Idaho State Police Forensic Services

CERTIFICATE OF ANALYSIS/APPROVAL

The Idaho State Police Forensic Services (ISPFS) hereby certifies and approves Alcohol Simulator Solution **Lot Number 22440** (a product manufactured by Guth Laboratories, Inc.) to be used to conduct performance verification checks within the State of Idaho in accordance with the analytical methods, policies and/or procedures promulgated by the Department governing breath alcohol examinations. ISPFS also approves of the manufacturer of this solution (Guth Laboratories, Inc.) to provide Alcohol Simulator Solution **Lot Number 22440** in the State of Idaho. This lot has a target value of 0.080 with a range of 0.072 to 0.088 grams of ethyl alcohol/210 liters of vapor.

The expiration date for this lot number is on December 12th, 2024 at 11:59 PM.

2-10-23
Date

Volatiles Analysis Discipline Leader

STATE OF IDAHO)
) ss.
County of Kootenai)

On this 10th day of February, in the year 2023, before me, Julie Ann West, a notary public, Jeremy Johnston personally appeared, known to me to be the person whose name is subscribed to the within instrument as a Forensic Scientist for the Idaho State Police Forensic Services, and acknowledged to me that he executed the same as such Scientist.

Julie Ann West Notary Public

My Commission Expires: 01-04-2029

JULIE ANN WEST
COMMISSION #20230060
NOTARY PUBLIC
STATE OF IDAHO

Raw data from analysis: LOT #22440

Analyst:	Bottle			Raw	Average
JJ	#69	sample #1	a	0.0990	0.0988
			b	0.0986	
		sample #2	a	0.1005	0.1005
			b	0.1005	
	#583	sample #1	a	0.0997	0.0995
			b	0.0994	
		sample #2	a	0.1004	0.1002
			b	0.1001	

overall mean: 0.0998

Analyst:	Bottle				
JG	#80	sample #1	a	0.0976	0.0976
			b	0.0976	
		sample #2	a	0.1006	0.1007
			b	0.1008	
	#80	sample #1	a	0.0978	0.0977
			b	0.0976	
		sample #2	a	0.1009	0.1009
			b	0.1010	

overall mean: 0.0992

average of all raw data:	**0.0995**

alcohol content conversion with 1.23:		**0.080899**
	with 1.21:	0.082237

Target value from provider:		
0.0973	+/- 3% range	0.100219
		0.094381
0.080	+/- 3% range	0.0824
		0.0776

GUTH LABORATORIES, INC.
590 NORTH 67th STREET • HARRISBURG, PA 17111-4511 • TELEPHONE: 717-564-5470

CERTIFICATE OF ANALYSIS

Certified Alcohol Reference Solution for Simulator

Random Samples of Lot Number **22440** of Alcohol Reference Solution for Simulator were analyzed by gas chromatography on **December 13, 2022,** using a Perkin Elmer Gas Chromatograph Autosystem XL S/N: 610N9030209, and found to contain **0.0973%** (w/vol) ethyl alcohol. The expiration date for this lot number is **December 12, 2024** at 11:59 PM.

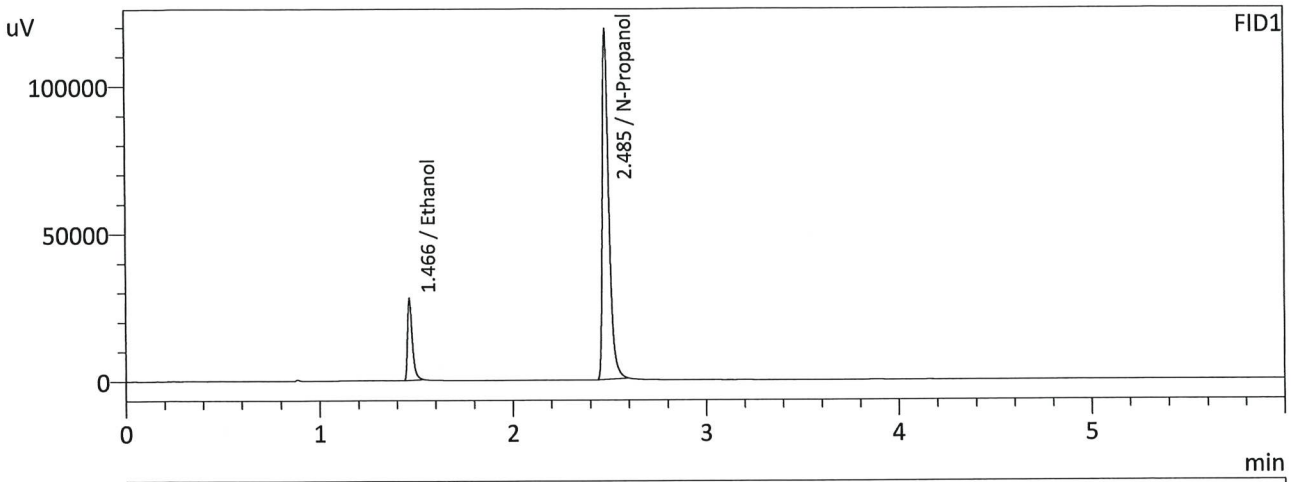
When used in a calibrated Simulator, operating at 34°C +/- .2°C, this solution will give a breath alcohol analysis instrument reading of **0.080 g/210L +/- 3%.**

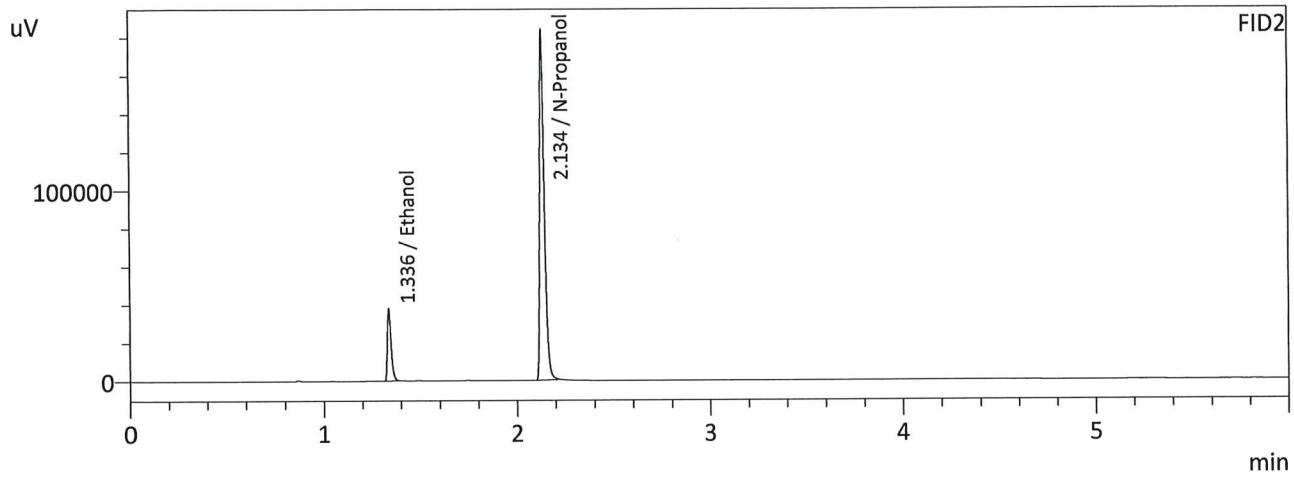
The alcohol and water used in this solution were free of test interfering substances.

Ted L. Pauley, President
GUTH LABORATORIES, INC.

NIST Traceability:
*Testing was conducted using Cerilliant Reference Standard lot number **FN01012001** whose values are traceable to NIST.*
All balances are calibrated annually by an outside agency using NIST traceable weights. Calibration verification is done prior to each use utilizing NIST traceable weights.

Sample Name : 22440-69-A
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 6:10:30 PM
Vial # : 18
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181





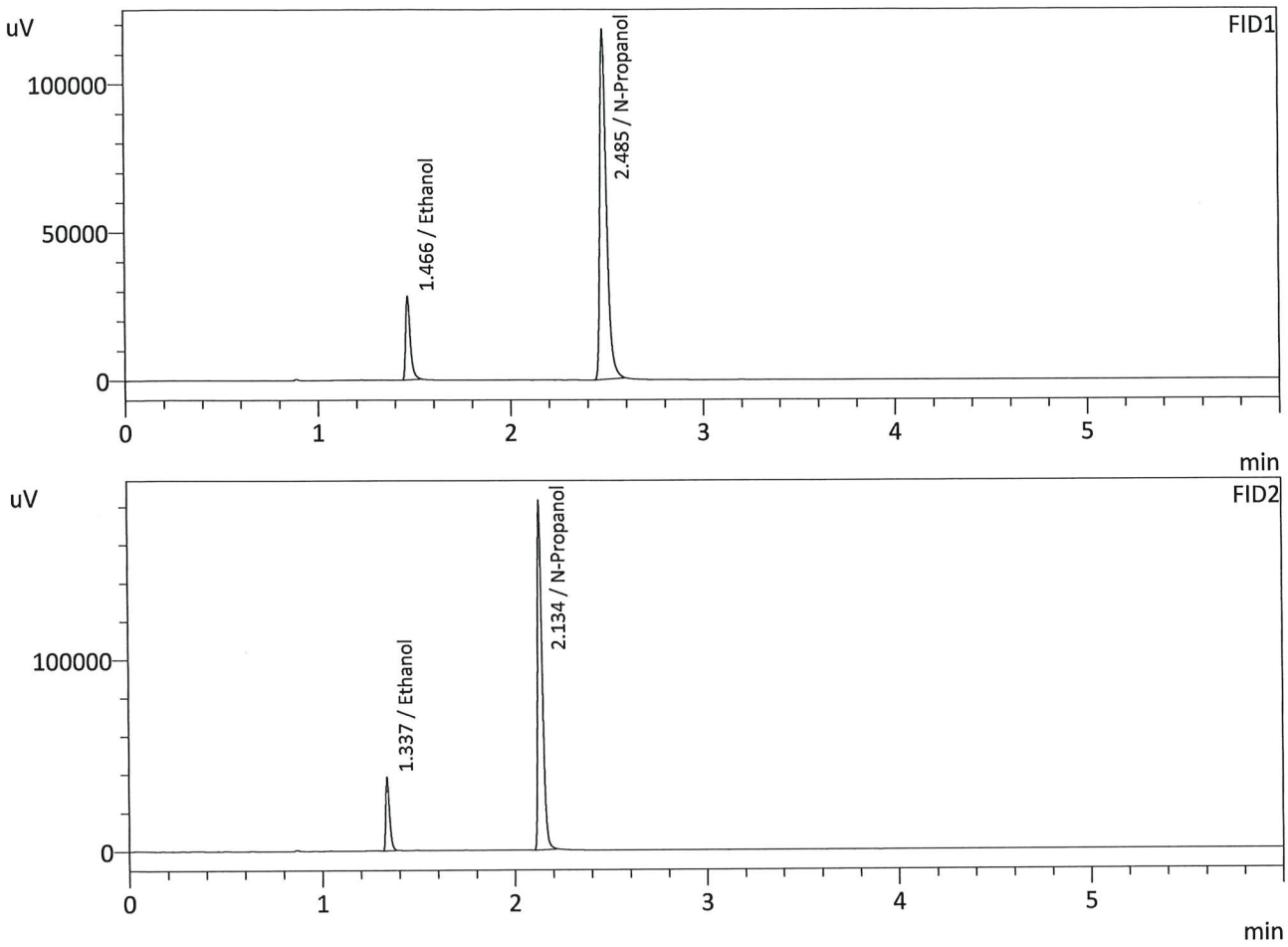
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0990	46488	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	284440	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0986	51018	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	310359	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22440-69-B
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 6:21:13 PM
Vial # : 19
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181



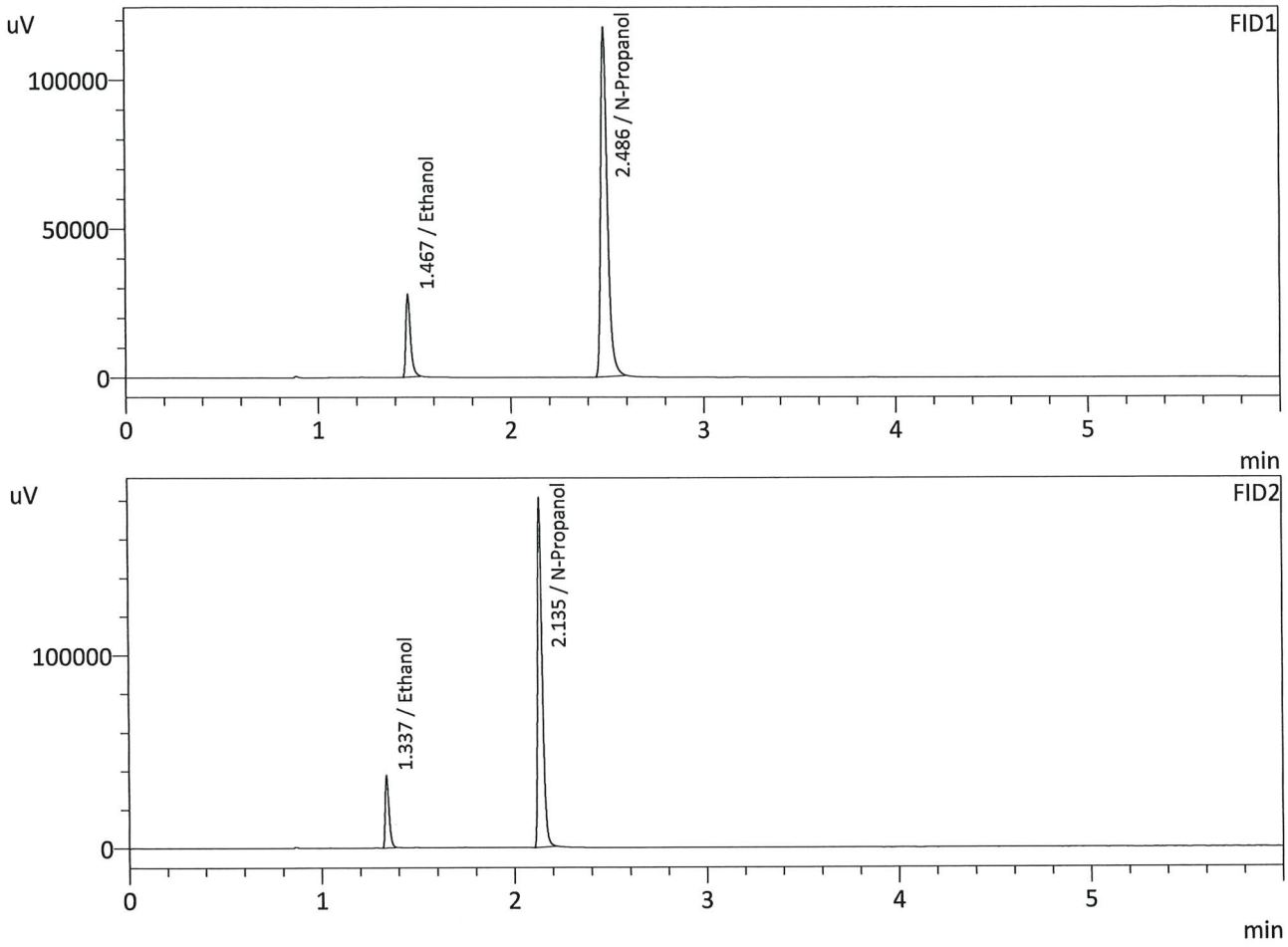
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1005	46916	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	282480	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1002	51611	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	308508	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22440-583-A
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 6:29:54 PM
Vial # : 20
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181



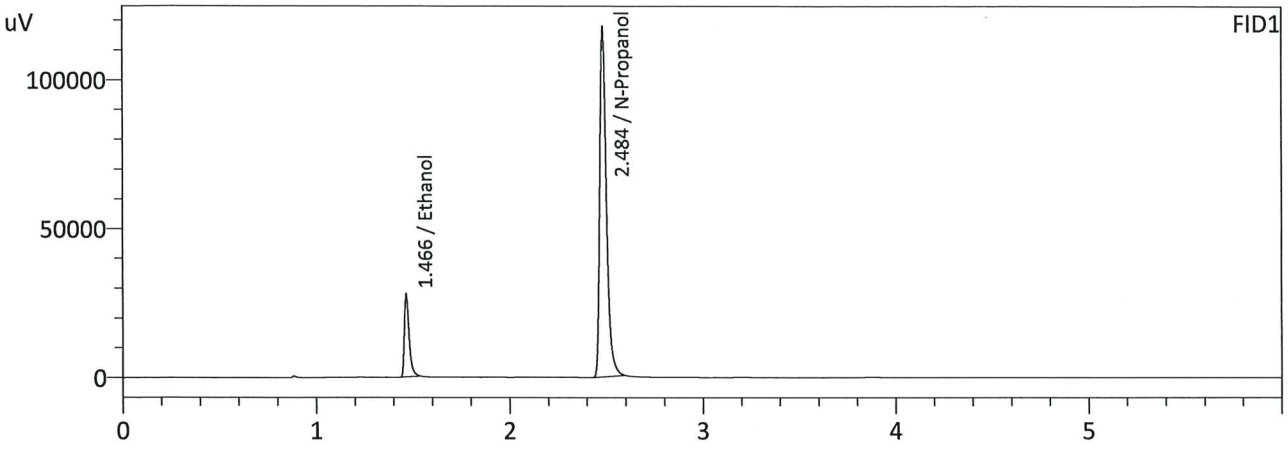
FID1

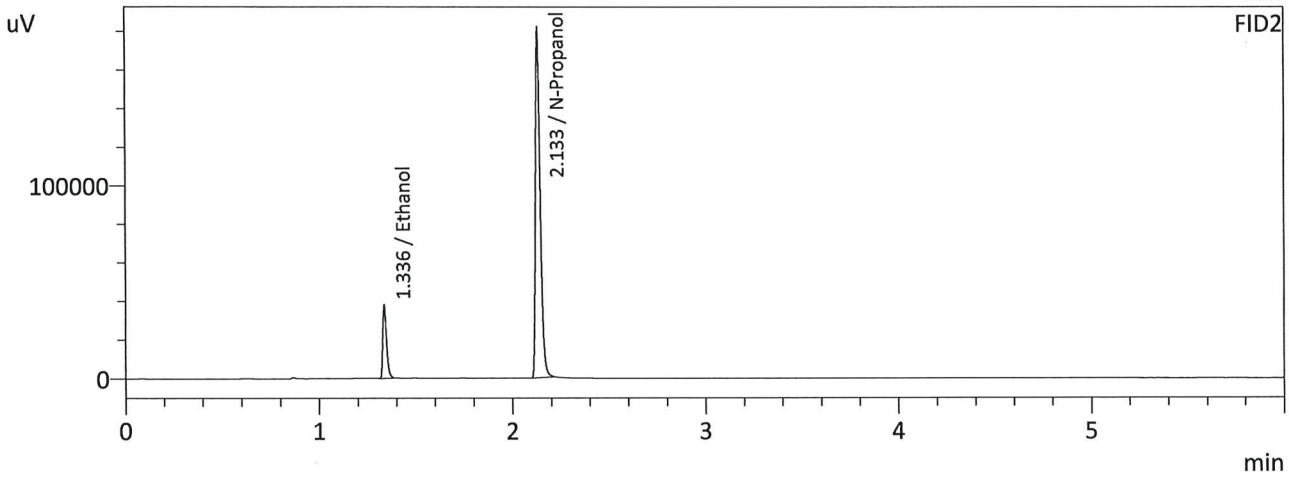
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0997	46130	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	280356	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0994	50695	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	305862	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22440-583-B
Laboratory : Coeur d' Alene Lab
Injection Date : 2/2/2023 6:40:39 PM
Vial # : 21
Method Filename : Default Project - ALCOHOL.gcm
Instrument #GC/HS : C12255850700 / C12595700181





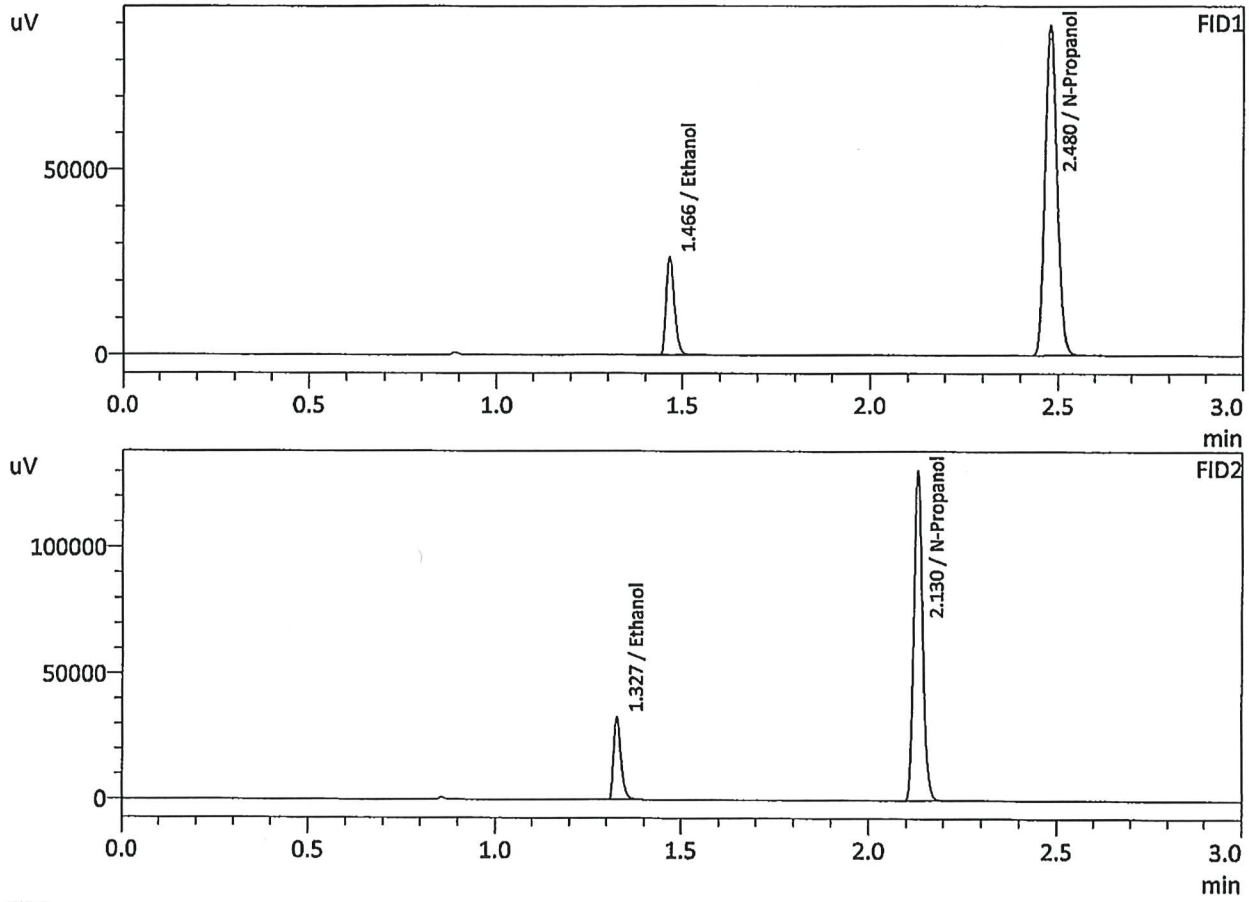
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1004	46684	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	281561	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1001	51358	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	307273	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22440-80-1-A
Laboratory : Meridian
Injection Date : 2/2/2023 11:32:23 AM
Vial # : 11
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



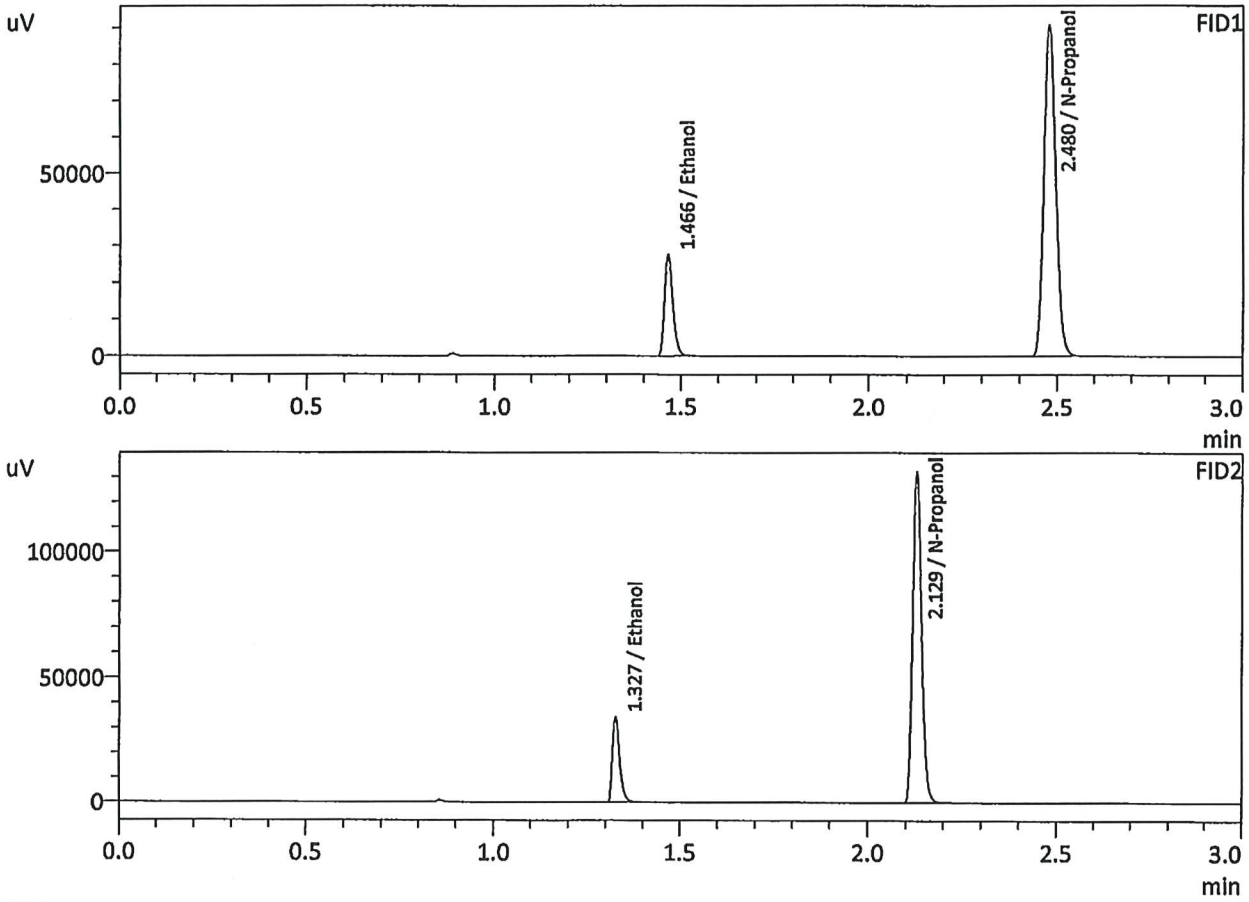
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0976	40617	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	198364	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0976	43894	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	215399	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22440-80-1-B
Laboratory : Meridian
Injection Date : 2/2/2023 11:41:26 AM
Vial # : 12
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



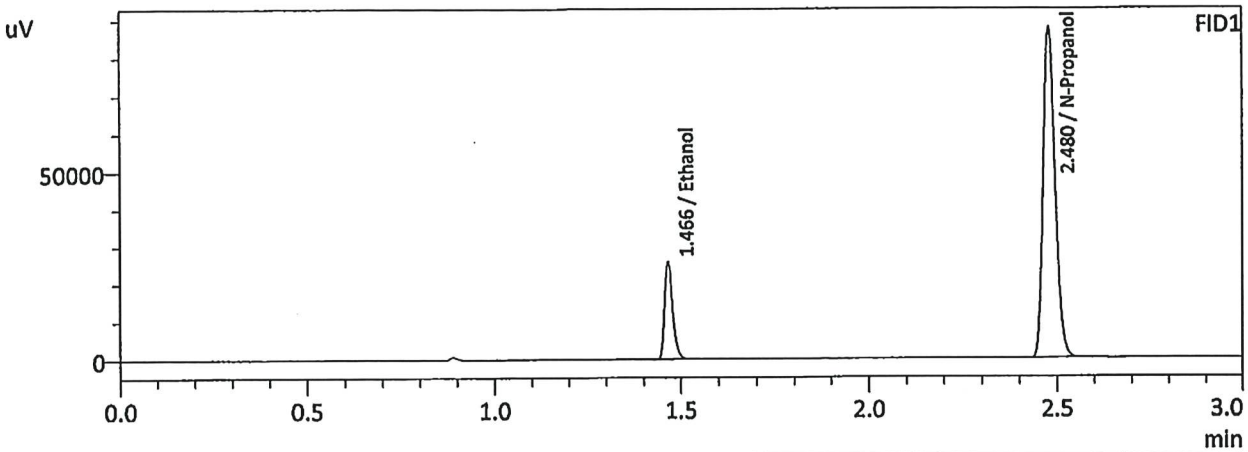
FID1

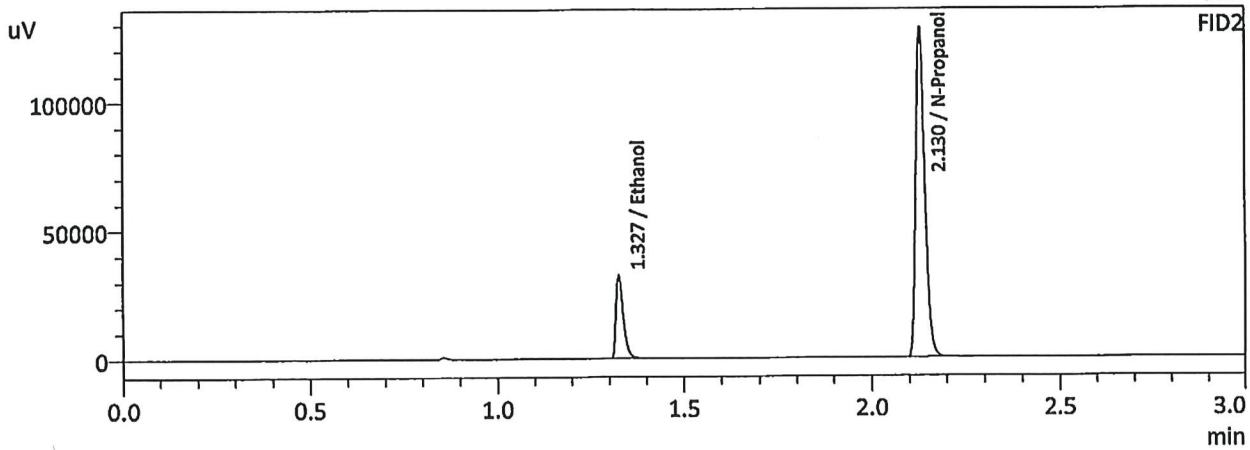
Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1006	42280	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	200241	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1008	45818	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	217404	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22440-80-2-A
Laboratory : Meridian
Injection Date : 2/2/2023 11:48:50 AM
Vial # : 13
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409





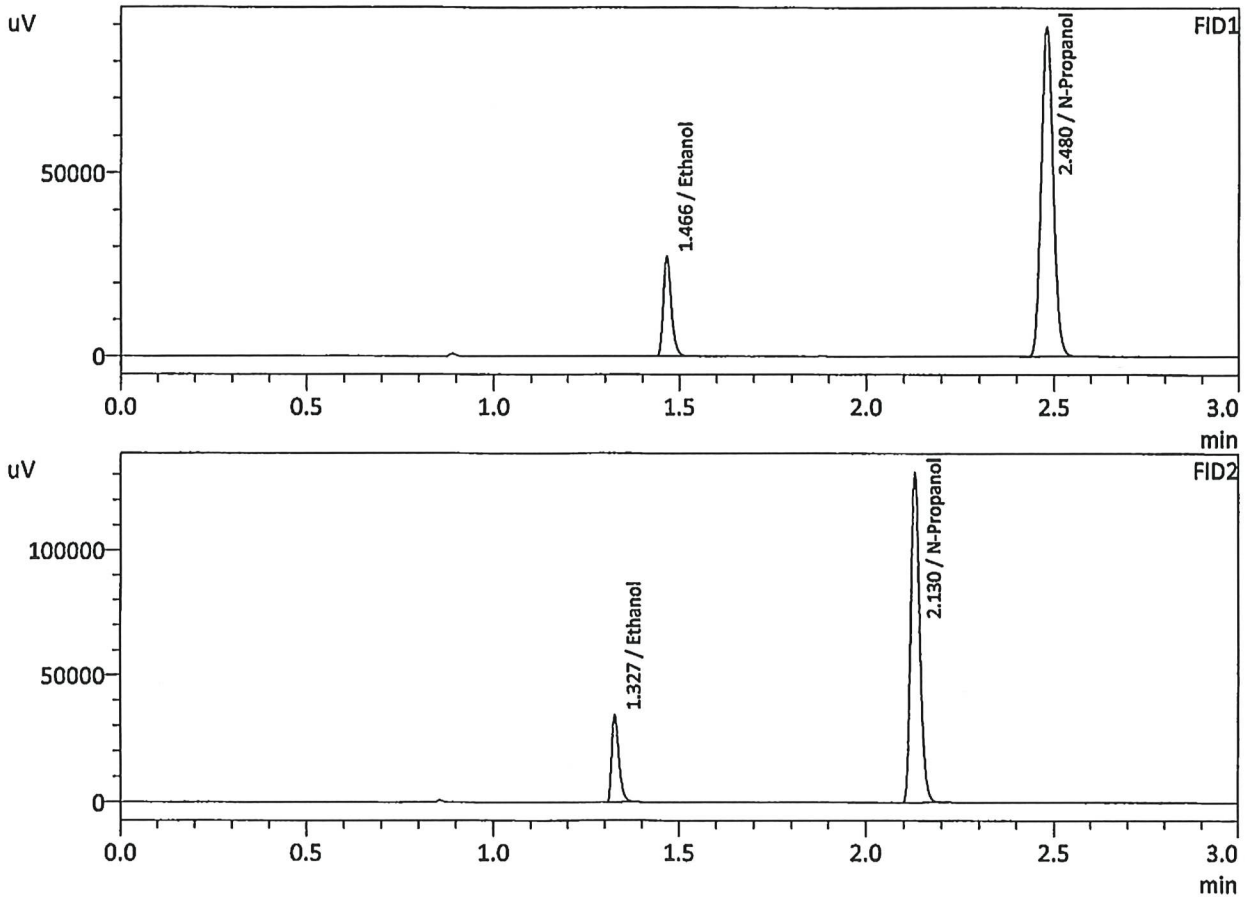
FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0978	39960	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	194767	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.0976	43114	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	211518	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc

Sample Name : 22440-80-2-B
Laboratory : Meridian
Injection Date : 2/2/2023 11:57:01 AM
Vial # : 14
Method Filename : C:\LabSolutions\Data\230120\CALIBRATION\ALCOHOL.GCM
Instrument #GC/HS : C12255750548 / C12595800409



FID1

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1009	41967	g/100cc
Isopropyl Alcohol	--	--	g/100cc
Acetone	--	--	g/100cc
N-Propanol	0.0000	198069	g/100cc
Fluor. Hydrocarbon(s)	--	--	g/100cc

FID2

Name	Conc.	Area	Unit
Methanol	--	--	g/100cc
Ethanol	0.1010	45406	g/100cc
Acetone	--	--	g/100cc
Isopropyl Alcohol	--	--	g/100cc
N-Propanol	0.0000	215090	g/100cc
Flour. Hydrocarbon(s)	--	--	g/100cc