Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB Liquid Processor/Dilutor Serial Number: ML600HC11378

Volatiles Quality Assurance Controls **Run Date(s): 4/17/24**

Calibration Date: *(if different)* **4/11/24**

Worklist #: 6774

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Feb-25	2101199	0.0808	0.0727-0.0889	0.0808 g/100cc
					0.0854 g/100cc
					g/100cc
Level 2	Mar-26	2110181	0.2030	0.1827-0.2233	0.2097 g/100cc
					g/100cc
					g/100cc

Multi-Component mixture:	Exp:	Oct. 24	Lot #	FN06041902	
Curve Fit:		**Column 1**	0.99964	**Column2**	0.99959

Ethanol Calibration Reference Material

Calibrator level	Target Value	Acceptable Range	Column 1	Column 2	Precision	Mean
50	0.050	0.045 - 0.055	0.0537	0.0537	0	0.0537
100	0.100	0.090 - 0.110	0.1002	0.1005	0.0003	0.1003
200	0.200	0.180 - 0.220	0.1951	0.1946	0.0005	0.1948
300	0.300	0.270 - 0.330	0.2984	0.2983	1E-04	0.2983
400	0.400	0.360 - 0.440	N/A	N/A	########	#DIV/0!
500	0.500	0.450 - 0.550	0.5024	0.5026	0.0002	0.5025

Aqueous Controls

Control level	Target Value	Acceptable Range	Overall Results
80	0.080	0.076 - 0.084	0.082 g/100cc

REVIEWED
By Jeremy Johnston at 11:23 am, Apr 18, 2024

JL

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

Internal Standard Monitoring Worksheet

Worklist #:	6774	Run Date(s):	4/17/24

Internal Standard Solution:	Prep Date:	3/13/2024	Exp Date:	9/13/2024

Sample Name	Column 1 Value	Column 2 Value
0.080	187246	200437
0.080	187800	200789
QC1	190491	204221
QC1	190068	203515
QC1	199251	214586
QC1	213180	229807
QC1		
QC1		
QC2	202387	217997
QC2	205087	220519
QC2		
QC2		
QC2		
QC2		

	Average	(-)20%	(+)20%
Column 1	196938.8	157551.0	236326.5
Column 2	211483.9	169187.1	253780.7

JC

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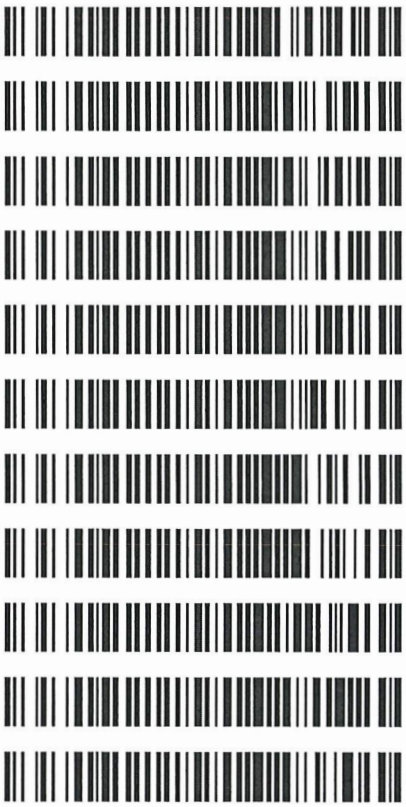
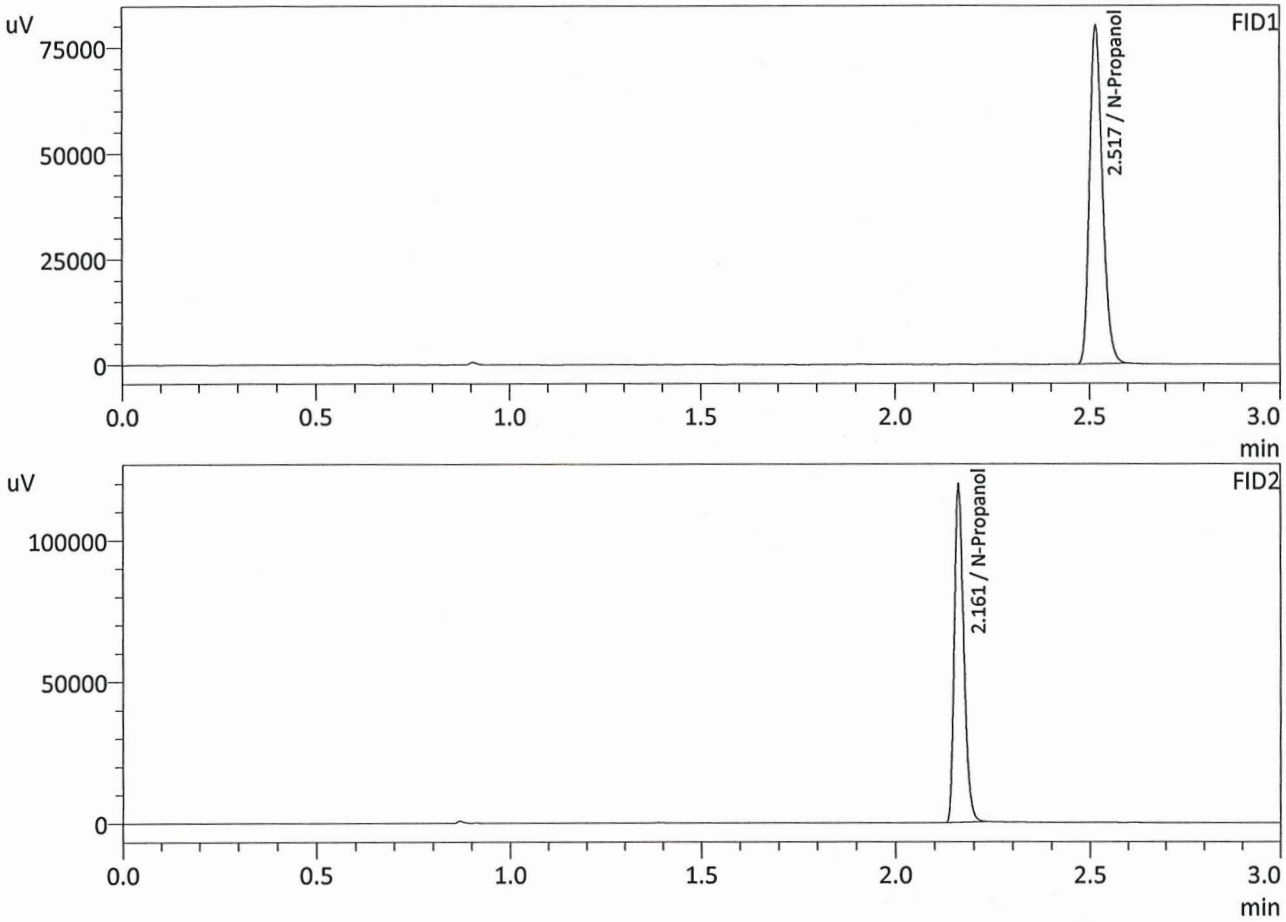
Worklist: 6774

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2024-1349	2	BCK	Alcohol Analysis
M2024-1430	1	BCK	Alcohol Analysis
M2024-1431	1	BCK	Alcohol Analysis
M2024-1451	1	BCK	Alcohol Analysis
M2024-1459	1	BCK	Alcohol Analysis
M2024-1460	1	BCK	Alcohol Analysis
M2024-1489	1	BCK	Alcohol Analysis
M2024-1492	1	BCK	Alcohol Analysis
M2024-1539	1	BCK	Alcohol Analysis
M2024-1556	1	BCK	Alcohol Analysis
M2024-1563	1	BCK	Alcohol Analysis



Sample Name : ISTD BLK 1
Laboratory : Meridian
Injection Date : 4/17/2024 2:51:09 PM
Vial # : 1
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

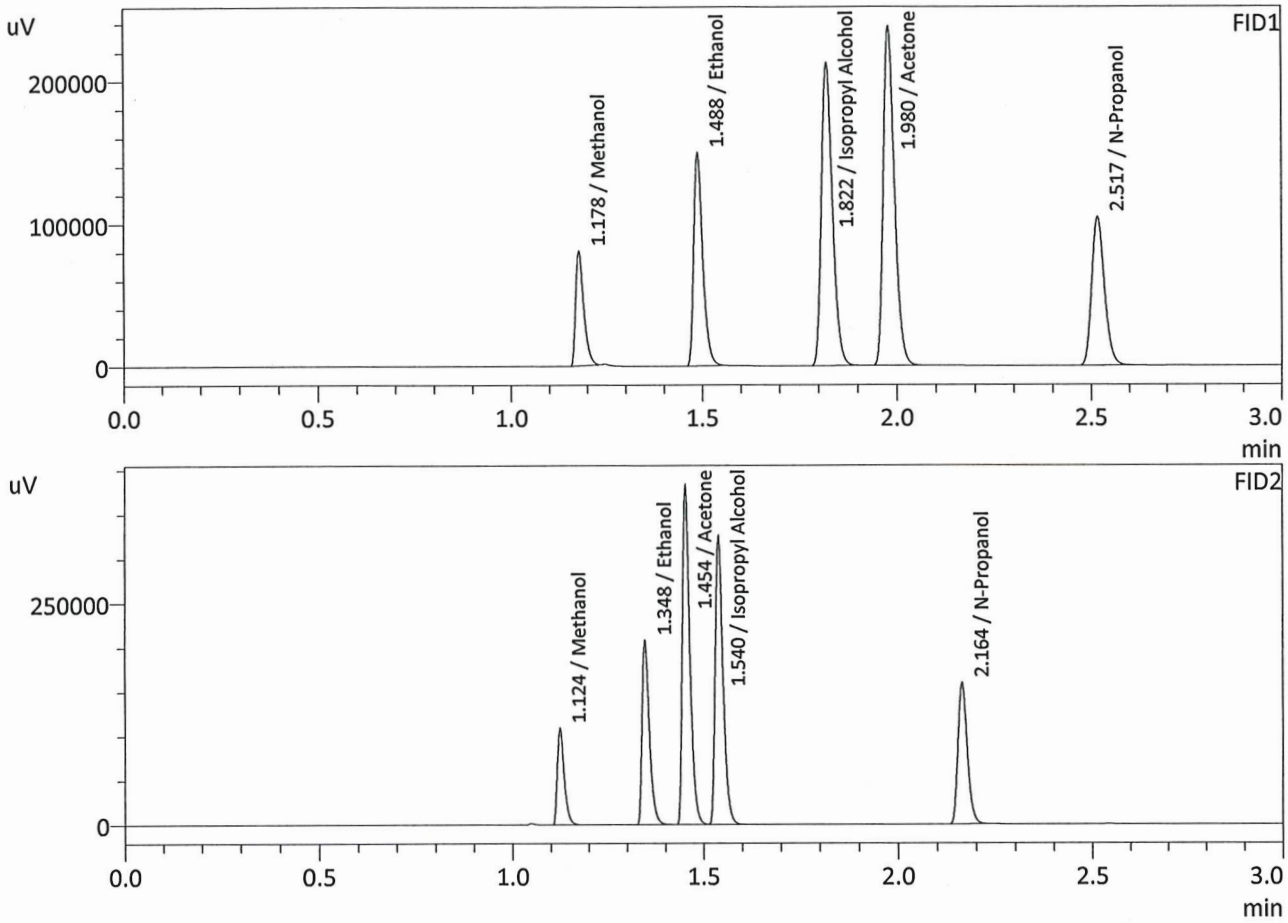
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	186696	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	--	--	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	199110	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : MIXED VOLATILES FN 06041902
Laboratory : Meridian
Injection Date : 4/17/2024 2:58:29 PM
Vial # : 2
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	0.0000	118895	g/100cc
Ethanol	0.4710	247470	g/100cc
Isopropyl Alcohol	0.0000	412984	g/100cc
Acetone	0.0000	465694	g/100cc
N-Propanol	0.0000	242117	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	0.0000	136351	g/100cc
Ethanol	0.4747	274694	g/100cc
Acetone	0.0000	514148	g/100cc
Isopropyl Alcohol	0.0000	451976	g/100cc
N-Propanol	0.0000	264417	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JG

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No: QC-1-1 **Analysis Date(s): 4/17/2024 3:05:55 PM(-06:00)**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0807	0.0808	0.0001	0.0807	0.0003	0.0808
(g/100cc)	0.0810	0.0810	0.0000	0.0810		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information — Instrument information is stored centrally.

Refer To Instrument Method: ALCOHOL_240411JG.gcm

Reporting of Results	Uncertainty of Measurements (UM%):	5.00%

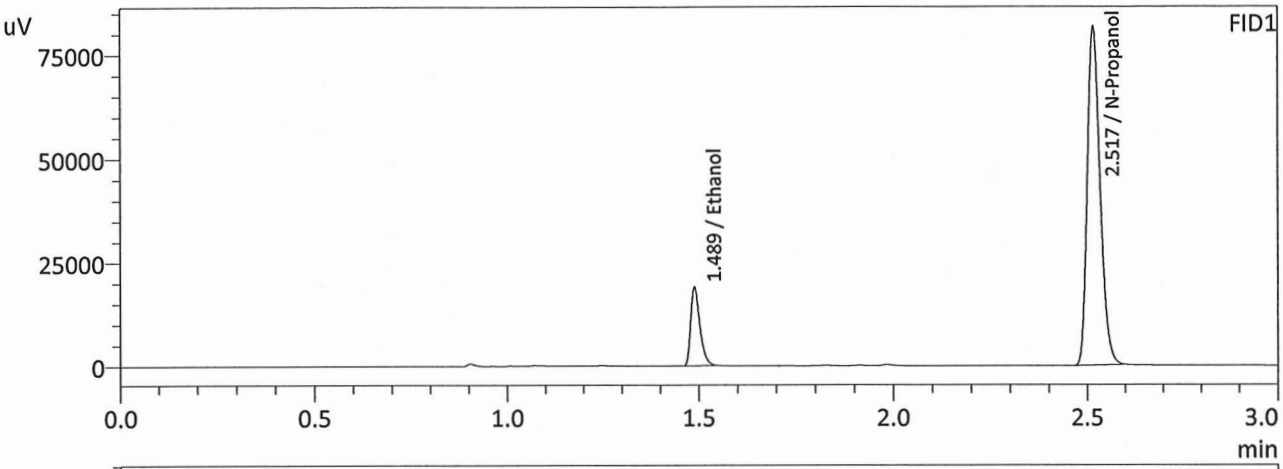
Overall Mean (g/100cc)	Low	High	5 % of Mean
0.080	0.076	0.084	0.004

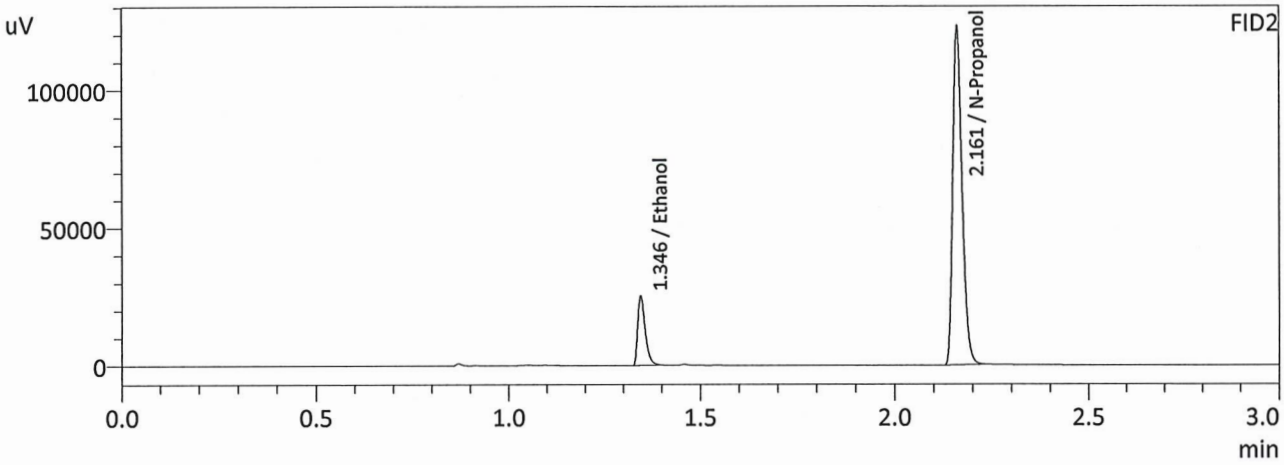
Reported Results
0.080

Calibration and control data are stored centrally.

JC

Sample Name : QC-1-1
Laboratory : Meridian
Injection Date : 4/17/2024 3:05:55 PM
Vial # : 3
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409





FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0807	31611	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	190491	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0808	33838	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	204221	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JC

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No: 0.08 QA **Analysis Date(s): 4/17/2024 3:23:16 PM(-06:00)**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0837	0.0840	0.0003	0.0838	0.0029	0.0823
(g/100cc)	0.0804	0.0814	0.0010	0.0809		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information — Instrument information is stored centrally.

Refer To Instrument Method: ALCOHOL_240411JG.gcm

Reporting of Results	Uncertainty of Measurements (UM%):	5.00%

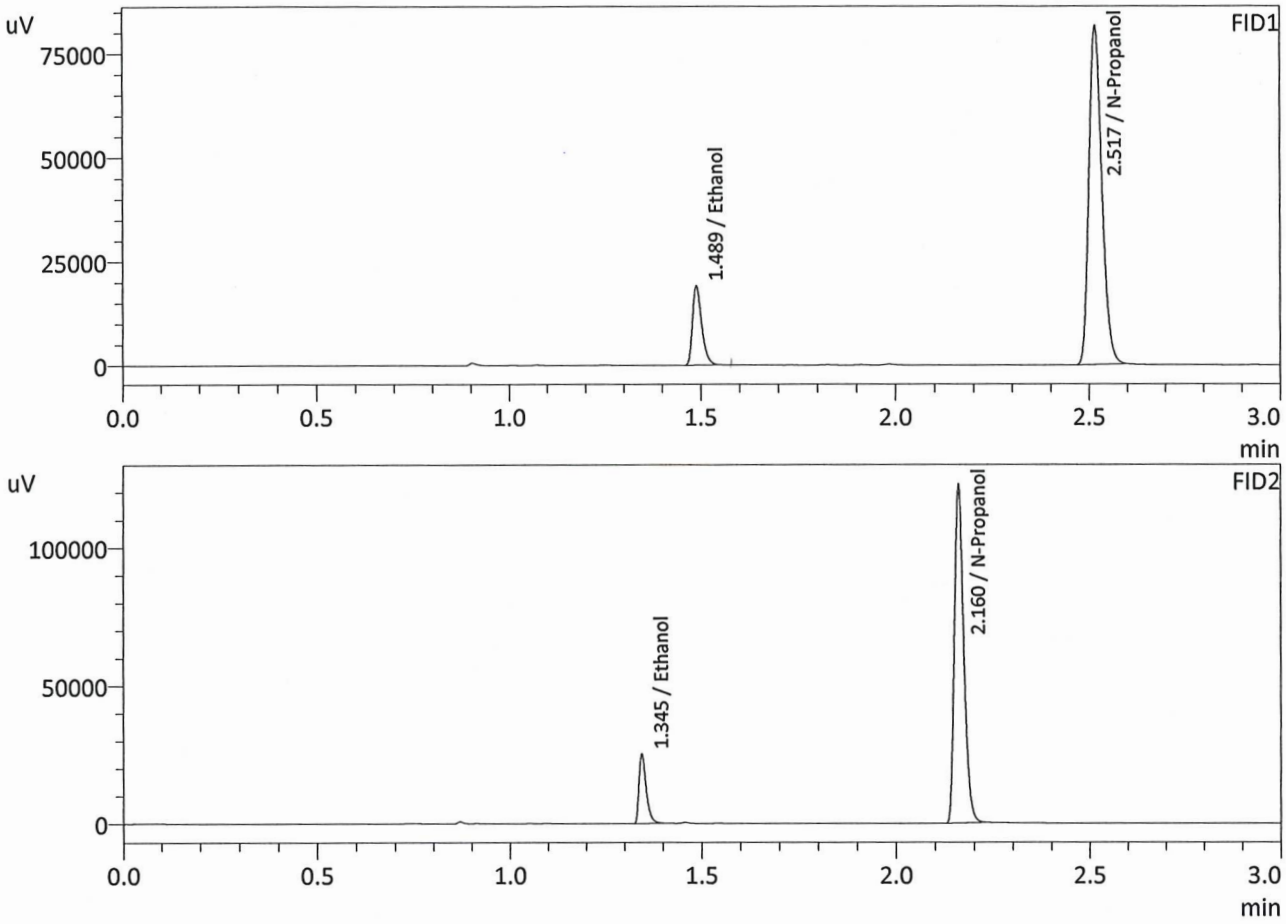
Overall Mean (g/100cc)	Low	High	5 % of Mean
0.082	0.077	0.087	0.005

Reported Results
0.082

Calibration and control data are stored centrally.

JG

Sample Name : QC-1-1-B
Laboratory : Meridian
Injection Date : 4/17/2024 3:14:31 PM
Vial # : 4
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

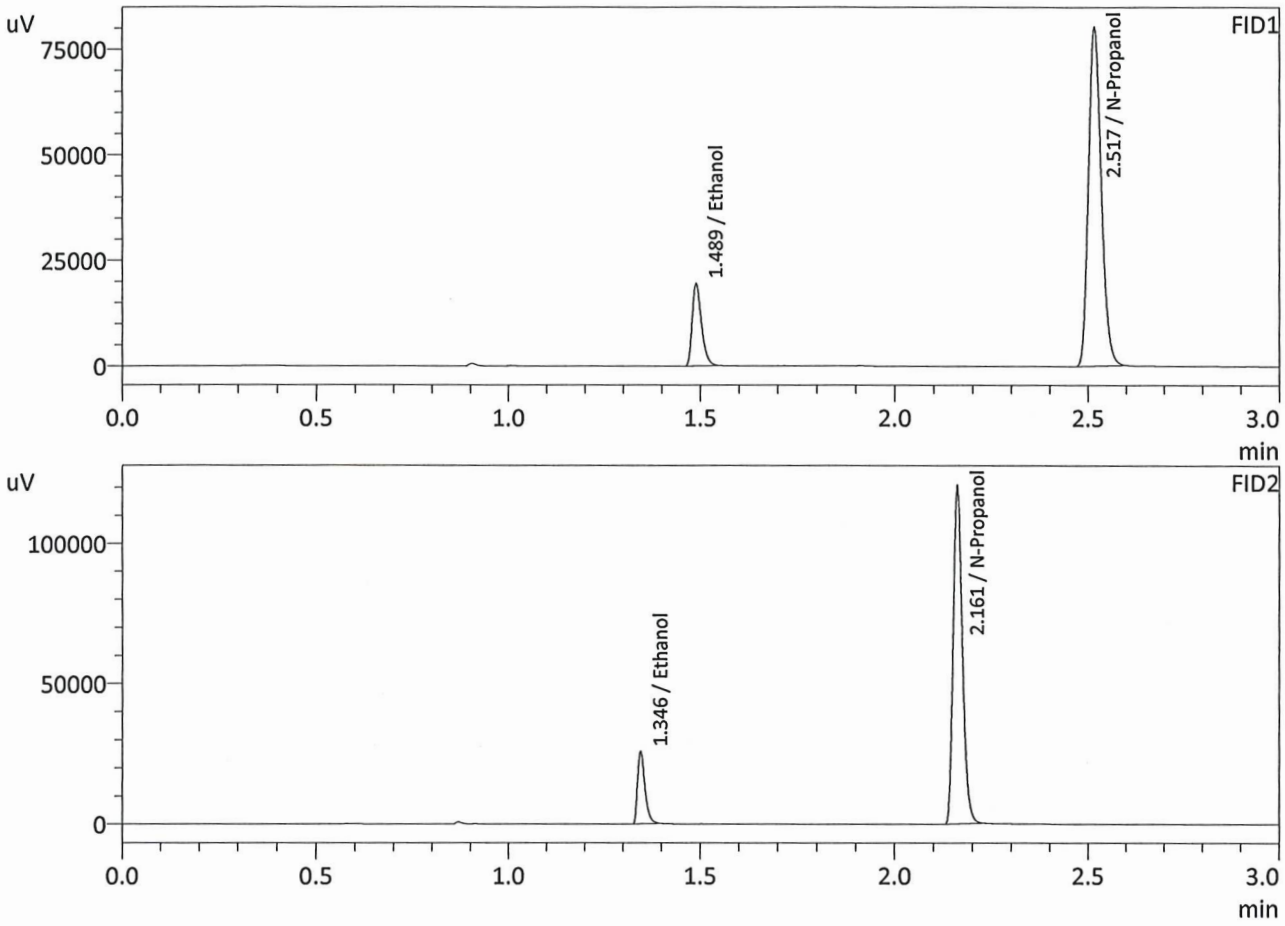
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0810	31639	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	190068	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0810	33811	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	203515	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JG

Sample Name : 0.08 QA
Laboratory : Meridian
Injection Date : 4/17/2024 3:23:16 PM
Vial # : 5
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

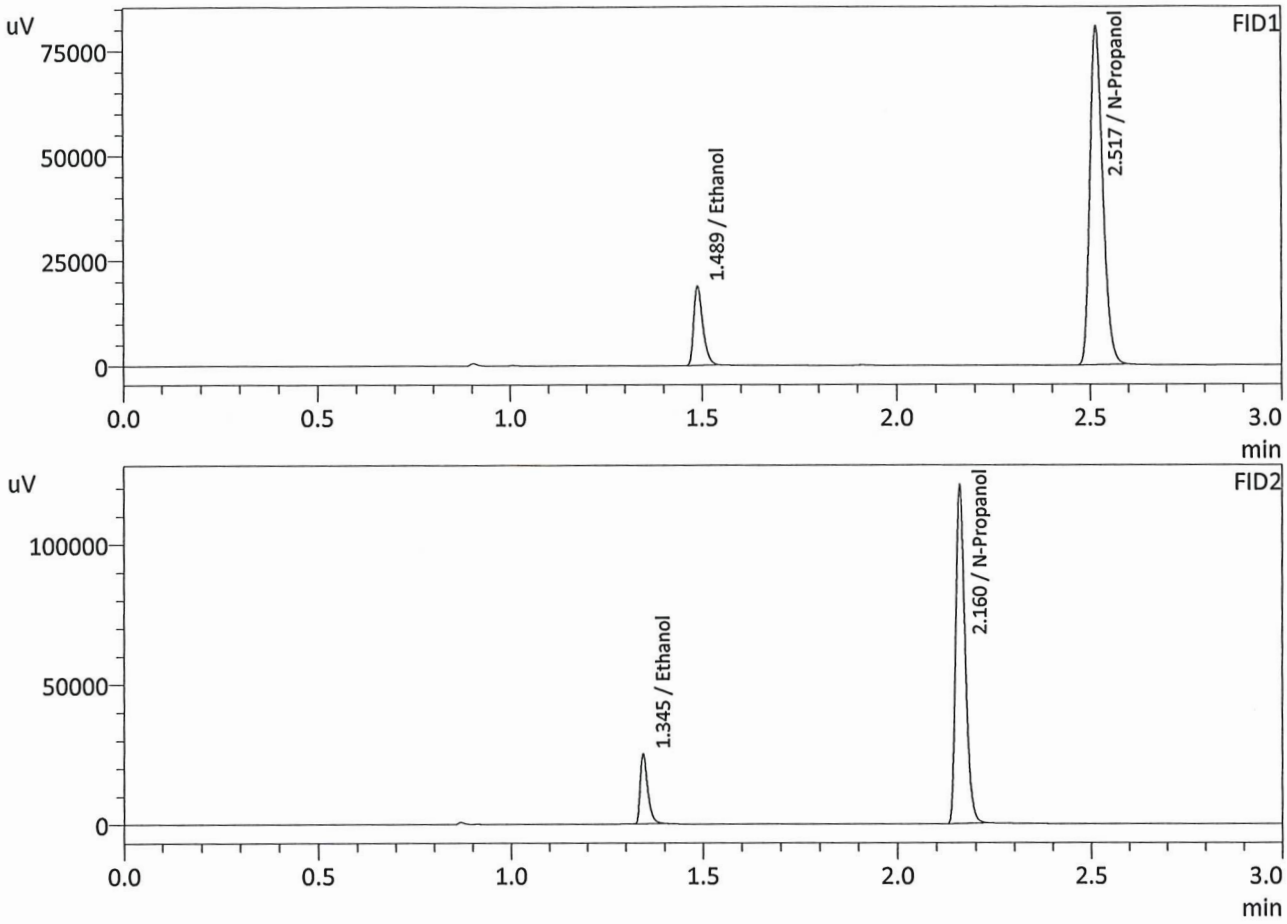
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0837	32298	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	187246	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0840	34627	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	200437	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JG

Sample Name : 0.08 QA-B
Laboratory : Meridian
Injection Date : 4/17/2024 3:30:36 PM
Vial # : 6
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0804	31035	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	187800	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0814	33561	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	200789	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No: QC-2-1 **Analysis Date(s): 4/17/2024 6:04:27 PM(-06:00)**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.2076	0.2084	0.0008	0.2080	0.0034	0.2097
(g/100cc)	0.2110	0.2119	0.0009	0.2114		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information — Instrument information is stored centrally.

Refer To Instrument Method: ALCOHOL_240411JG.gcm

Reporting of Results	Uncertainty of Measurements (UM%):	5.00%

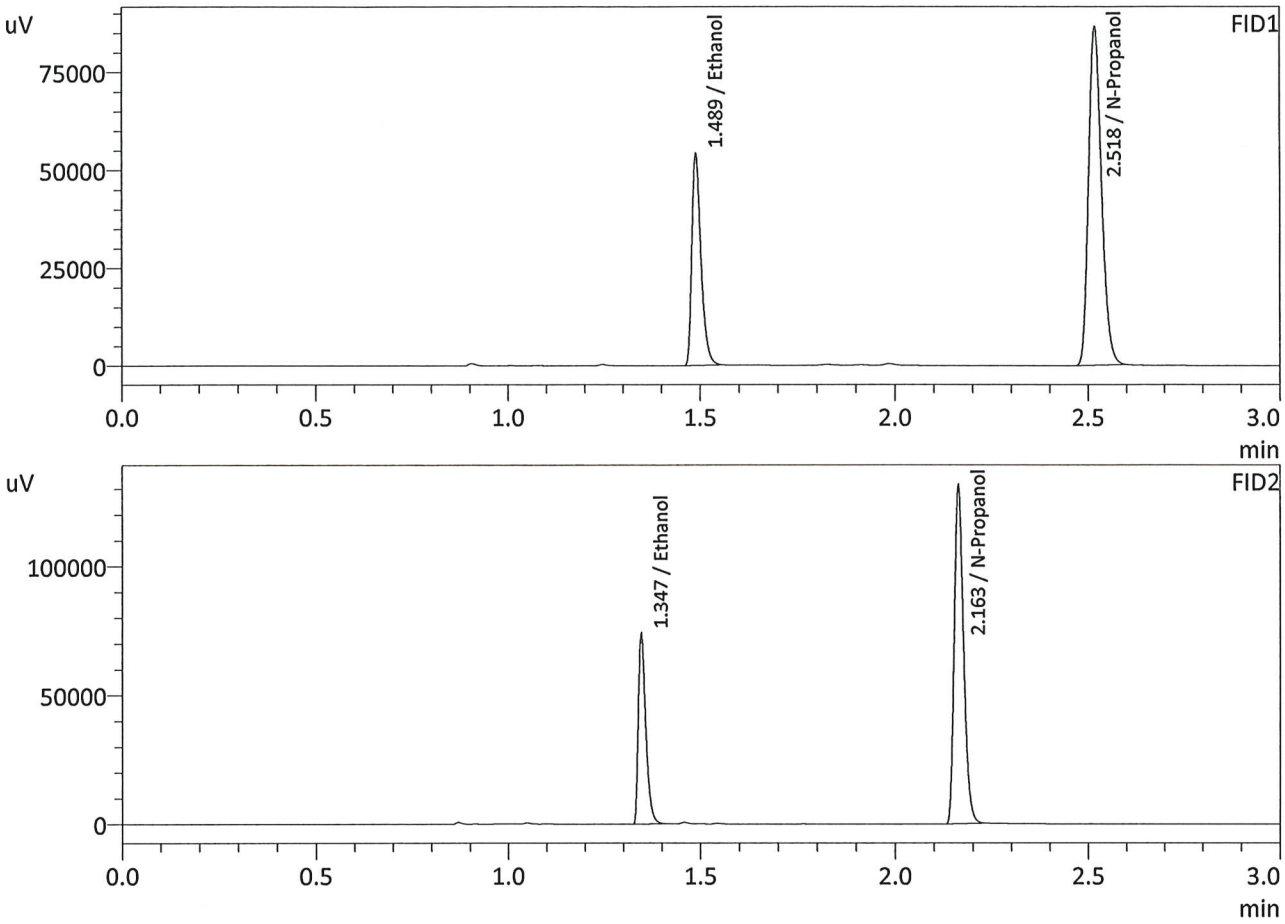
Overall Mean (g/100cc)	Low	High	5 % of Mean
0.209	0.198	0.220	0.011

Reported Results
0.209

Calibration and control data are stored centrally.

JG

Sample Name : QC-2-1
Laboratory : Meridian
Injection Date : 4/17/2024 6:04:27 PM
Vial # : 25
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

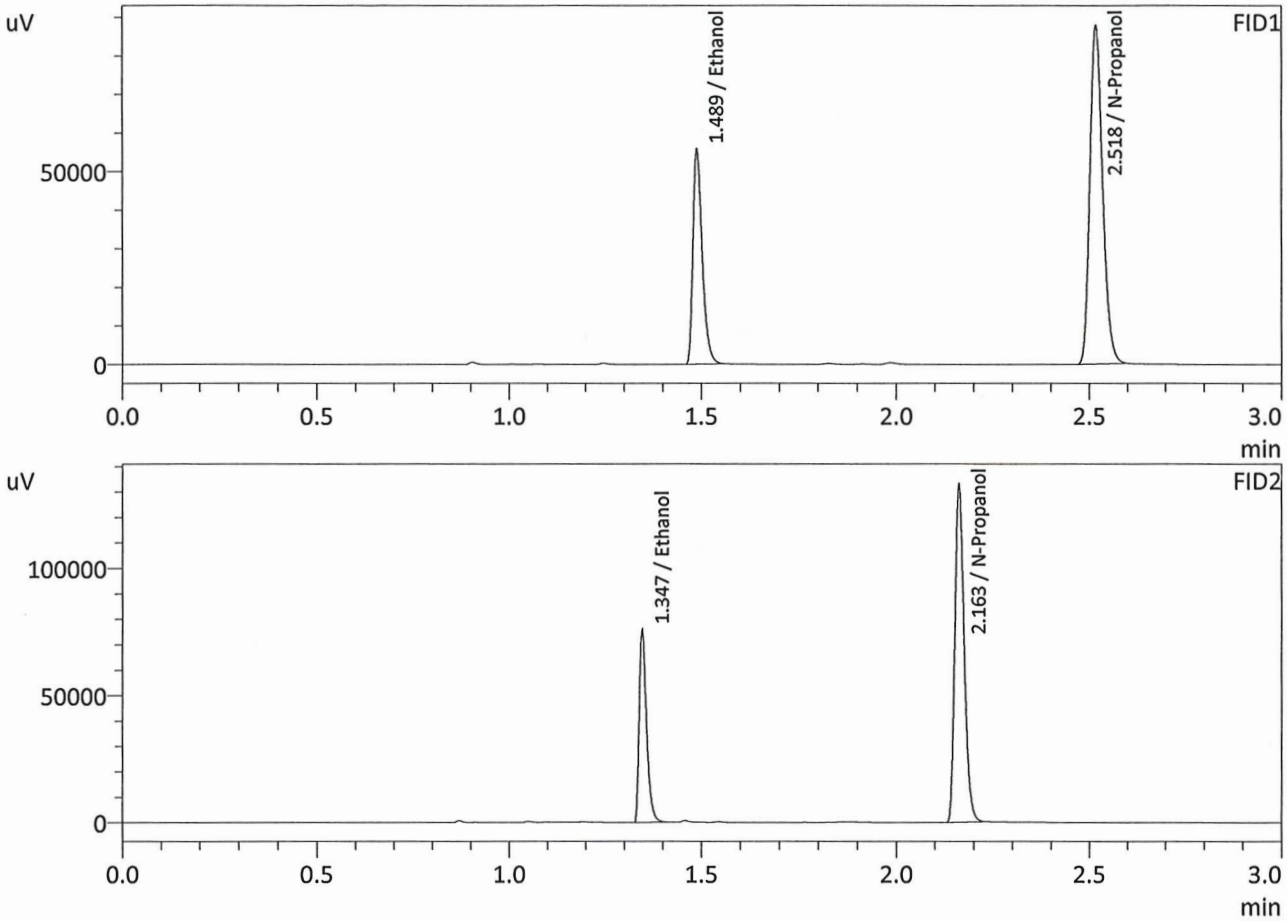
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2076	89929	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	202387	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2084	97800	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	217997	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JG

Sample Name : QC-2-1-B
Laboratory : Meridian
Injection Date : 4/17/2024 6:11:56 PM
Vial # : 26
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2110	92626	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	205087	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.2119	100631	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	220519	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JC

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No: QC-1-2 **Analysis Date(s): 4/17/2024 7:10:23 PM(-06:00)**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Sample A-B Difference	Over-all Mean
Sample Results	0.0846	0.0850	0.0004	0.0848	0.0013	0.0854
(g/100cc)	0.0859	0.0864	0.0005	0.0861		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information — Instrument information is stored centrally.

Refer To Instrument Method: ALCOHOL_240411JG.gcm

Reporting of Results	Uncertainty of Measurements (UM%):	5.00%

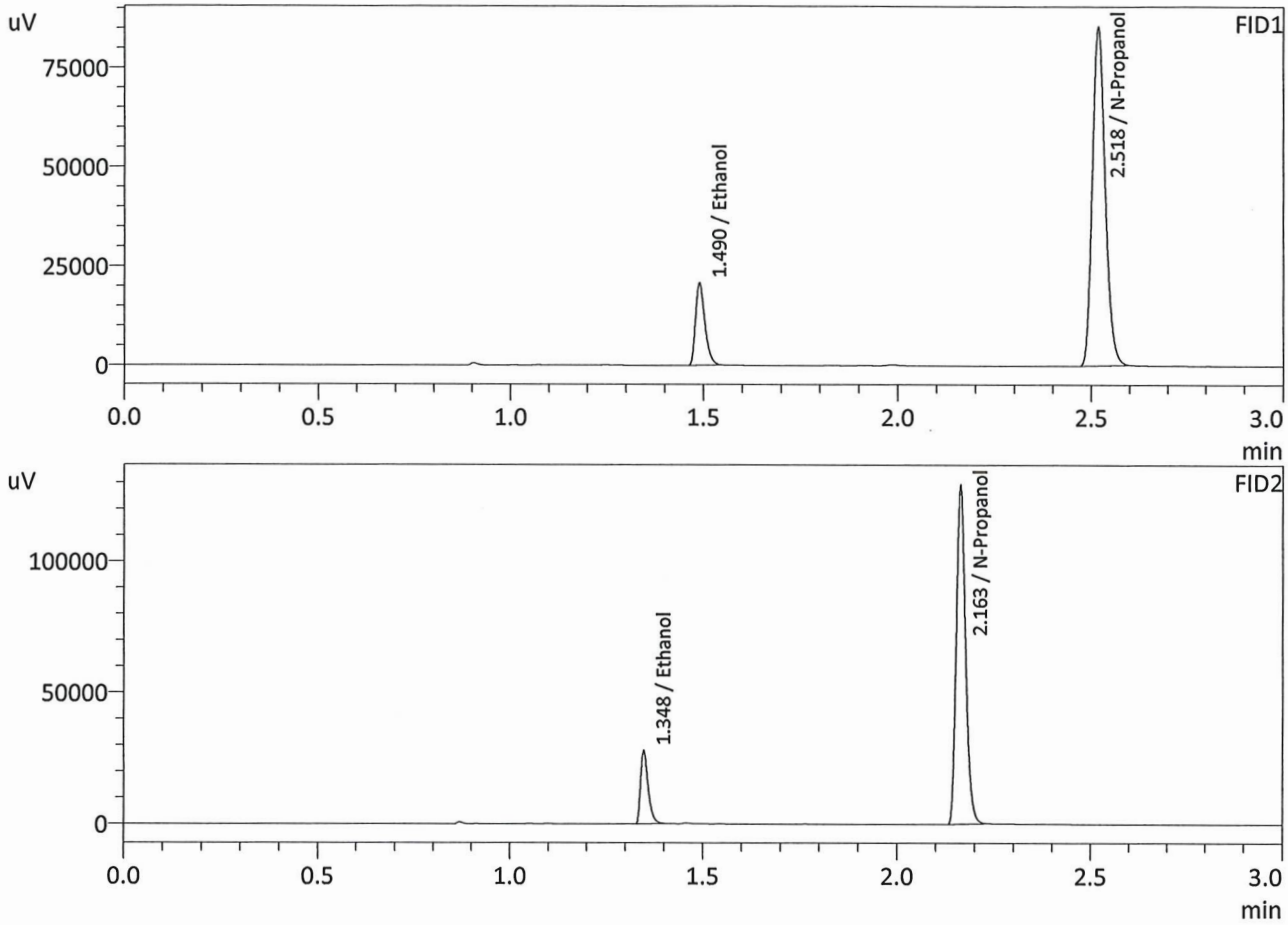
Overall Mean (g/100cc)	Low	High	5 % of Mean
0.085	0.080	0.090	0.005

Reported Results
0.085

Calibration and control data are stored centrally.

JG

Sample Name : QC-1-2
Laboratory : Meridian
Injection Date : 4/17/2024 7:10:23 PM
Vial # : 33
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

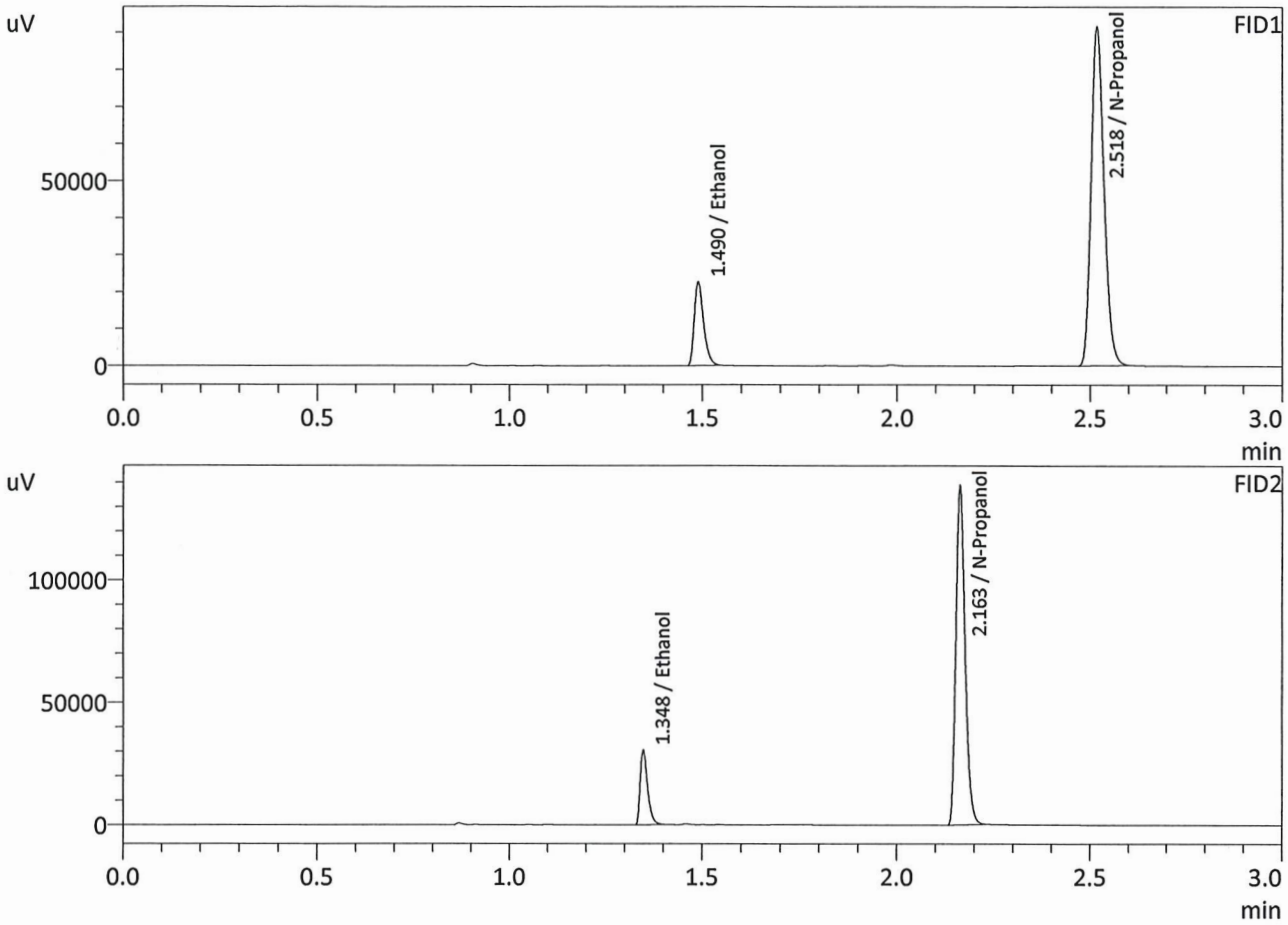
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0846	34752	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	199251	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0850	37547	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	214586	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JC

Sample Name : QC-1-2-B
Laboratory : Meridian
Injection Date : 4/17/2024 7:17:21 PM
Vial # : 34
Method Filename : Default Project - ALCOHOL_240411JG.gcm
Instrument #GC/HS : C12255750548 / C12595800409



FID1

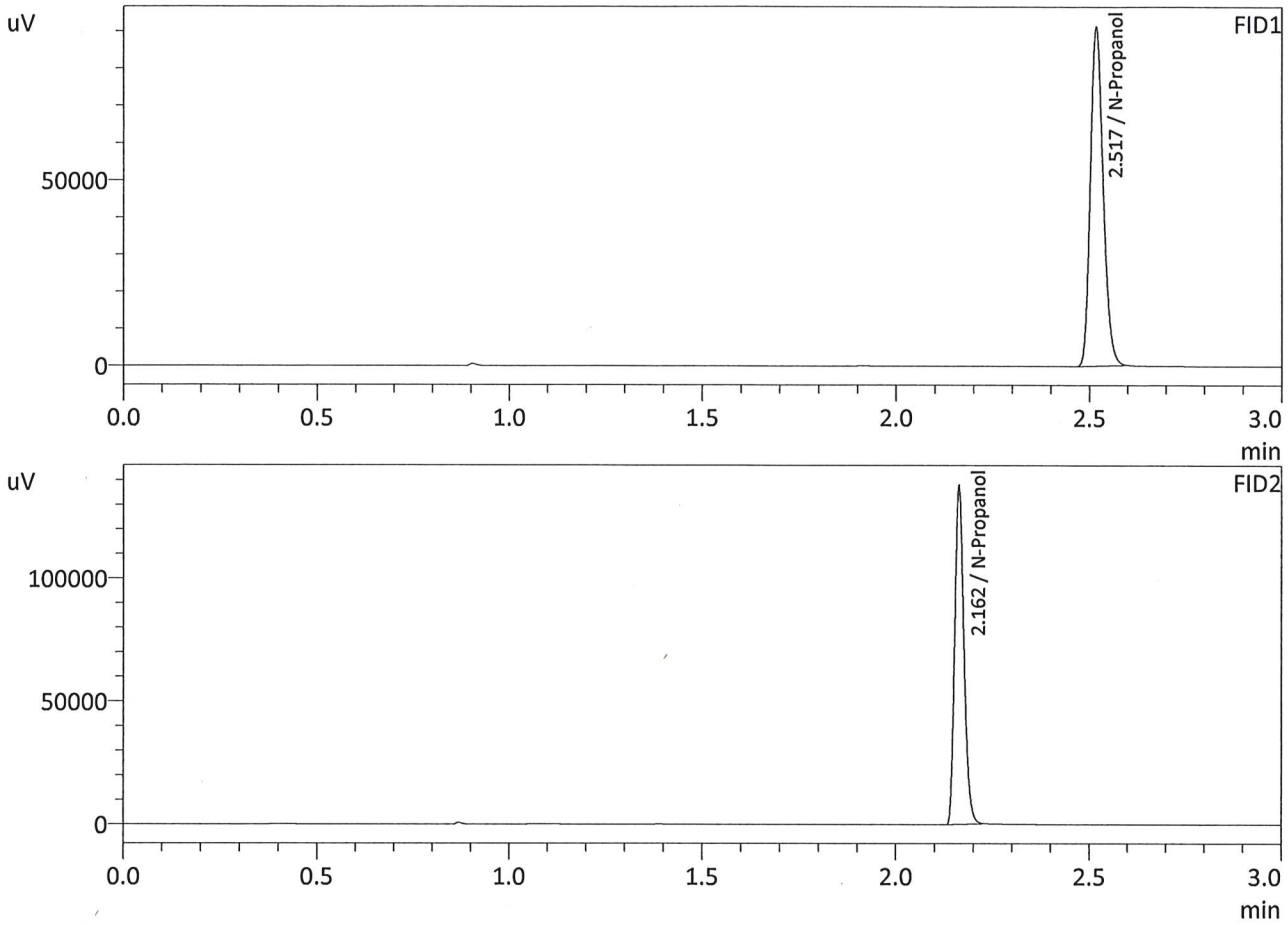
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0859	37813	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	213180	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0864	40925	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	229807	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JG

Sample Name : ISTD BLK 2
Laboratory : Meridian
Injection Date : 4/17/2024 7:25:36 PM
Vial # : 35
Method Filename : Default Project - ALCOHOL_240411JG.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	212595	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	228825	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

JG

Meridian Blood Alcohol Analysis Batch Table

Shimadzu GC-2030 Serial #C12255750548
Shimadzu HS-20 Serial #C12595800409
Lab Solutions Database Software Ver. 6.111

Vial#	Sample Name	Sample Type	Level#	Method File
1	ISTD BLK 1	0:Unknown	0	ALCOHOL 240411JG.gcm
2	ED VOLATILES FN 0604	0:Unknown	1	ALCOHOL 240411JG.gcm
3	QC-1-1	0:Unknown	0	ALCOHOL 240411JG.gcm
4	QC-1-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
5	0.08 QA	0:Unknown	0	ALCOHOL 240411JG.gcm
6	0.08 QA-B	0:Unknown	0	ALCOHOL 240411JG.gcm
7	M2024-1349-2	0:Unknown	0	ALCOHOL 240411JG.gcm
8	M2024-1349-2-B	0:Unknown	0	ALCOHOL 240411JG.gcm
9	M2024-1430-1	0:Unknown	0	ALCOHOL 240411JG.gcm
10	M2024-1430-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
11	M2024-1431-1	0:Unknown	0	ALCOHOL 240411JG.gcm
12	M2024-1431-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
13	M2024-1450-1	0:Unknown	0	ALCOHOL 240411JG.gcm
14	M2024-1450-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
15	M2024-1451-1	0:Unknown	0	ALCOHOL 240411JG.gcm
16	M2024-1451-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
17	M2024-1459-1	0:Unknown	0	ALCOHOL 240411JG.gcm
18	M2024-1459-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
19	M2024-1460-1	0:Unknown	0	ALCOHOL 240411JG.gcm
20	M2024-1460-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
21	M2024-1489-1	0:Unknown	0	ALCOHOL 240411JG.gcm
22	M2024-1489-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
23	M2024-1492-1	0:Unknown	0	ALCOHOL 240411JG.gcm
24	M2024-1492-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
25	QC-2-1	0:Unknown	0	ALCOHOL 240411JG.gcm
26	QC-2-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
27	M2024-1539-1	0:Unknown	0	ALCOHOL 240411JG.gcm
28	M2024-1539-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
29	M2024-1556-1	0:Unknown	0	ALCOHOL 240411JG.gcm
30	M2024-1556-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
31	M2024-1563-1	0:Unknown	0	ALCOHOL 240411JG.gcm
32	M2024-1563-1-B	0:Unknown	0	ALCOHOL 240411JG.gcm
33	QC-1-2	0:Unknown	0	ALCOHOL 240411JG.gcm
34	QC-1-2-B	0:Unknown	0	ALCOHOL 240411JG.gcm
35	ISTD BLK 2	0:Unknown	0	ALCOHOL 240411JG.gcm

JG