VERMONT FORENSIC LABORATORY

Control verification 8/25/15

~~BLOOD ALCOHOL~~ DATA REVIEW CHECKLIST

Lot # 8/25/15

~~AGENCY CASE#~~: FN1149402 ANALYST: [signature]

LAB #: N/A

TECHNICAL REVIEWER: [signature] DATE: 8/25/2015

- [X] QC complete?
- [X] Pertinent standard lot numbers listed?
- [X] Data package is complete?
- [X] Transcribed data and calculations verified?
- [X] Calibration and control results all within ± 10% (± 20% for STD A) of the known values?
- [X] Calibration line correlation factor at least 0.99xx?
- [X] Average error for components of the calibration line less than 10%?
- [X] Timing mix chromatogram demonstrates appropriate identification of components and separation from ethanol?
- [X] Surrogate compound concentrations all within 0.900 to 1.100 range?
- [X] Statistical means of the continuing calibration check sample duplicate analysis all within ± 10% of the known value?
- [X] Individual replicates within ± 5% of the statistical mean?
- [X] Reported results are means of two or more analyses?
  1. In the event of QNS for 2 (two) analysis a notation must be made on the worksheet.
  2. In the event that more than 2 (two) results are used to determine the reported result a notation is made on the worksheet.

Comments:

ADMINISTRATIVE REVIEWER: [signature] DATE: 8/25/2015

- [NA] Agency Case # and Lab # and Evidence description match submission form?
- [NA] Submitting agency, investigator, suspect, CC all match submission form?
- [NA] Chain of Custody complete and dated appropriately?
- [X] Are all pages numbered and initialed on the Examination Documents?
- [X] Case number (agency or lab number) written on all pages of the case file?
- [X] Appropriate review(s) have been completed? Lot # 8/25/15
- [NA] Is the exam end date documented in the paper case file consistent with the exam end date in LIMS?

Comments:

DIRECTOR REVIEWER: [signature] DATE: 8/25/15

- [NA] Does the report and associated paperwork meet administrative expectations?
- [X] Have the appropriate reviews been completed?

Check Mark or X = pass, NA= Not Applicable

File Name = C:\Alcohol Data\VFL08242015\VFL08242015.SEQ
Version = 1
File Date = 8/24/2015 8:46:04 AM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	VFL08242015.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	VFL08242015.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	VFL08242015.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	VFL08242015.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	VFL08242015.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	VFL08242015.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	VFL08242015.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	VFL08242015.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	VFL08242015.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	VFL08242015.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	VFL08242015.0011.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
12	VFL08242015.0012.raw	Blood Alc temp VFL.MET	FN10241403	1.00	1.00
13	VFL08242015.0013.raw	Blood Alc temp VFL.MET	FN10241403	1.00	1.00
14	VFL08242015.0014.raw	Blood Alc temp VFL.MET	FN06231406	1.00	1.00
15	VFL08242015.0015.raw	Blood Alc temp VFL.MET	FN06231406	1.00	1.00
16	VFL08242015.0016.raw	Blood Alc temp VFL.MET	FN12011401	1.00	1.00
17	VFL08242015.0017.raw	Blood Alc temp VFL.MET	FN12011401	1.00	1.00
18	VFL08242015.0018.raw	Blood Alc temp VFL.MET	FN11191402	1.00	1.00
19	VFL08242015.0019.raw	Blood Alc temp VFL.MET	FN11191402	1.00	1.00
20	VFL08242015.0020.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
21	VFL08242015.0021.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

OTHER LOT #S NOT INCLUDED. DS 8/25/15

LOT #S :

BLANK : BL-01162015
TMX : TMX-08142015
IS : IS-06022015A
STD A: CERILLIANT FN01131401
STD B: CERILLIANT FN08101401
STD C: CERILLIANT FN05211402
STD D: CERILLIANT FN032712-01
STD E: CERILLIANT FN012712-01
AQ : CERILLIANT FN09051304

DS 8/25/15

 FN 11191402 DS

File Name: C:\Methods\VFL08242015.CAL
Version: 7

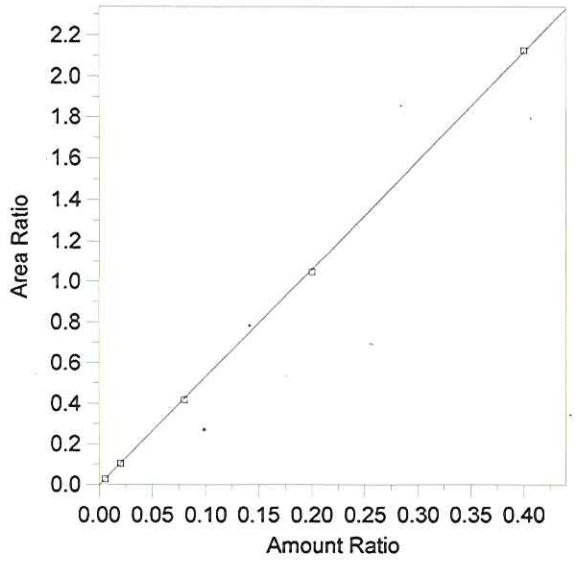
Creator:
Description:
Reason for change:

Internal standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 1500
Reference peak area reject threshold: 0
Amount units:
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

3 Ethanol



Expected retention time: 2.657 minutes
Search window: 0.1 minutes
Internal standard component: 7 (n-Propanol)
No retention time reference component
Group number: 0

High alarm limit: 0
Low alarm limit: 0
Component constant: 0

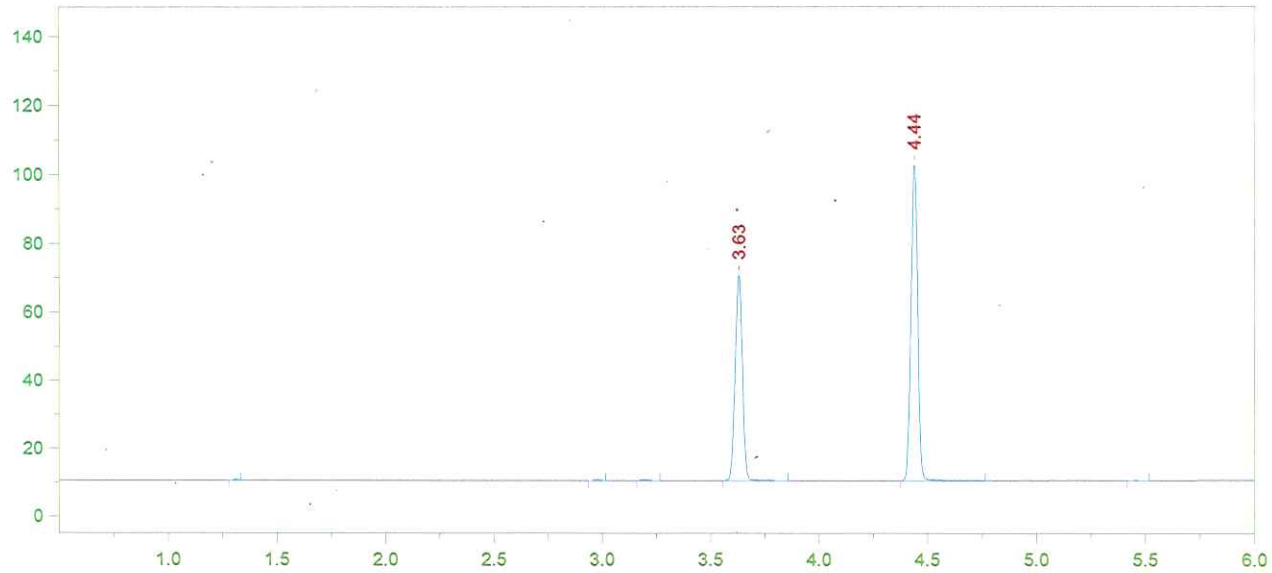
Single peak quantification by area

$Y = 5.29551 X + 0$

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999239
Average error: 1.566%
Average CF: 5.30056
RSD: 2.209%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source	Date and time
1	(0.078)	(85146)	--	--	0.078	85146	Manual	8/18/2015 8:39:13 AM
2	0.005	4777.021	955404.3	3.818	0.005	2.748847E-02	C:\Alcohol Data\VFL08242015\VFL08242015.0003.BND	8/24/2015 9:54:31 AM
3	0.02	17938.47	896923.6	-0.889	0.02	0.104969	C:\Alcohol Data\VFL08242015\VFL08242015.0004.BND	8/24/2015 10:11:20 AM
4	0.08	89471.52	1118394	-1.733	0.08	0.4162978	C:\Alcohol Data\VFL08242015\VFL08242015.0005.BND	8/24/2015 10:24:40 AM
5	0.2	184787.8	923939	-1.054	0.2	1.047944	C:\Alcohol Data\VFL08242015\VFL08242015.0006.BND	8/24/2015 10:42:49 AM
6	0.4	374987.2	937467.9	0.334	0.4	2.125286	C:\Alcohol Data\VFL08242015\VFL08242015.0007.BND	8/24/2015 10:57:40 AM

FN 1119402



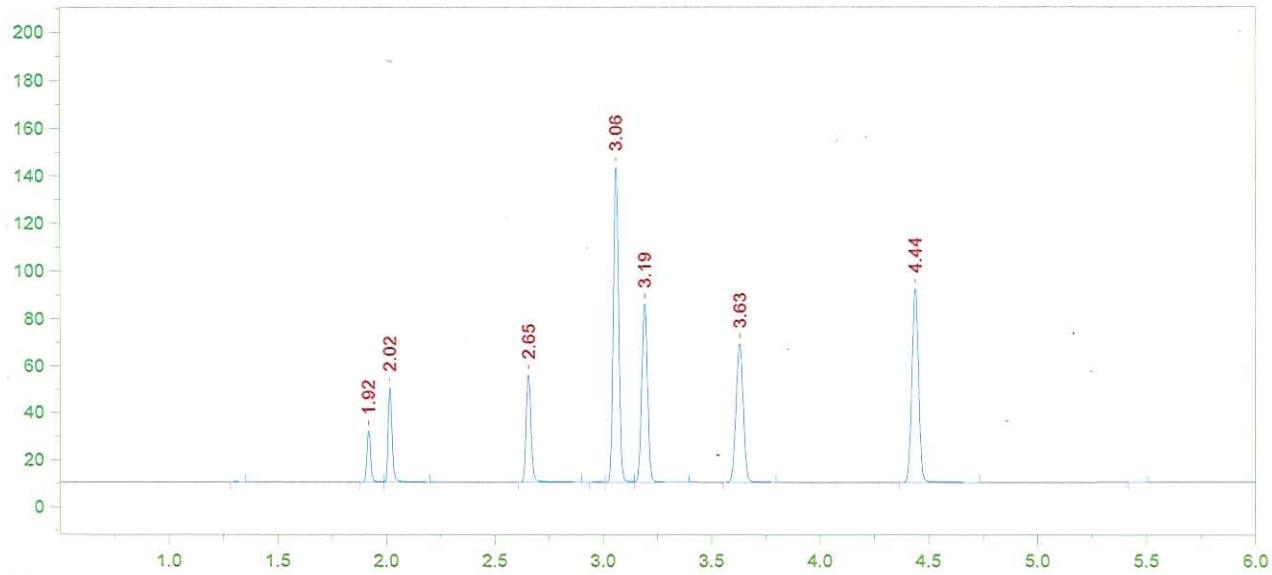
Format File Name = AlcoholVFL.FMT

Today's Date = 8/25/2015
Today's Time = 1:19:34 PM
Bound File Name = VFL08242015.0001.RAW
Sample Name = BLANK
Date Taken = 8/24/2015 9:23:35 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
4	3.63	t-Butanol	139331	0.9332
5	4.44	n-Propanol	196396	1.0000

FN1119402

p3

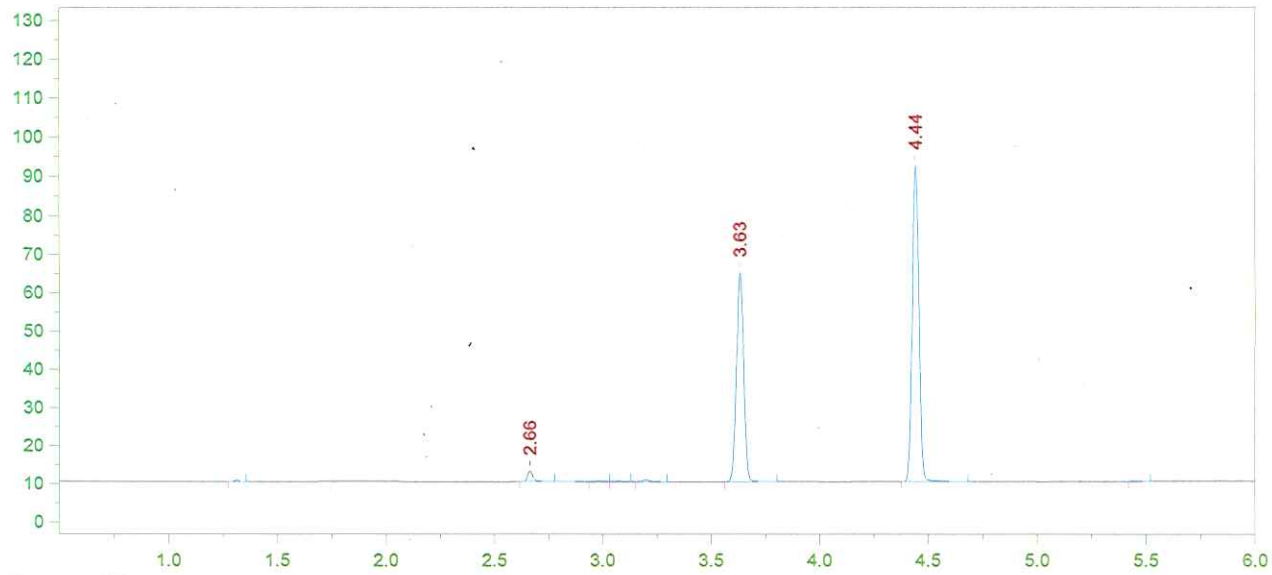


Format File Name = AlcoholVFL.FMT

Today's Date = 8/25/2015
Today's Time = 1:19:42 PM
Bound File Name = VFL08242015.0002.RAW
Sample Name = TMX
Date Taken = 8/24/2015 9:39:54 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	26158	0.0686
3	2.02	Methanol	51245	0.1169
4	2.65	Ethanol	71335	0.0775
6	3.06	Acetone	228515	0.0612
7	3.19	Isopropanol	141677	0.0780
8	3.63	t-Butanol	135961	1.0294
9	4.44	n-Propanol	173732	1.0000

FN 11911402 p4

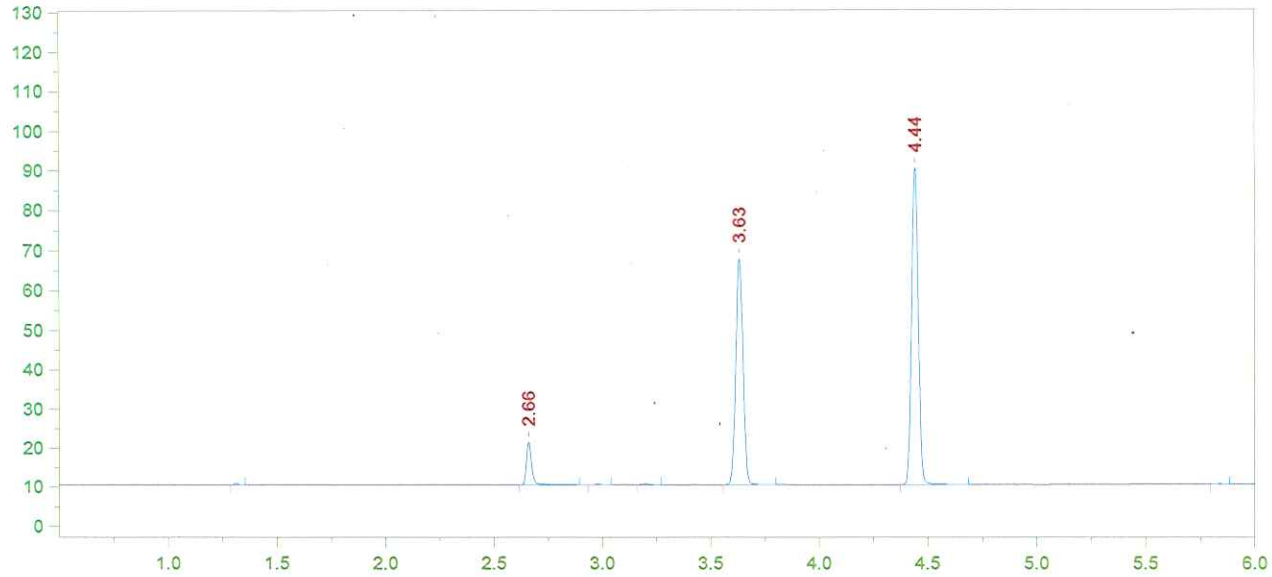


Format File Name = AlcoholVFL.FMT

Today's Date = 8/25/2015
Today's Time = 1:19:47 PM
Bound File Name = VFL08242015.0003.RAW
Sample Name = STD A
Date Taken = 8/24/2015 9:54:27 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.66	Ethanol	04777	0.0052
7	3.63	t-Butanol	125948	0.9533
8	4.44	n-Propanol	173783	1.0000

FN 1119402

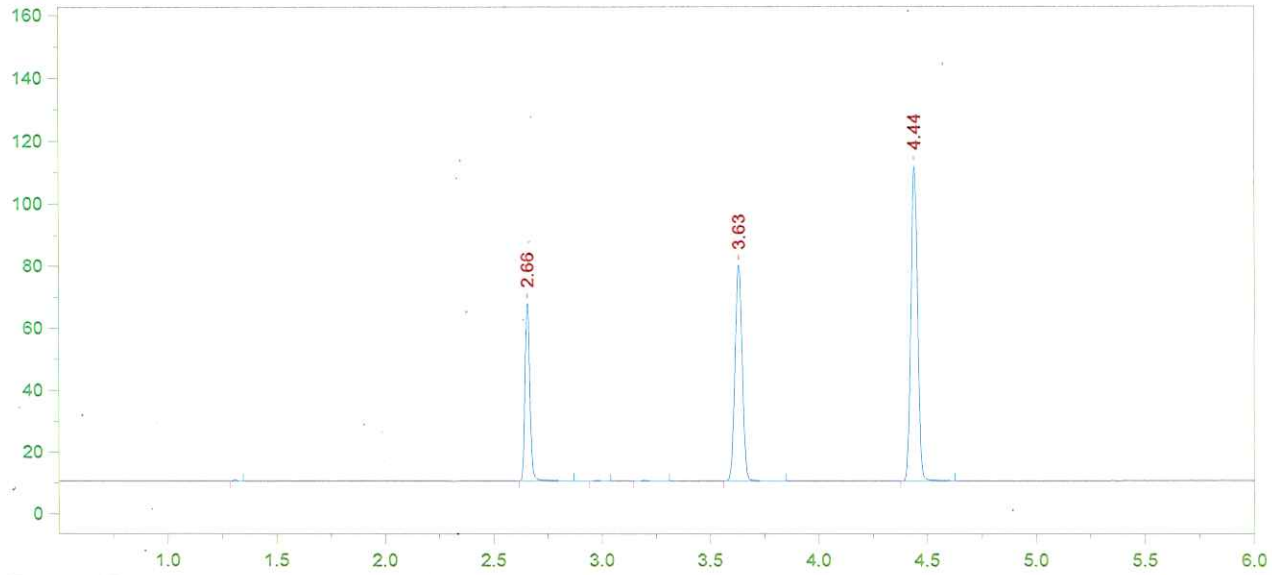


Format File Name = AlcoholVFL.FMT

Today's Date = 8/25/2015
Today's Time = 1:19:53 PM
Bound File Name = VFL08242015.0004.RAW
Sample Name = STD B
Date Taken = 8/24/2015 10:11:16 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	17938	0.0198
5	3.63	t-Butanol	132605	1.0207
6	4.44	n-Propanol	170893	1.0000

FN 111 9 1402 pg

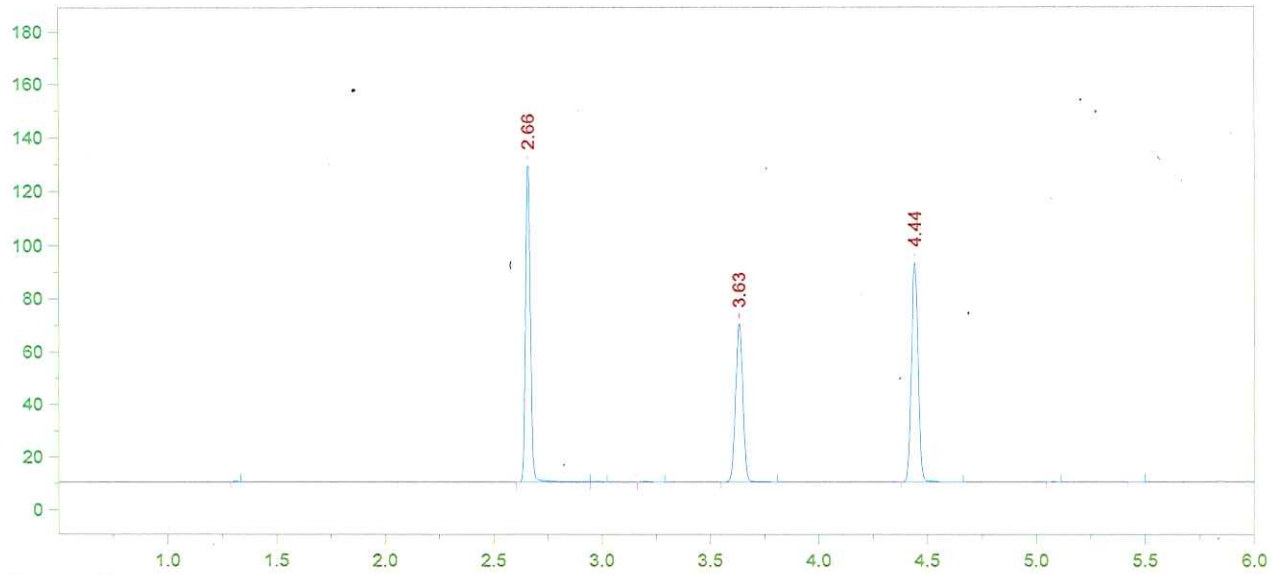


Format File Name = AlcoholVFL.FMT

Today's Date = 8/25/2015
Today's Time = 1:20:00 PM
Bound File Name = VFL08242015.0005.RAW
Sample Name = STD C
Date Taken = 8/24/2015 10:24:34 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	89472	0.0786
5	3.63	t-Butanol	161020	0.9855
6	4.44	n-Propanol	214922	1.0000

FN 111911402

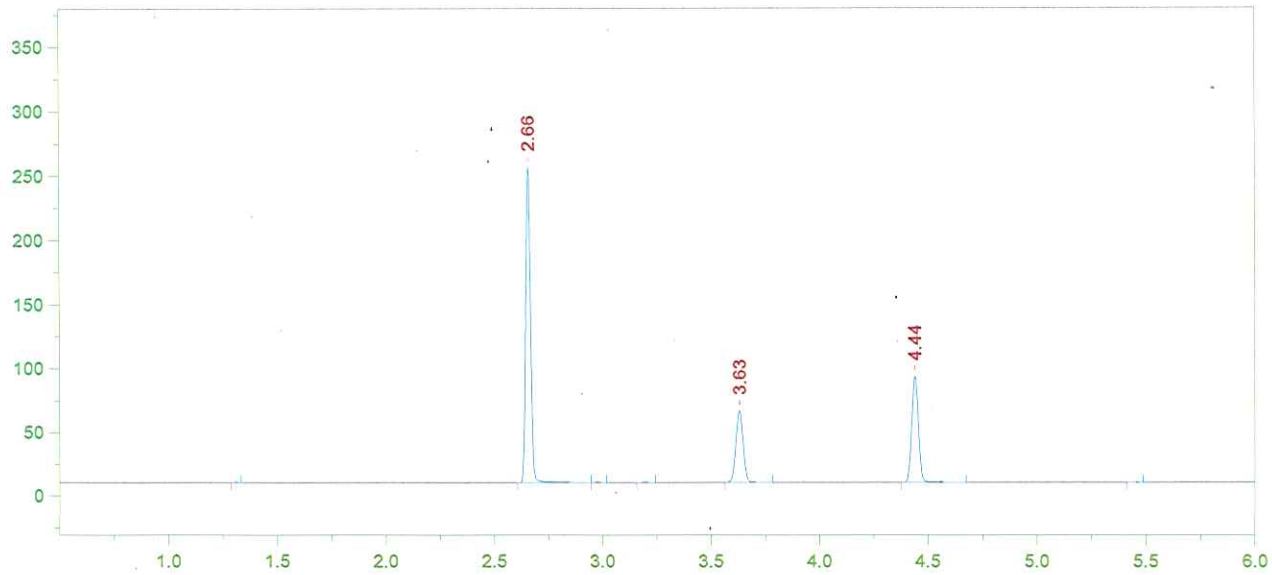


Format File Name = AlcoholVFL.FMT

Today's Date = 8/25/2015
Today's Time = 1:20:06 PM
Bound File Name = VFL08242015.0006.RAW
Sample Name = STD D
Date Taken = 8/24/2015 10:42:40 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	184788	0.1979
5	3.63	t-Butanol	138473	1.0329
6	4.44	n-Propanol	176334	1.0000

FN1119402

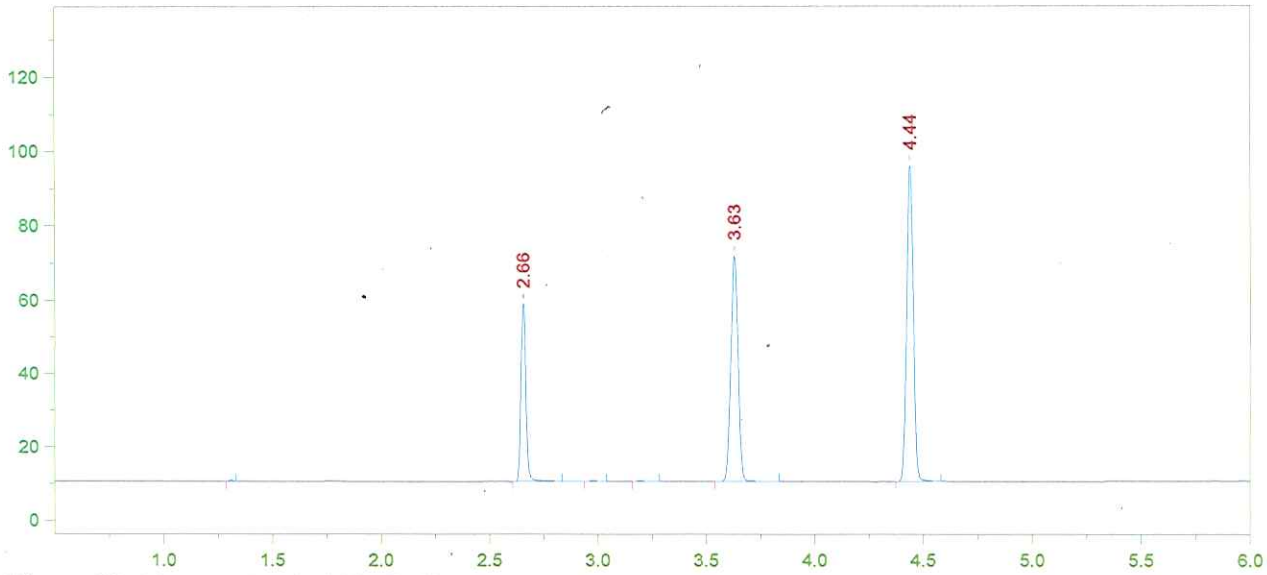


Format File Name = AlcoholVFL.FMT

Today's Date = 8/25/2015
Today's Time = 1:20:11 PM
Bound File Name = VFL08242015.0007.RAW
Sample Name = STD E
Date Taken = 8/24/2015 10:57:36 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	374987	0.4013
5	3.63	t-Butanol	131210	0.9782
6	4.44	n-Propanol	176441	1.0000

FN 11191402



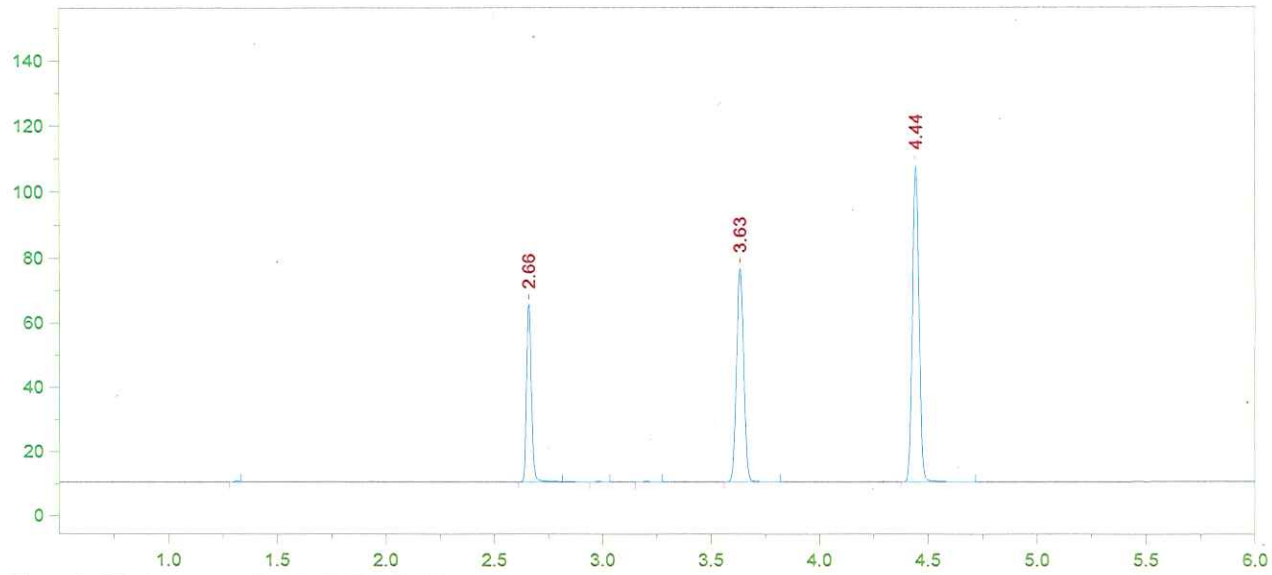
Format File Name = AlcoholVFL.FMT

Today's Date = 8/24/2015
Today's Time = 11:14:09 AM
Bound File Name = VFL08242015.0008.RAW
Sample Name = AQ
Date Taken = 8/24/2015 11:14:05 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	76121	0.0794
5	3.63	t-Butanol	141499	1.0280
6	4.44	n-Propanol	181058	1.0000

FN1119402

PID



Format File Name = AlcoholVFL.FMT

Today's Date = 8/24/2015
Bound File Name = VFL08242015.0009.RAW
Sample Name = AQ
Date Taken = 8/24/2015 11:27:17 AM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL

Today's Time = 11:27:26 AM

VFL Headspace Alcohol

Calibration Version = 7

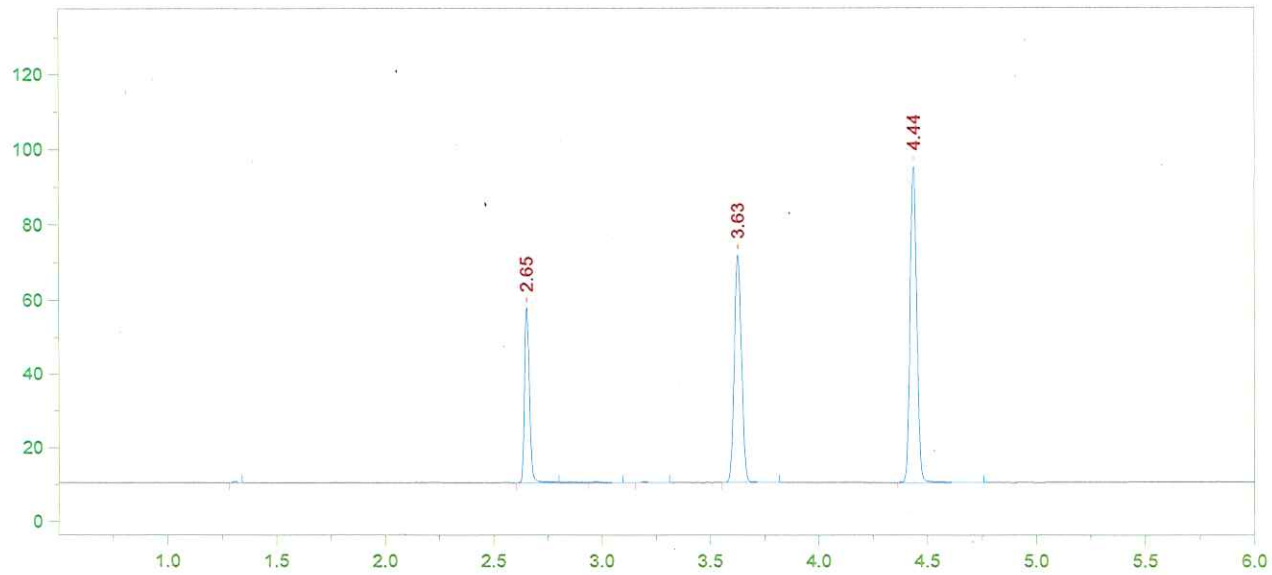
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	85556	0.0785
5	3.63	t-Butanol	153045	0.9778
6	4.44	n-Propanol	205880	1.0000

AQ MEAN: 0.0789 g/100ml EtOH

±5% : 0.0749 - 0.0828

Recovery: $\frac{0.079}{0.080}$ = 98.7%

[illegible] 8/24/15



Format File Name = AlcoholVFL.FMT

Today's Date = 8/24/2015
Bound File Name = VFL08242015.0010.RAW
Sample Name = CCS
Date Taken = 8/24/2015 11:45:27 AM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL

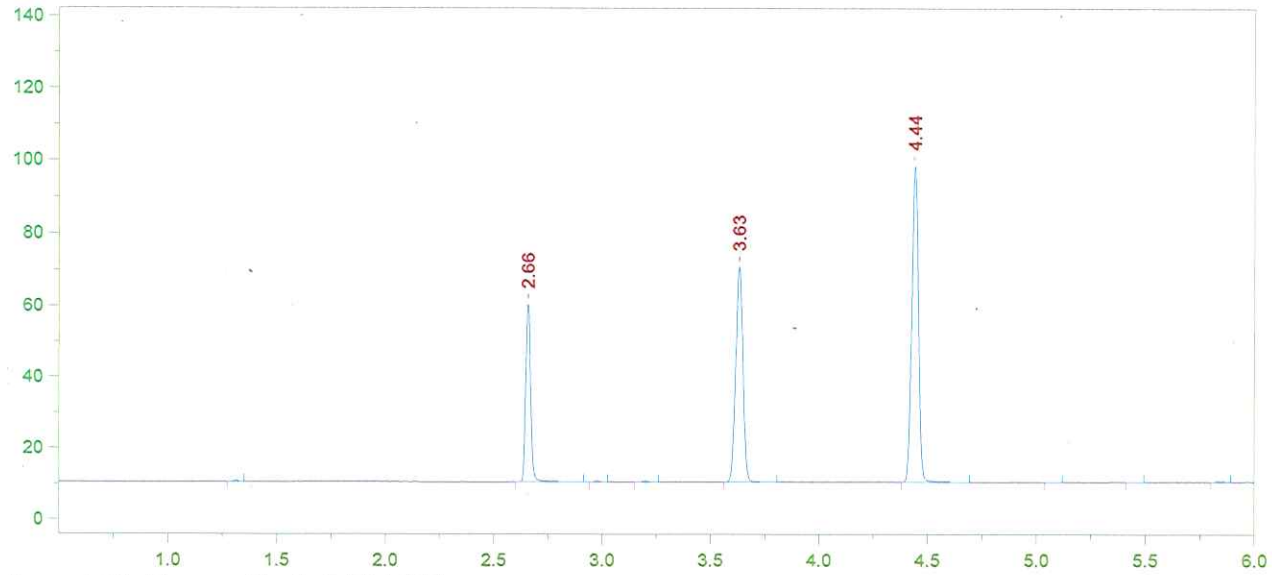
Today's Time = 11:45:34 AM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	73815	0.0770
5	3.63	t-Butanol	141885	1.0309
6	4.44	n-Propanol	181046	1.0000

IN 1119140 2 Q12



Format File Name = AlcoholVFL.FMT

Today's Date = 8/24/2015
Bound File Name = VFL08242015.0011.RAW
Sample Name = CCS
Date Taken = 8/24/2015 11:59:07 AM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL

Today's Time = 11:59:15 AM

VFL Headspace Alcohol

Calibration Version = 7

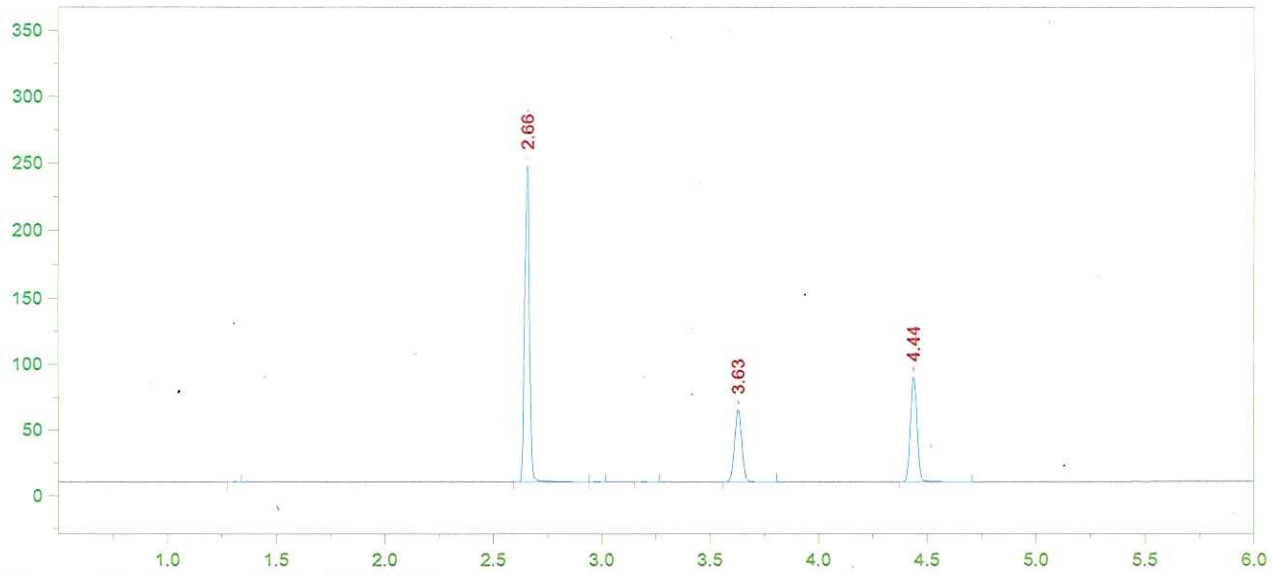
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	78226	0.0788
5	3.63	t-Butanol	138907	0.9747
6	4.44	n-Propanol	187450	1.0000

CCS mean: 0.0779 g/100mL EtOH

±5% : 0.0740 - 0.0818

Recovery : $\frac{0.078}{0.080}$ = 97.5%

[illegible] 8/25/15



Format File Name = AlcoholVFL.FMT

Today's Date = 8/24/2015
Today's Time = 2:06:06 PM
Bound File Name = VFL08242015.0019.RAW
Sample Name = FN11191402
Date Taken = 8/24/2015 2:06:00 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	362300	0.4062
5	3.63	t-Butanol	126188	0.9856
6	4.44	n-Propanol	168411	1.0000

FN 11191402 mean: 0.4032 g/100mL EtOH

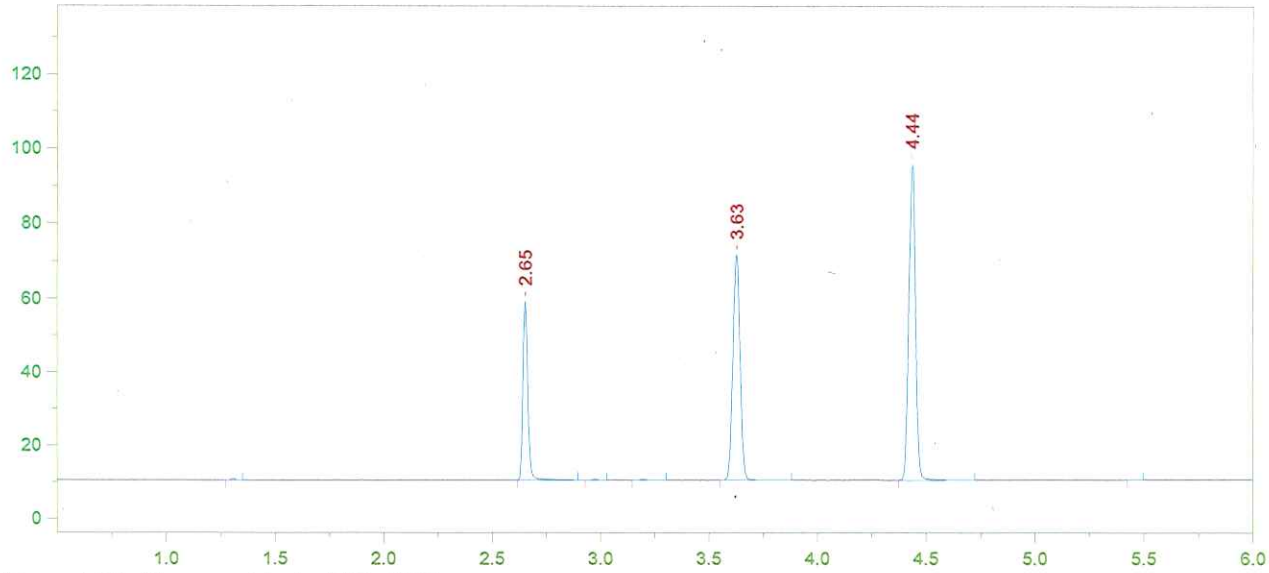
±5%: 0.3830 - 0.4233

TARGET VALUE: 0.400

Recovery: $\frac{0.403}{0.400}$ = 100.7%

8/24/15

FN 11191402 p15



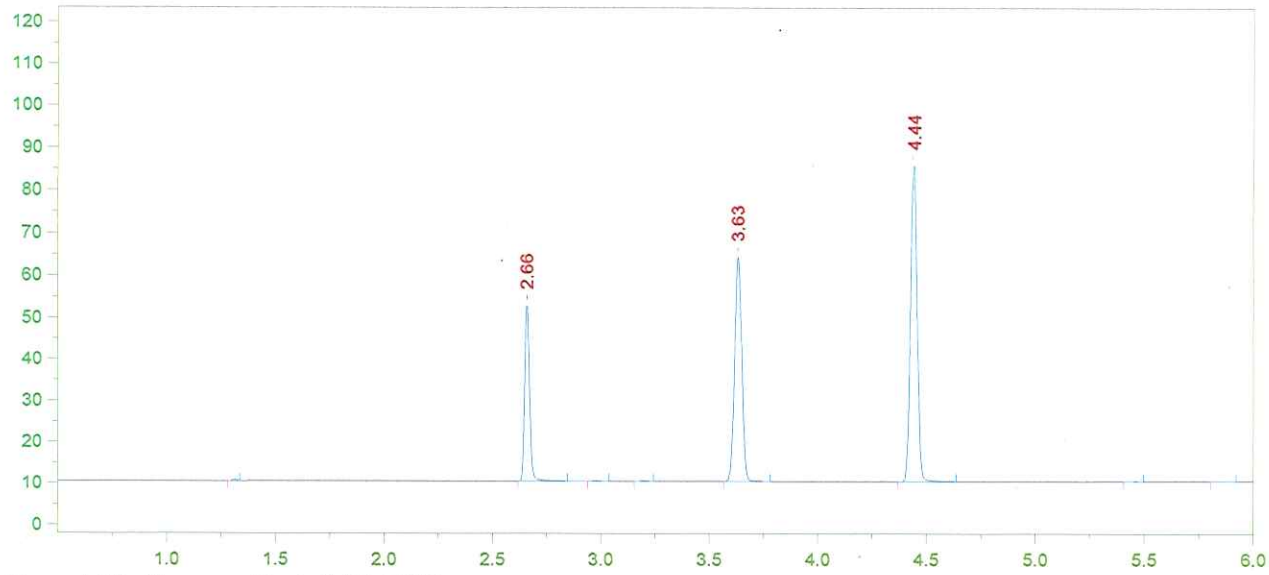
Format File Name = AlcoholVFL.FMT

Today's Date = 8/24/2015
Today's Time = 2:22:39 PM
Bound File Name = VFL08242015.0020.RAW
Sample Name = CCS
Date Taken = 8/24/2015 2:22:31 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	75421	0.0786
5	3.63	t-Butanol	141332	1.0255
6	4.44	n-Propanol	181279	1.0000

FN 1119402

p16



Format File Name = AlcoholVFL.FMT

Today's Date = 8/24/2015
Today's Time = 2:36:44 PM
Bound File Name = VFL08242015.0021.RAW
Sample Name = CCS
Date Taken = 8/24/2015 2:36:36 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL08242015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	66494	0.0782
5	3.63	t-Butanol	124113	1.0165
6	4.44	n-Propanol	160605	1.0000

CCS Meth: 0.0784 g/100mL EtOH

±5%: 0.0745 - 0.0823

Recovery: $\frac{0.078}{0.080}$ = 97.5%.