cc
Ethanol	0.1053	42310	g/100cc
Acetone	0.0000	166894	g/100cc
Isopropyl Alcohol	0.0000	86937	g/100cc
N-Propanol	0.0000	190671	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: 0.080 **Item #** **Analysis Date(s): 6/24/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0796	0.0793	0.0003	0.0794	0.0003	0.0795
(g/100cc)	0.0799	0.0795	0.0004	0.0797		

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%**

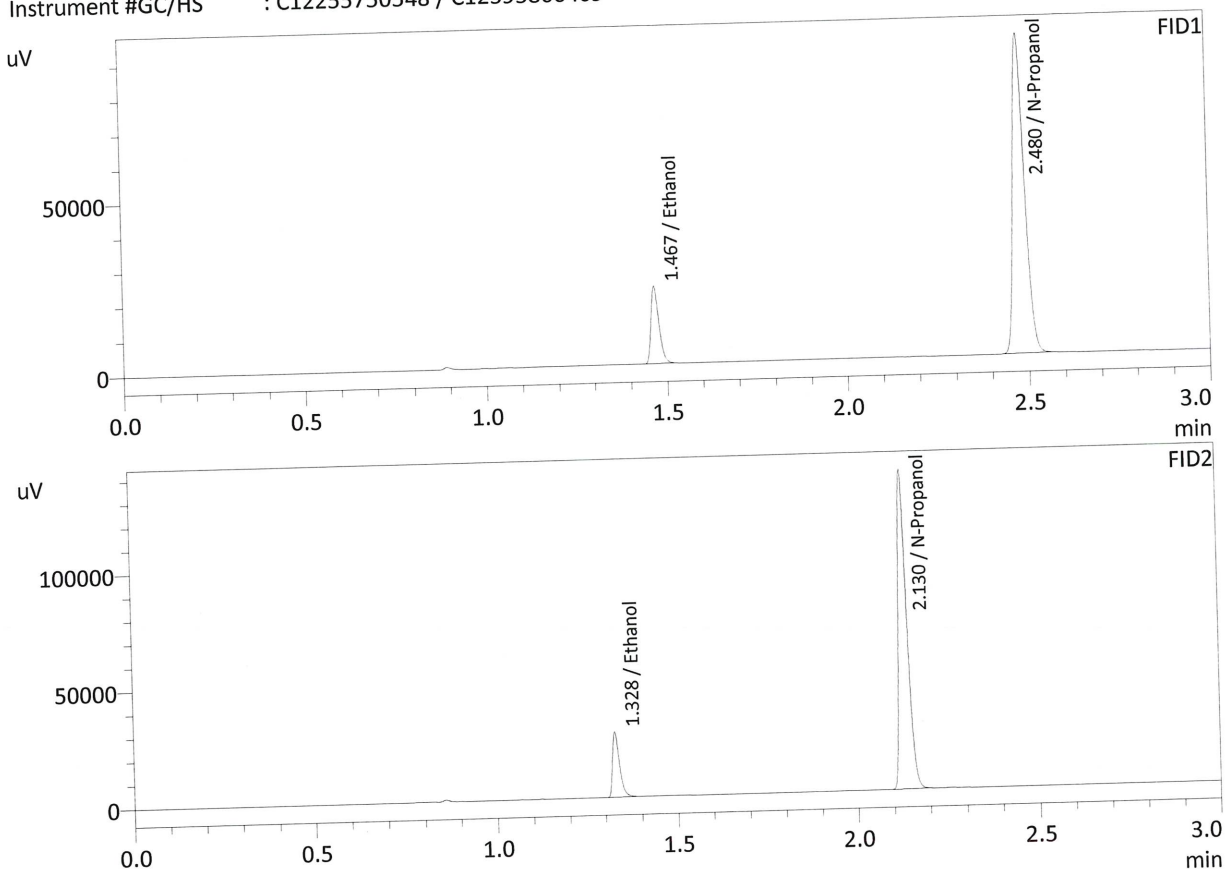
Overall Mean (g/100cc)	Low	High	5% of Mean
0.079	0.075	0.083	0.004

	Reported Result	
	0.079	

Calibration and control data are stored centrally.

NB

Sample Name : 0.08 QA-A
Laboratory : Meridian
Injection Date : 6/24/2022 1:00:17 PM
Vial # : 5
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

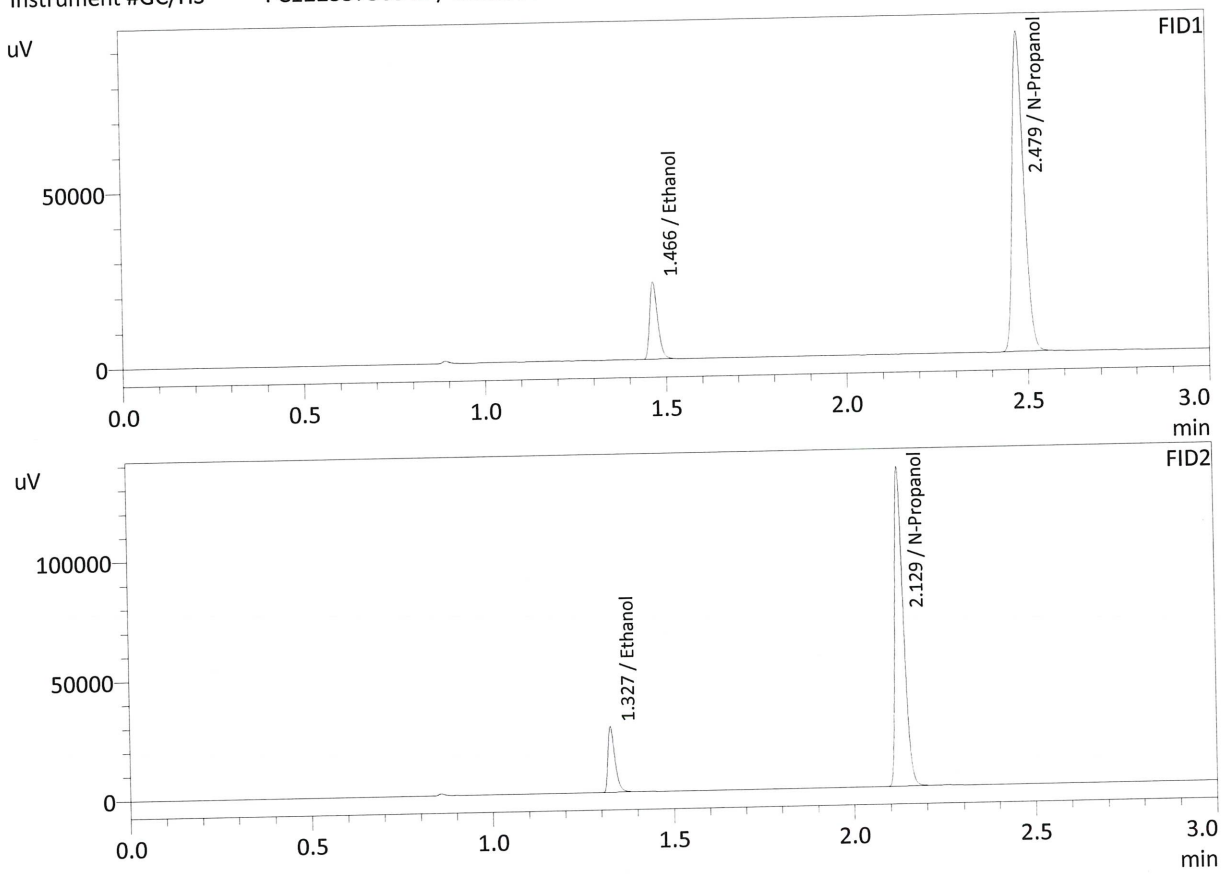
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0796	34425	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	205873	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0793	37252	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	224815	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : 0.08 QA-B
Laboratory : Meridian
Injection Date : 6/24/2022 1:09:04 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	0.0799	33894	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	201816	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0795	36640	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	220422	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-1 **Item #** **Analysis Date(s): 6/24/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0725	0.0723	0.0002	0.0724	0.0008	0.0728
(g/100cc)	0.0734	0.0731	0.0003	0.0732		

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
0.072	0.068	0.076	0.004

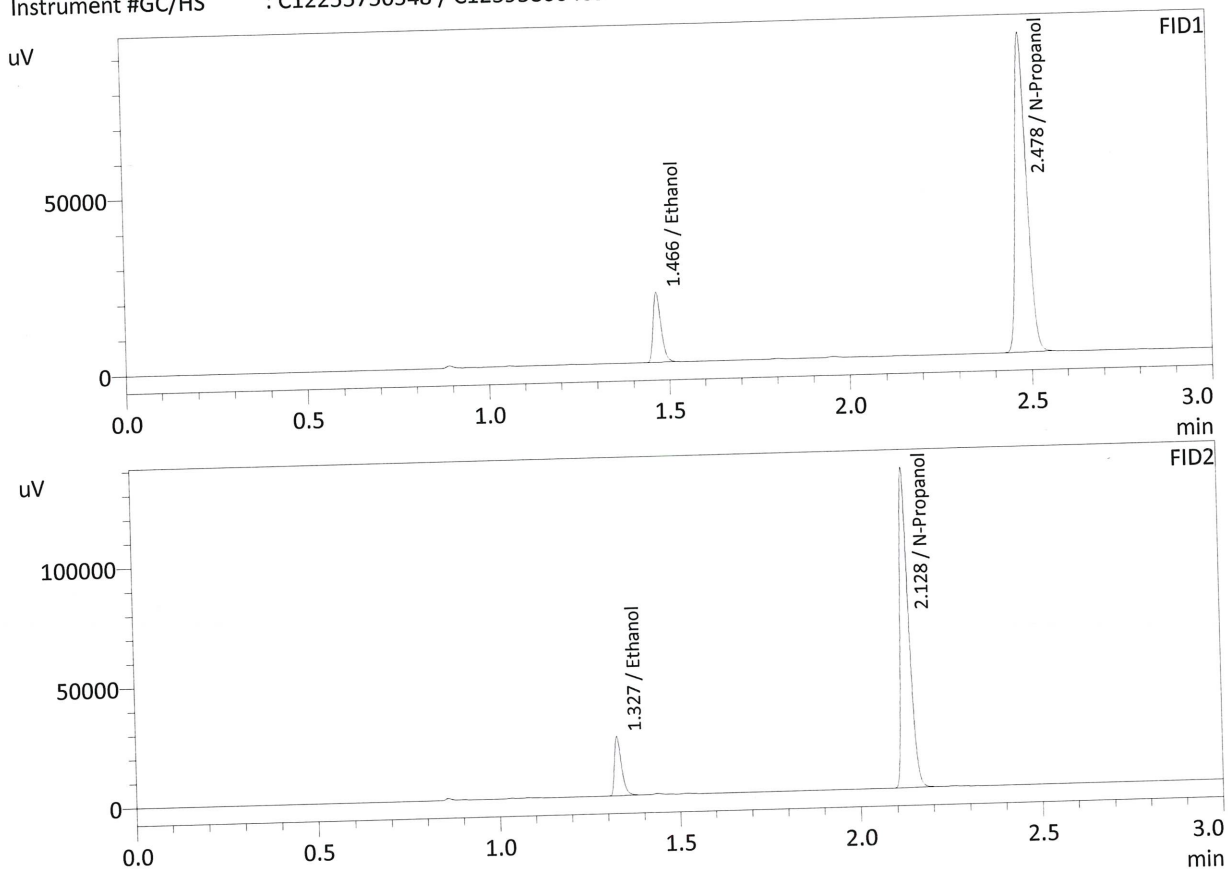
Reported Result

0.072

Calibration and control data are stored centrally.

NB

Sample Name : QC-1-1-A
Laboratory : Meridian
Injection Date : 6/24/2022 12:44:07 PM
Vial # : 3
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

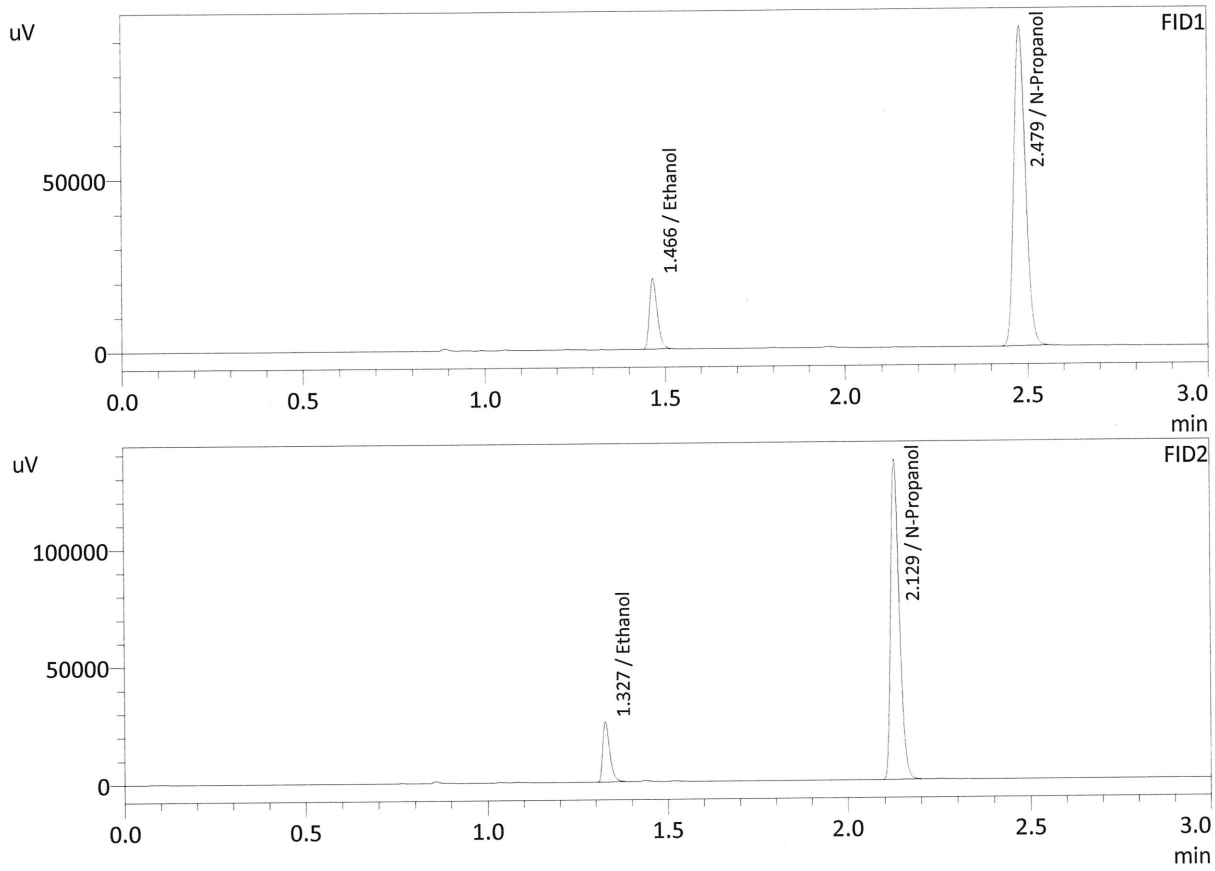
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0725	30490	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	200574	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0723	32985	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	219023	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : QC-1-1-B
Laboratory : Meridian
Injection Date : 6/24/2022 12:52:33 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	0.0734	31466	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	204563	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0731	34035	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	223293	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC1-2 **Item #** **Analysis Date(s): 6/24/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0774	0.0773	0.0001	0.0773	0.0002	0.0772
(g/100cc)	0.0771	0.0771	0.0000	0.0771		

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

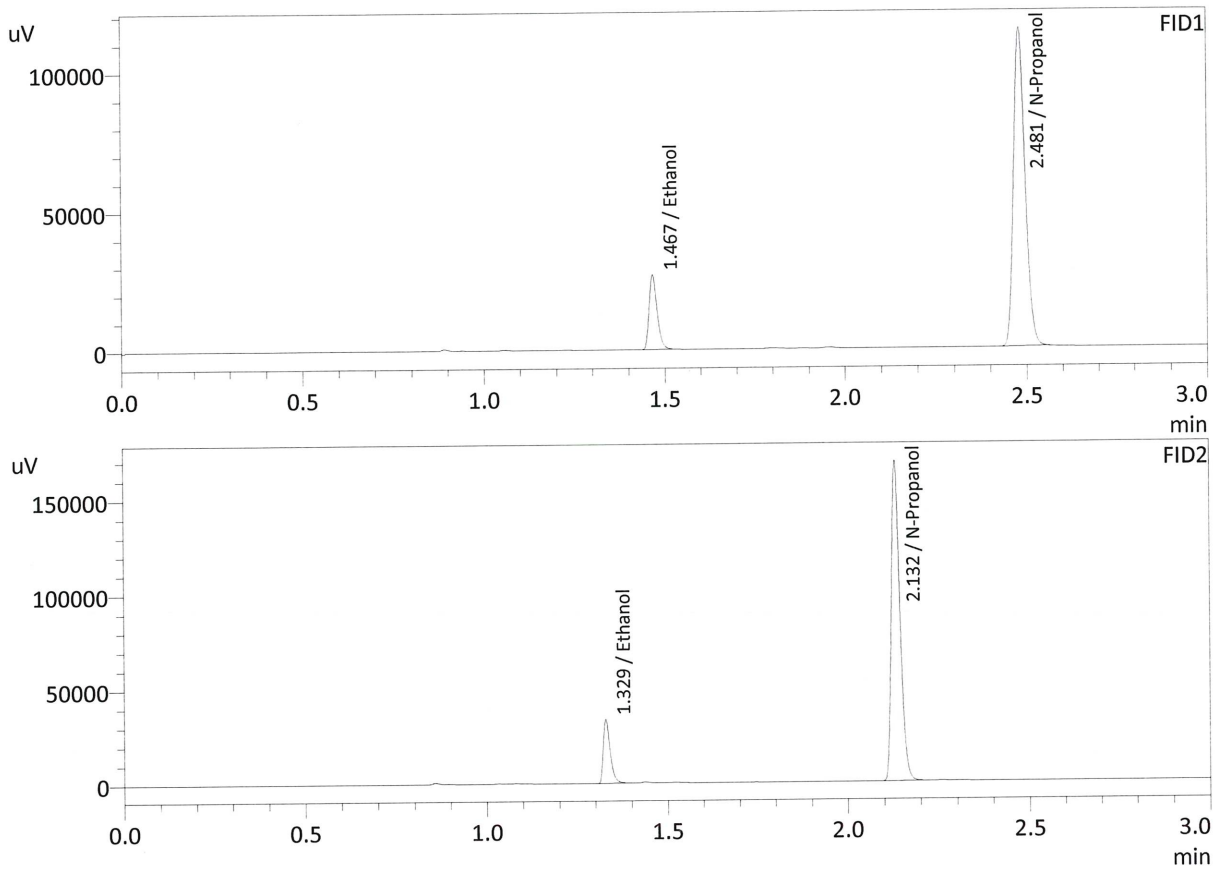
Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

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 : QC1-2-A
Laboratory : Meridian
Injection Date : 6/24/2022 6:39:06 PM
Vial # : 47
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



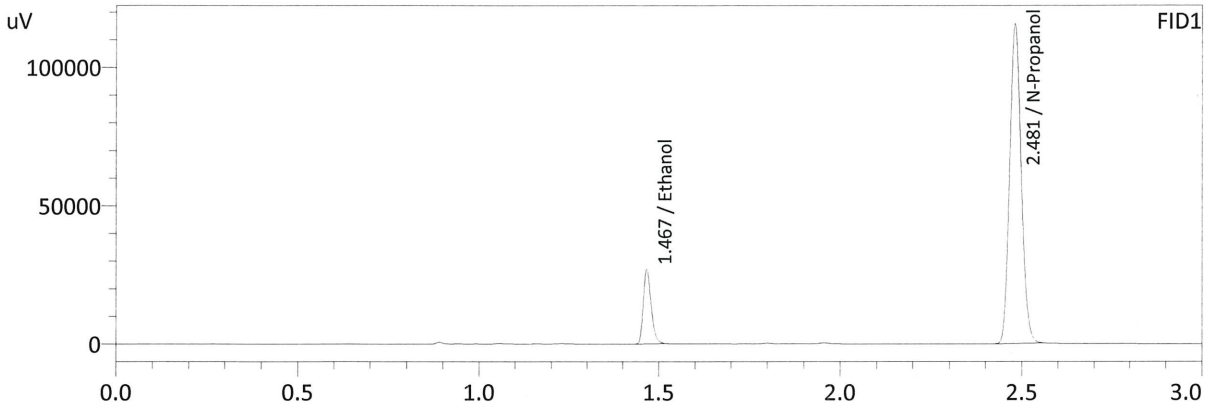
FID1

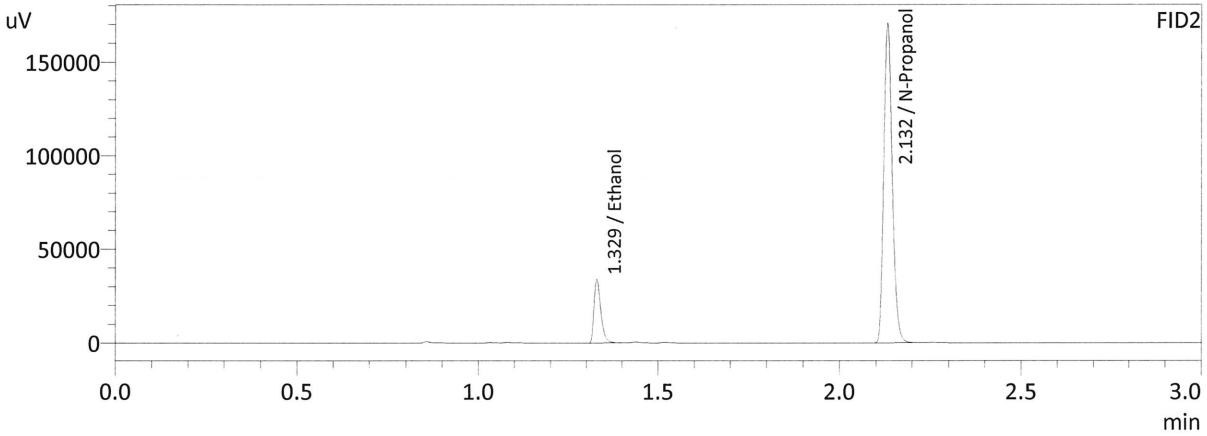
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0774	41272	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	254026	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0773	44834	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	277608	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : 6/24/2022 6:47:48 PM
Vial # : 48
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0771	41600	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	256812	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0771	45201	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	280726	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC2-1 **Item #** **Analysis Date(s): 6/24/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2103	0.2103	0.0000	0.2103	0.0015	0.2110
(g/100cc)	0.2118	0.2118	0.0000	0.2118		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information *Instrument information is stored centrally.*

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

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

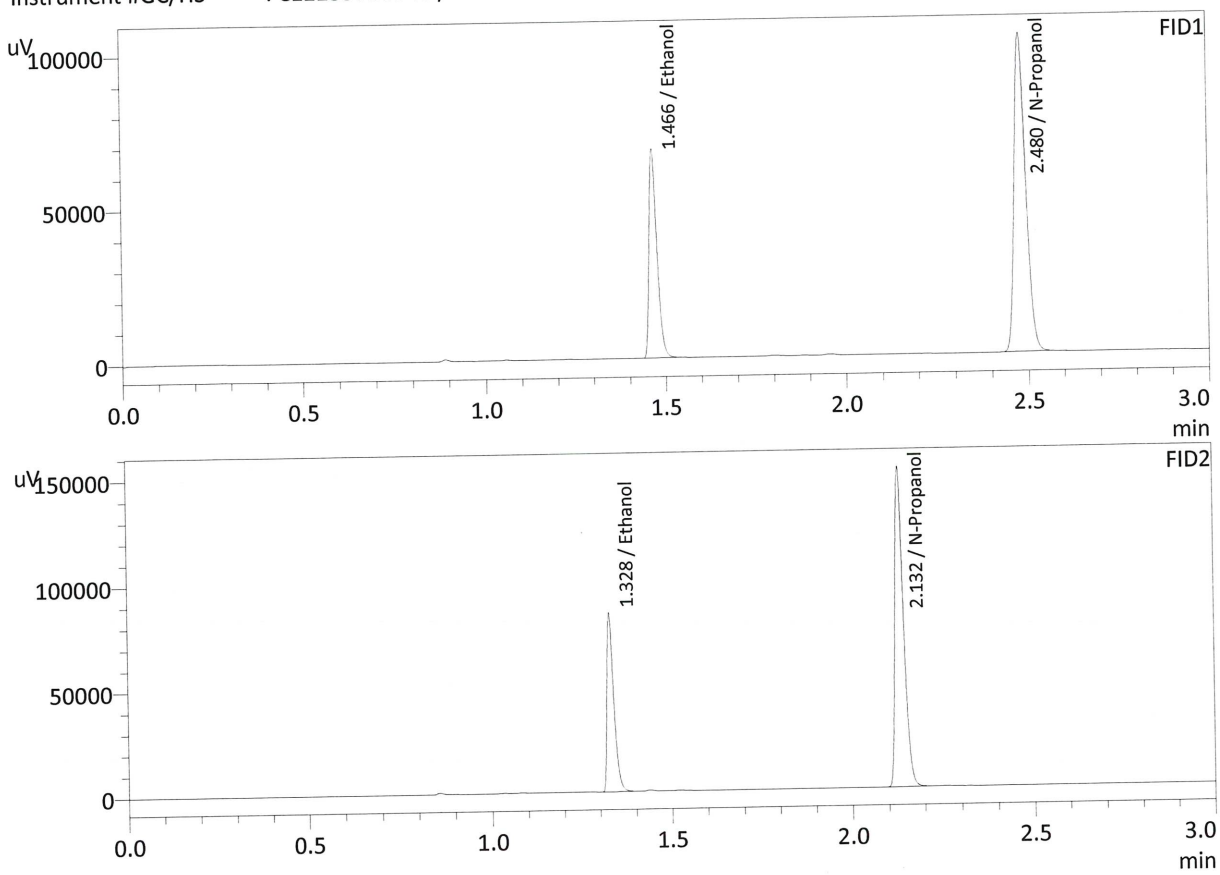
Overall Mean (g/100cc)	Low	High	5% of Mean
0.211	0.200	0.222	0.011

	Reported Result	
	0.211	

Calibration and control data are stored centrally.

NB

Sample Name : QC-2-1-A
Laboratory : Meridian
Injection Date : 6/24/2022 3:41:49 PM
Vial # : 25
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

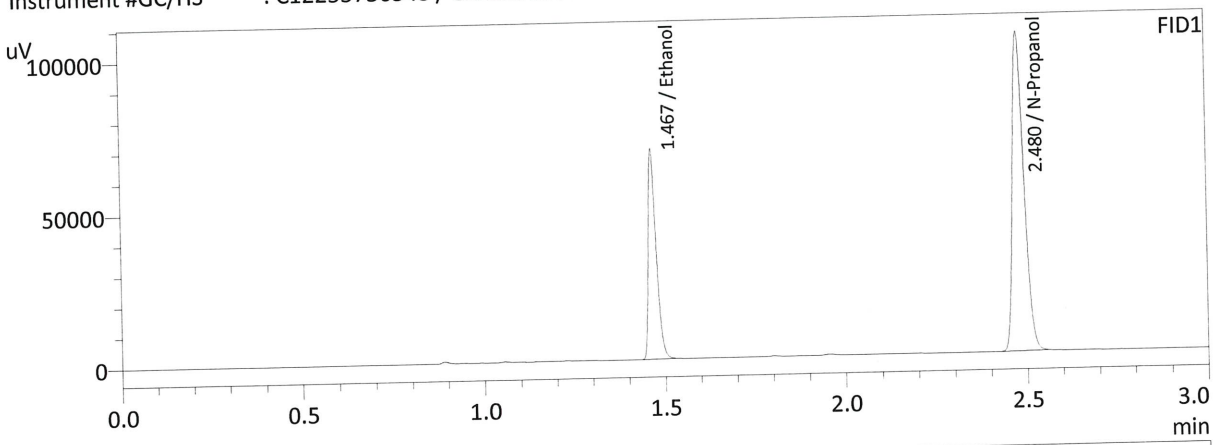
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2103	103369	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	229519	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

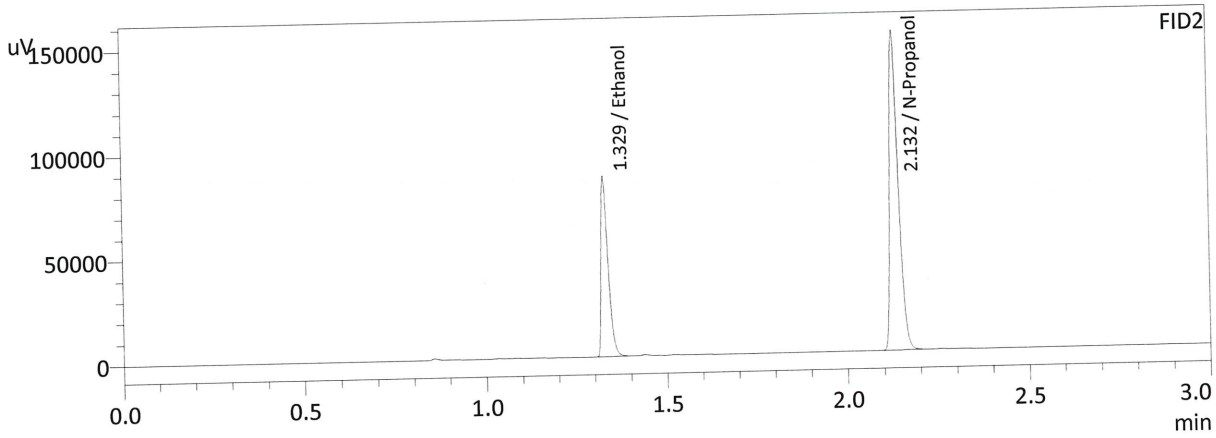
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2103	112351	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	250627	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

MB

Sample Name : QC-2-1-B
Laboratory : Meridian
Injection Date : 6/24/2022 3:49:27 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	0.2118	104937	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	231329	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2118	114064	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	252562	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC2-2 **Item #** **Analysis Date(s): 6/24/2022**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2149	0.2149	0.0000	0.2149	0.0006	0.2146
(g/100cc)	0.2145	0.2141	0.0004	0.2143		

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%

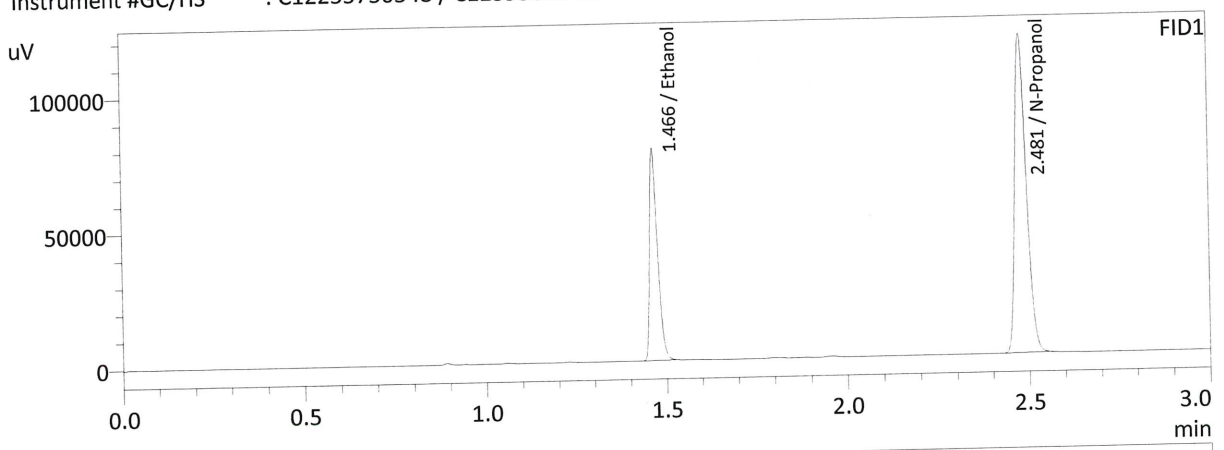
Overall Mean (g/100cc)	Low	High	5% of Mean
0.214	**0.203**	**0.225**	**0.011**

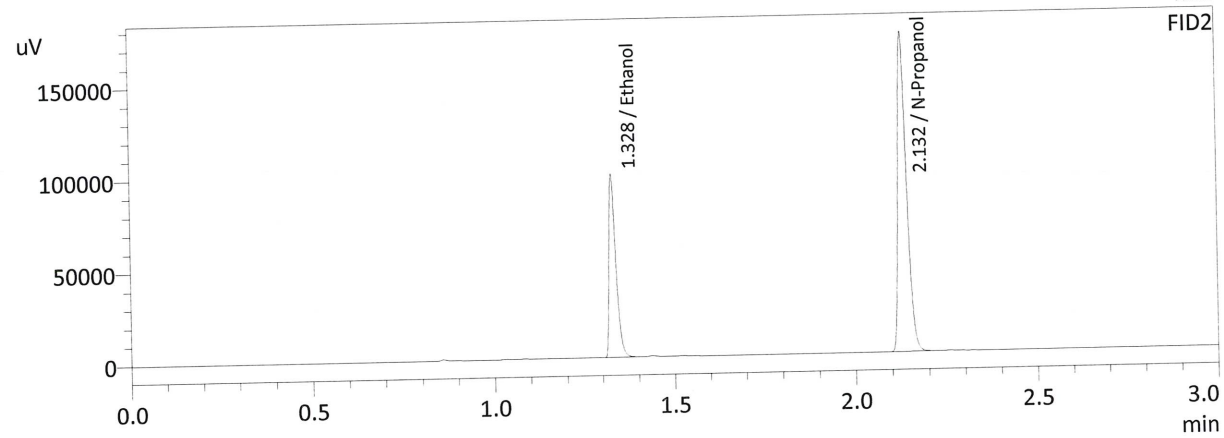
	Reported Result	
	0.214	

Calibration and control data are stored centrally.

NB

Sample Name : QC2-2-A
Laboratory : Meridian
Injection Date : 6/24/2022 8:30:16 PM
Vial # : 61
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

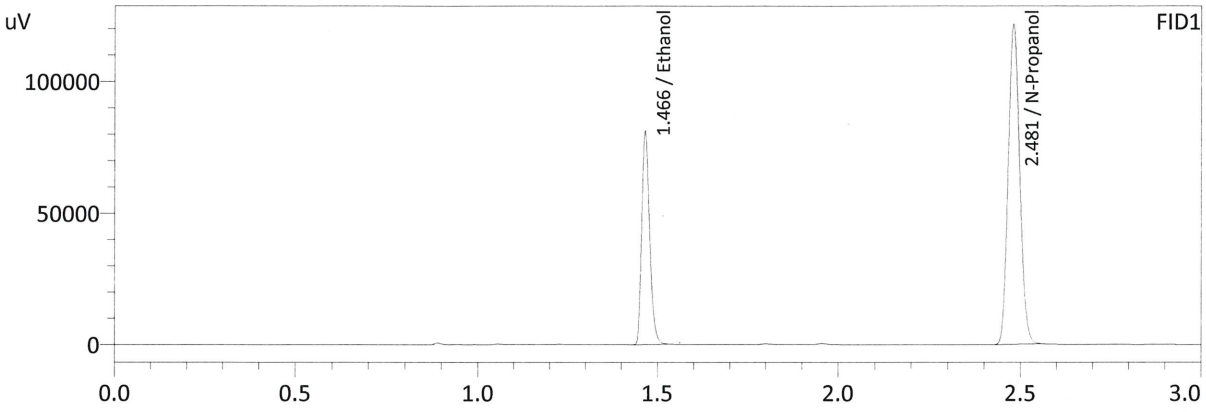
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2149	120204	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	261112	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

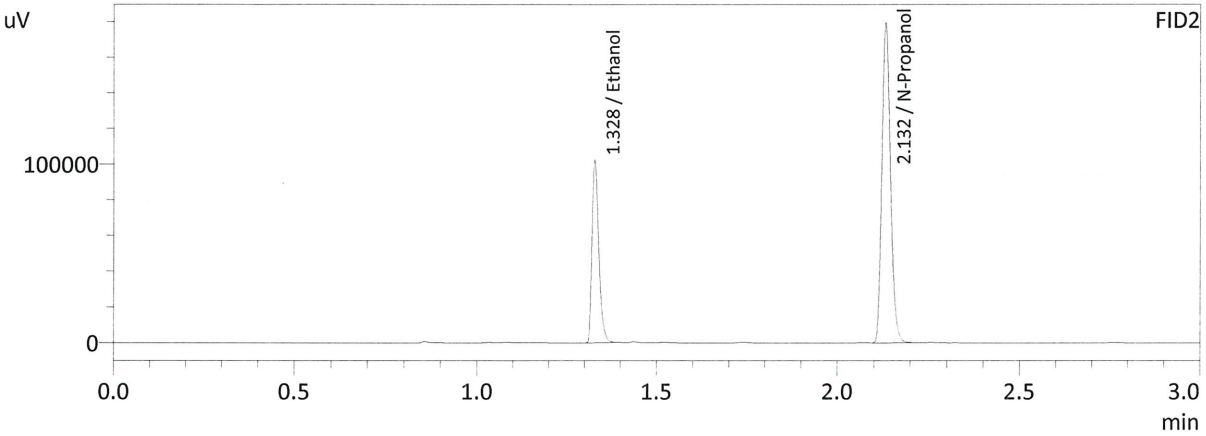
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2149	130698	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	285225	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

NB

Sample Name : QC2-2-B
Laboratory : Meridian
Injection Date : 6/24/2022 8:38:21 PM
Vial # : 62
Method Filename : C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2145	123992	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	269905	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

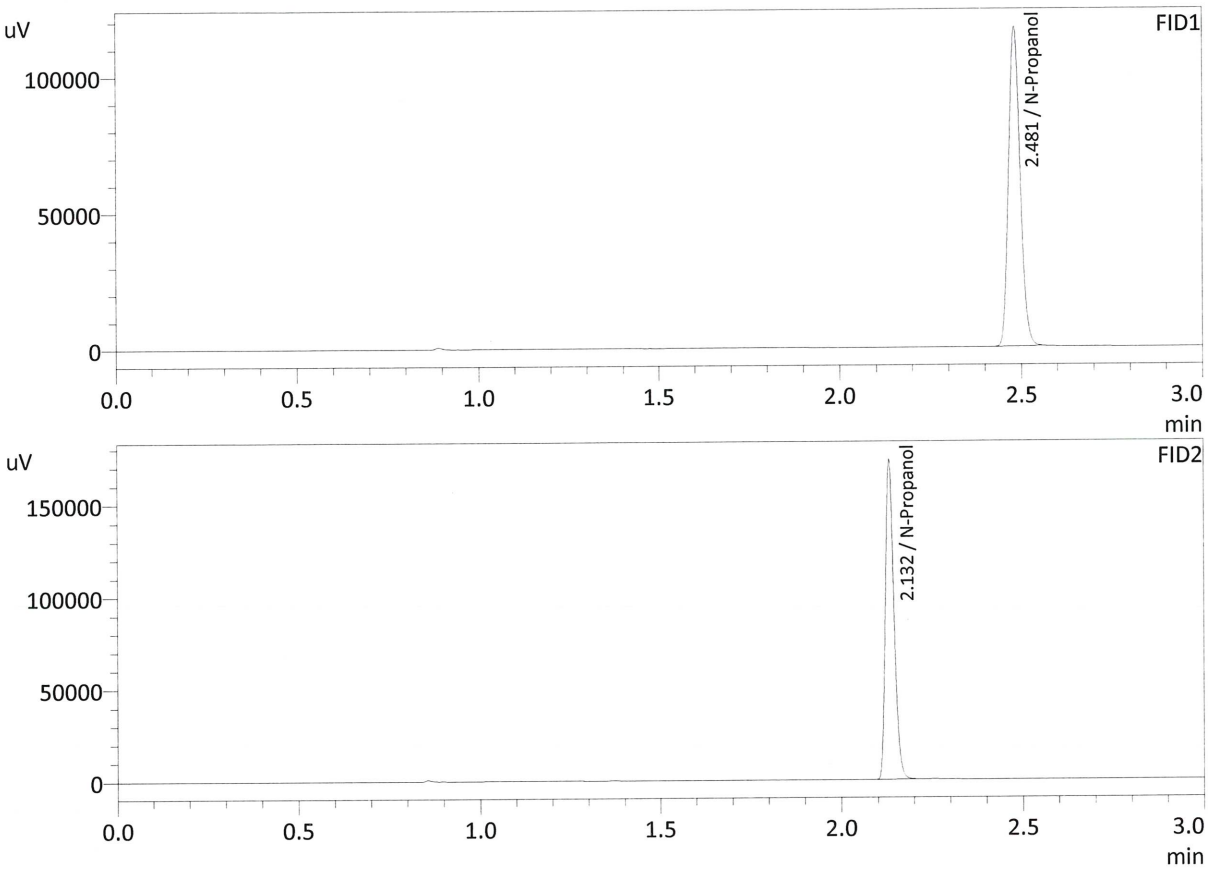
FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2141	134517	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	294686 *	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

QC

MB

Sample Name : INT STD BLK
Laboratory : Meridian
Injection Date : 6/24/2022 8:48:01 PM
Vial # : 63
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	260424	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	284873	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Meridian Blood Alcohol Analysis Batch Table

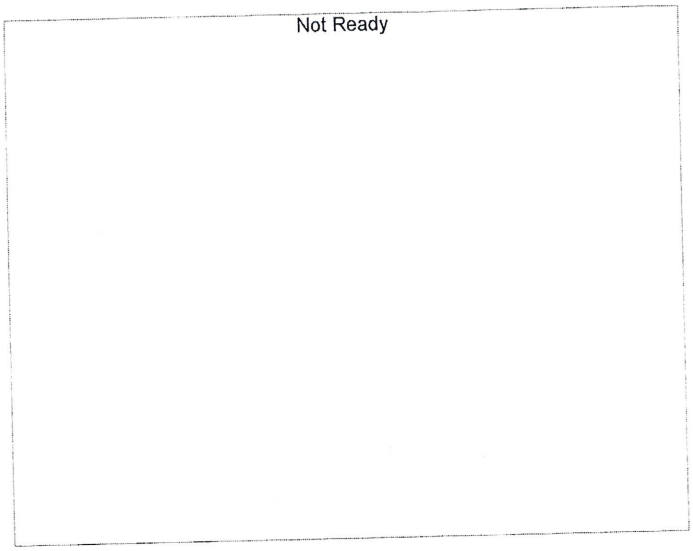
Shimadzu GC-2030 Serial #C12255750548
Shimadzu HS-20 Serial #C12595800409
Lab Solutions Software Ver. 5.99

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	M2022-2466-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
8	M2022-2466-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
9	M2022-2467-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
10	M2022-2467-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
11	M2022-2468-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
12	M2022-2468-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
13	M2022-2469-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
14	M2022-2469-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
15	M2022-2470-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
16	M2022-2470-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
17	M2022-2471-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
18	M2022-2471-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
19	M2022-2493-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
20	M2022-2493-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
21	M2022-2494-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
22	M2022-2494-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
23	M2022-2511-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
24	M2022-2511-1-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	M2022-2512-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
28	M2022-2512-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
29	M2022-2513-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
30	M2022-2513-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
31	M2022-2519-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
32	M2022-2519-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
33	M2022-2528-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
34	M2022-2528-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
35	M2022-2529-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
36	M2022-2529-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
37	M2022-2530-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
38	M2022-2530-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
39	M2022-2551-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
40	M2022-2551-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
41	M2022-2552-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
42	M2022-2552-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
43	M2022-2585-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
44	M2022-2585-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
45	M2022-2597-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
46	M2022-2597-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
47	QC1-2-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
48	QC1-2-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
49	M2022-2598-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
50	M2022-2598-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
51	M2022-2601-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
52	M2022-2601-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
53	M2022-2607-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
54	M2022-2607-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
55	M2022-2608-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
56	M2022-2608-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
57	M2022-2609-1-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
58	M2022-2609-1-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
59	P2022-1892-2-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
60	P2022-1892-2-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
61	QC2-2-A	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
62	QC2-2-B	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM
63	INT STD BLK	C:\LabSolutions\Data\220615\CALIBRATION\ALCOHOL.GCM

Calibration Table

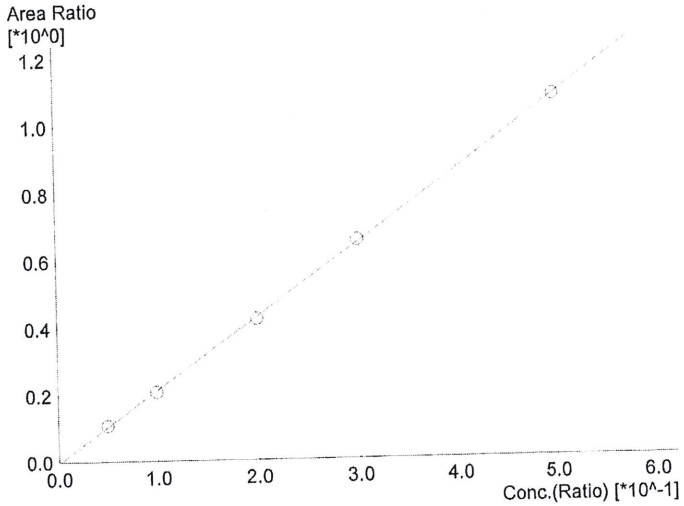
Laboratory : MERIDIAN
Instrument Name : GC-HS
Instrument Serial # : C12595800409 / C12255750548

<<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

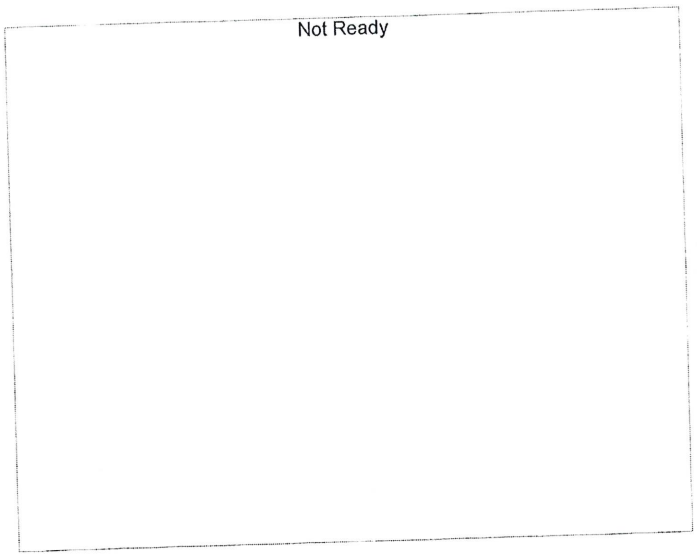
#	Conc.	Area	Std. Conc.



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

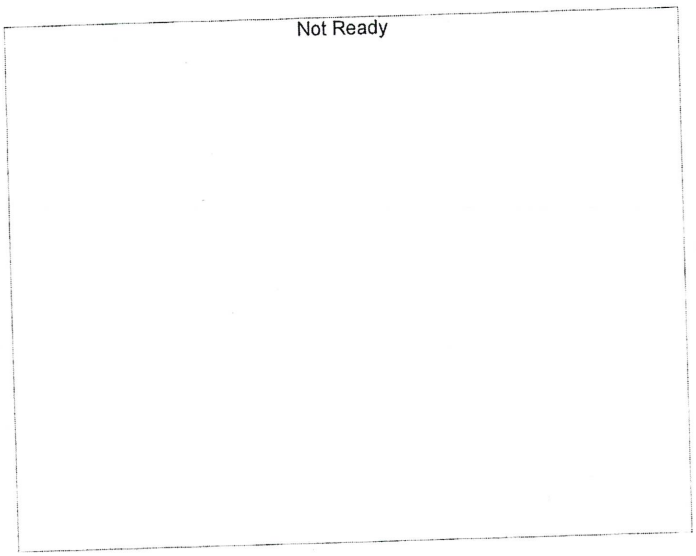
#	Conc.	Area	Std. Conc.
1	0.050	22780	0.0519
2	0.100	43008	0.0981
3	0.200	85327	0.1971
4	0.300	134249	0.3036
5	0.500	229399	0.4991

NB



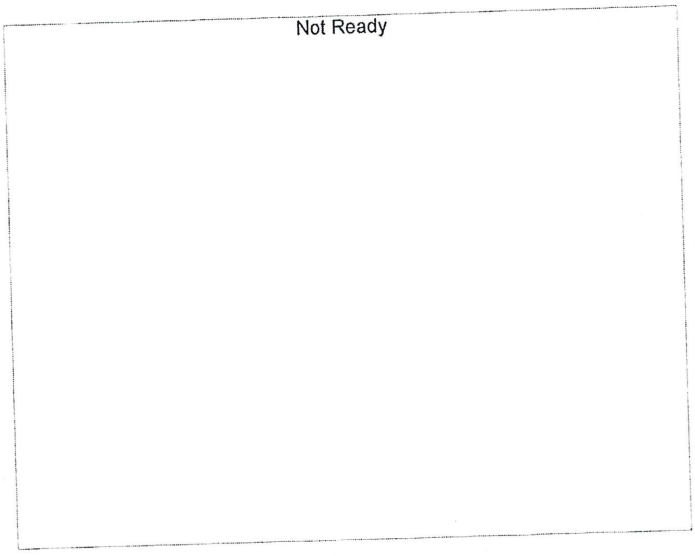
Name : Isopropyl Alcohol
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



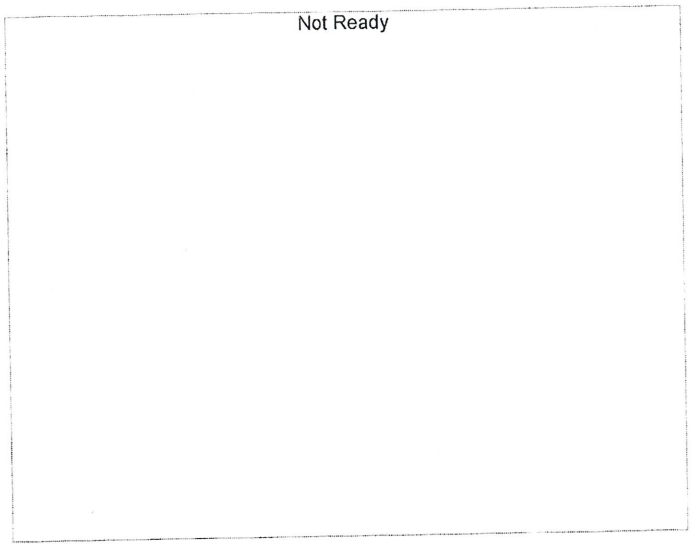
Name : Acetone
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



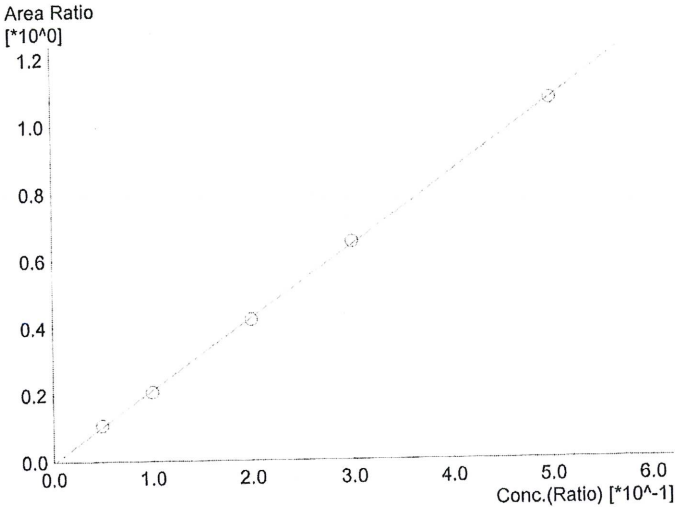
Name : Fluor. Hydrocarbon(s)
Detector Name: FID1
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



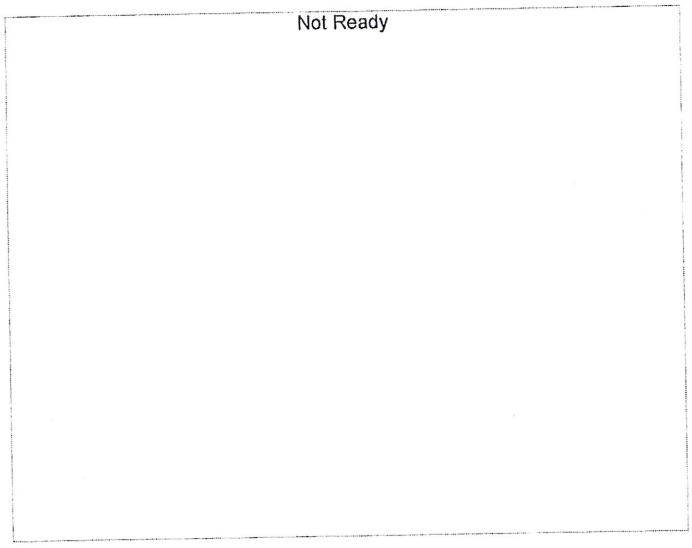
Name : Methanol
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



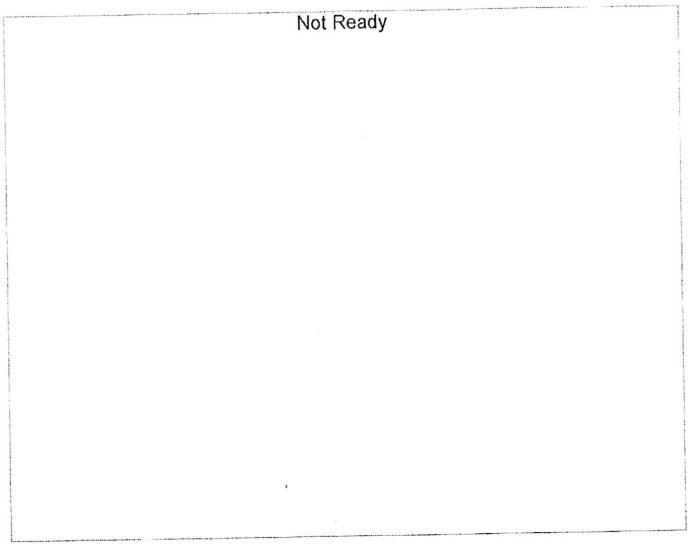
Name : Ethanol
Detector Name: FID2
Function : f(x)=2.15704*x-0.00542688
R^2 value= 0.9997528
FitType: Linear
ZeroThrough: Not Through

#	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



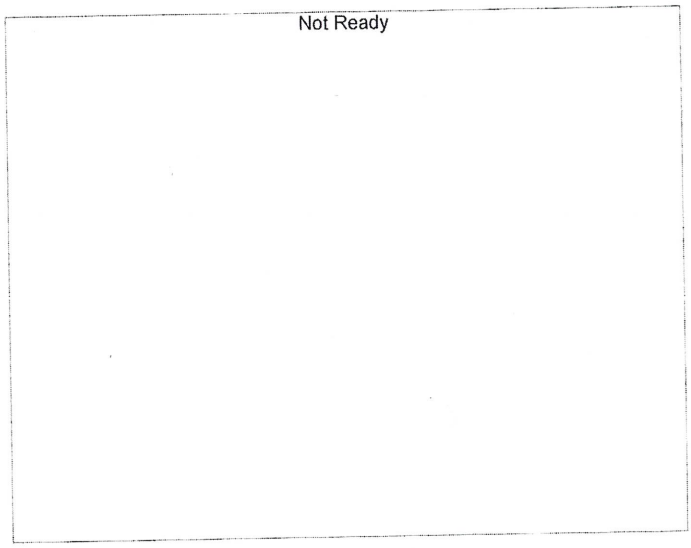
Name : Acetone
Detector Name: FID2
Function : f(x)=0*x+0
R^2 value= 0
FitType: Linear
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.



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

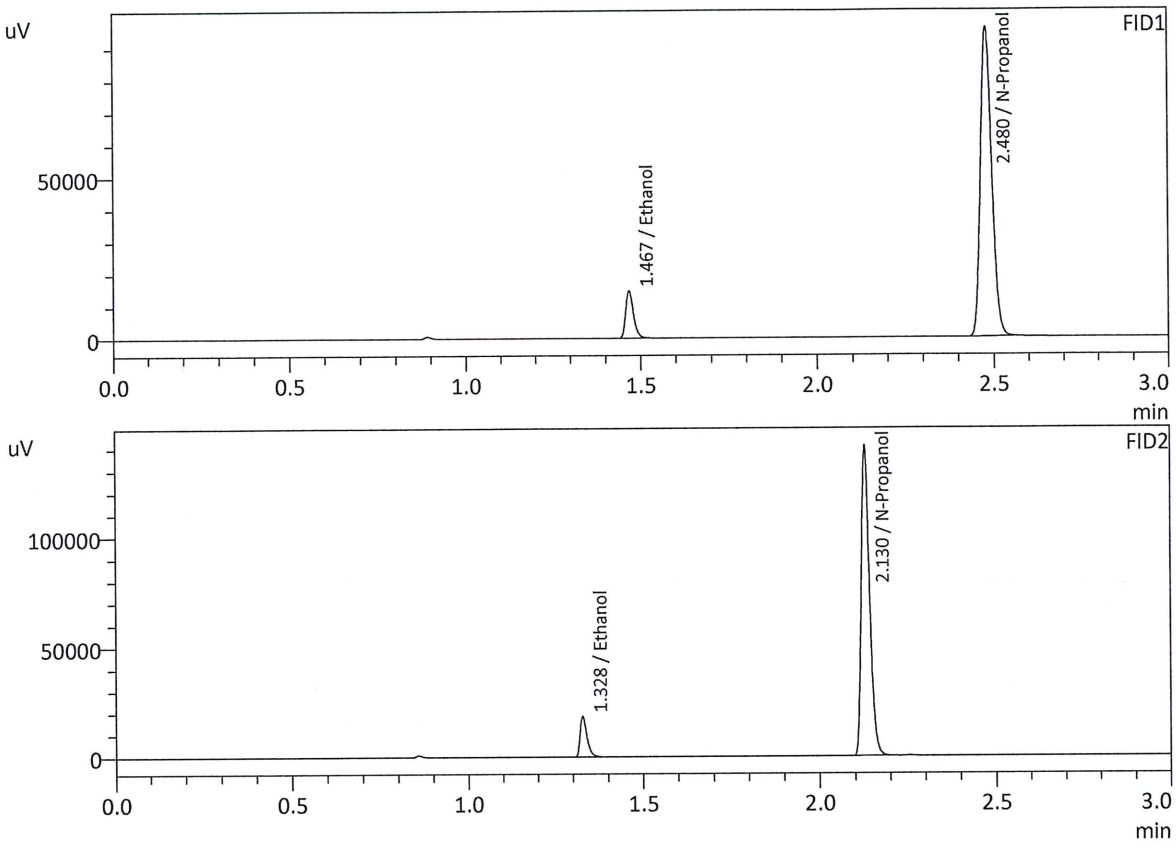
#	Conc.	Area	Std. Conc.



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



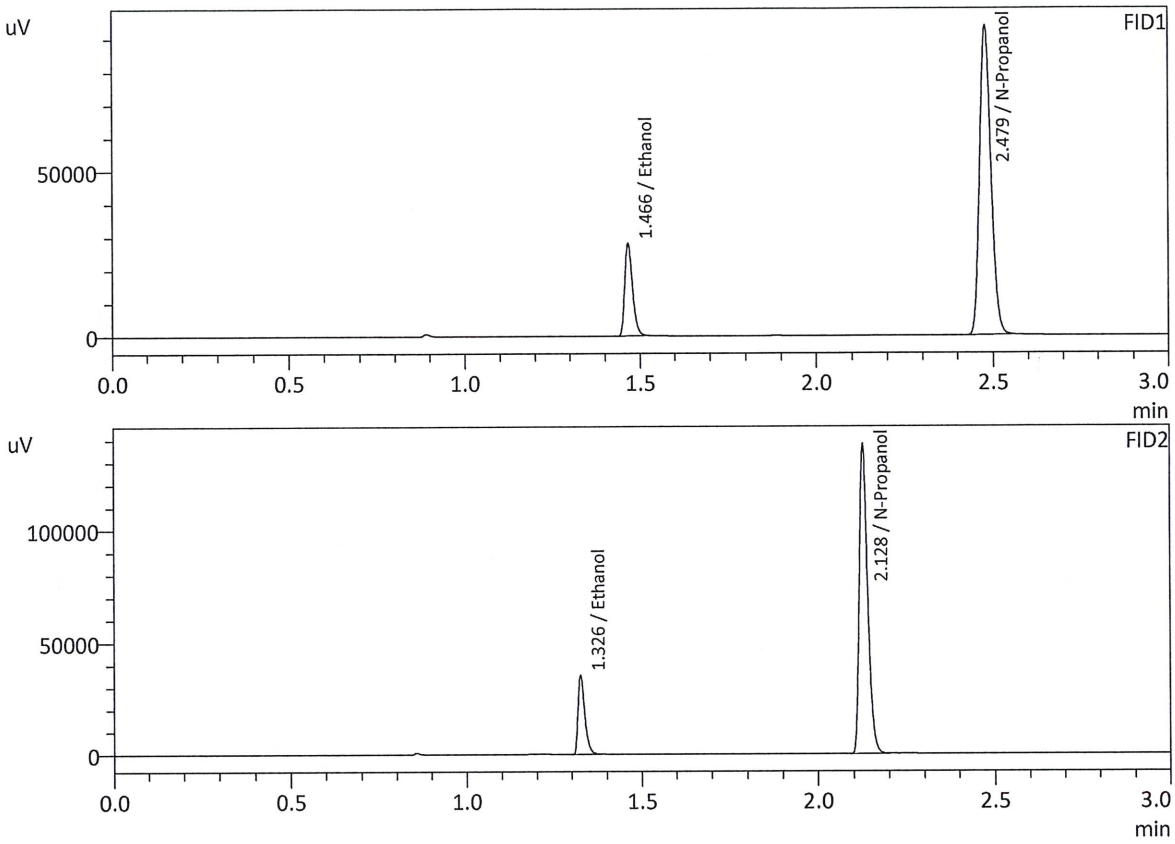
FID1

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

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

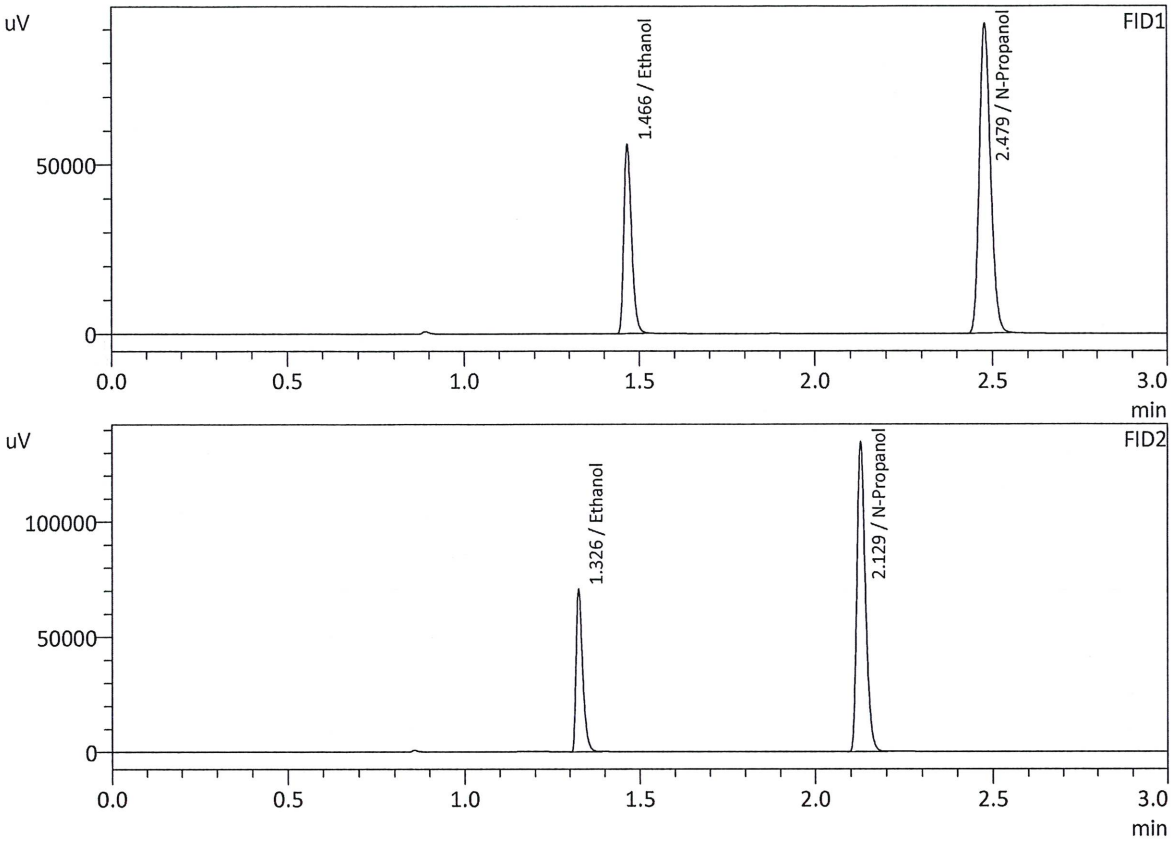
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0981	43008	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	207326	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

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



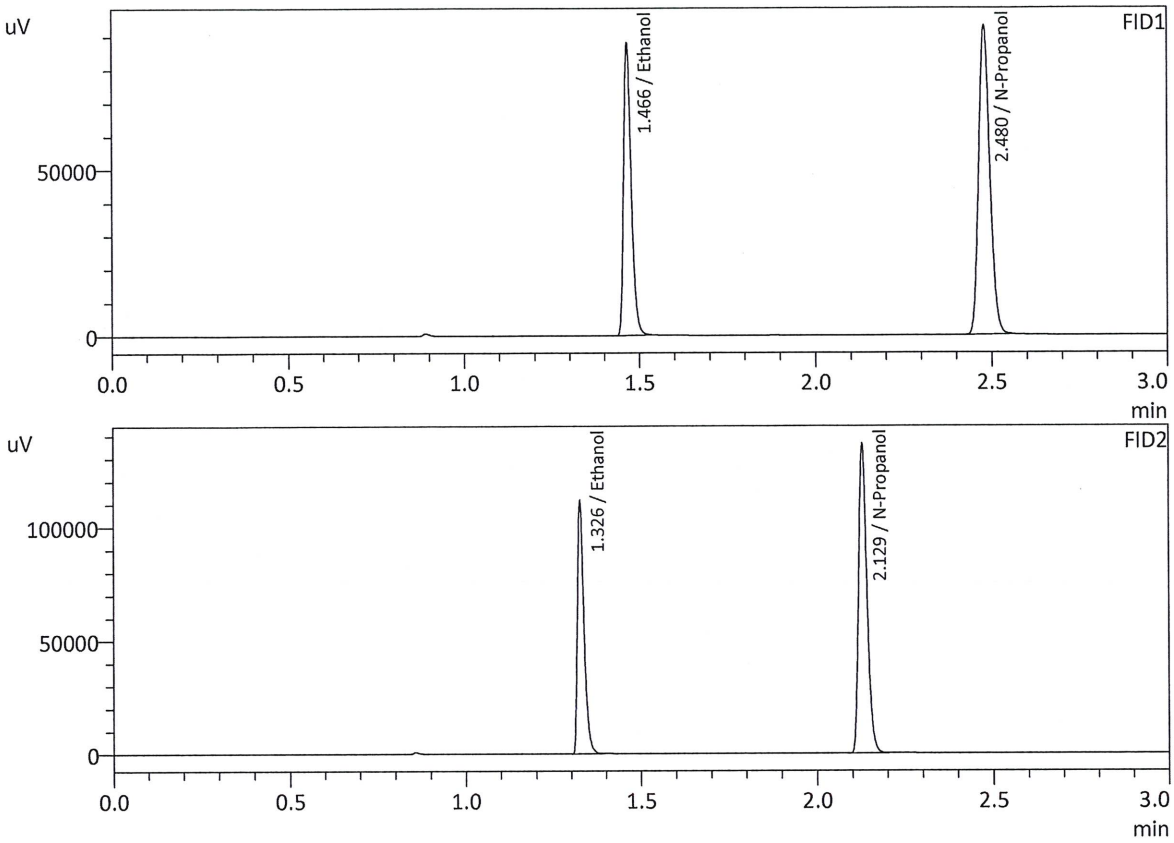
FID1

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

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

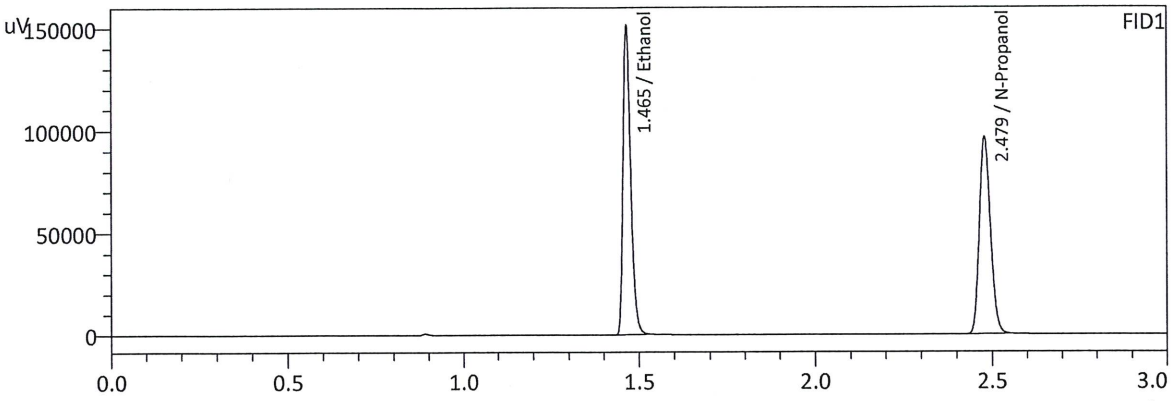
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.3036	134249	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	205764	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

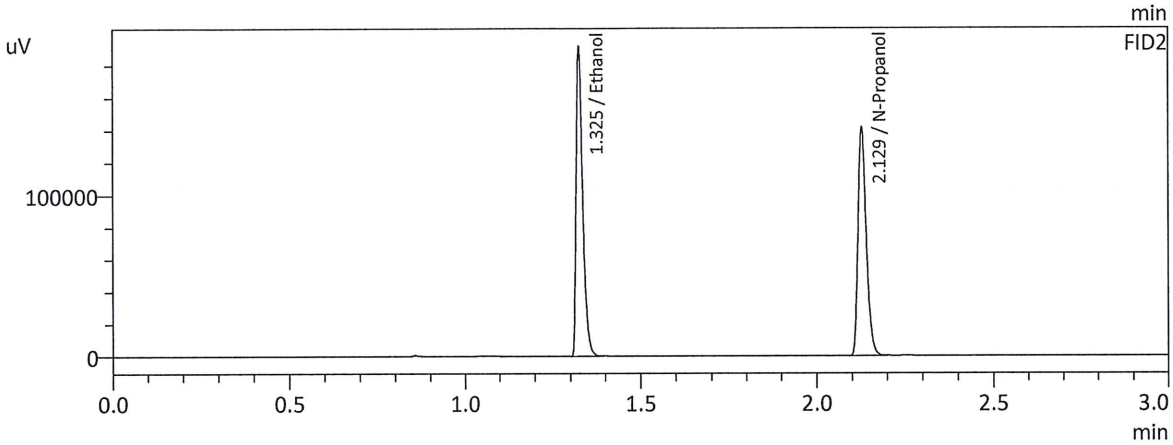
FID2

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





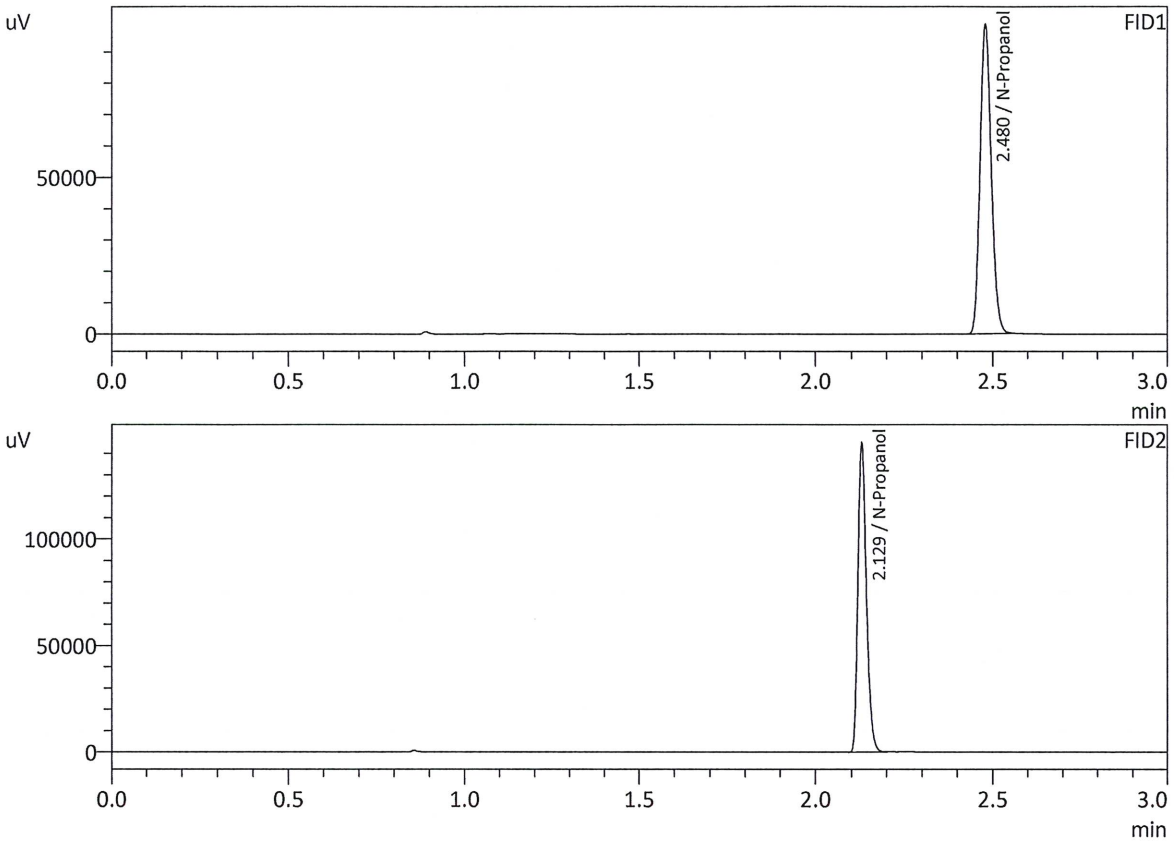
FID1

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

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

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

NB

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