

**REVIEWED**

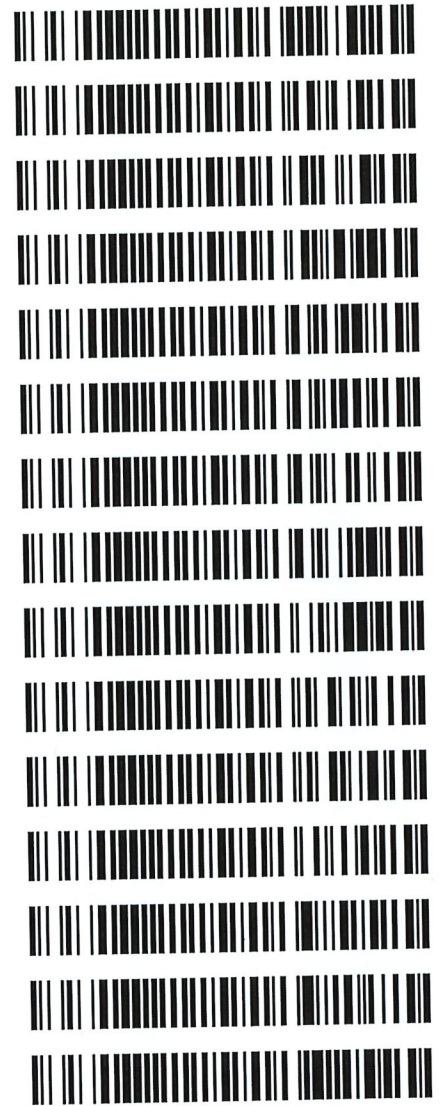
By Rachel Cutler at 9:54 am, Feb 14, 2022

TS

2/9/2022

Worklist: 5582

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>
P2021-4163	1	BCK	Alcohol Analysis
P2022-0033	1	BCK	Alcohol Analysis
P2022-0056	1	BCK	Alcohol Analysis
P2022-0057	1	BCK	Alcohol Analysis
P2022-0124	1	BCK	Alcohol Analysis
P2022-0125	1	BCK	Alcohol Analysis
P2022-0126	1	BCK	Alcohol Analysis
P2022-0127	1	BCK	Alcohol Analysis
P2022-0192	1	BCK	Alcohol Analysis
P2022-0207	1	BCK	Alcohol Analysis
P2022-0208	1	BCK	Alcohol Analysis
* P2022-0265	1	BCK	Alcohol Analysis
P2022-0330	1	BCK	Alcohol Analysis
P2022-0331	1	BCK	Alcohol Analysis
P2022-0344	1	BCK	Alcohol Analysis



\* Case sample P2022-0265 did not meet the required precision criteria. This sample will be re-run at a later date.

2/10/22 TS

Deviation documentation added to end of central data 02/23/2022

02/23/22

TS

**REVIEWED**

By Rachel Cutler at 2:00 pm, Feb 23, 2022

**Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles**

*Analytical Method(s): 1.0*

*Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: ML600GB9897*

**Volatiles Quality Assurance Controls**

**Run Date(s):**

**02/09/2022**

**Calibration Date: (if different)**

**Worklist #:**

**5582**

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Jul-23	1907006	0.0764	0.0688-0.0840	0.0722 g/100cc
					0.0774 g/100cc
					g/100cc
Level 2	Jul-23	1907007	0.2170	0.1953-0.2387	0.2124 g/100cc
					g/100cc
					g/100cc
<b>Multi-Component mixture:</b>		<b>Exp:</b>	<b>10/24/2022</b>	<b>Lot #</b>	FN06041902
<b>Curve Fit:</b>			<b>Column 1</b>	0.99999	<b>Column2</b>
					0.99998

**Ethanol Calibration Reference Material**

Calibrator level	Target Value	Acceptable Range	Column 1	Column 2	Precision	Mean
50	0.050	0.045 - 0.055	0.0501	0.0507	0.0006	0.0504
100	0.100	0.090 - 0.110	0.1001	0.0999	0.0002	0.1
200	0.200	0.180 - 0.220	0.2000	0.1995	0.0005	0.1997
300	0.300	0.270 - 0.330	0.2991	0.2991	0	0.2991
400	0.400	0.360 - 0.440	-	-	#####	#DIV/0!
500	0.500	0.450 - 0.550	0.5004	0.5006	0.0002	0.5005
Internal Standard	Average	(-) 20%	(+) 20%			
N-Propanol:	147807.2	118245.8	177368.6			

**Aqueous Controls**

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

Revision: 4

Issue Date: 01/24/2022

**Internal Standard Monitoring Worksheet**

<b>Worklist #:</b>	<b>5582</b>	<b>Run Date(s):</b>	<b>02/09/2022</b>
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Internal Standard Solution: 010522	Prep Date:01/05/22	Exp Date:07/05/22
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Sample Name	Column 1 Value	Column 2 Value	Average
0.080	142376	151344	146860
0.080	140590	149926	145258
QC1	143235	152961	148098
QC1	142349	152260	147304.5
QC1	144083	153713	148898
QC1	148978	158632	153805
QC1			#DIV/0!
QC1			#DIV/0!
QC2	141836	151266	146551
QC2	141076	150290	145683
QC2			#DIV/0!
QC2			#DIV/0!
QC2			#DIV/0!
QC2			#DIV/0!

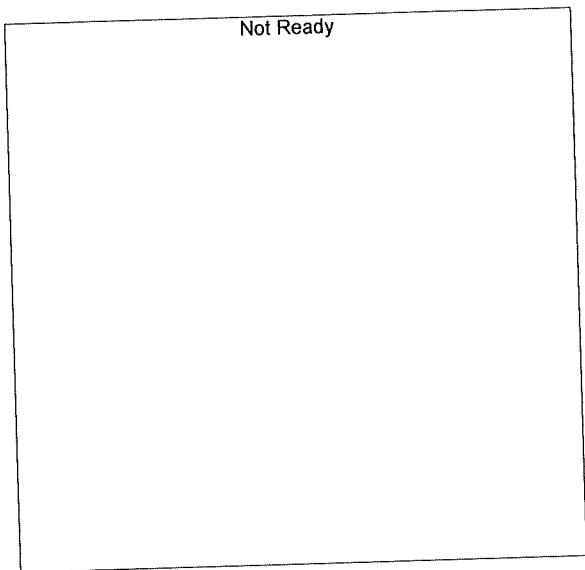
Combined Average	(-)20%	(+)20%
147807.2	118245.8	177368.6

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# Calibration Table

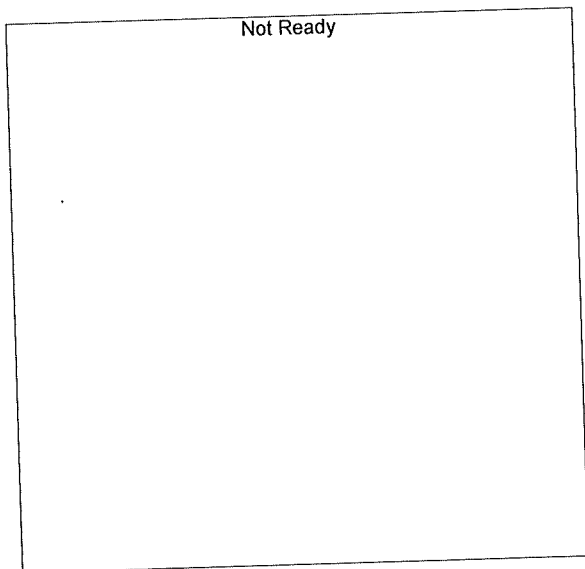
Laboratory: Pocatello  
Instrument Name : GC2030-HS20

<<Data File>>  
Method File :C:\LabSolutions\Data\2022\2-9-22 TSV\ALCOHOL.gcm  
Batch File :C:\LabSolutions\Data\2022\2-9-22 TSV\02-09-22\_TS\_POST.gcb  
Date Acquired :2/9/2022 12:49:02 PM  
Date Created :2/9/2022 12:45:41 PM  
Date Modified :2/10/2022 7:55:18 AM



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

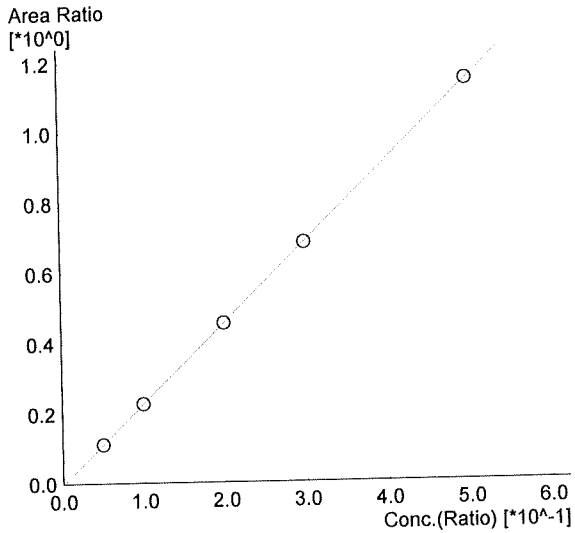
#	Conc.	Area	Std. Conc.	Data File Name
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Name : ACETALDEHYDE  
Detector Name: FID1  
Function :  $f(x)=0*x+0$   
R^2 value= 0  
FitType: Linear  
ZeroThrough: Not Through

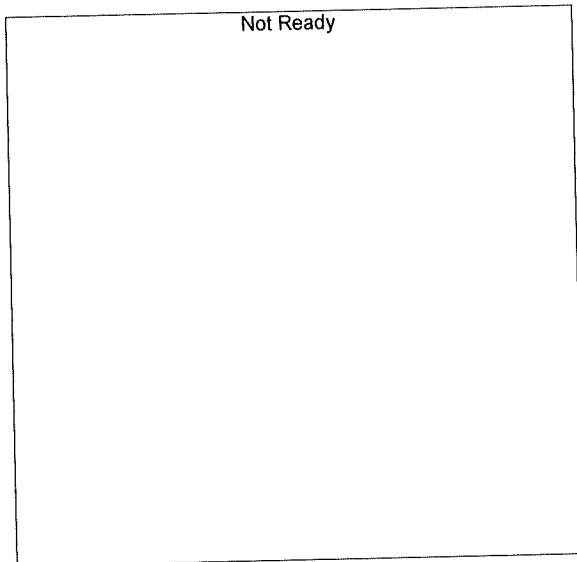
#	Conc.	Area	Std. Conc.	Data File Name
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TS



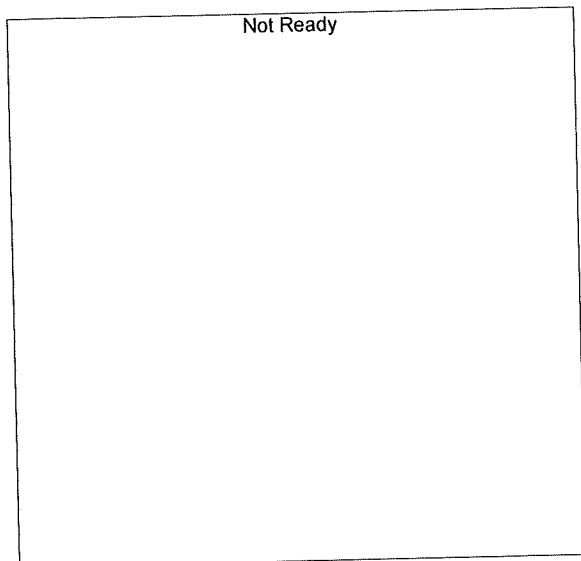
Name : ETHANOL  
 Detector Name: FID1  
 Function :  $f(x)=2.29252 \cdot x-0.00304395$   
 R<sup>2</sup> value= 0.9999932  
 FitType: Linear  
 ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.	Data File Name
1	0.050	15793	0.0501	0.050_292022_001.gcd
2	0.100	32438	0.1001	0.100_292022_002.gcd
3	0.200	65534	0.2000	0.200_292022_003.gcd
4	0.300	99024	0.2991	0.300_292022_004.gcd
5	0.500	165769	0.5004	0.500_292022_005.gcd



Name : ISOPROPYL ALCOHOL  
 Detector Name: FID1  
 Function :  $f(x)=0 \cdot x+0$   
 R<sup>2</sup> value= 0  
 FitType: Linear  
 ZeroThrough: Not Through

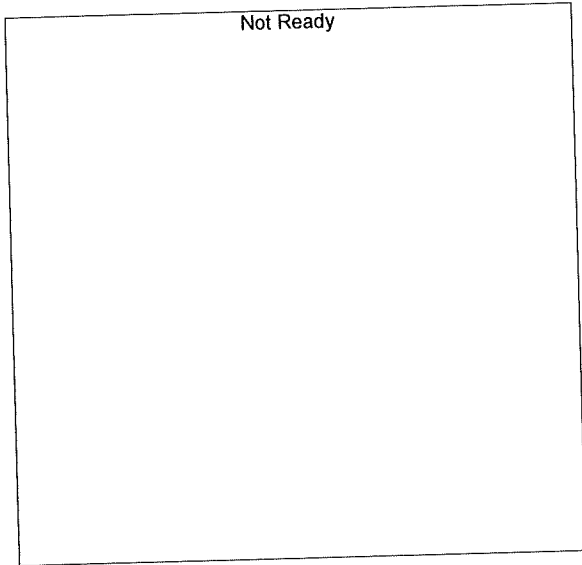
#	Conc.	Area	Std. Conc.	Data File Name
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Name : ACETONE  
 Detector Name: FID1  
 Function :  $f(x)=0 \cdot x+0$   
 R<sup>2</sup> value= 0  
 FitType: Linear  
 ZeroThrough: Not Through

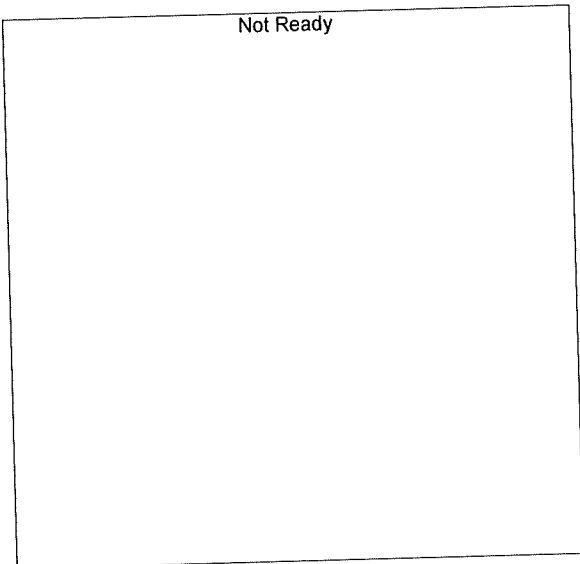
#	Conc.	Area	Std. Conc.	Data File Name
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TS



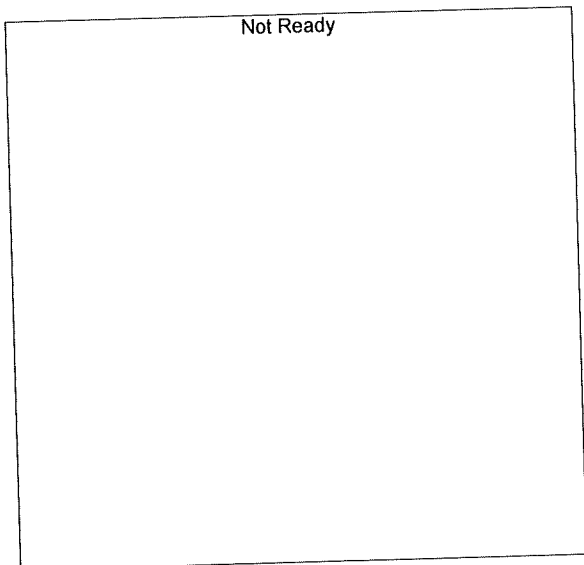
Name : DFE  
Detector Name: FID1  
Function :  $f(x)=0*x+0$   
R<sup>2</sup> value= 0  
FitType: Linear  
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.	Data File Name
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Name : TFE  
Detector Name: FID1  
Function :  $f(x)=0*x+0$   
R<sup>2</sup> value= 0  
FitType: Linear  
ZeroThrough: Not Through

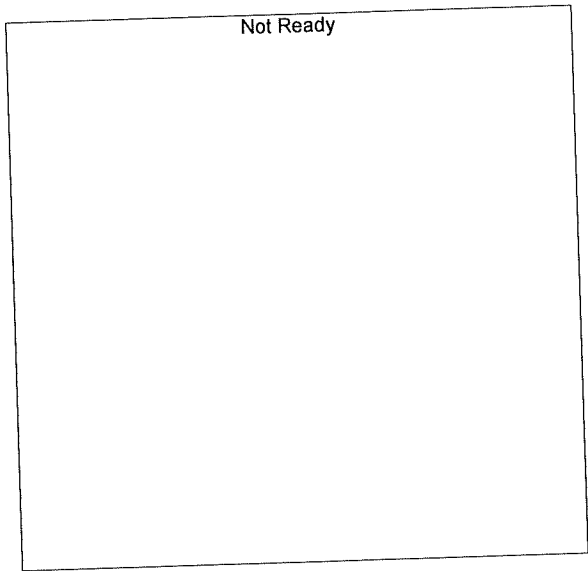
#	Conc.	Area	Std. Conc.	Data File Name
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Name : ACETALDEHYDE  
Detector Name: FID2  
Function :  $f(x)=0*x+0$   
R<sup>2</sup> value= 0  
FitType: Linear  
ZeroThrough: Not Through

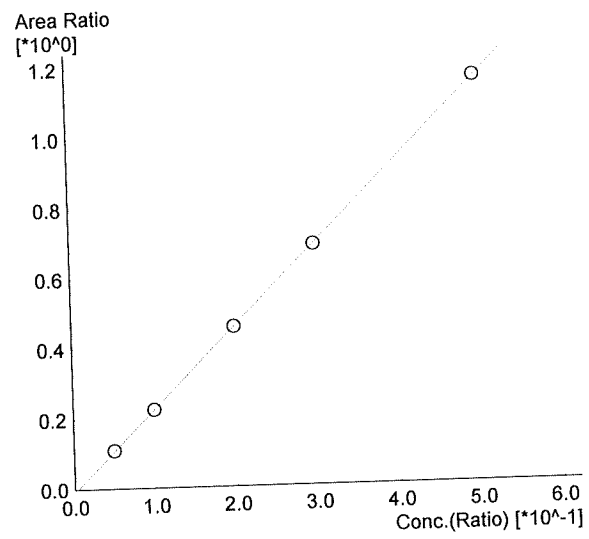
#	Conc.	Area	Std. Conc.	Data File Name
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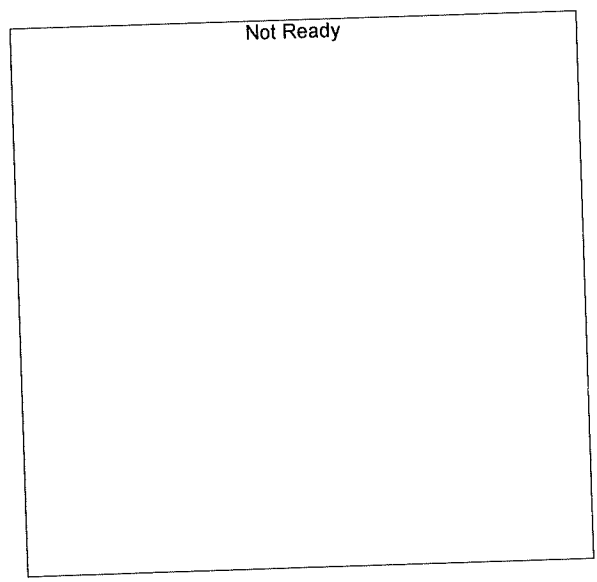
Name : METHANOL  
 Detector Name: FID2  
 Function :  $f(x)=0*x+0$   
 $R^2$  value= 0  
 FitType: Linear  
 ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.	Data File Name
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Name : ETHANOL  
 Detector Name: FID2  
 Function :  $f(x)=2.33127*x-0.00954826$   
 $R^2$  value= 0.9999845 ✓  
 FitType: Linear  
 ZeroThrough: Not Through

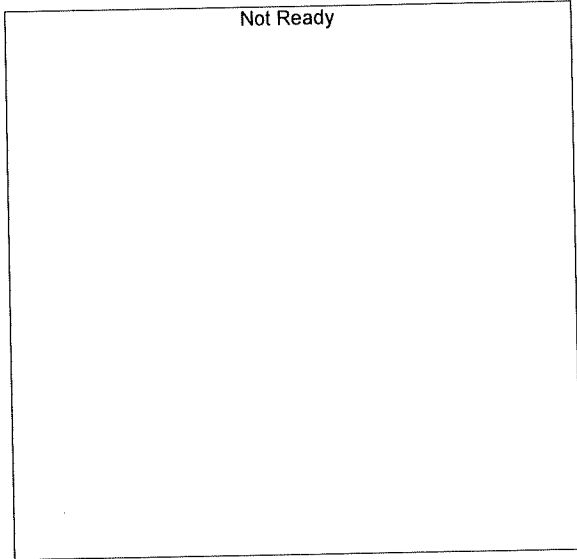
#	Conc.	Area	Std. Conc.	Data File Name
1	0.050	16116	0.0507	0.050_292022_001.gcd
2	0.100	33666	0.0999	0.100_292022_002.gcd
3	0.200	68890	0.1995	0.200_292022_003.gcd
4	0.300	104861	0.2991	0.300_292022_004.gcd
5	0.500	176701	0.5006	0.500_292022_005.gcd



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

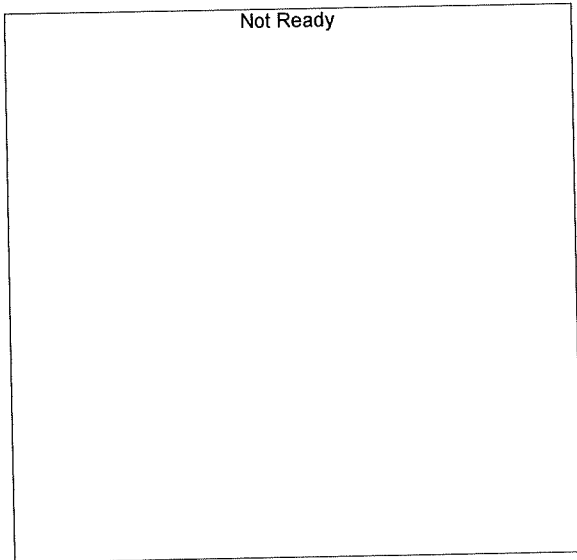
#	Conc.	Area	Std. Conc.	Data File Name
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TS



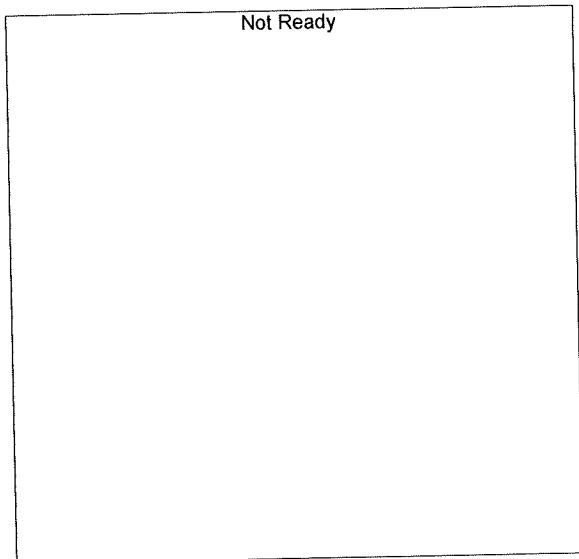
Name : ISOPROPYL ALCOHOL  
Detector Name: FID2  
Function :  $f(x)=0*x+0$   
R^2 value= 0  
FitType: Linear  
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.	Data File Name
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Name : DFE  
Detector Name: FID2  
Function :  $f(x)=0*x+0$   
R^2 value= 0  
FitType: Linear  
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.	Data File Name
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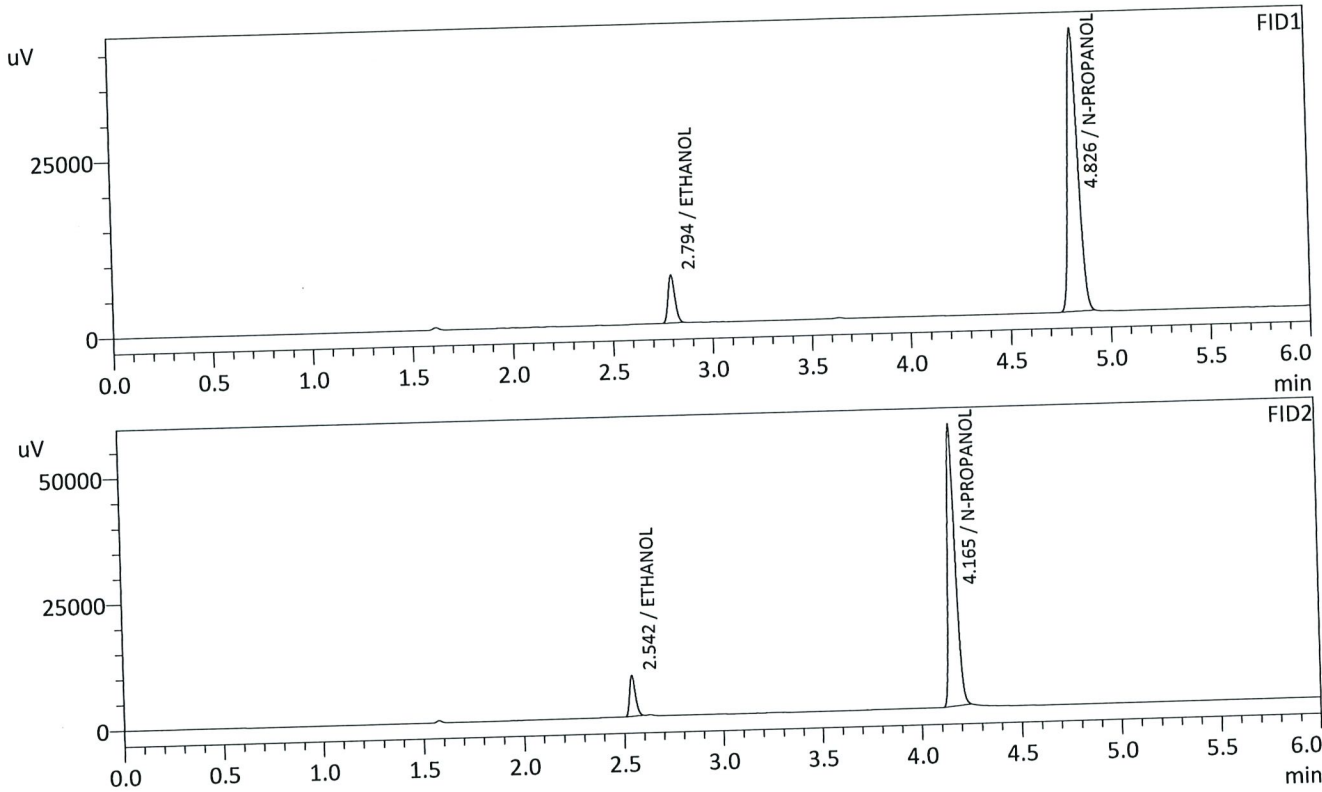
Name : TFE  
Detector Name: FID2  
Function :  $f(x)=0*x+0$   
R^2 value= 0  
FitType: Linear  
ZeroThrough: Not Through

#	Conc.	Area	Std. Conc.	Data File Name
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15

Sample Name : 0.050  
 Vial # : 1  
 Data Filename : 0.050\_292022\_001.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 12:10:56 PM  
 Date Processed : 2/10/2022 7:55:13 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

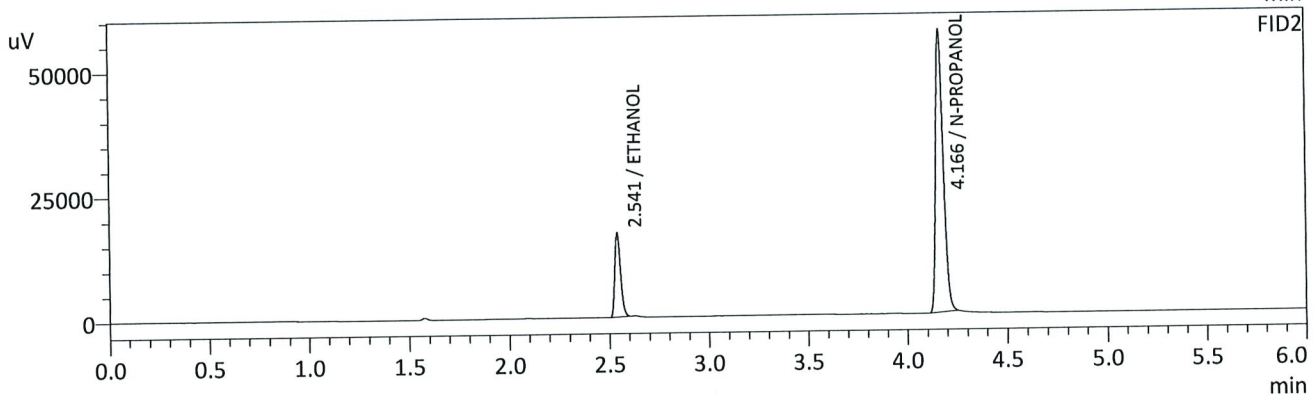
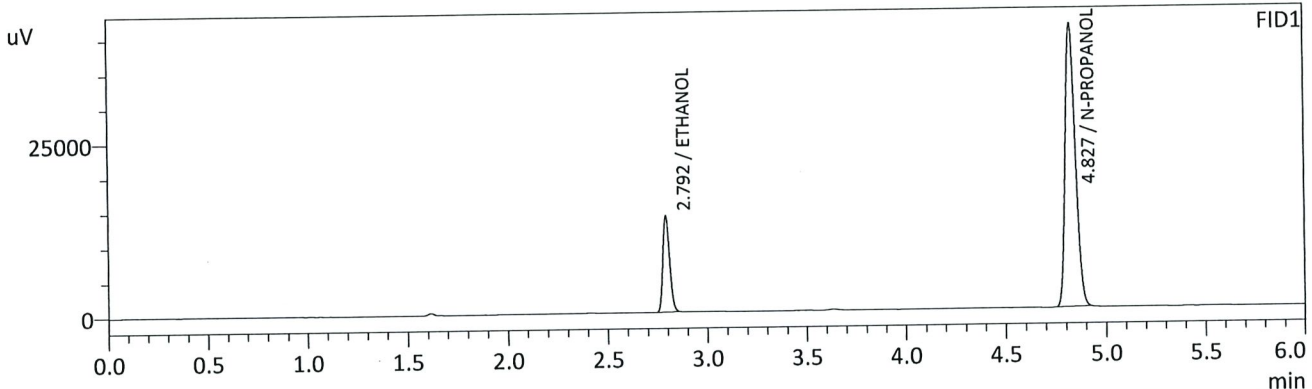
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.0501	g/100cc	15793	6754
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	140983	39933
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0507	g/100cc	16116	8037
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	148147	55892
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

15

Sample Name : 0.100  
 Vial # : 2  
 Data Filename : 0.100\_292022\_002.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 12:20:26 PM  
 Date Processed : 2/10/2022 7:55:14 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

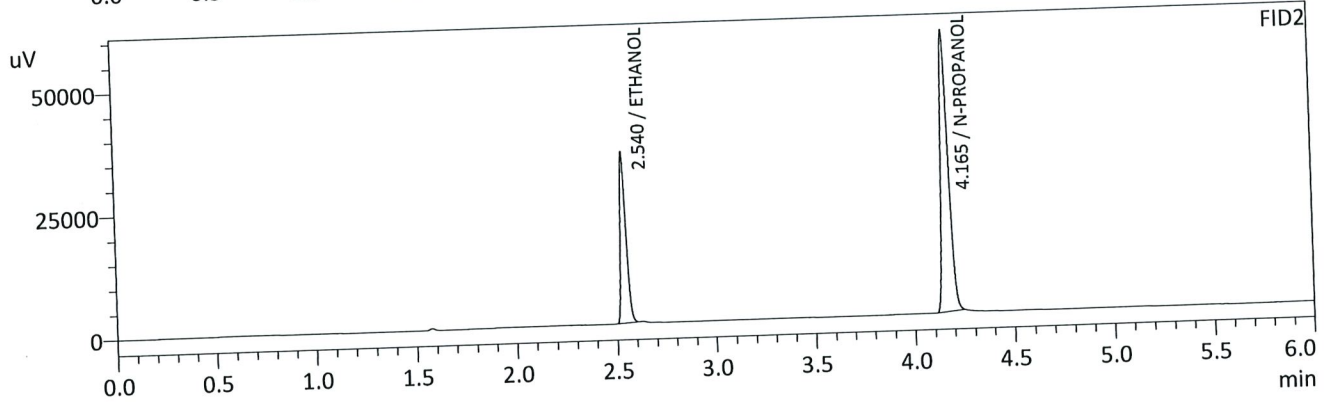
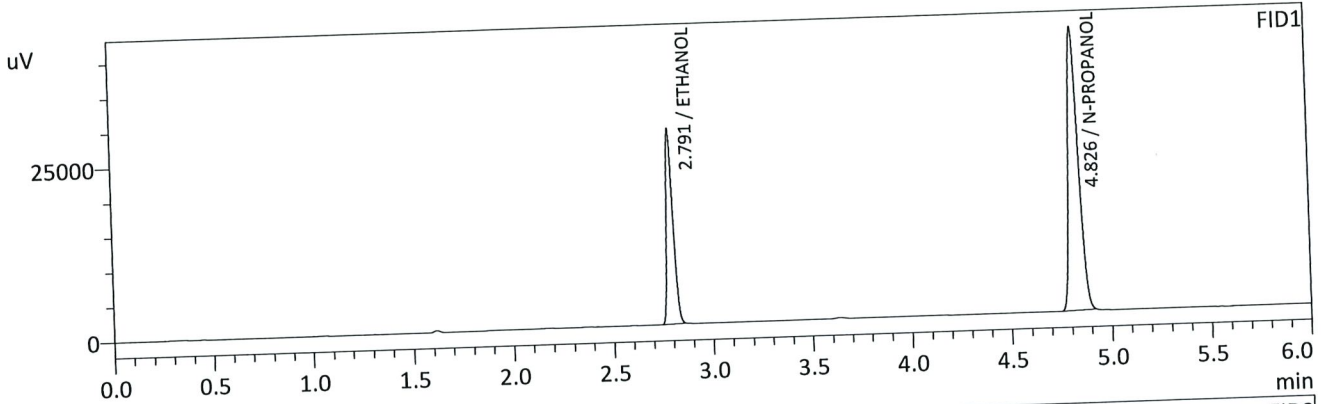
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.1001	g/100cc	32438	13849
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	143187	40789
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0999	g/100cc	33666	16827
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	150676	56644
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

TS

Sample Name : 0.200  
 Vial # : 3  
 Data Filename : 0.200\_292022\_003.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 12:29:47 PM  
 Date Processed : 2/10/2022 7:55:15 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

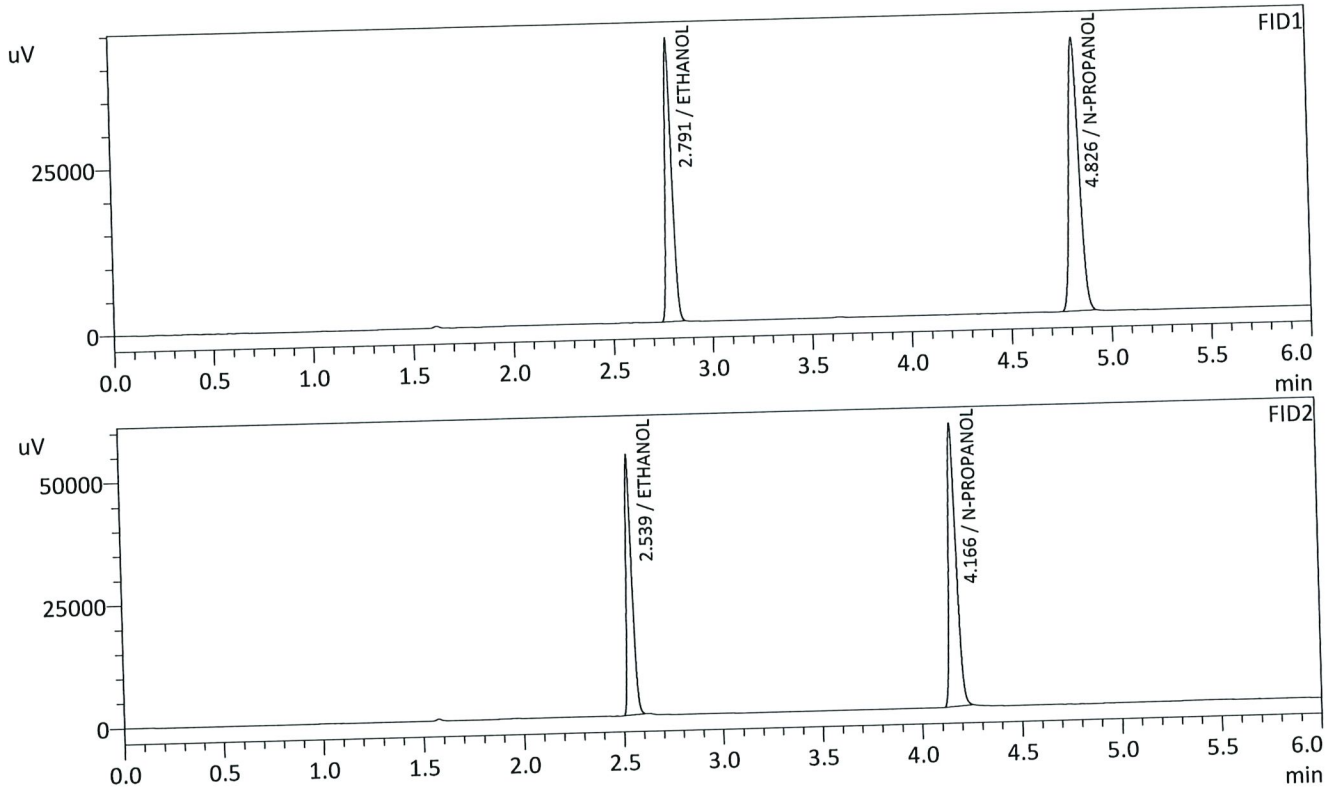
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.2000	g/100cc	65534	27922
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	143850	40673
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.1995	g/100cc	68890	34342
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	151209	57146
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

TS

Sample Name : 0.300  
 Vial # : 4  
 Data Filename : 0.300\_292022\_004.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 12:39:34 PM  
 Date Processed : 2/10/2022 7:55:16 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

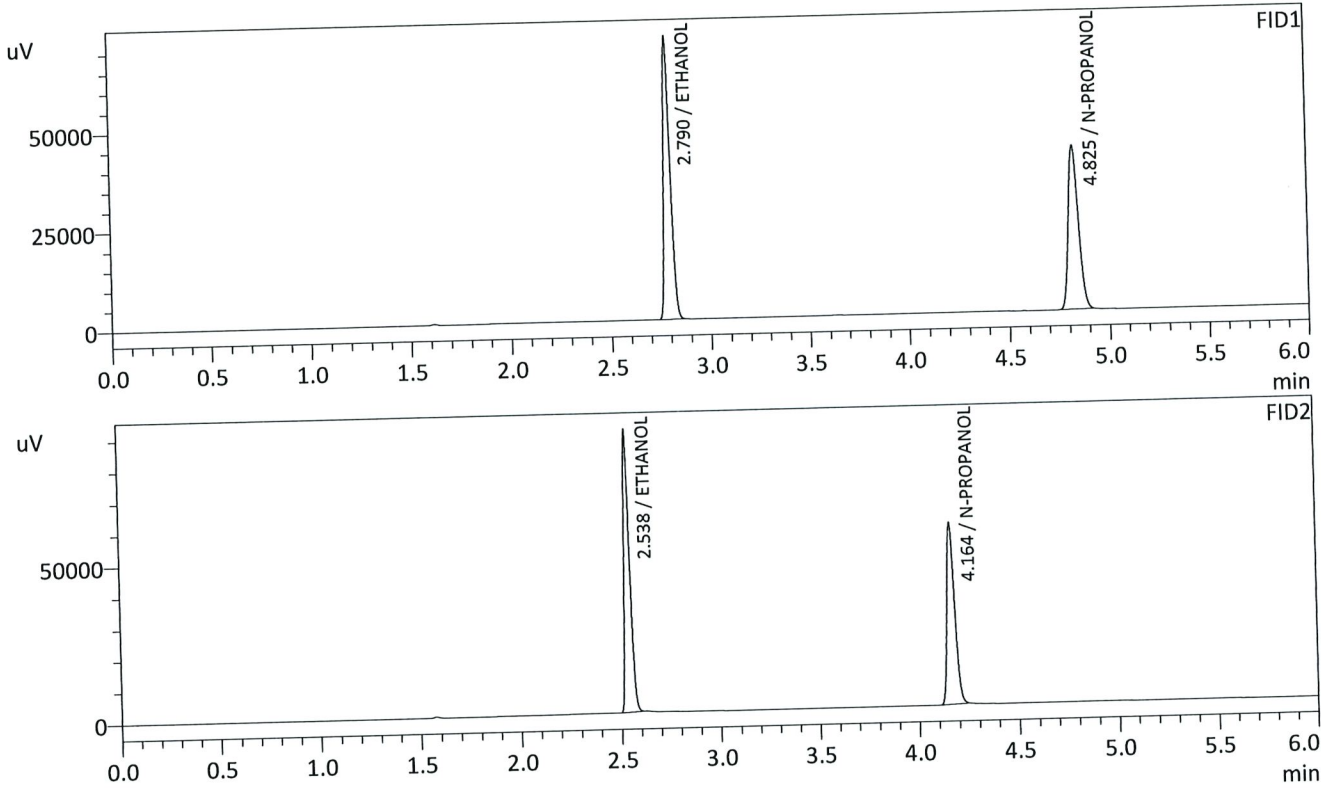
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.2991	g/100cc	99024	42272
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	145009	41070
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.2991	g/100cc	104861	52291
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	152456	57596
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

TS

Sample Name : 0.500  
 Vial # : 5  
 Data Filename : 0.500\_292022\_005.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 12:49:02 PM  
 Date Processed : 2/10/2022 7:55:18 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

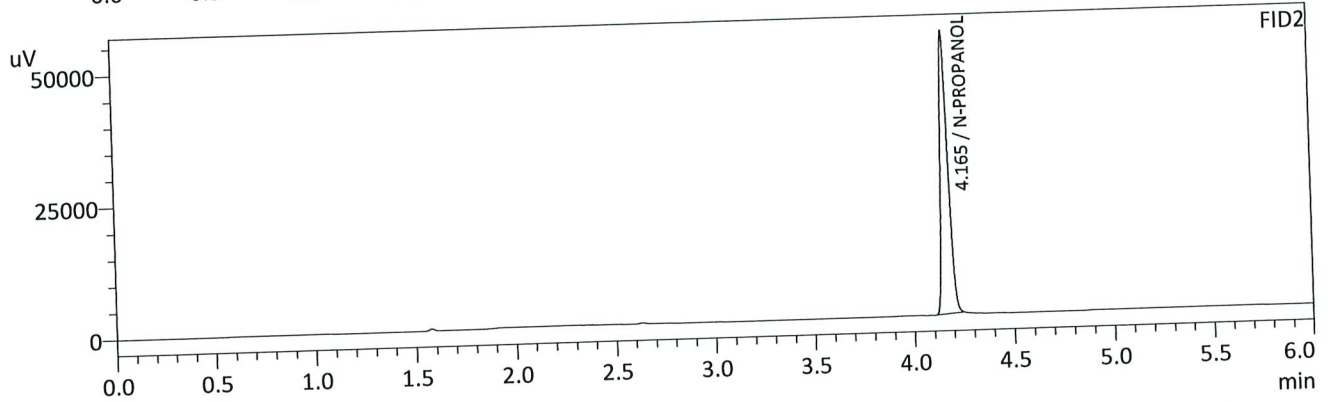
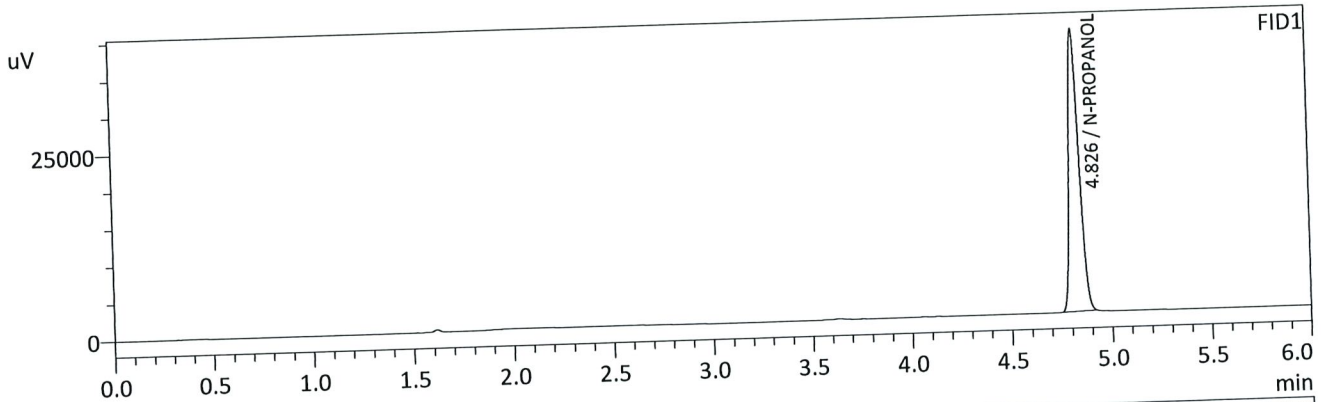
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.5004	g/100cc	165769	71250
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	144882	41306
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.5006	g/100cc	176701	89096
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	152644	57667
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

TS

Sample Name : INT STD BLK 1  
 Vial # : 6  
 Data Filename : INT STD BLK 1\_292022\_006.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 12:58:19 PM  
 Date Processed : 2/10/2022 7:55:20 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm

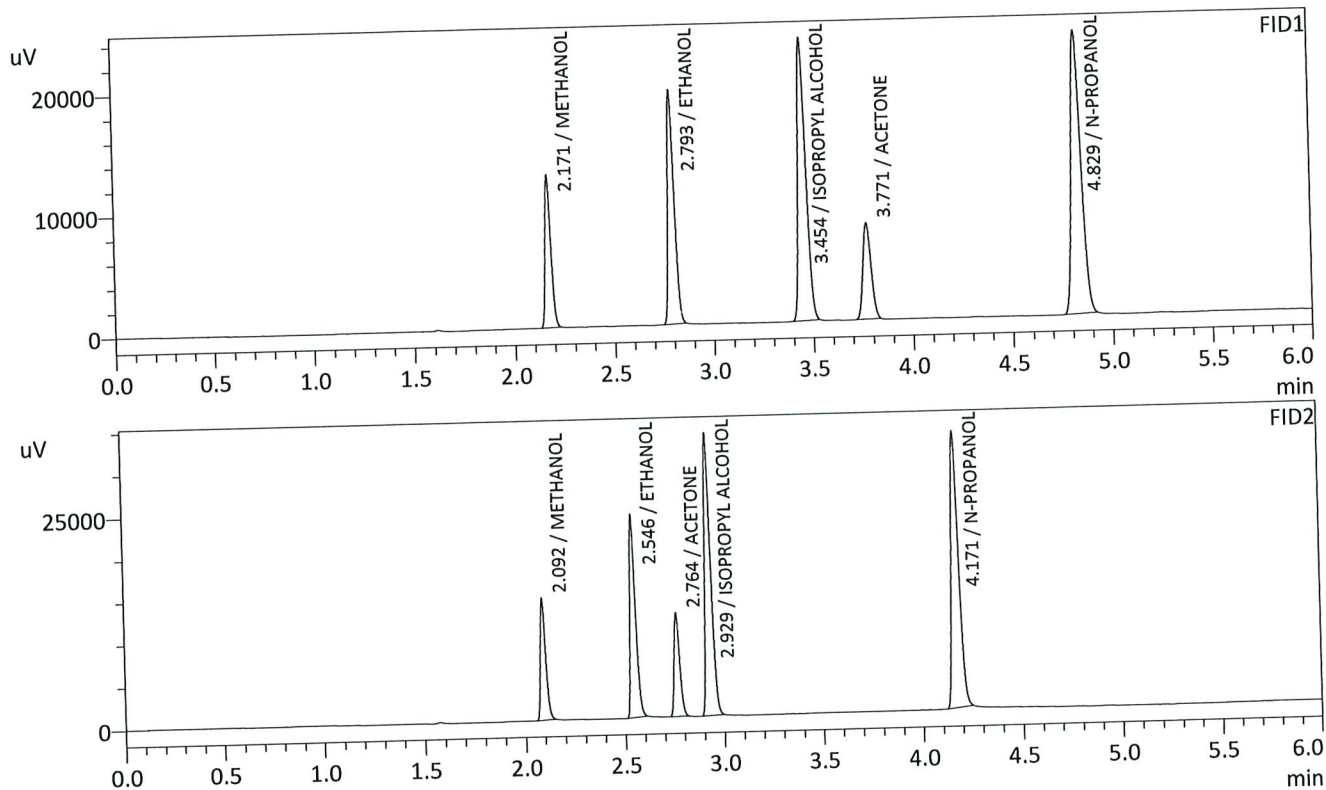


FID1				
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	133954	38024
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2				
Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	141861	53647
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

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Sample Name : MULTI-COMP MIX  
 Vial # : 7  
 Data Filename : MULTI-COMP MIX\_292022\_007.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 1:08:04 PM  
 Date Processed : 2/10/2022 7:55:21 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

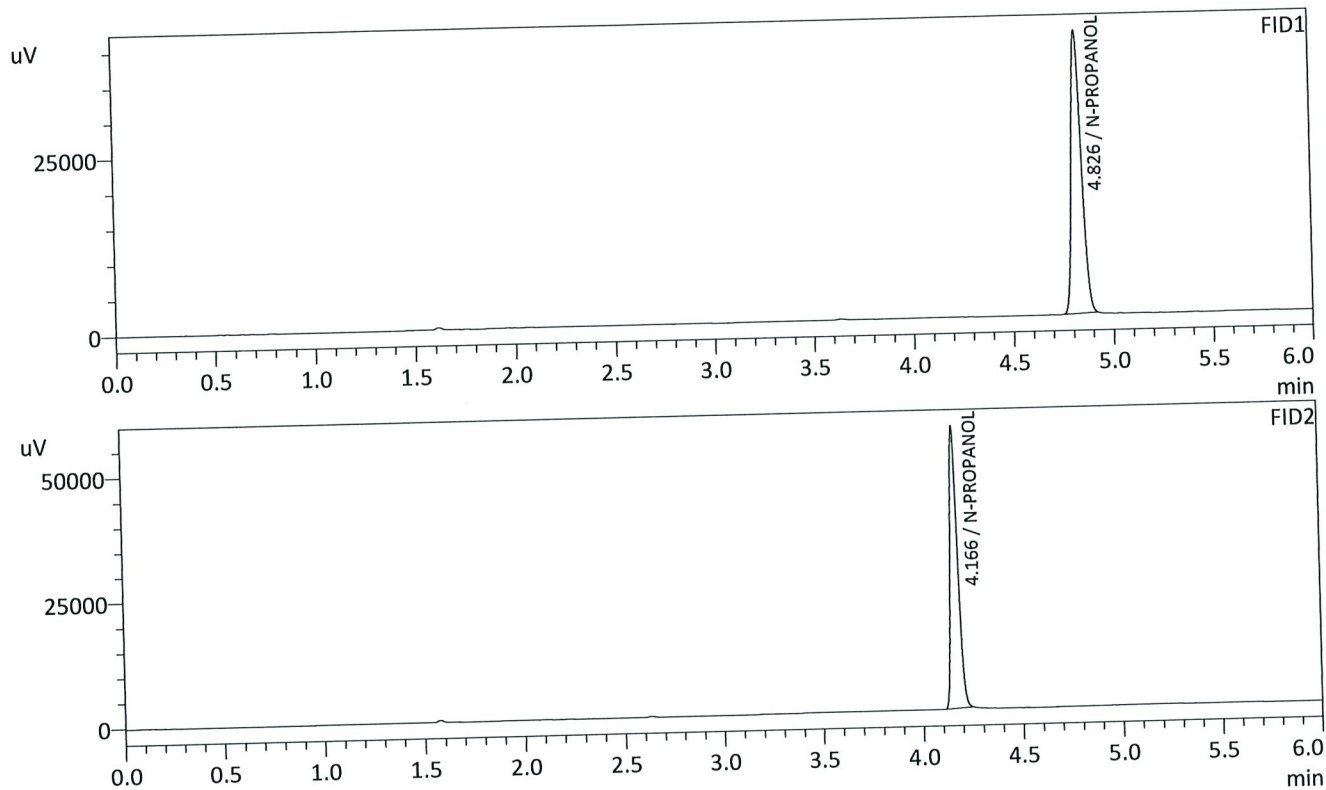
Name	Conc.	Unit	Area	Height
METHANOL	0.0000	g/100cc	25102	12428
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.2386	g/100cc	44108	19265
ISOPROPYL ALCOHOL	0.0000	g/100cc	64496	23156
ACETONE	0.0000	g/100cc	22439	7875
N-PROPANOL	0.0000	g/100cc	81058	23364
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	0.0000	g/100cc	26468	14248
ETHANOL	0.2389	g/100cc	46728	23901
ACETONE	0.0000	g/100cc	24118	12064
ISOPROPYL ALCOHOL	0.0000	g/100cc	68999	33266
N-PROPANOL	0.0000	g/100cc	85361	32584
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

15

Sample Name : INT STD BLK 2  
 Vial # : 8  
 Data Filename : INT STD BLK 2\_292022\_008.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 1:17:35 PM  
 Date Processed : 2/10/2022 7:55:22 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	140299	39984
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	148707	56379
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--



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**VOLATILES BAC CASEFILE WORKSHEET**

**Laboratory No.:** QC 1-1                      **Item #**                      **Analysis Date(s):** 2/9/2022

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0723	0.0721	0.0002	0.0722	0.0000	0.0722
(g/100cc)	0.0724	0.0720	0.0004	0.0722		

**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%**

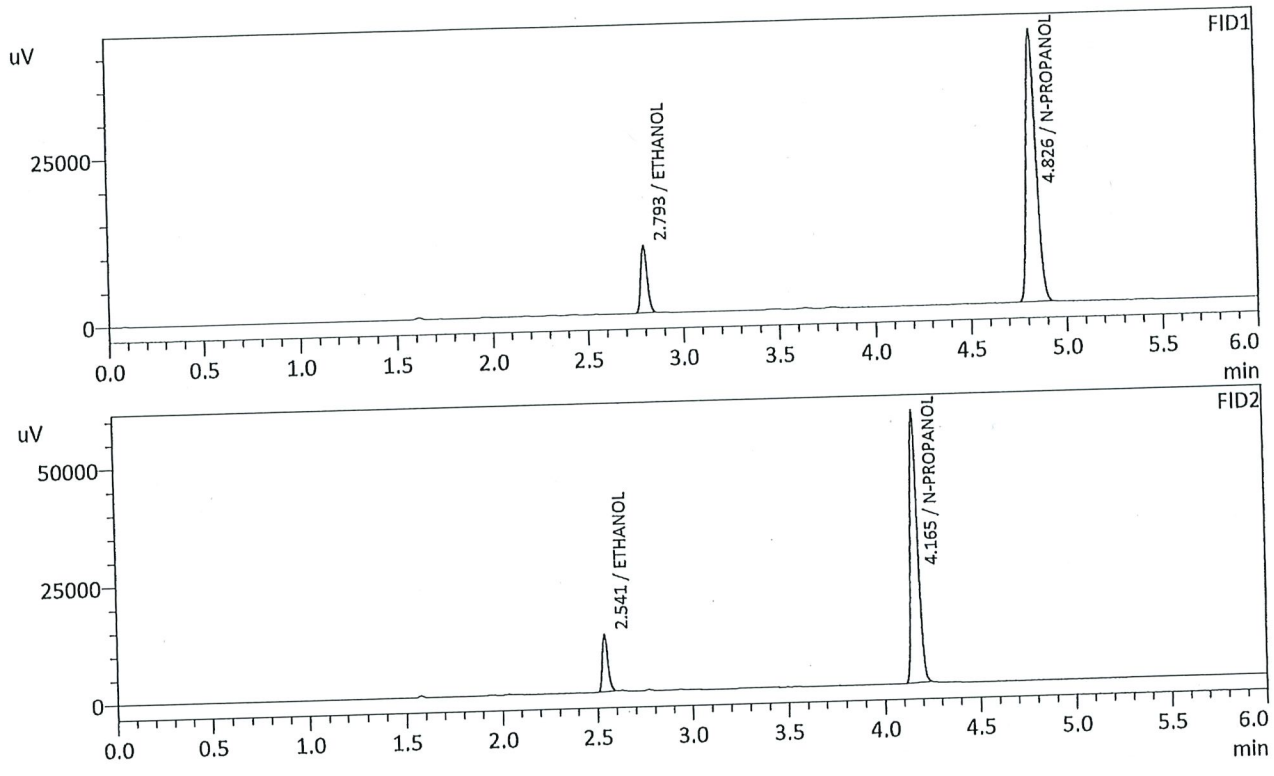
Overall Mean (g/100cc)	Low	High	5% of Mean
<b>0.072</b>	<b>0.068</b>	<b>0.076</b>	<b>0.004</b>

	Reported Result	
	0.072	

*Calibration and control data are stored centrally.*

15

Sample Name : QC-1-1-A  
 Vial # : 9  
 Data Filename : QC-1-1-A\_292022\_009.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 1:26:52 PM  
 Date Processed : 2/10/2022 7:55:23 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

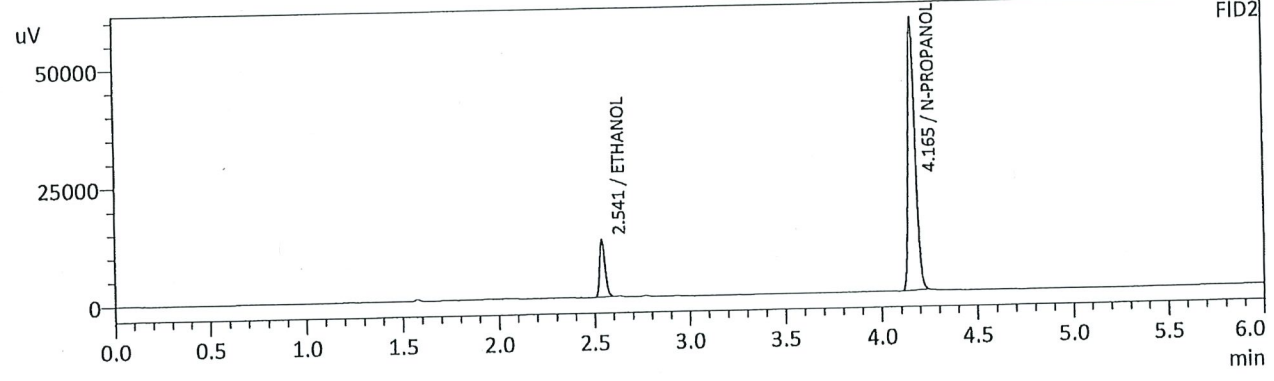
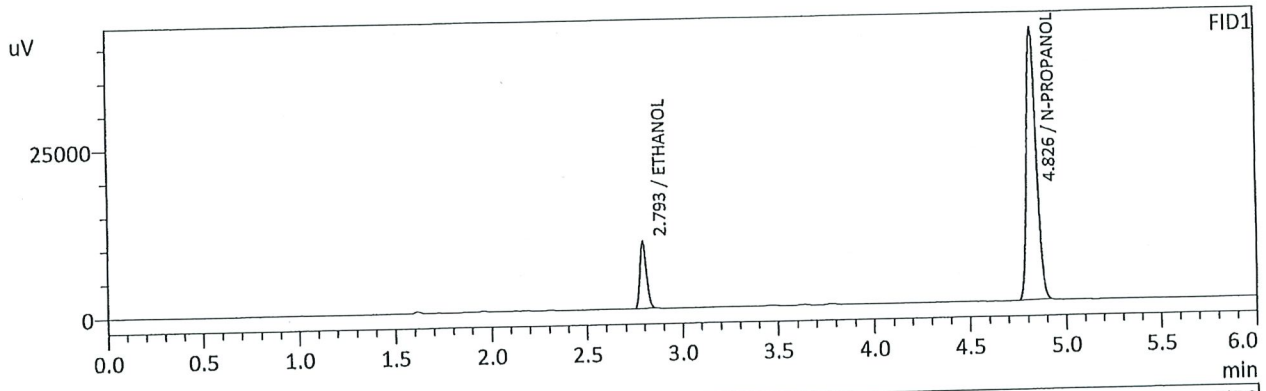
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.0723	g/100cc	23335	10022
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	143235	40796
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0721	g/100cc	24259	12170
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	152961	57941
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

15

Sample Name : QC-1-1-B  
 Vial # : 10  
 Data Filename : QC-1-1-B\_292022\_010.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 1:36:37 PM  
 Date Processed : 2/10/2022 7:55:24 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.0724	g/100cc	23226	9973
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	142349	40467
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0720	g/100cc	24135	12097
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	152260	57759
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

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### VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: 0.08 QA

Item #

Analysis Date(s): 2/9/2022

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0803	0.0802	0.0001	0.0802	0.0004	0.0804
(g/100cc)	0.0808	0.0804	0.0004	0.0806		

**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%**

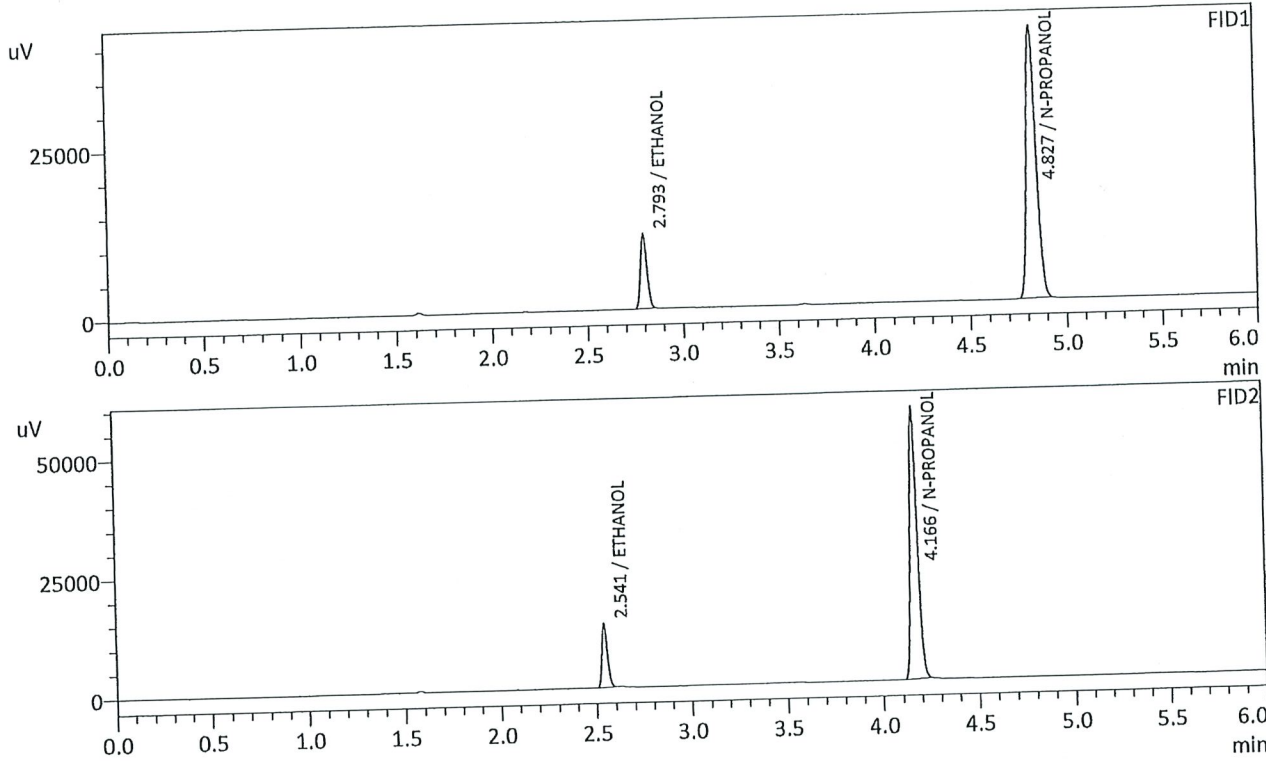
Overall Mean (g/100cc)	Low	High	5% of Mean
0.080	0.076	0.084	0.004

	<b>Reported Result</b>	
	0.080	

*Calibration and control data are stored centrally.*

TS

Sample Name : 0.08 QA - A  
 Vial # : 11  
 Data Filename : 0.08 QA - A\_292022\_011.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 1:46:08 PM  
 Date Processed : 2/10/2022 7:55:25 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm

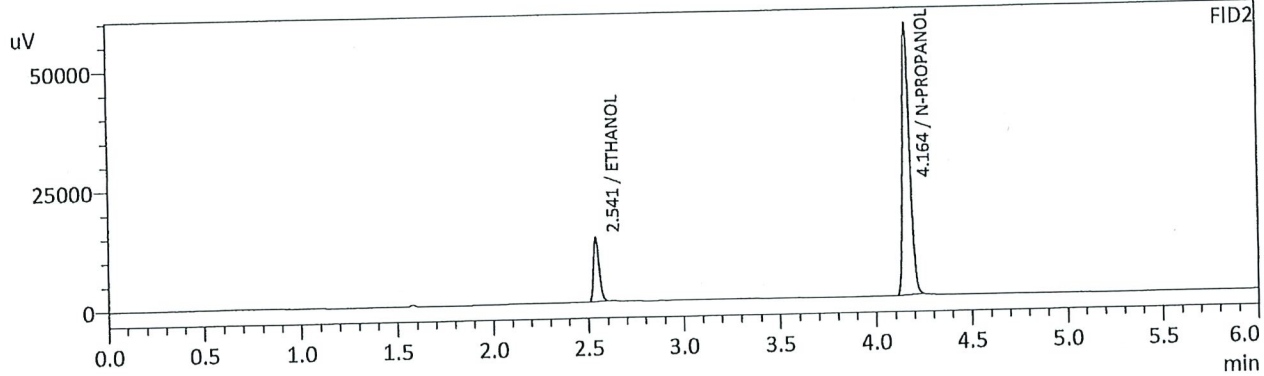
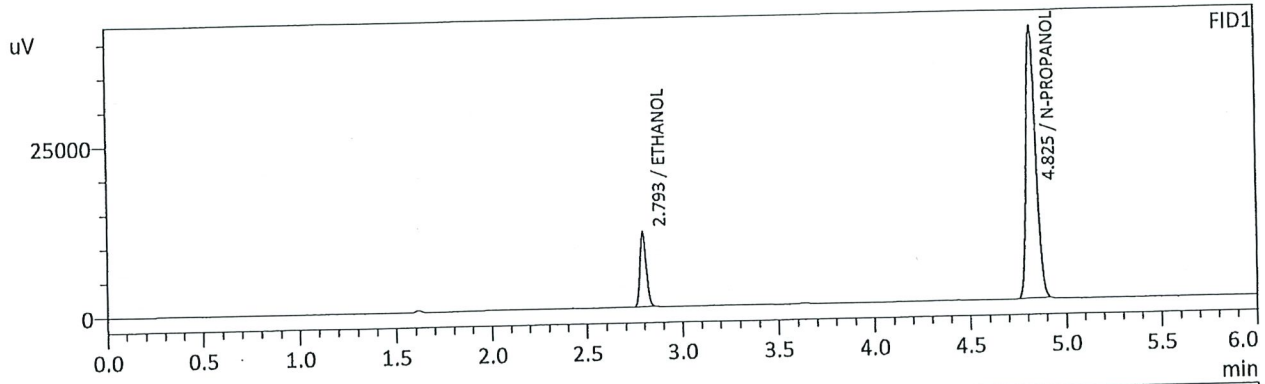


FID1				
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.0803	g/100cc	25784	11055
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	142376	40385
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2				
Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0802	g/100cc	26861	13433
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	151344	57138
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

15

Sample Name : 0.08 QA - B  
 Vial # : 12  
 Data Filename : 0.08 QA - B\_292022\_012.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 1:55:26 PM  
 Date Processed : 2/10/2022 7:55:26 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.0808	g/100cc	25618	10988
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	140590	39976
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

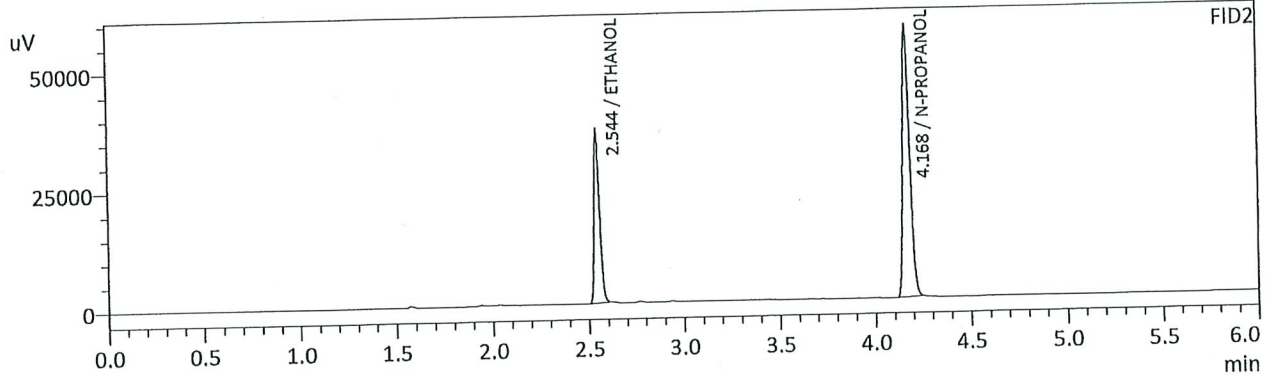
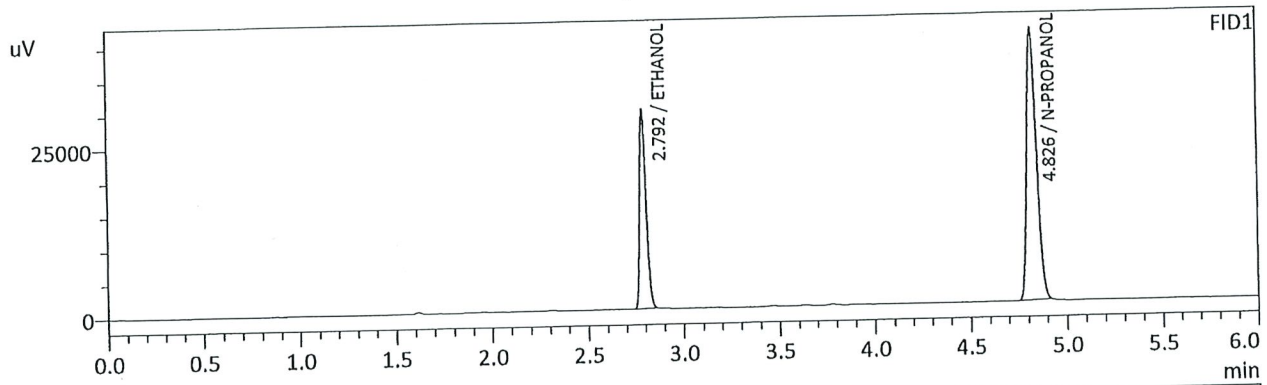
FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0804	g/100cc	26702	13366
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	149926	56643
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--



15

Sample Name : QC-2-1-A  
 Vial # : 31  
 Data Filename : QC-2-1-A\_292022\_031.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 4:56:27 PM  
 Date Processed : 2/10/2022 7:55:47 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.2132	g/100cc	68914	29391
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	141836	40233
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

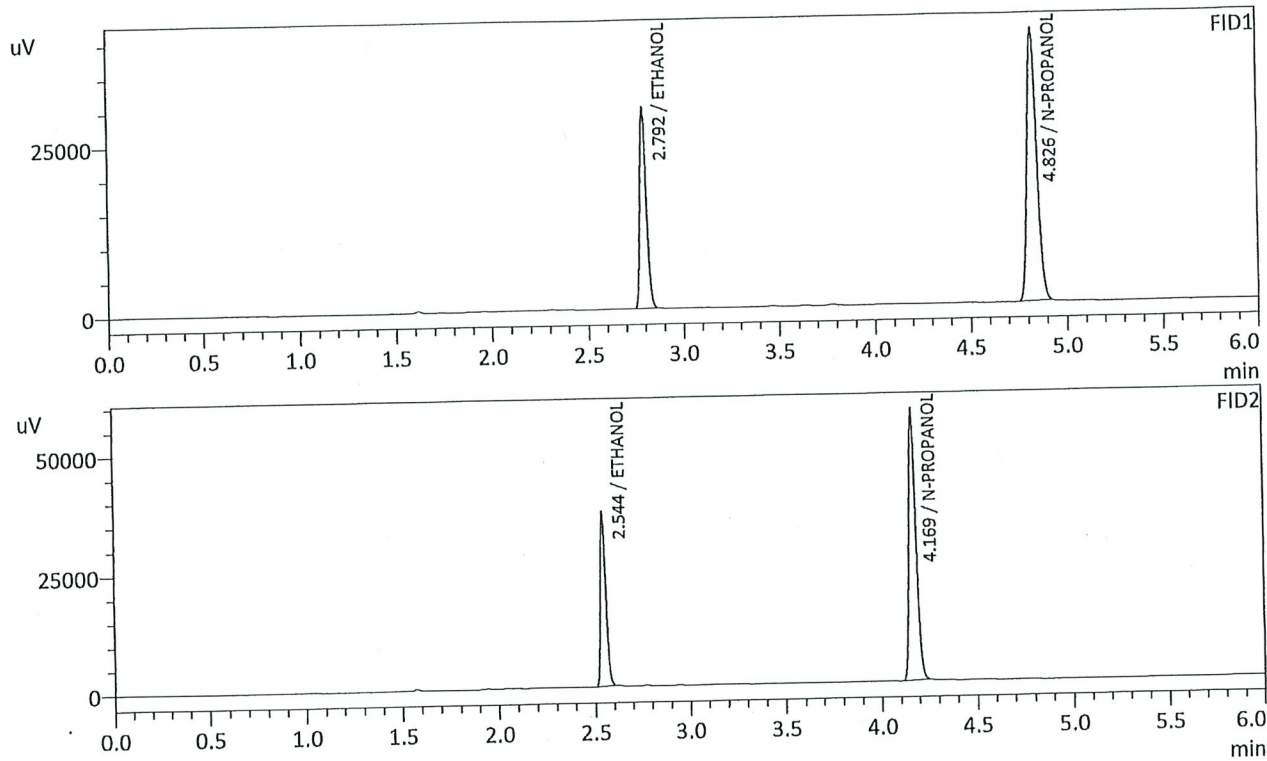
FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.2101	g/100cc	72648	35973
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	151266	56830
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--



15

Sample Name : QC-2-1-B  
 Vial # : 32  
 Data Filename : QC-2-1-B\_292022\_032.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 5:06:00 PM  
 Date Processed : 2/10/2022 7:55:49 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.2149	g/100cc	69094	29450
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	141076	40030
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.2116	g/100cc	72725	36056
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	150290	56936
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

## VOLATILES BAC CASEFILE WORKSHEET

Laboratory No.: QC 1-2

Item #

Analysis Date(s): 2/9/2022

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0776	0.0765	0.0011	0.0770	0.0007	0.0774
(g/100cc)	0.0782	0.0773	0.0009	0.0777		

### 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%

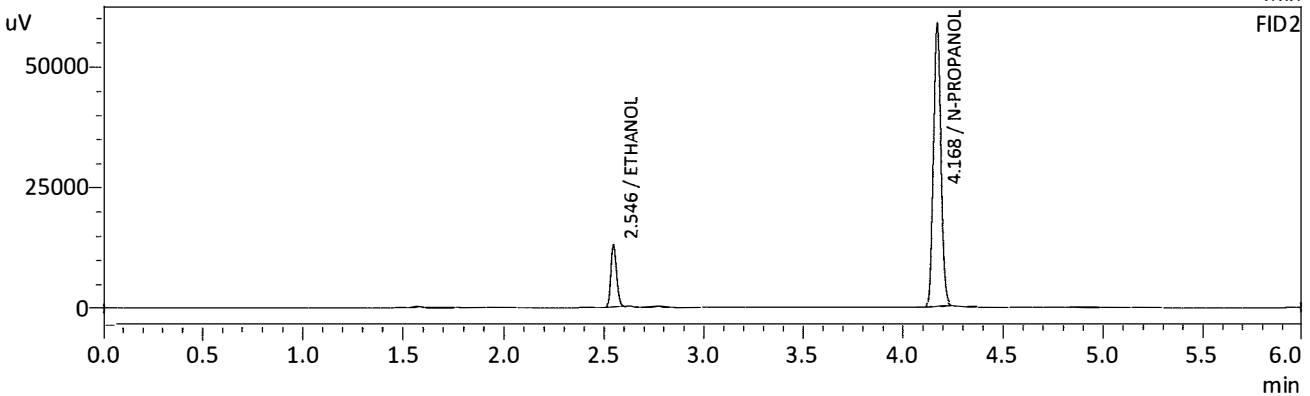
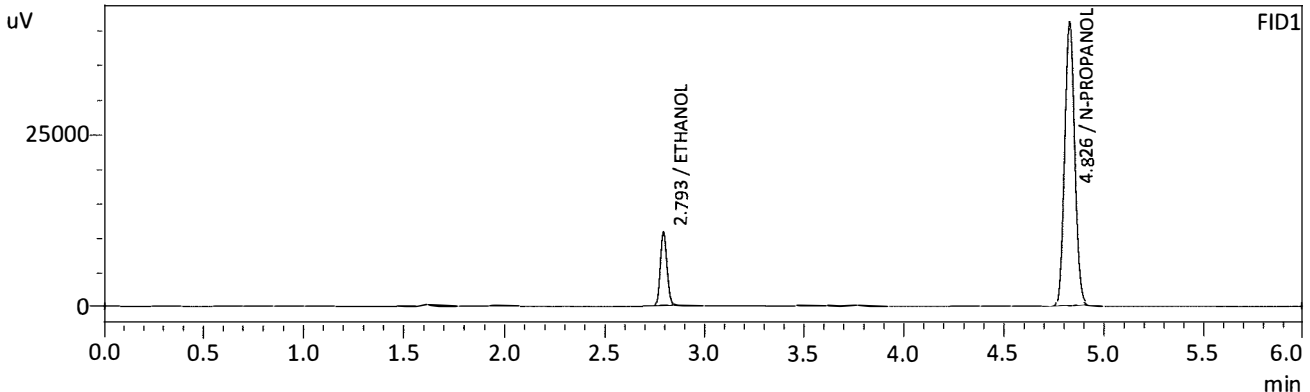
Overall Mean (g/100cc)	Low	High	5% of Mean
0.077	0.073	0.081	0.004

	Reported Result	
	0.077	

*Calibration and control data are stored centrally.*

TS

Sample Name : QC1-2-A  
 Vial # : 45  
 Data Filename : QC1-2-A\_292022\_045.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 7:09:30 PM  
 Date Processed : 2/10/2022 7:56:03 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



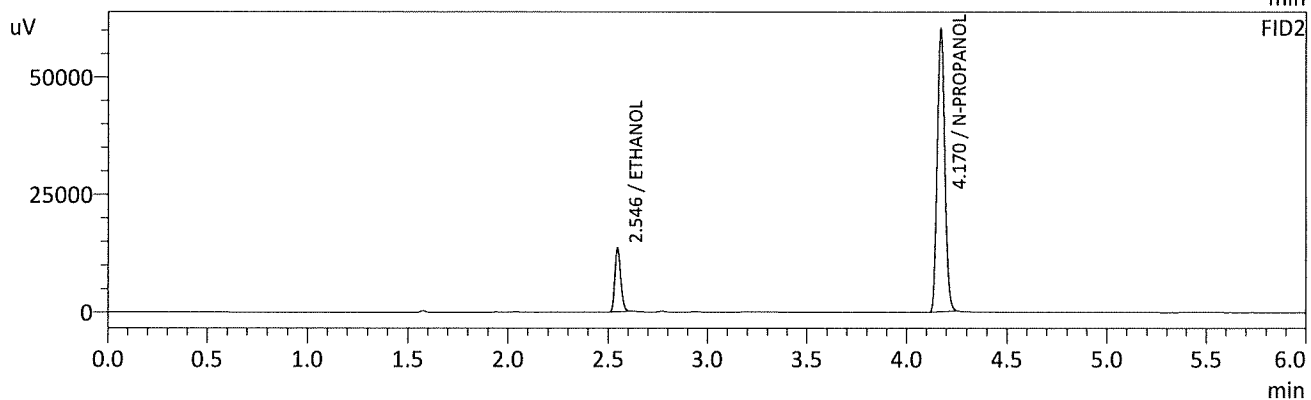
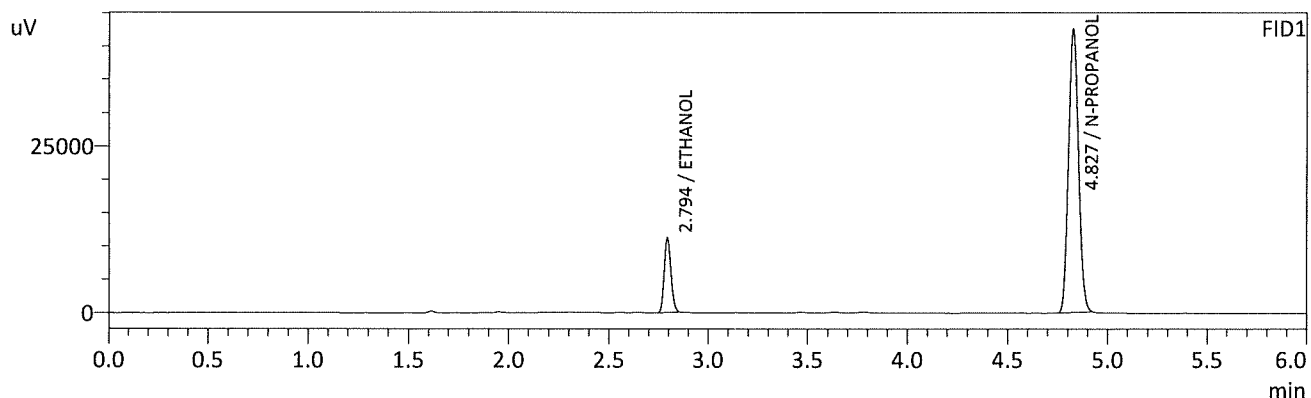
FID1

Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.0776	g/100cc	25203	10762
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	144083	40869
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0765	g/100cc	25951	12949
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	153713	58073
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

Sample Name : QC1-2-B  
 Vial # : 46  
 Data Filename : QC1-2-B\_292022\_046.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 7:19:16 PM  
 Date Processed : 2/10/2022 7:56:04 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

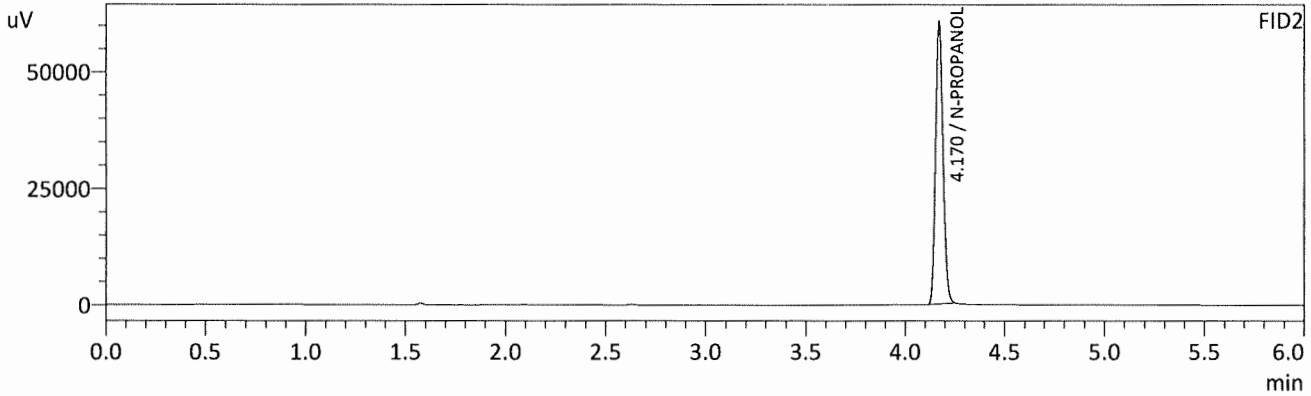
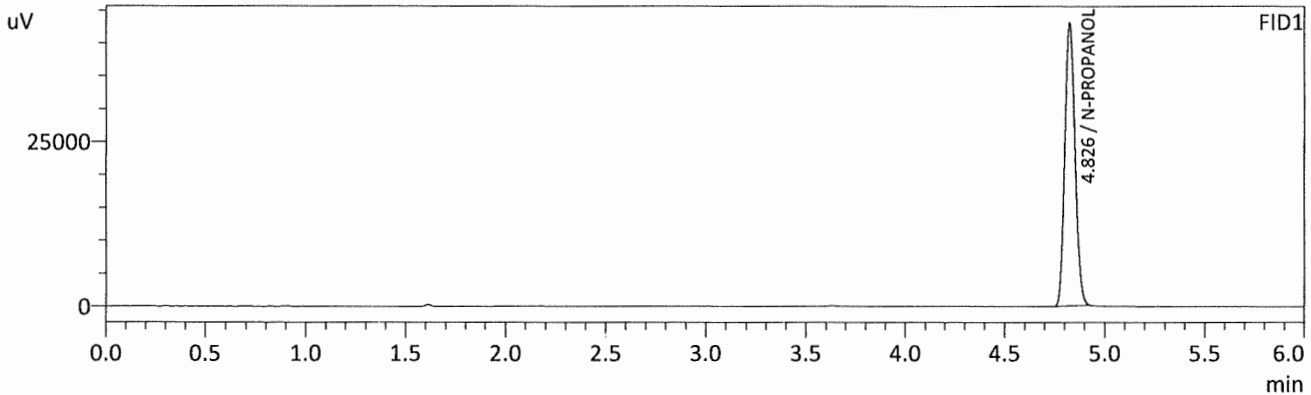
Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	0.0782	g/100cc	26276	11211
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	148978	42467
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	0.0773	g/100cc	27088	13528
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	158632	60186
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

15

Sample Name : INT STD BLK 3  
 Vial # : 47  
 Data Filename : INT STD BLK 3\_292022\_047.gcd  
 Method Filename : ALCOHOL.gcm  
 Batch Filename : 02-09-22\_TS\_POST.gcb  
 Date Acquired : 2/9/2022 7:28:45 PM  
 Date Processed : 2/10/2022 7:56:06 AM  
 C:\LabSolutions\Data\2022\2-9-22 TS\ALCOHOL.gcm



FID1

Name	Conc.	Unit	Area	Height
METHANOL	--	g/100cc	--	--
ACETALDEHYDE	--	g/100cc	--	--
ETHANOL	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	150400	42890
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

FID2

Name	Conc.	Unit	Area	Height
ACETALDEHYDE	--	g/100cc	--	--
METHANOL	--	g/100cc	--	--
ETHANOL	--	g/100cc	--	--
ACETONE	--	g/100cc	--	--
ISOPROPYL ALCOHOL	--	g/100cc	--	--
N-PROPANOL	0.0000	g/100cc	160067	60673
DFE	--	g/100cc	--	--
TFE	--	g/100cc	--	--

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## Region 5 Pocatello Blood Alcohol Analysis Batch Table

Shimadzu Nexis GC-2030 Serial Number: C12255850662  
 Shimadzu HS-20 Serial Number: C12595700014  
 LabSolutions Version 5.98  
 Copyright (C) 2008-2019 Shimadzu Corporation. All rights reserved.

Vial#	Sample Name	Sample Type	Method File	Data File	Level#
1	0.050	1:Standard:(I)	ALCOHOL.gcm	0.050_292022_001.gcd	1
2	0.100	1:Standard:(R)	ALCOHOL.gcm	0.100_292022_002.gcd	2
3	0.200	1:Standard:(R)	ALCOHOL.gcm	0.200_292022_003.gcd	3
4	0.300	1:Standard:(R)	ALCOHOL.gcm	0.300_292022_004.gcd	4
5	0.500	1:Standard:(R)	ALCOHOL.gcm	0.500_292022_005.gcd	5
6	INT STD BLK 1	0:Unknown	ALCOHOL.gcm	INT STD BLK 1_292022_006.gcd	0
7	MULTI-COMP MIX	0:Unknown	ALCOHOL.gcm	MULTI-COMP MIX_292022_007.gcd	1
8	INT STD BLK 2	0:Unknown	ALCOHOL.gcm	INT STD BLK 2_292022_008.gcd	0
9	QC-1-1-A	0:Unknown	ALCOHOL.gcm	QC-1-1-A_292022_009.gcd	0
10	QC-1-1-B	0:Unknown	ALCOHOL.gcm	QC-1-1-B_292022_010.gcd	0
11	0.08 QA - A	0:Unknown	ALCOHOL.gcm	0.08 QA - A_292022_011.gcd	0
12	0.08 QA - B	0:Unknown	ALCOHOL.gcm	0.08 QA - B_292022_012.gcd	0
13	P2021-4163-1-A	0:Unknown	ALCOHOL.gcm	P2021-4163-1-A_292022_013.gcd	0
14	P2021-4163-1-B	0:Unknown	ALCOHOL.gcm	P2021-4163-1-B_292022_014.gcd	0
15	P2022-0033-1-A	0:Unknown	ALCOHOL.gcm	P2022-0033-1-A_292022_015.gcd	0
16	P2022-0033-1-B	0:Unknown	ALCOHOL.gcm	P2022-0033-1-B_292022_016.gcd	0
17	P2022-0056-1-A	0:Unknown	ALCOHOL.gcm	P2022-0056-1-A_292022_017.gcd	0
18	P2022-0056-1-B	0:Unknown	ALCOHOL.gcm	P2022-0056-1-B_292022_018.gcd	0
19	P2022-0057-1-A	0:Unknown	ALCOHOL.gcm	P2022-0057-1-A_292022_019.gcd	0
20	P2022-0057-1-B	0:Unknown	ALCOHOL.gcm	P2022-0057-1-B_292022_020.gcd	0
21	P2022-0124-1-A	0:Unknown	ALCOHOL.gcm	P2022-0124-1-A_292022_021.gcd	0
22	P2022-0124-1-B	0:Unknown	ALCOHOL.gcm	P2022-0124-1-B_292022_022.gcd	0
23	P2022-0125-1-A	0:Unknown	ALCOHOL.gcm	P2022-0125-1-A_292022_023.gcd	0
24	P2022-0125-1-B	0:Unknown	ALCOHOL.gcm	P2022-0125-1-B_292022_024.gcd	0
25	P2022-0126-1-A	0:Unknown	ALCOHOL.gcm	P2022-0126-1-A_292022_025.gcd	0
26	P2022-0126-1-B	0:Unknown	ALCOHOL.gcm	P2022-0126-1-B_292022_026.gcd	0
27	P2022-0127-1-A	0:Unknown	ALCOHOL.gcm	P2022-0127-1-A_292022_027.gcd	0
28	P2022-0127-1-B	0:Unknown	ALCOHOL.gcm	P2022-0127-1-B_292022_028.gcd	0
29	P2022-0192-1-A	0:Unknown	ALCOHOL.gcm	P2022-0192-1-A_292022_029.gcd	0
30	P2022-0192-1-B	0:Unknown	ALCOHOL.gcm	P2022-0192-1-B_292022_030.gcd	0
31	QC-2-1-A	0:Unknown	ALCOHOL.gcm	QC-2-1-A_292022_031.gcd	0
32	QC-2-1-B	0:Unknown	ALCOHOL.gcm	QC-2-1-B_292022_032.gcd	0
33	P2022-0207-1-A	0:Unknown	ALCOHOL.gcm	P2022-0207-1-A_292022_033.gcd	0
34	P2022-0207-1-B	0:Unknown	ALCOHOL.gcm	P2022-0207-1-B_292022_034.gcd	0
35	P2022-0208-1-A	0:Unknown	ALCOHOL.gcm	P2022-0208-1-A_292022_035.gcd	0
36	P2022-0208-1-B	0:Unknown	ALCOHOL.gcm	P2022-0208-1-B_292022_036.gcd	0
37	P2022-0265-1-A	0:Unknown	ALCOHOL.gcm	P2022-0265-1-A_292022_037.gcd	0
38	P2022-0265-1-B	0:Unknown	ALCOHOL.gcm	P2022-0265-1-B_292022_038.gcd	0
39	P2022-0330-1-A	0:Unknown	ALCOHOL.gcm	P2022-0330-1-A_292022_039.gcd	0
40	P2022-0330-1-B	0:Unknown	ALCOHOL.gcm	P2022-0330-1-B_292022_040.gcd	0
41	P2022-0331-1-A	0:Unknown	ALCOHOL.gcm	P2022-0331-1-A_292022_041.gcd	0
42	P2022-0331-1-B	0:Unknown	ALCOHOL.gcm	P2022-0331-1-B_292022_042.gcd	0
43	P2022-0344-1-A	0:Unknown	ALCOHOL.gcm	P2022-0344-1-A_292022_043.gcd	0
44	P2022-0344-1-B	0:Unknown	ALCOHOL.gcm	P2022-0344-1-B_292022_044.gcd	0
45	QC1-2-A	0:Unknown	ALCOHOL.gcm	QC1-2-A_292022_045.gcd	0
46	QC1-2-B	0:Unknown	ALCOHOL.gcm	QC1-2-B_292022_046.gcd	0
47	INT STD BLK 3	0:Unknown	ALCOHOL.gcm	INT STD BLK 3_292022_047.gcd	0

**Idaho State Police  
Forensic Services**

**Request for Departure from an Analytical Method or Quality Standard**

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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

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**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 1<sup>st</sup>, 2022.

### Technical Review

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Departure approved

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

Departure Not Approved

Comments:

Approver:  
Title: Discipline Lead

Date: 1/21/22

### Quality Review

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

