VERMONT FORENSIC LABORATORY

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Certificate of Analysis of DataMaster External Standard Solution

On 7/28/2015, an ethanol solution was prepared by ~~Amanda Bolduc~~ David Patlak 8/5/15 for use as a DataMaster External Standard solution. The solution was prepared per standard laboratory practice and assigned the lot number 15-12-100 and an expiration date of 7/28/2016.

On 7/29/2015 and 7/30/2015, the solution was analyzed against calibration Cal Version #VFL07292015 and Cal Version #VFL07302015. Analysis of the solution was performed using headspace gas chromatography. The instrument was calibrated prior to analyses. It was found to have met required quality assurance performance specifications and was operating properly. Quality checks throughout the analytical process demonstrated that the instrument continued to operate properly.

This solution is certified as presenting 0.099 g/210L simulated breath ethanol concentration and approved for use as a DataMaster External Standard solution.

Dated at Waterbury, Vermont this 5 day of August, 2015.

~~Amanda Bolduc~~
David Patlak 8/5/15

VERMONT FORENSIC LABORATORY

SIMULATOR SOLUTION REVIEW CHECKLIST

SOLUTION TYPE AND VOLUME: 20L 0.10 EXTERNAL STANDARD

LOT NUMBER#: 15-12-100 **ANALYST:** [illegible]

TECHNICAL REVIEWER: [illegible] **DATE:** 8/3/15

- ☑ QC done and complete?
- ☑ Pertinent standard lot numbers listed?
- ☑ Data package complete?
- ☑ Transcribed data and calculations verified?
- ☑ Calibration and control results all within ± 10% (± 20% for Std A) of the known values?
- ☑ Calibration line correlation factor at least 0.99xx?
- ☑ Average error for components of the calibration line less than 10%?
- ☑ Timing mix chromatogram demonstrates appropriate identification of components and separation from ethanol?
- ☑ Surrogate compound concentrations all within 0.900 to 1.100 range, inclusive?
- ☑ Statistical means of the continuing calibration check sample duplicate analysis all within +/- 10% of the known value?
- ☑ Calculated average within acceptable range of the target concentration for specific solution type?
- ☑ All individual readings within 3 standard deviations of the average for each run and for the total average?
- ☑ RPD <10%?

Comments:

ADMINISTRATIVE REVIEWER: [illegible] **DATE:** 8/5/15

- ☑ Are all pages numbered and initialed on the Examination Documents?
- ☑ Solution lot number written on all pages?
- ☑ Is the Reagent Preparation Log filled out properly?
- ☑ Is the Certificate of Analysis filled out properly?
- ☑ Has a label sheet been created, and is it correct?

Comments:

Check Mark or X = pass, NA= Not Applicable

VERMONT FORENSIC LABORATORY
Simulator Solution Worksheet

0.100 20L External Standard
Lot # 15-12-100
Prepared 7/~~29~~28/2015 by DJP
Exp 7/28/2016

DJP CAL VFL07292015
DJP/ALB Vials
Analyzed on 7/29/2015

0.0982	DJP
0.0998	
0.0989	
0.0985	
0.0988	
0.0998	
0.0979	
0.0994	ALB
0.0980	
0.0984	
0.0984	
0.0998	
0.0979	
0.1003	

Ave. =	0.0989
Std Dev. =	0.0008
Min. =	0.0979
Max. =	0.1003

AQ QC Manf.	Cerilliant
AQ QC Lot #	FN09051304
Cal Std A Lot #	FN01131401
Cal Std B Lot #	FN08101401
Cal Std C Lot #	FN05211402
Cal Std D Lot #	FN032712-01
Cal Std E Lot #	FN012712-01
Int Std Lot #	IS-06022015-A
TMX Lot #	TMX-08112014
BLANK Lot#	BL-01162015

DJP 7/31/15

DJP CAL VFL07302015
DJP/ALB Vials
Analyzed on 7/30/2015

0.0991	DJP
0.1016	
0.0995	
0.1011	
0.0977	
0.1000	
0.0992	
0.0982	ALB
0.0978	
0.0985	
0.0964	
0.0980	
0.0976	
0.0977	

Ave. =	0.0987
Std Dev. =	0.0014
Min. =	0.0964
Max. =	0.1016

AQ QC Manf.	Cerilliant
AQ QC Lot #	FN09051304
Cal Std A Lot #	FN01131401
Cal Std B Lot #	FN08101401
Cal Std C Lot #	FN05211402
Cal Std D Lot #	FN032712-01
Cal Std E Lot #	FN012712-01
Int Std Lot #	IS-06022015-A
TMX Lot #	TMX-08112014
BLANK Lot#	BL-01162015

Total Values from Both Runs

Average	**Mean**
0.0982	0.0964
0.0998	0.0976
0.0989	0.0977
0.0985	
0.0988	0.0978
0.0998	0.0979
0.0979	
0.0994	0.0980
0.0980	
0.0984	0.0982
0.0984	
0.0998	0.0984
0.0979	
0.1003	0.0985
0.0991	
0.1016	0.0988
0.0995	0.0989
0.1011	0.0991
0.0977	0.0992
0.1000	0.0994
0.0992	0.0995
0.0982	0.0998
0.0978	
0.0985	
0.0964	0.1000
0.0980	0.1003
0.0976	0.1011
0.0977	0.1016

Ave. =	0.0988
Avg Std Dev. =	0.0011
Mean =	0.0989
Mean Std Dev. =	0.0013
Min. =	0.0964
Max =	0.1016
RPD =	5.26%

ALC_F201_2_v1_12182014
Approved by Lab Director

15-12-100

p1 of 71 DJP

File Name = C:\Alcohol Data\VFL07292015\VFL07292015.SEQ
Version = 4
File Date = 7/30/2015 8:49:56 AM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	07292015.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	07292015.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	07292015.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	07292015.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	07292015.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	07292015.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	07292015.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	07292015.0008.raw	Blood Alc temp VFL.MET	WB	1.00	1.00
9	07292015.0009.raw	Blood Alc temp VFL.MET	WB	1.00	1.00
10	07292015.0010.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
11	07292015.0011.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
12	07292015.0012.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
13	07292015.0013.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
14	07292015.0014.raw	Blood Alc temp VFL.MET	V15-1185 B1-1	1.00	1.00
15	07292015.0015.raw	Blood Alc temp VFL.MET	V15-1185 B1-1	1.00	1.00
16	07292015.0016.raw	Blood Alc temp VFL.MET	V15-1210 A1-1	1.00	1.00
17	07292015.0017.raw	Blood Alc temp VFL.MET	V15-1210 A1-1	1.00	1.00
18	07292015.0018.raw	Blood Alc temp VFL.MET	V15-1228 A1-1	1.00	1.00
19	07292015.0019.raw	Blood Alc temp VFL.MET	V15-1228 A1-1	1.00	1.00
20	07292015.0020.raw	Blood Alc temp VFL.MET	V15-1258 A1-1	1.00	1.00
21	07292015.0021.raw	Blood Alc temp VFL.MET	V15-1258 A1-1	1.00	1.00
22	07292015.0022.raw	simsoln.met	0.100 DP	1.00	1.00
23	07292015.0023.raw	simsoln.met	0.100 DP	1.00	1.00
24	07292015.0024.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
25	07292015.0025.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
26	07292015.0026.raw	simsoln.met	0.100 DP	1.00	1.00
27	07292015.0027.raw	simsoln.met	0.100 DP	1.00	1.00
28	07292015.0028.raw	simsoln.met	0.100 DP	1.00	1.00
29	07292015.0029.raw	simsoln.met	0.100 DP	1.00	1.00
30	07292015.0030.raw	simsoln.met	0.100 DP	1.00	1.00
31	07292015.0031.raw	simsoln.met	0.100 AB	1.00	1.00
32	07292015.0032.raw	simsoln.met	0.100 AB	1.00	1.00
33	07292015.0033.raw	simsoln.met	0.100 AB	1.00	1.00
34	07292015.0034.raw	simsoln.met	0.100 AB	1.00	1.00
35	07292015.0035.raw	simsoln.met	0.100 AB	1.00	1.00
36	07292015.0036.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
37	07292015.0037.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
38	07292015.0038.raw	simsoln.met	0.100 AB	1.00	1.00
39	07292015.0039.raw	simsoln.met	0.100 AB	1.00	1.00
40	07292015.0040.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
41	07292015.0041.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
42	07292015.0042.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
43	07292015.0043.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
44	07292015.0044.raw	Blood Alc temp VFL.MET	V15-1185 B1-1	1.00	1.00
45	07292015.0045.raw	Blood Alc temp VFL.MET	V15-1185 B1-1	1.00	1.00
46	07292015.0046.raw	Blood Alc temp VFL.MET	V15-1185 B1-2	1.00	1.00
47	07292015.0047.raw	Blood Alc temp VFL.MET	V15-1185 B1-2	1.00	1.00
48	07292015.0048.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
49	07292015.0049.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

CASEWORK SAMPLES NOT INCLUDED. 07/31/15

CASEWORK SAMPLES RUN WITHIN 24 H OF CHROMATOGRAMS. NOT INCLUDED. 07/31/15

File Name: C:\Methods\VFL07292015.CAL
Version: 7

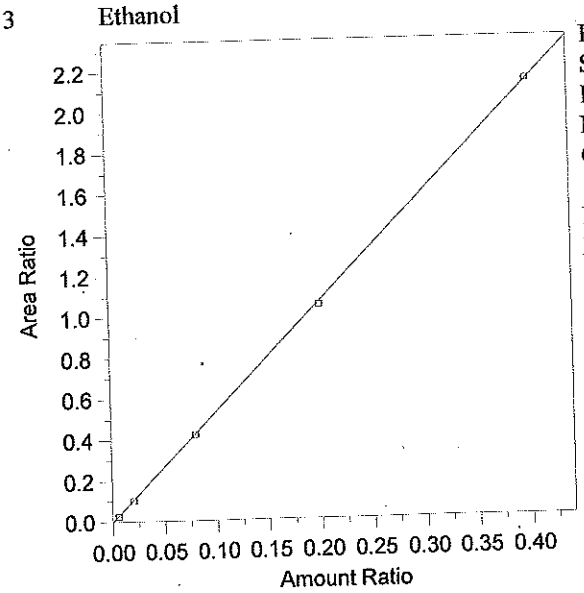
Creator:
Description:
Reason for change:

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

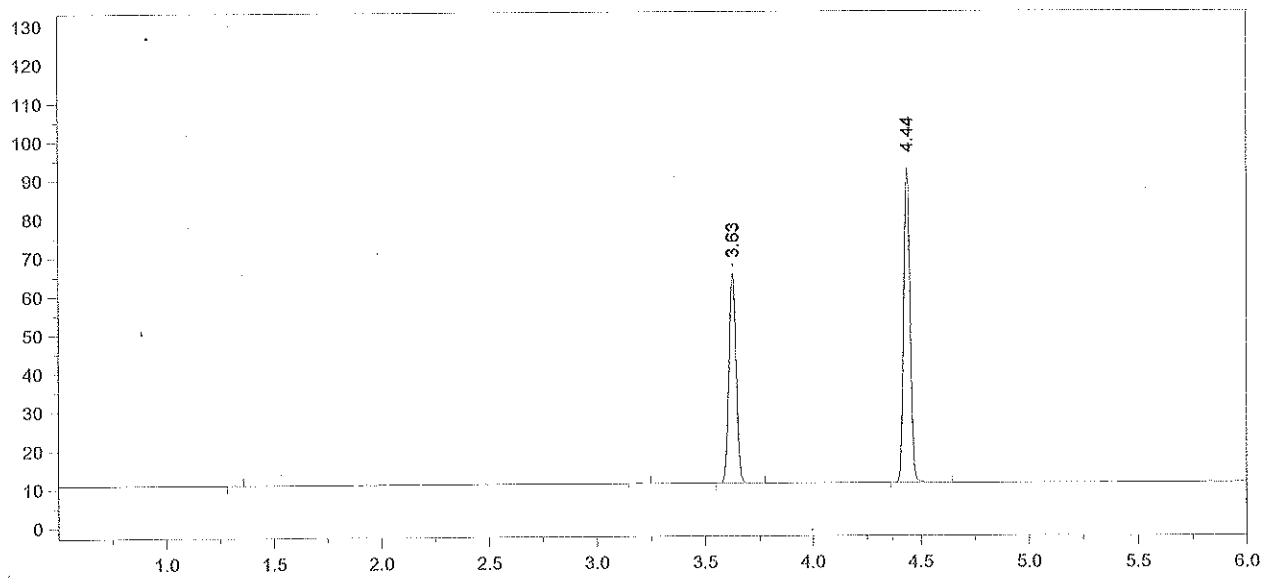
High alarm limit: 0
Low alarm limit: 0
Component constant: 0

Single peak quantification by area

Y = 5.310785 X + 0

Linear fit with equal weighting, forced to origin
Coefficient of determination: 0.9999126
Average error: 1.437%
Average CF: 5.274623
RSD: 1.927%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source	Date and time
1	(0.0836)	(85146)	--	--	0.0836	85146	Manual	8/13/2014 9:33:12 AM
2	0.005	4629.949	925989.9	1.536	0.005	2.696192E-02	C:\Alcohol Data\VFL07292015\07292015.0003.BND	7/29/2015 3:11:59 PM
3	0.02	17440.81	872040.6	-3.547	0.02	0.1024482	C:\Alcohol Data\VFL07292015\07292015.0004.BND	7/29/2015 3:29:02 PM
4	0.08	78339.27	979240.9	-0.441	0.08	0.4229878	C:\Alcohol Data\VFL07292015\07292015.0005.BND	7/29/2015 3:42:50 PM
5	0.2	190799.7	953998.5	-1.305	0.2	1.048292	C:\Alcohol Data\VFL07292015\07292015.0006.BND	7/29/2015 4:00:31 PM
6	0.4	383770.7	959426.7	0.353	0.4	2.131805	C:\Alcohol Data\VFL07292015\07292015.0007.BND	7/29/2015 4:14:25 PM



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Bound File Name = 07292015.0001.RAW
Sample Name = BLANK
Date Taken = 7/29/2015 2:41:11 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 8:02:53 AM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	3.63	t-Butanol	126123	0.9486
4	4.44	n-Propanol	173389	1.0000

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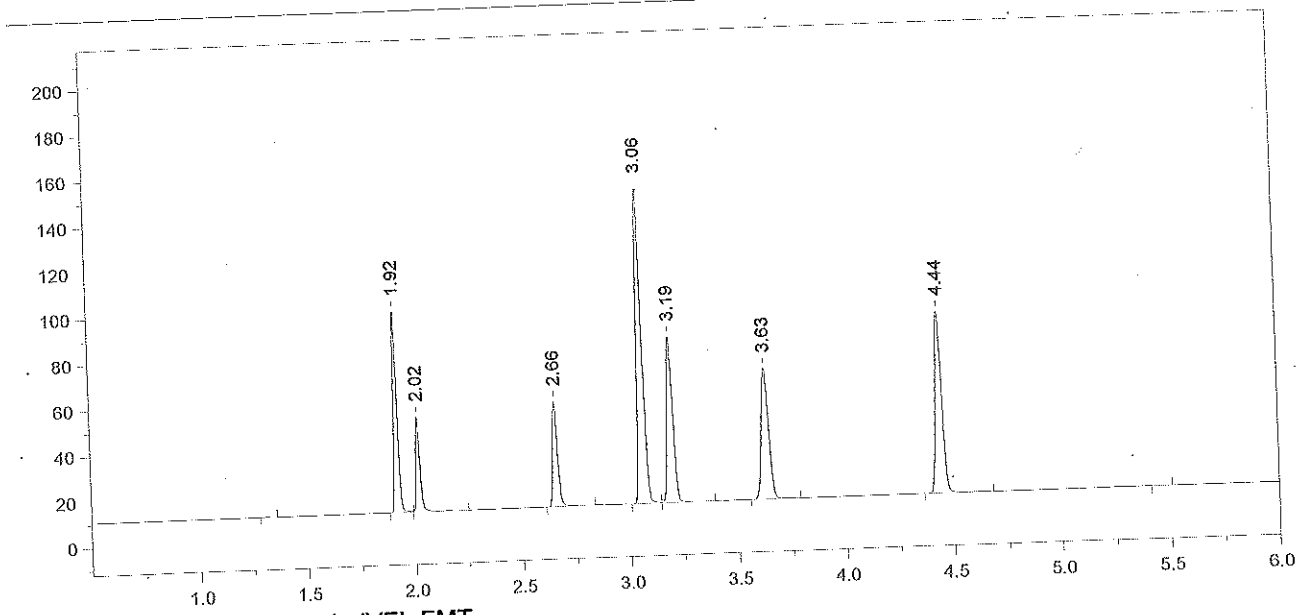
Chrom Perfect Chromatogram Report



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Bound File Name = 07292015.0002.RAW
Sample Name = TMX
Date Taken = 7/29/2015 2:57:31 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 8:03:01 AM

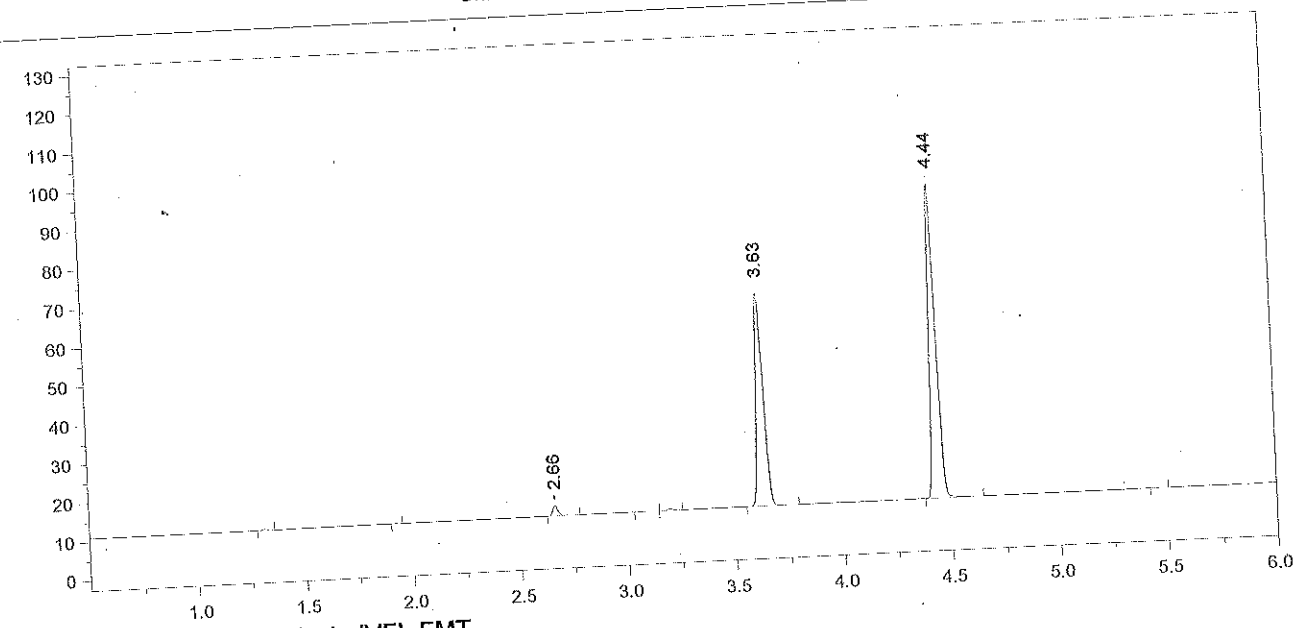
VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	1.92	Acetaldehyde	103865	0.0695
3	2.02	Methanol	52494	0.1232
4	2.66	Ethanol	71821	0.0795
5	3.06	Acetone	235644	0.0657
6	3.19	Isopropanol	136601	0.0848
7	3.63	t-Butanol	132766	1.0184
8	4.44	n-Propanol	170003	1.0000

15-12-100 P5

Chrom Perfect Chromatogram Report



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Bound File Name = 07292015.0003.RAW
Sample Name = STD A
Date Taken = 7/29/2015 3:11:49 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 8:03:06 AM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.66	Ethanol	04630	0.0051
6	3.63	t-Butanol	127647	0.9694
7	4.44	n-Propanol	171722	1.0000

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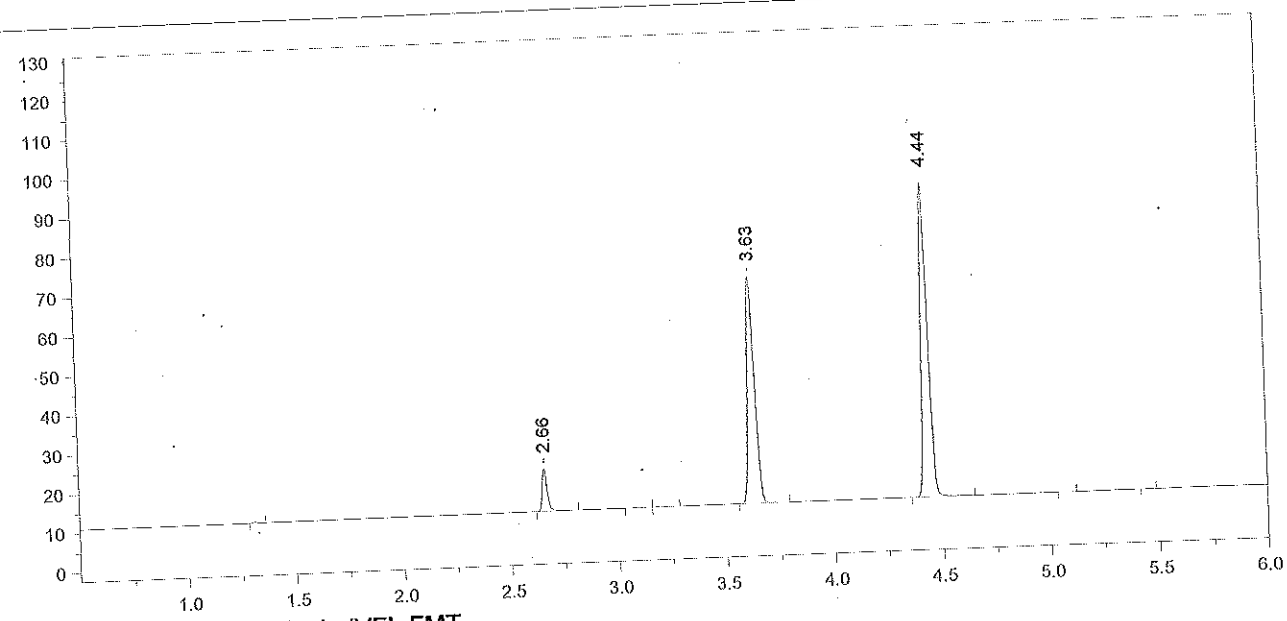
Chrom Perfect Chromatogram Report



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Bound File Name = 07292015.0004.RAW
Sample Name = STD B
Date Taken = 7/29/2015 3:28:56 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 8:03:14 AM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	17441	0.0193
5	3.63	t-Butanol	133465	1.0224
6	4.44	n-Propanol	170240	1.0000

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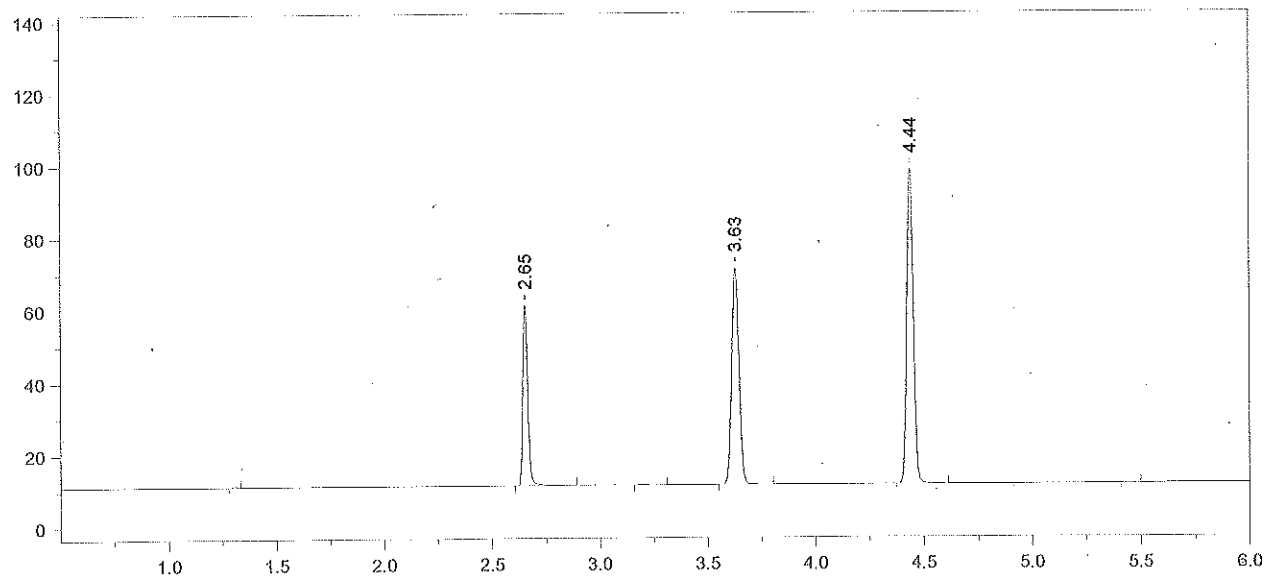
Chrom Perfect Chromatogram Report



Format File Name = AlcoholVFL.FMT

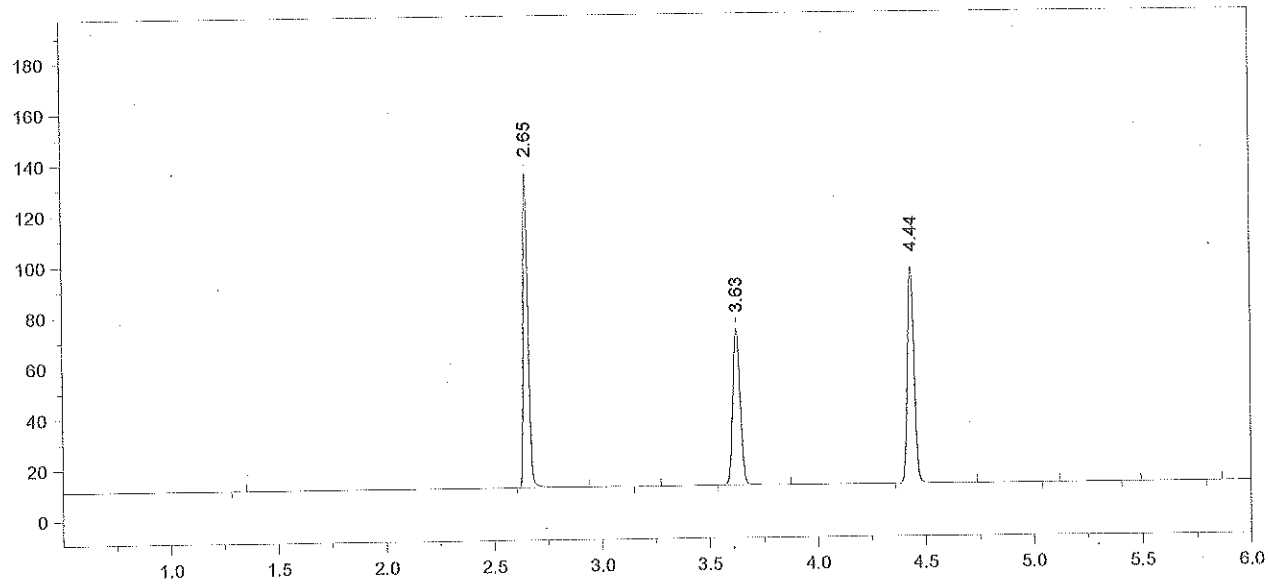
Today's Date = 7/30/2015
Bound File Name = 07292015.0005.RAW
Sample Name = STD C
Date Taken = 7/29/2015 3:42:44 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 8:03:20 AM

VFL Headspace Alcohol

Calibration Version = 7

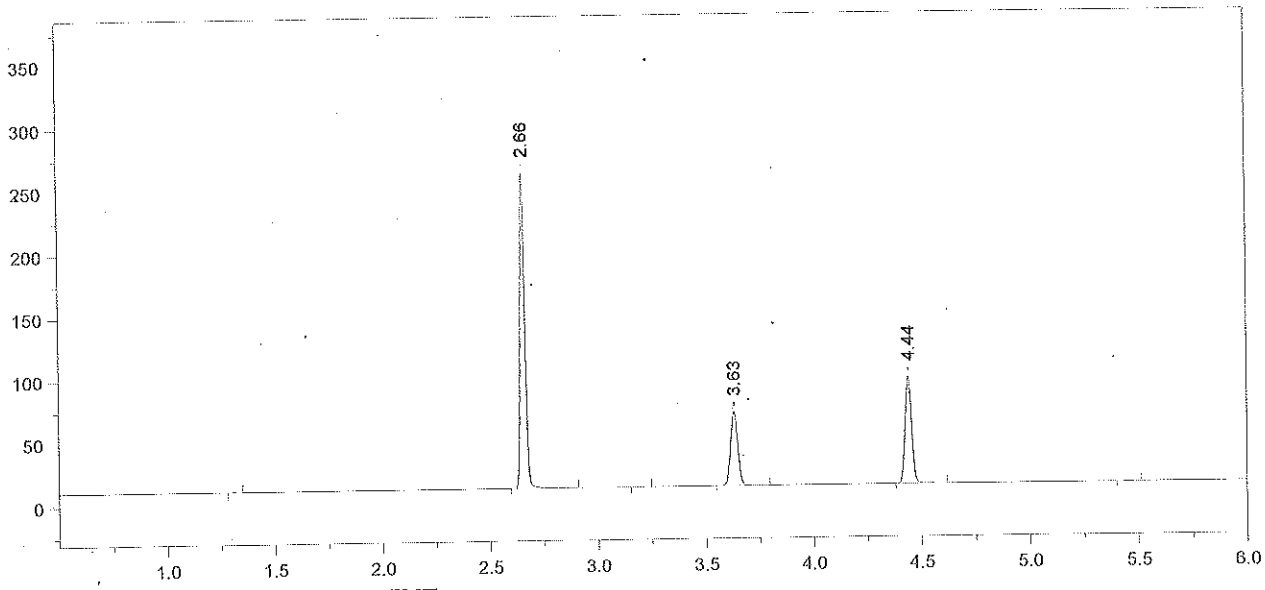
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	78339	0.0796
4	3.63	t-Butanol	138681	0.9765
5	4.44	n-Propanol	185205	1.0000



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 8:03:26 AM
Bound File Name = 07292015.0006.RAW
Sample Name = STD D
Date Taken = 7/29/2015 4:00:23 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

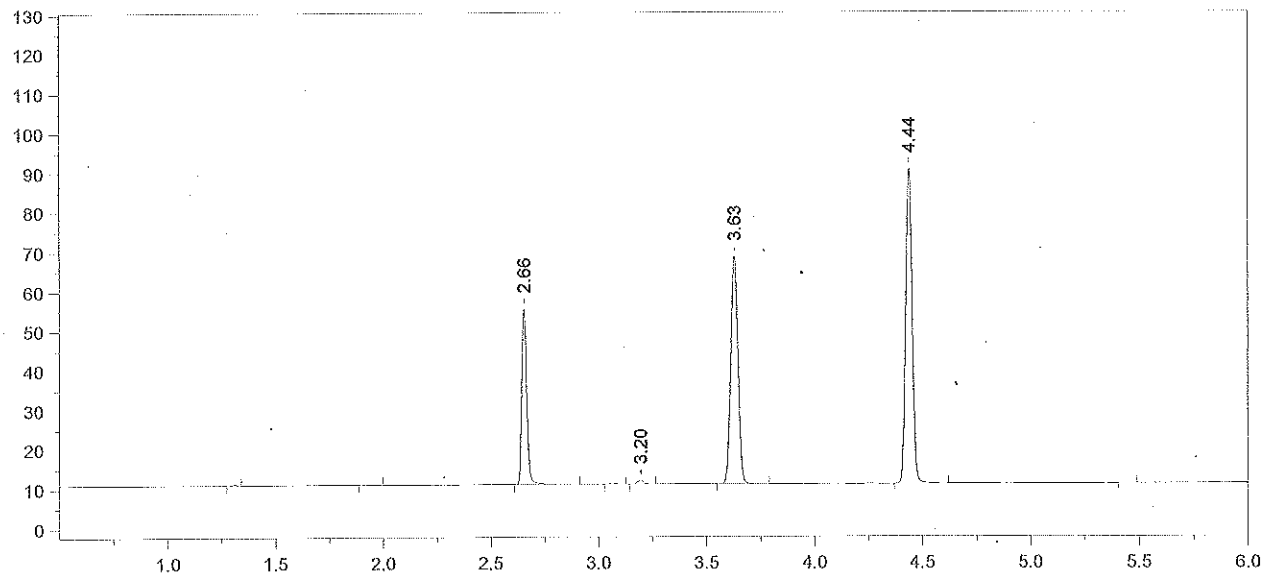
Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	190800	0.1974
4	3.63	t-Butanol	143349	1.0271
5	4.44	n-Propanol	182010	1.0000



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 8:03:32 AM
Bound File Name = 07292015.0007.RAW
Sample Name = STD E
Date Taken = 7/29/2015 4:14:18 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	383771	0.4014
4	3.63	t-Butanol	136150	0.9863
5	4.44	n-Propanol	180022	1.0000



Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Today's Time = 4:31:52 PM
Bound File Name = 07292015.0008.RAW
Sample Name = WB
Date Taken = 7/29/2015 4:31:47 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.66	Ethanol	69410	0.0774
5	3.20	Isopropanol	02064	<0.004
6	3.63	t-Butanol	133450	1.0309
7	4.44	n-Propanol	168808	1.0000

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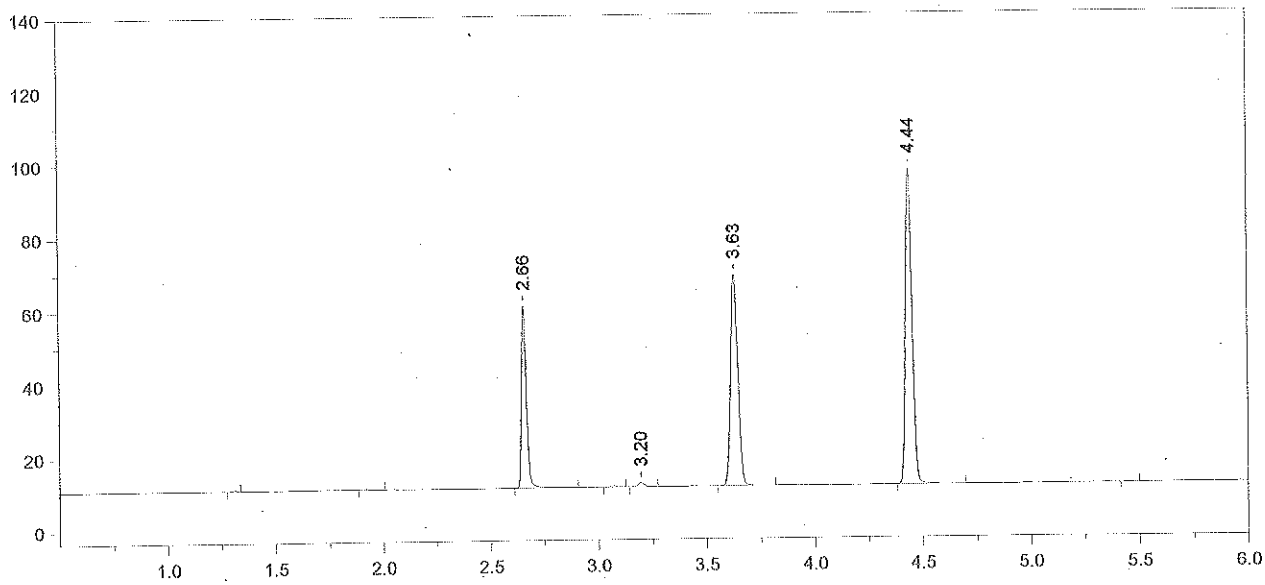
Chrom Perfect Chromatogram Report



Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Bound File Name = 07292015.0009.RAW
Sample Name = WB
Date Taken = 7/29/2015 4:45:58 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 4:46:03 PM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.66	Ethanol	77547	0.0799
5	3.20	Isopropanol	02243	<0.004
6	3.63	t-Butanol	133871	0.9556
7	4.44	n-Propanol	182686	1.0000

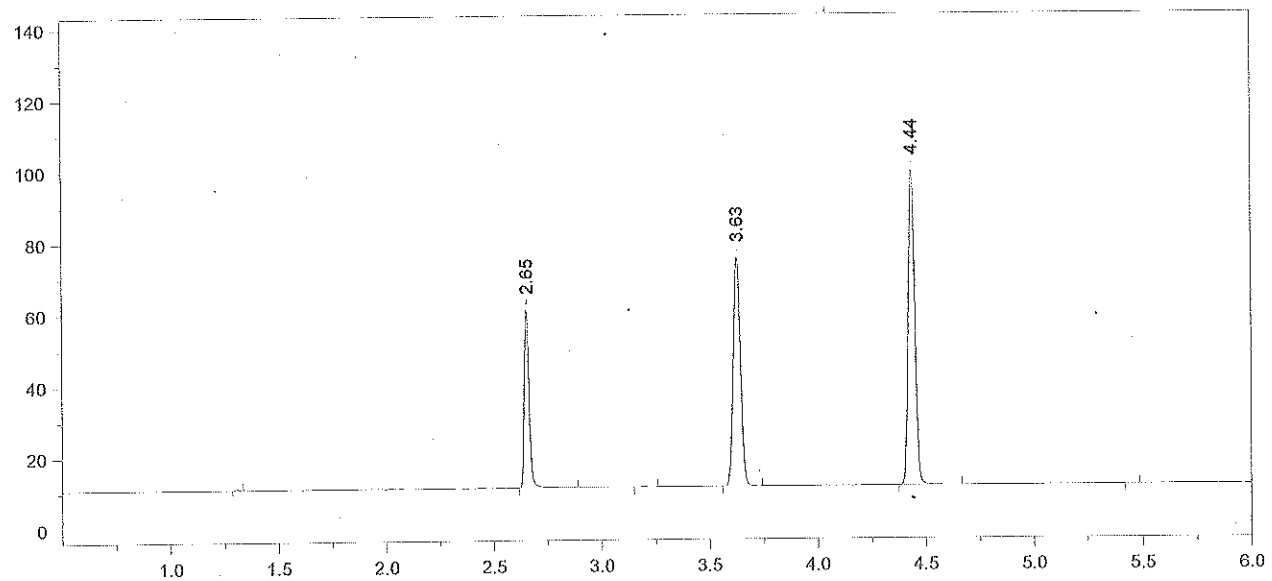
WB LOT: CLINIQA 1212090 DB 8/3/15

WB MEAN: 0.0786 g/100ml EtOH

±5%: 0.0747 - 0.0825

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

DB 7/30/15

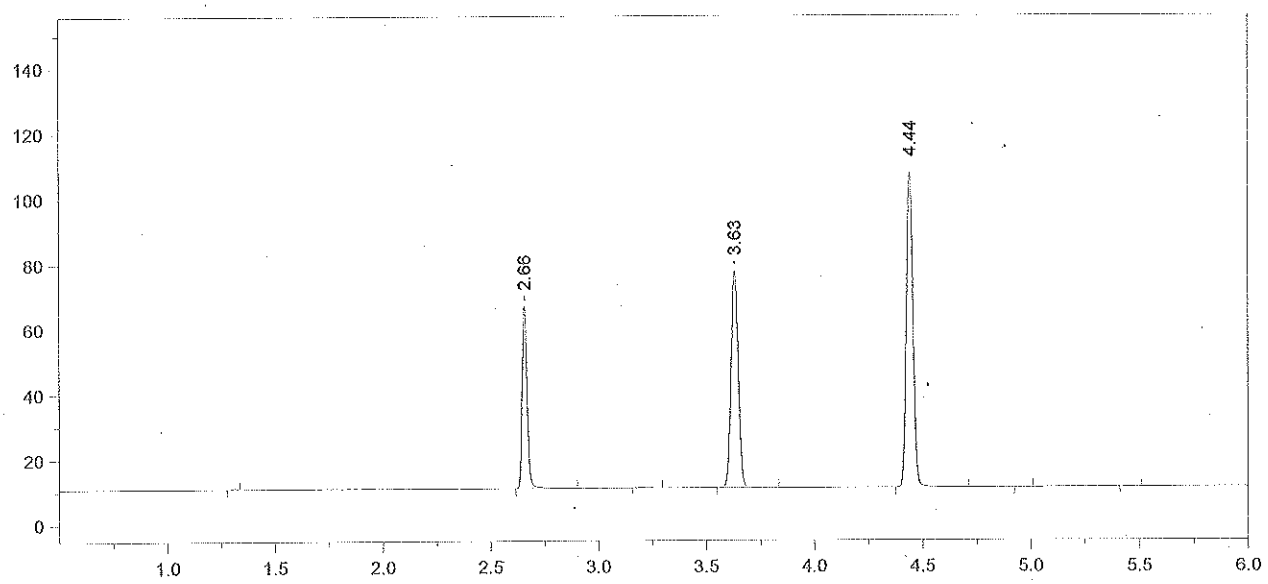


Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Today's Time = 5:01:39 PM
Bound File Name = 07292015.0010.RAW
Sample Name = AQ
Date Taken = 7/29/2015 5:01:31 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	77902	0.0780
4	3.63	t-Butanol	148118	1.0271
5	4.44	n-Propanol	188062	1.0000

15-12-100 p13 8



Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Bound File Name = 07292015.0011.RAW
Sample Name = AQ
Date Taken = 7/29/2015 5:16:27 PM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 5:16:32 PM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	87503	0.0798
4	3.63	t-Butanol	153721	0.9707
5	4.44	n-Propanol	206515	1.0000

AQ LOT #: CERILLIANT FN09051304

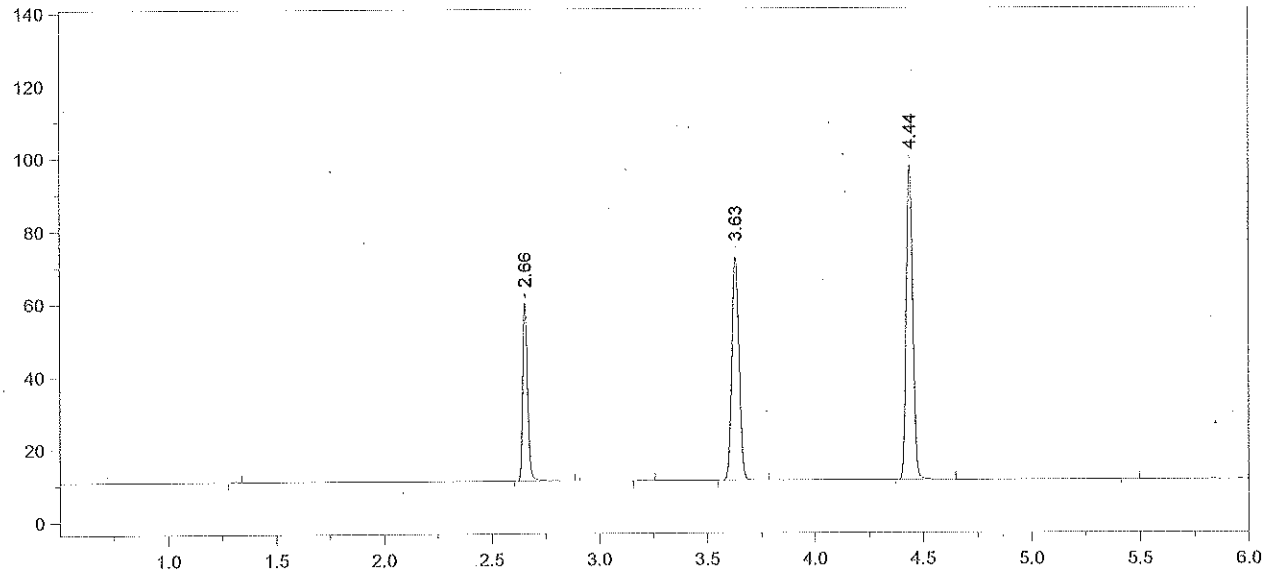
MEAN: 0.0789 g/100 ml EtOH

±5%: 0.0749 – 0.0828

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

DB 7/30/15

15-12-100 p14 8

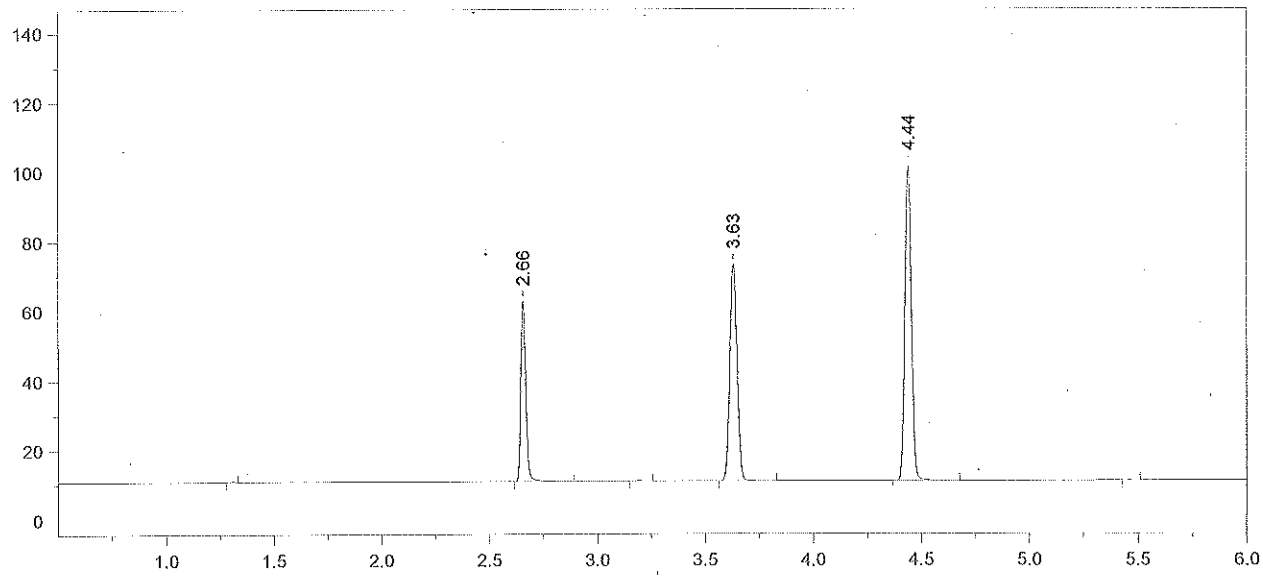


Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Today's Time = 5:33:04 PM
Bound File Name = 07292015.0012.RAW
Sample Name = CCS
Date Taken = 7/29/2015 5:33:00 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	76237	0.0785
4	3.63	t-Butanol	142658	1.0167
5	4.44	n-Propanol	182980	1.0000

15-12-100 p.15



Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Today's Time = 5:46:30 PM
Bound File Name = 07292015.0013.RAW
Sample Name = CCS
Date Taken = 7/29/2015 5:46:22 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	80630	0.0786
4	3.63	t-Butanol	144878	0.9779
5	4.44	n-Propanol	193210	1.0000

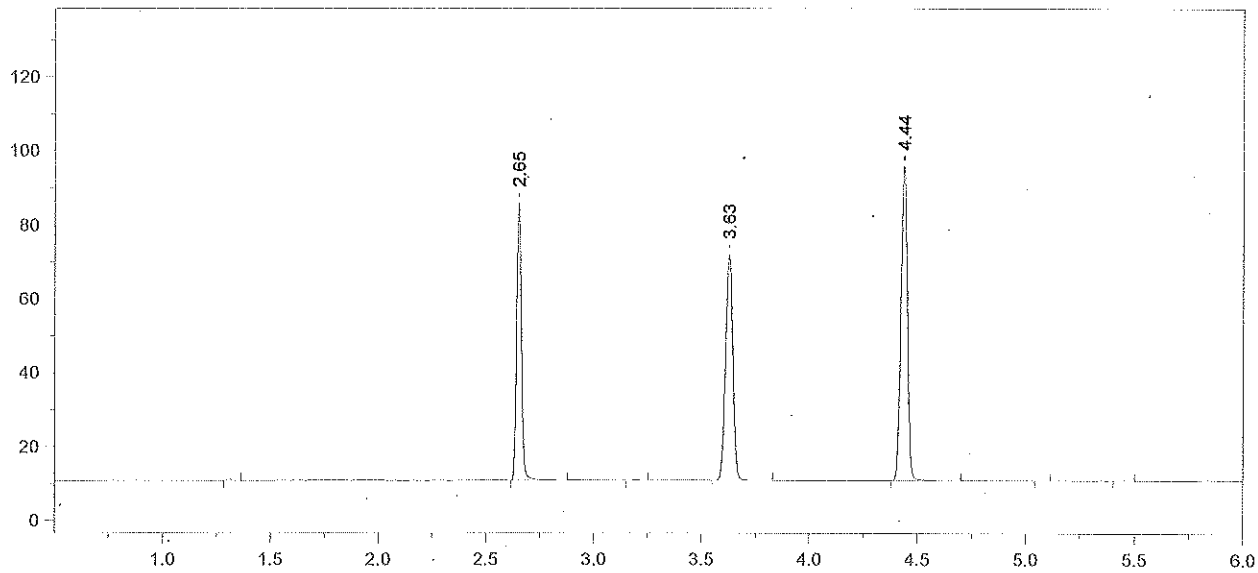
CCS MEAN: 0.0785 g/100mL EtOH

±5% : 0.0746 – 0.0824

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

DJ 7/30/15

1512-100 p16 DJ

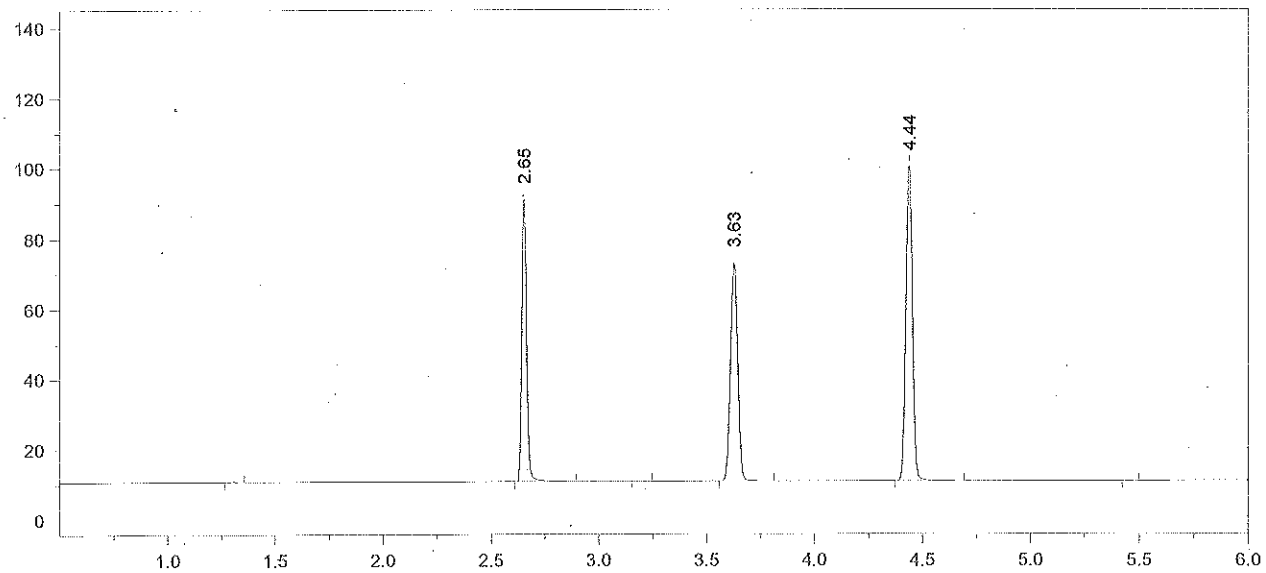


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 8:10:09 PM
Bound File Name = 07292015.0022.RAW
Sample Name = 0.100 DP
Date Taken = 7/29/2015 8:10:00 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	115483	0.1203	0.0982
4	3.63	t-Butanol	142023	1.0245	0.8362
5	4.44	n-Propanol	180785	1.0000	0.8162

15-12-100 8:17 DP

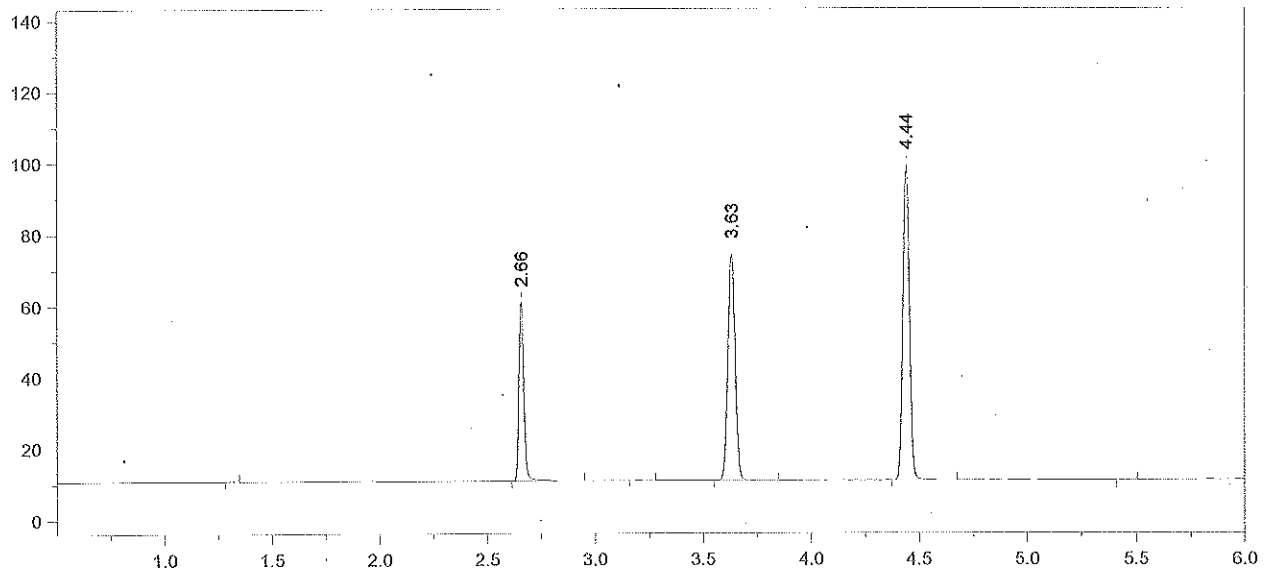


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 8:24:02 PM
Bound File Name = 07292015.0023.RAW
Sample Name = 0.100 DP
Date Taken = 7/29/2015 8:23:53 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	124456	0.1222	0.0998
4	3.63	t-Butanol	143653	0.9772	0.7976
5	4.44	n-Propanol	191704	1.0000	0.8162

15-12-100 8 18 86

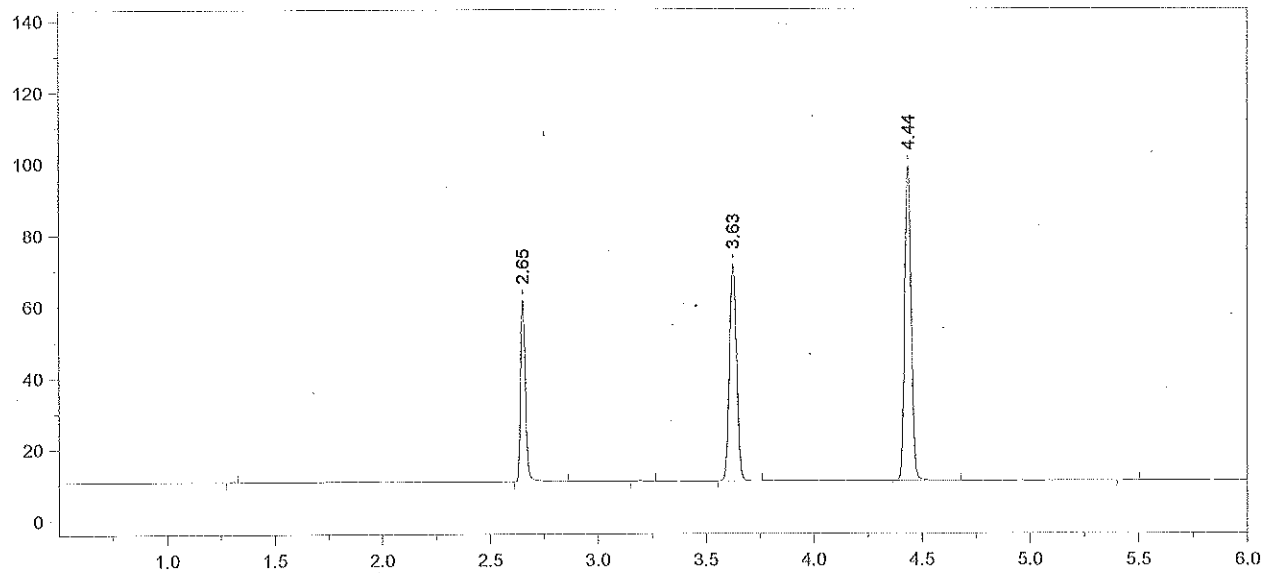


Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Today's Time = 8:39:49 PM
Bound File Name = 07292015.0024.RAW
Sample Name = CCS
Date Taken = 7/29/2015 8:39:44 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	78115	0.0779
4	3.63	t-Butanol	147235	1.0174
5	4.44	n-Propanol	188714	1.0000

15-12-100 p19 DS



Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Today's Time = 8:55:49 PM
Bound File Name = 07292015.0025.RAW
Sample Name = CCS
Date Taken = 7/29/2015 8:55:42 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	79008	0.0795
4	3.63	t-Butanol	139813	0.9741
5	4.44	n-Propanol	187180	1.0000

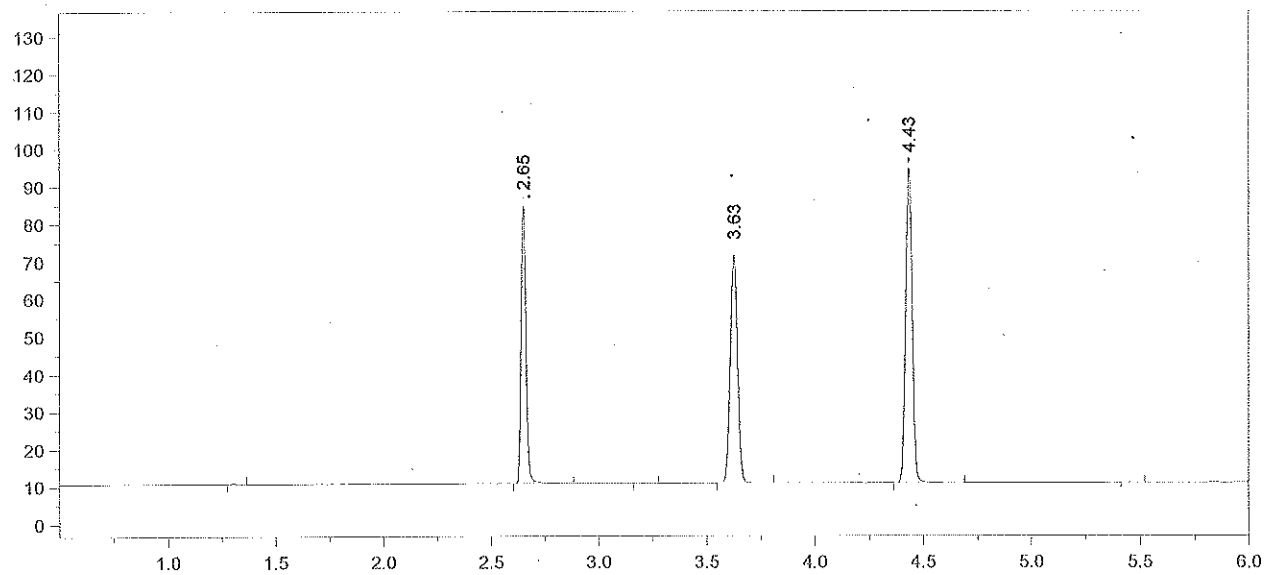
CCS MEAN = 0.0787 g/100mL EtOH

±5% 0.0747 - 0.0826

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

DB 7/30/15

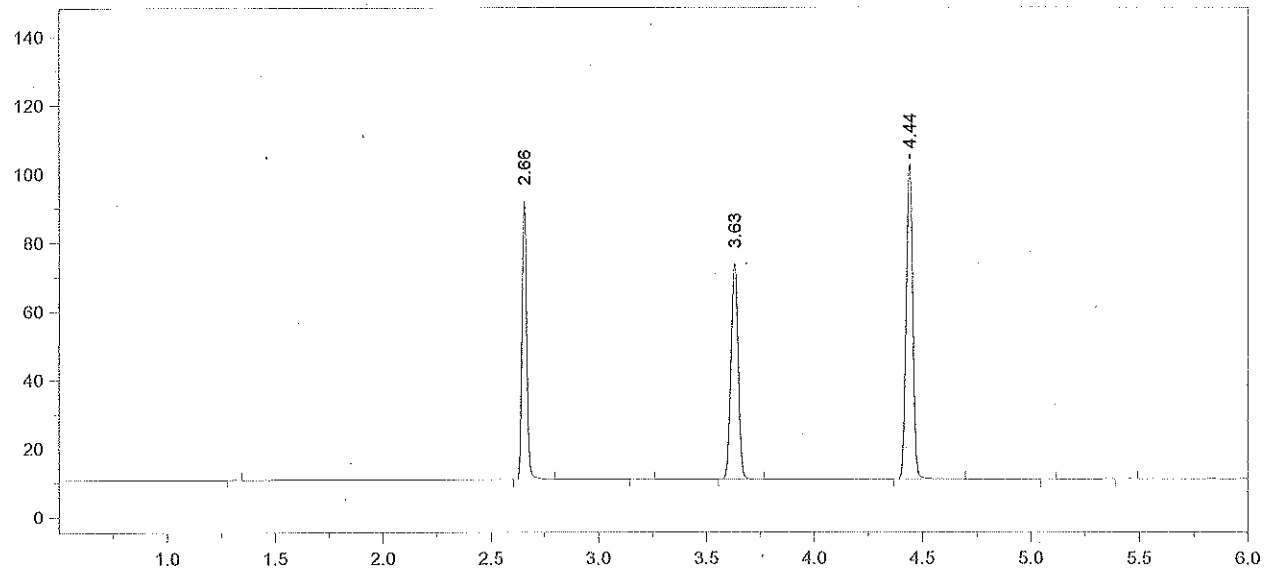
15-12-100 p20



Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 9:11:26 PM
Bound File Name = 07292015.0026.RAW
Sample Name = 0.100 DP
Date Taken = 7/29/2015 9:11:16 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	115276	0.1211	0.0989
4	3.63	t-Butanol	140380	1.0217	0.8339
5	4.43	n-Propanol	179183	1.0000	0.8162



Format File Name = simsolnVFL.met.FMT

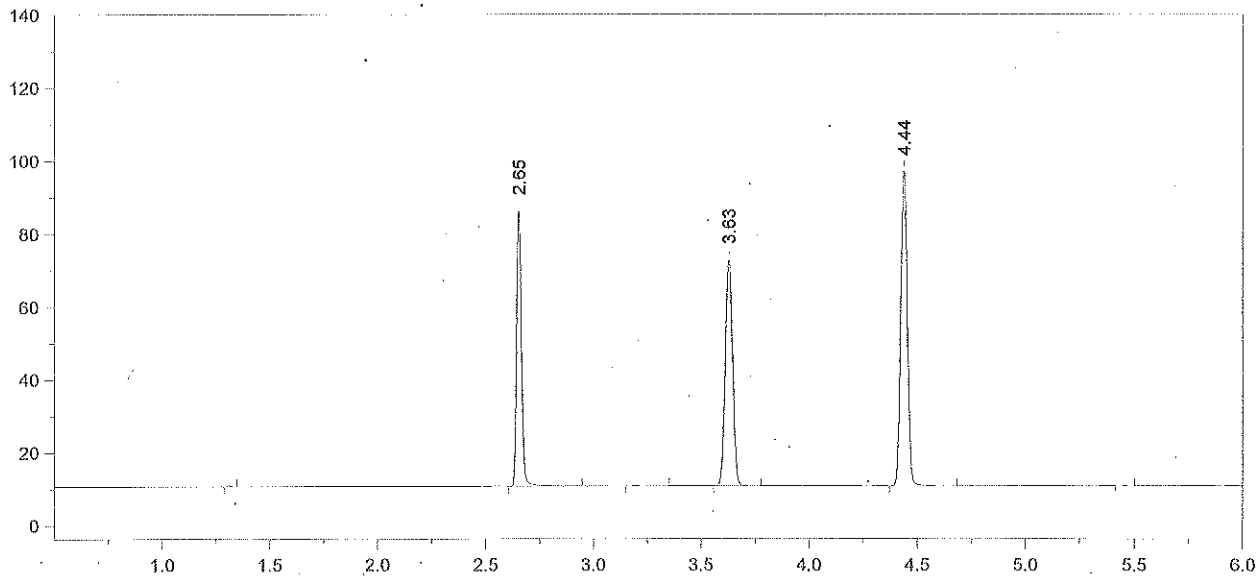
Today's Date = 7/29/2015
Bound File Name = 07292015.0027.RAW
Sample Name = 0.100 DP
Date Taken = 7/29/2015 9:25:26 PM
Method file = simsoln.met
Calibration file = VFL07292015.CAL

Today's Time = 9:25:36 PM

VDH Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	124738	0.1207	0.0985
4	3.63	t-Butanol	145603	0.9761	0.7967
5	4.44	n-Propanol	194533	1.0000	0.8162

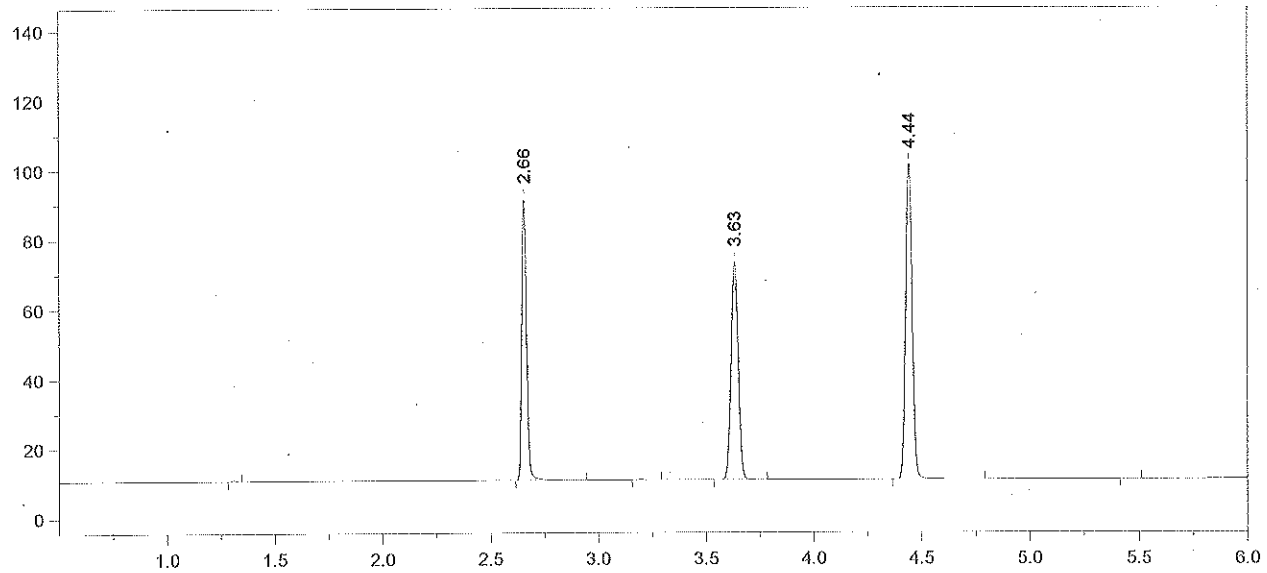


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 9:42:47 PM
Bound File Name = 07292015.0028.RAW
Sample Name = 0.100 DP
Date Taken = 7/29/2015 9:42:42 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	117947	0.1210	0.0988
4	3.63	t-Butanol	143718	1.0215	0.8337
5	4.44	n-Propanol	183479	1.0000	0.8162

15-12-100 p23

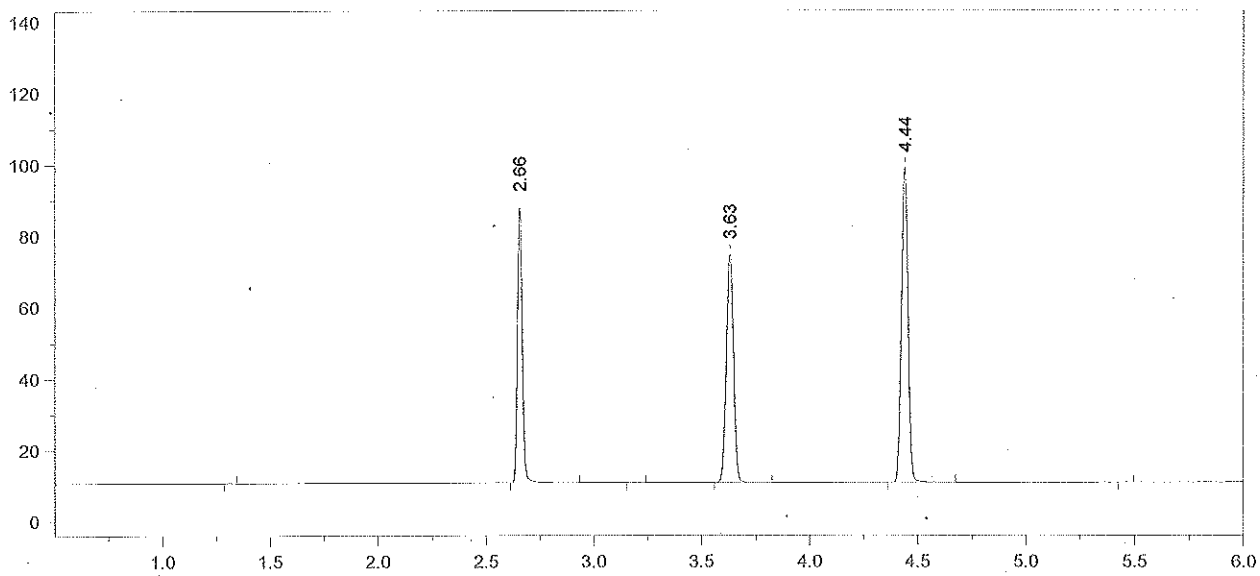


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 9:57:04 PM
Bound File Name = 07292015.0029.RAW
Sample Name = 0.100 DP
Date Taken = 7/29/2015 9:56:58 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	125652	0.1222	0.0998
4	3.63	t-Butanol	144258	0.9718	0.7932
5	4.44	n-Propanol	193587	1.0000	0.8162

15-12-100 P24 D6

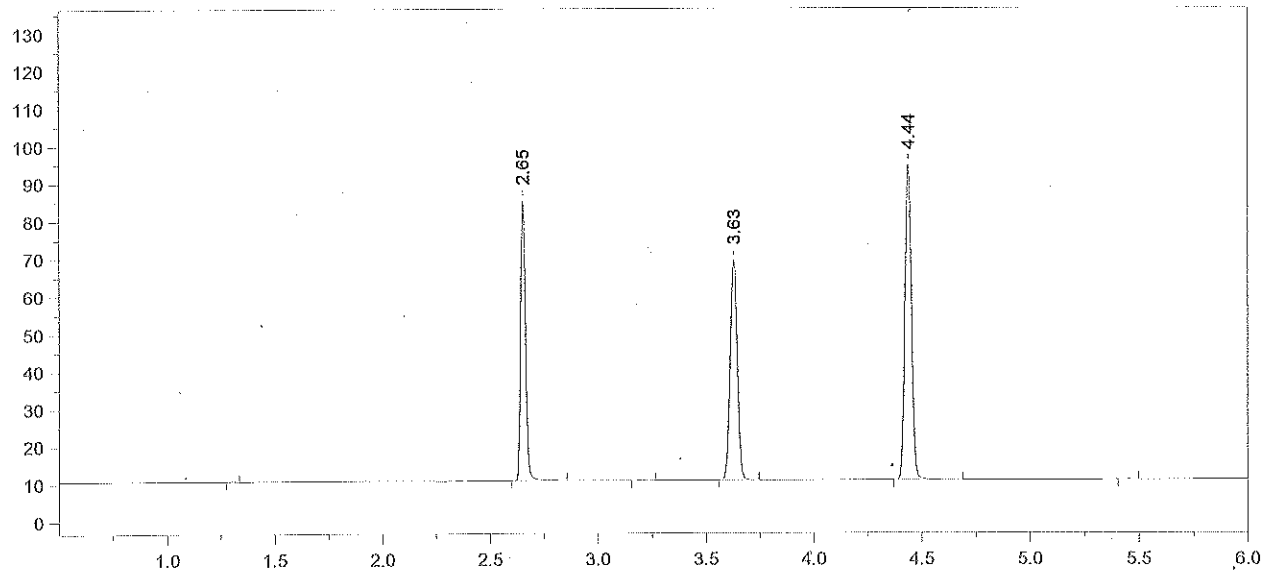


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 10:14:16 PM
Bound File Name = 07292015.0030.RAW
Sample Name = 0.100 DP
Date Taken = 7/29/2015 10:14:07 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	119245	0.1200	0.0979
4	3.63	t-Butanol	148096	1.0319	0.8422
5	4.44	n-Propanol	187163	1.0000	0.8162

15-12-100 P25

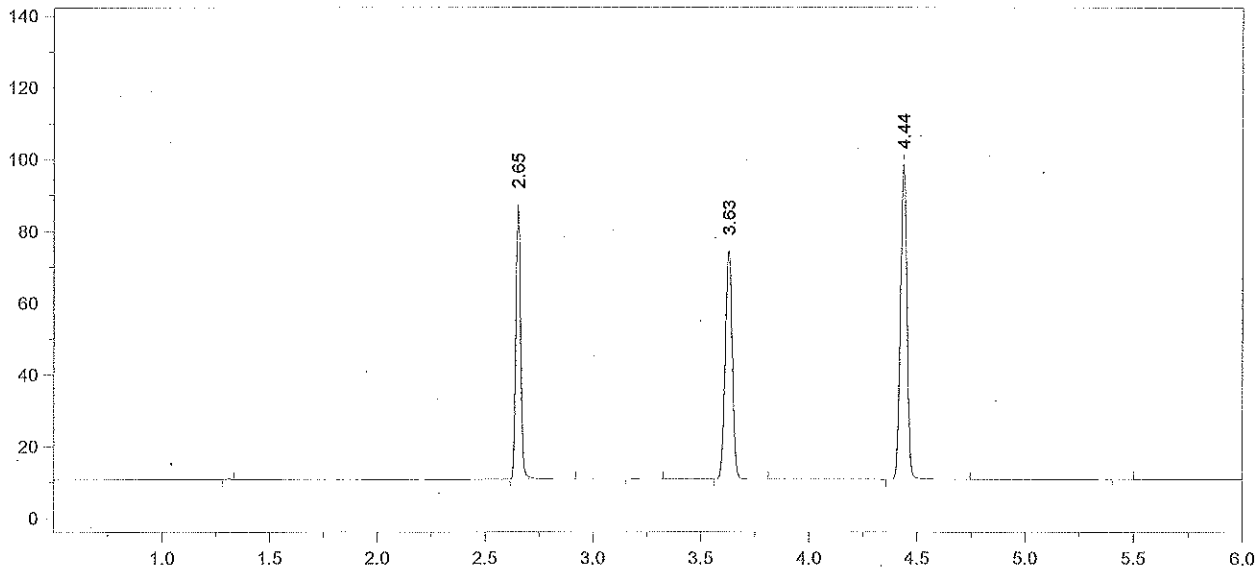


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 10:28:40 PM
Bound File Name = 07292015.0031.RAW
Sample Name = 0.100 AB
Date Taken = 7/29/2015 10:28:33 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	115208	0.1217	0.0994
4	3.63	t-Butanol	135349	0.9906	0.8085
5	4.44	n-Propanol	178180	1.0000	0.8162

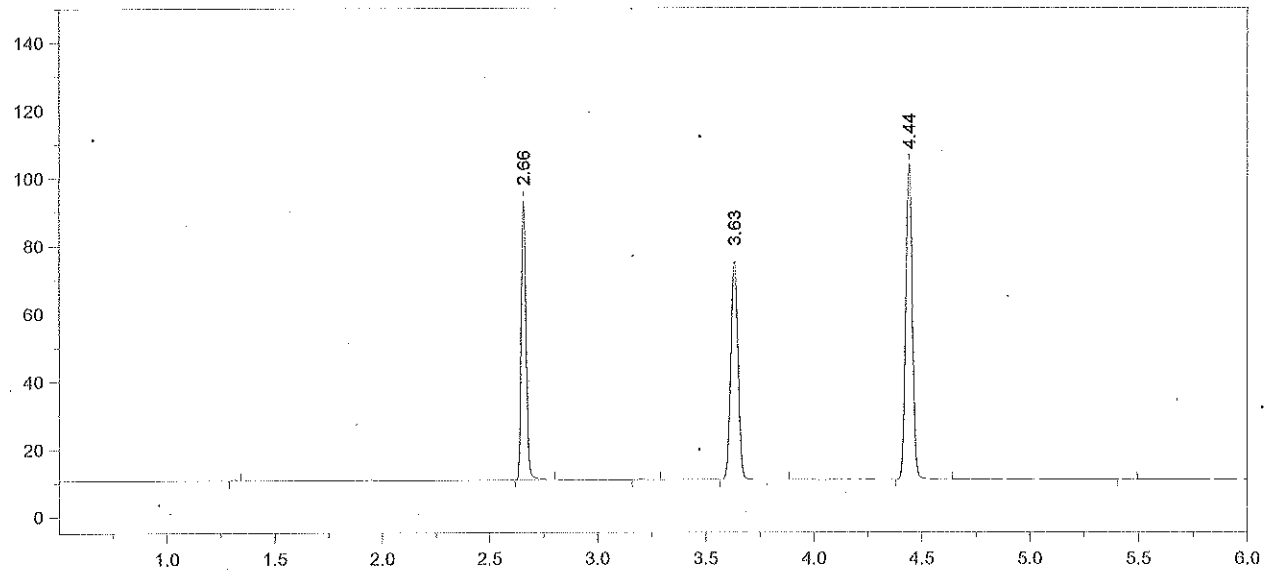
15-12-100 p26



Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015 Today's Time = 10:43:55 PM
Bound File Name = 07292015.0032.RAW
Sample Name = 0.100 AB
Date Taken = 7/29/2015 10:43:51 PM VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	118810	0.1201	0.0980
4	3.63	t-Butanol	147586	1.0334	0.8435
5	4.44	n-Propanol	186244	1.0000	0.8162

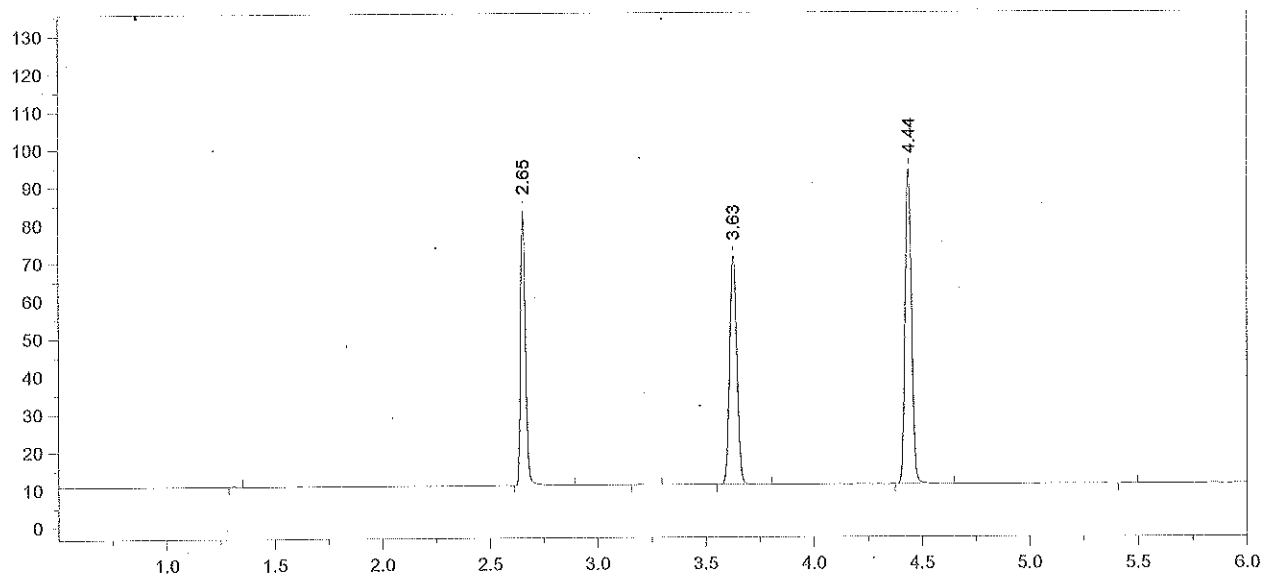


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 10:58:54 PM
Bound File Name = 07292015.0033.RAW
Sample Name = 0.100 AB
Date Taken = 7/29/2015 10:58:47 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	126088	0.1206	0.0984
4	3.63	t-Butanol	149686	0.9912	0.8091
5	4.44	n-Propanol	196926	1.0000	0.8162

15-12-100 P28 Jo

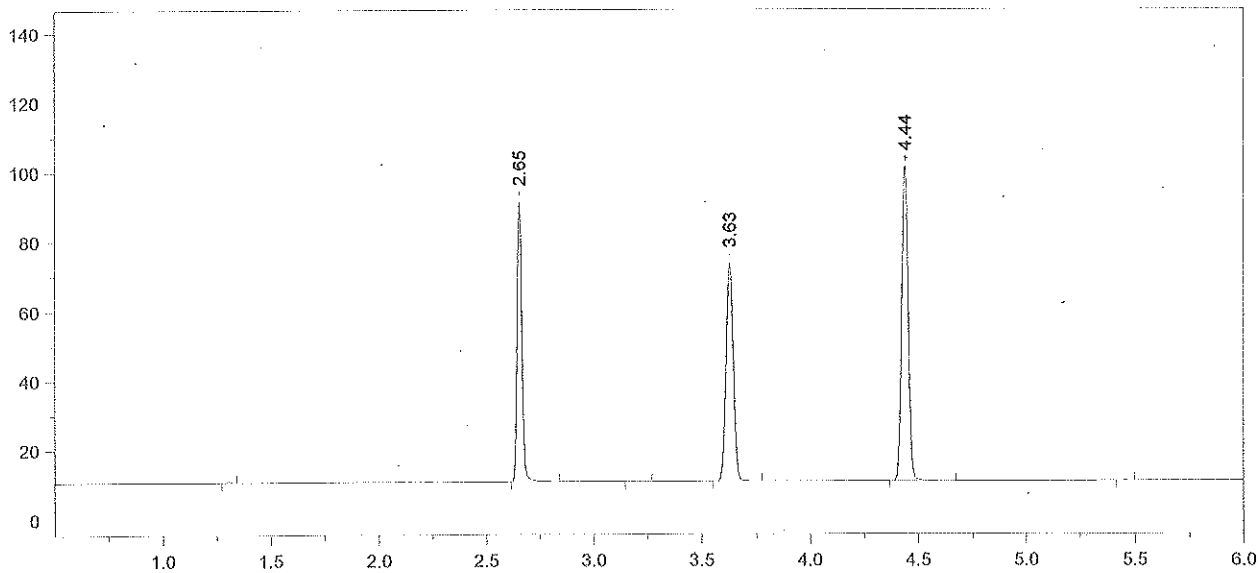


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/29/2015
Today's Time = 11:15:30 PM
Bound File Name = 07292015.0034.RAW
Sample Name = 0.100 AB
Date Taken = 7/29/2015 11:15:23 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	112659	0.1206	0.0984
4	3.63	t-Butanol	140547	1.0418	0.8503
5	4.44	n-Propanol	175936	1.0000	0.8162

15-12-100 029



Format File Name = simsolnVFL.met.FMT

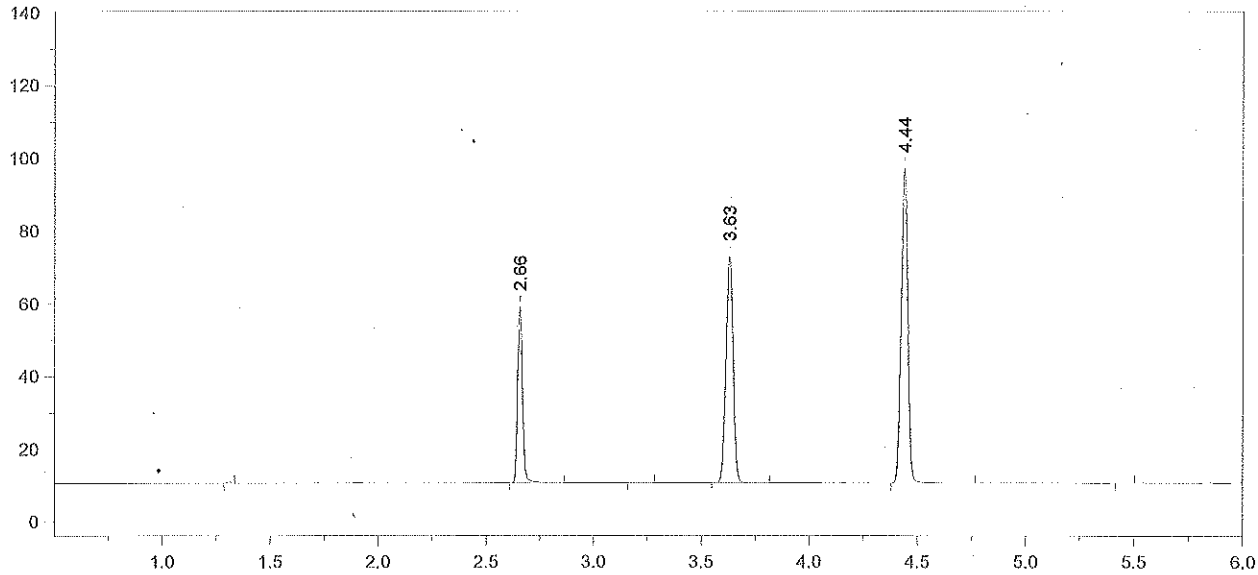
Today's Date = 7/29/2015
Bound File Name = 07292015.0035.RAW
Sample Name = 0.100 AB
Date Taken = 7/29/2015 11:29:11 PM
Method file = simsoln.met
Calibration file = VFL07292015.CAL

Today's Time = 11:29:17 PM

VDH Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	125399	0.1222	0.0998
4	3.63	t-Butanol	145073	0.9792	0.7993
5	4.44	n-Propanol	193194	1.0000	0.8162

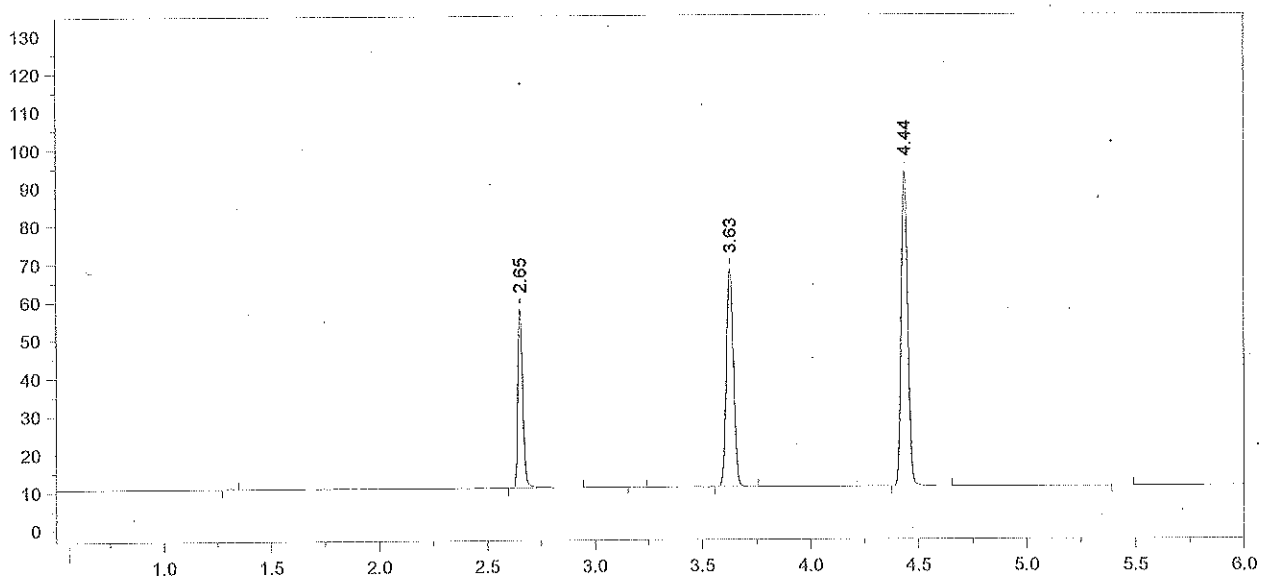


Format File Name = AlcoholVFL.FMT

Today's Date = 7/29/2015
Today's Time = 11:45:18 PM
Bound File Name = 07292015.0036.RAW
Sample Name = CCS
Date Taken = 7/29/2015 11:45:09 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	75307	0.0773
4	3.63	t-Butanol	144254	1.0259
5	4.44	n-Propanol	183361	1.0000

1572-100 031 QA



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 12:00:40 AM
Bound File Name = 07292015.0037.RAW
Sample Name = CCS
Date Taken = 7/30/2015 12:00:30 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	74289	0.0793
4	3.63	t-Butanol	132698	0.9806
5	4.44	n-Propanol	176467	1.0000

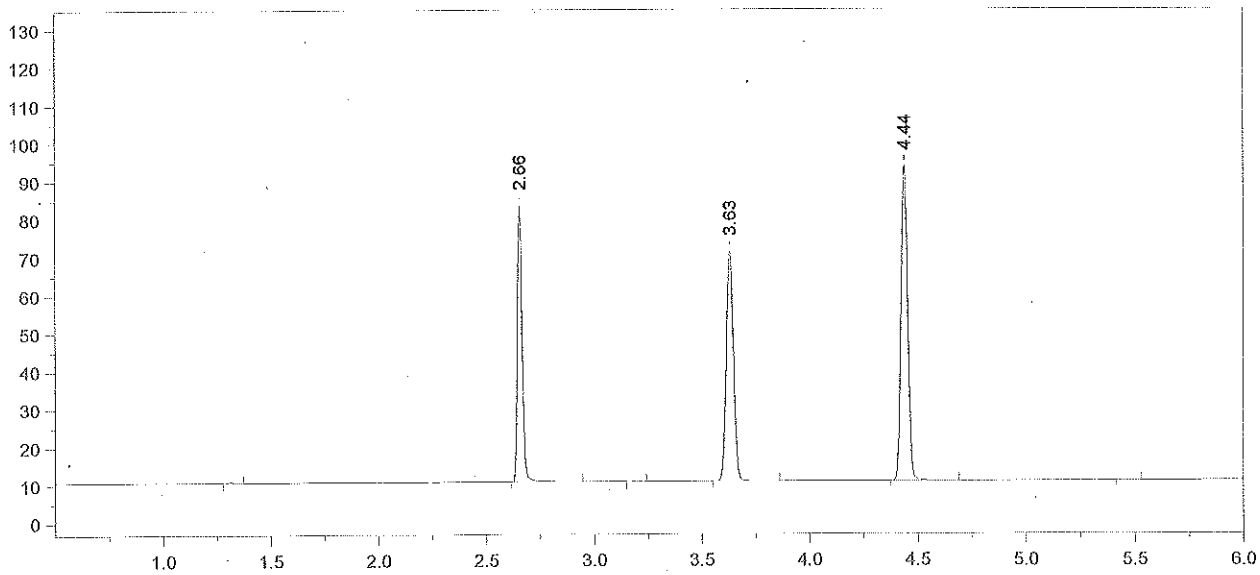
CCS MEAN: 0.0783 g/100 mL EtOH

±5%: 0.0744 - 0.0822

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

[illegible]

15-12-100 032

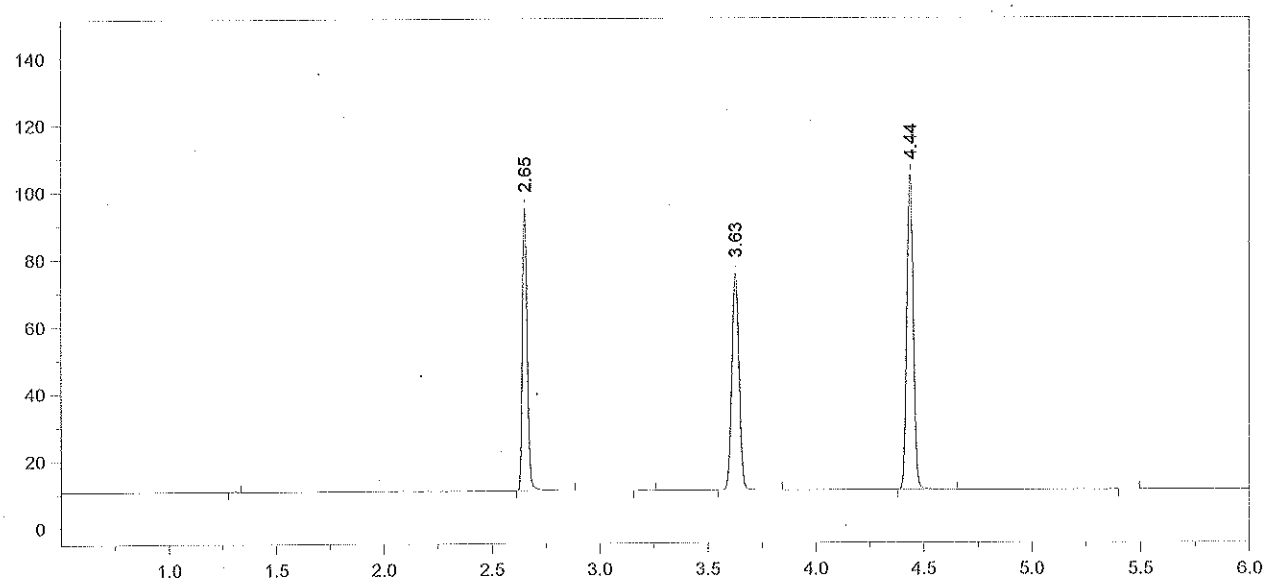


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 12:16:45 AM
Bound File Name = 07292015.0038.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 12:16:36 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	112328	0.1199	0.0979
4	3.63	t-Butanol	140627	1.0399	0.8487
5	4.44	n-Propanol	176360	1.0000	0.8162

15-12-100 p33

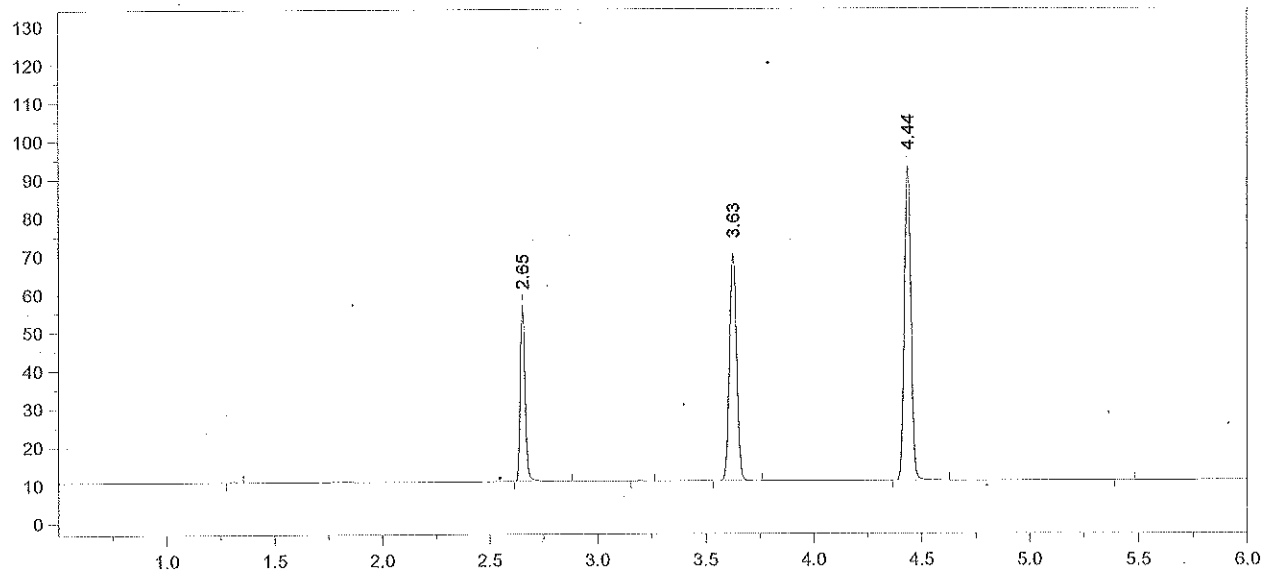


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 12:31:59 AM
Bound File Name = 07292015.0039.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 12:31:55 AM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	130176	0.1228	0.1003
4	3.63	t-Butanol	150509	0.9836	0.8028
5	4.44	n-Propanol	199540	1.0000	0.8162

15-12-100 034 QA

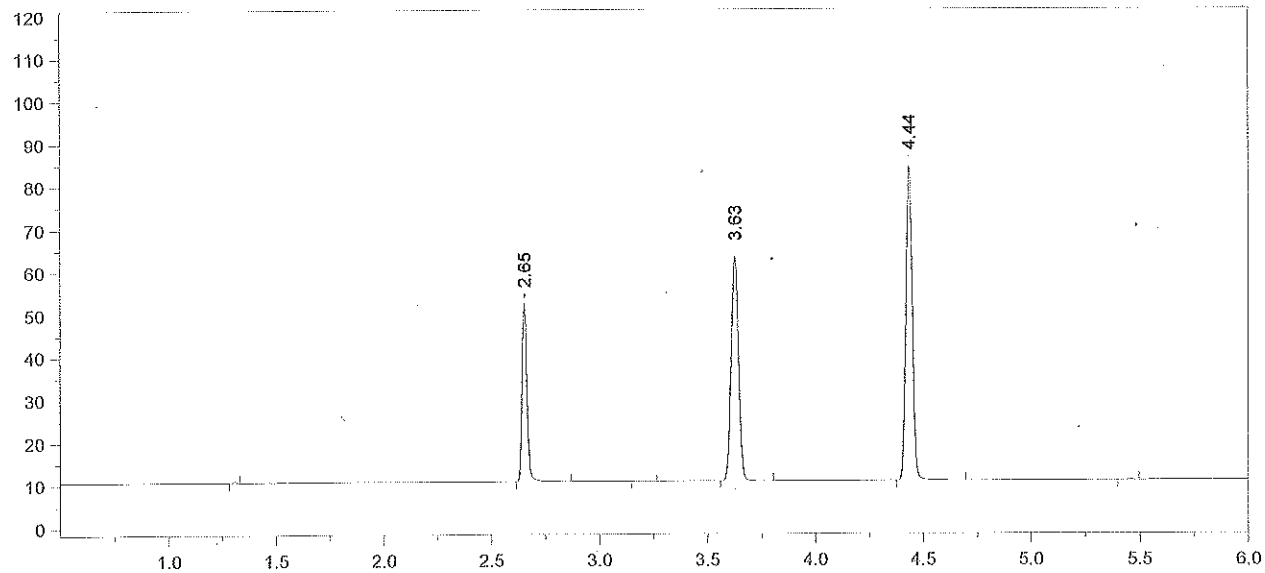


Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 12:48:08 AM
Bound File Name = 07292015.0040.RAW
Sample Name = CCS
Date Taken = 7/30/2015 12:48:03 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	71875	0.0777
4	3.63	t-Butanol	137974	1.0325
5	4.44	n-Propanol	174271	1.0000

15-12-100 p35 dr



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 1:02:32 AM
Bound File Name = 07292015.0041.RAW
Sample Name = CCS
Date Taken = 7/30/2015 1:02:21 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	65284	0.0785
4	3.63	t-Butanol	121846	1.0144
5	4.44	n-Propanol	156636	1.0000

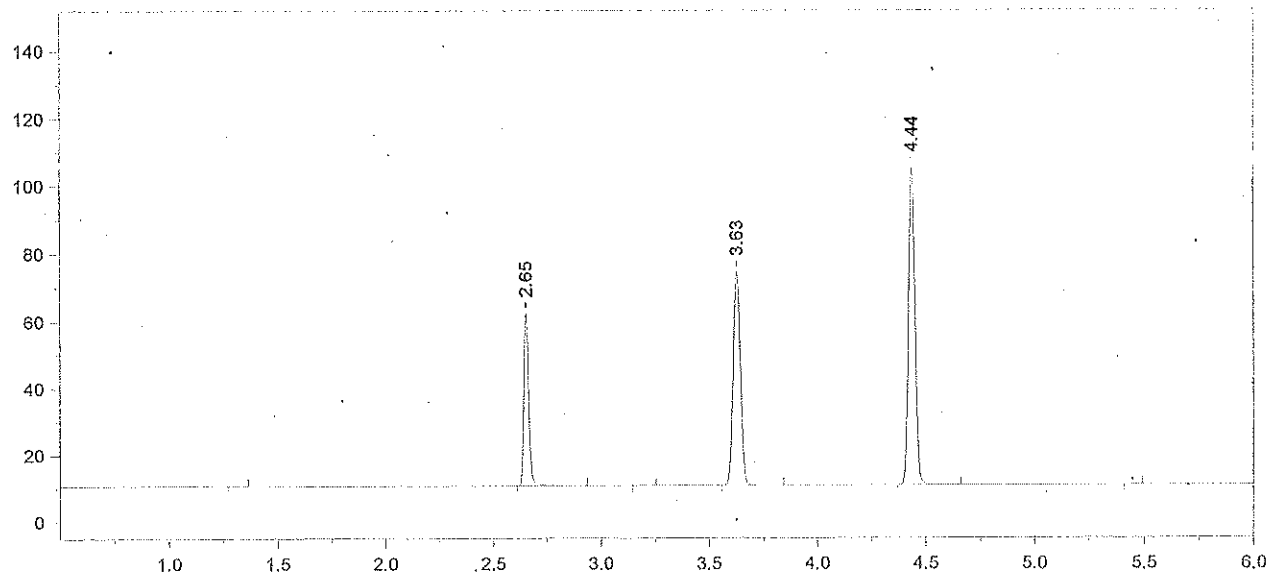
CCS MEAN: 0.0781 g/100 ml EtOH

±5%: 0.0742 - 0.0820

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

7/30/15

15-12-100 p36

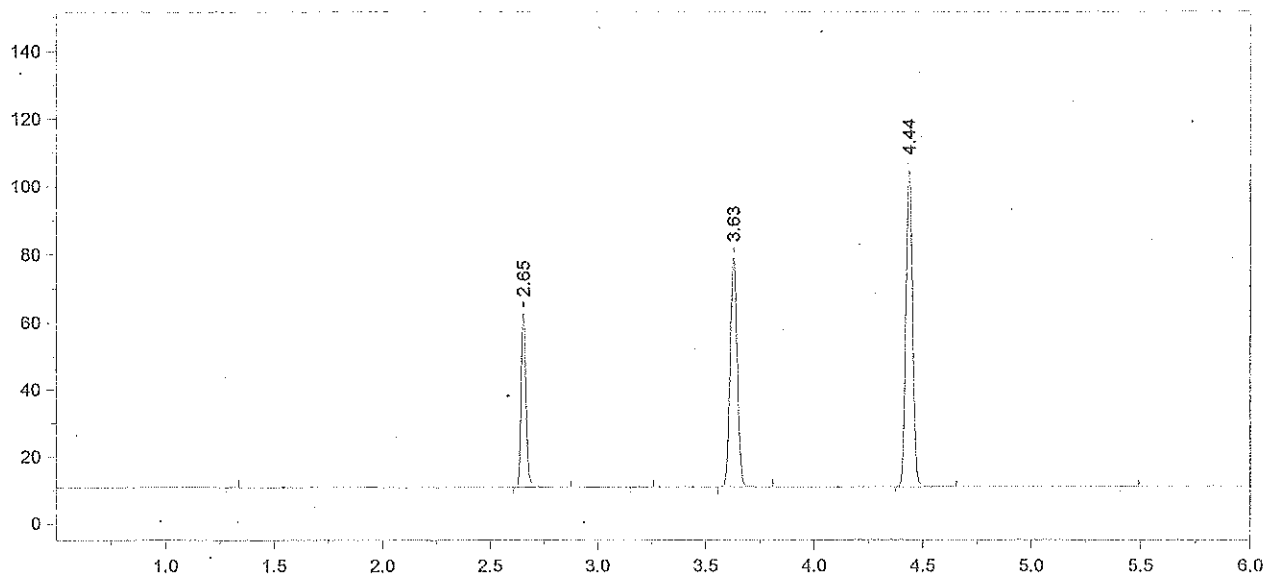


Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 9:24:50 AM
Bound File Name = 07292015.0042.RAW
Sample Name = CCS
Date Taken = 7/30/2015 9:24:41 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	80398	0.0761
4	3.63	t-Butanol	147888	0.9694
5	4.44	n-Propanol	198935	1.0000

15-12-100 P37



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 9:41:05 AM
Bound File Name = 07292015.0043.RAW
Sample Name = CCS
Date Taken = 7/30/2015 9:40:57 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	81676	0.0767
4	3.63	t-Butanol	157663	1.0253
5	4.44	n-Propanol	200536	1.0000

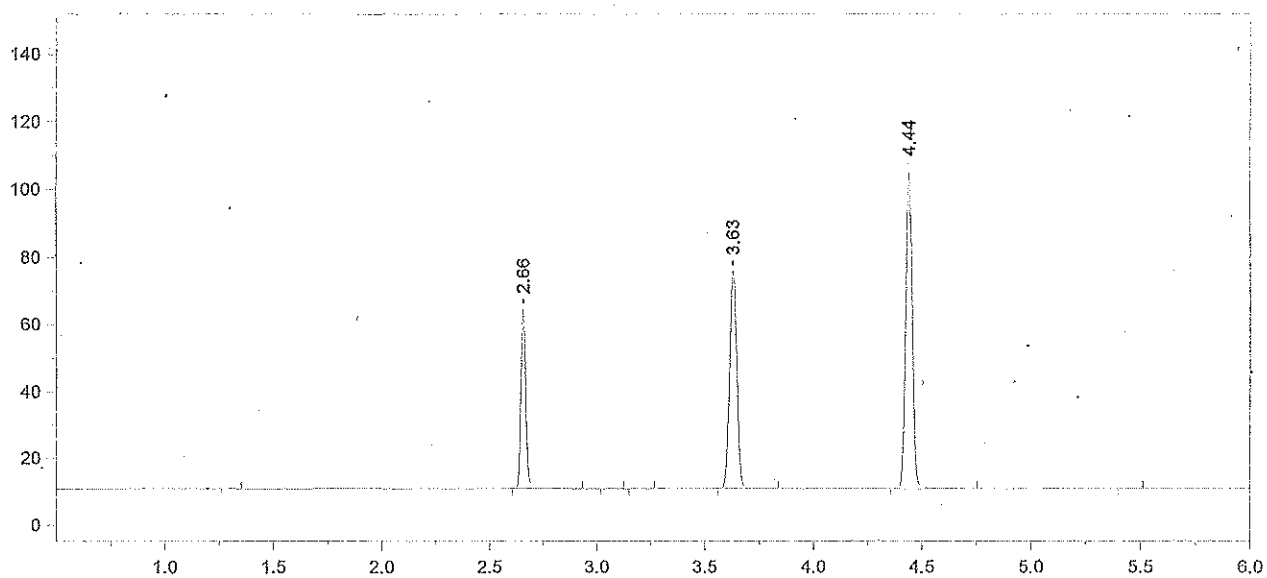
CCS MEAN: 0.0764 g/100mL EtOH

±5%: 0.0726 – 0.0802

Recovery: $\frac{0.076}{0.080}$ = 95%

DR 7/30/15

15-12-100 p38

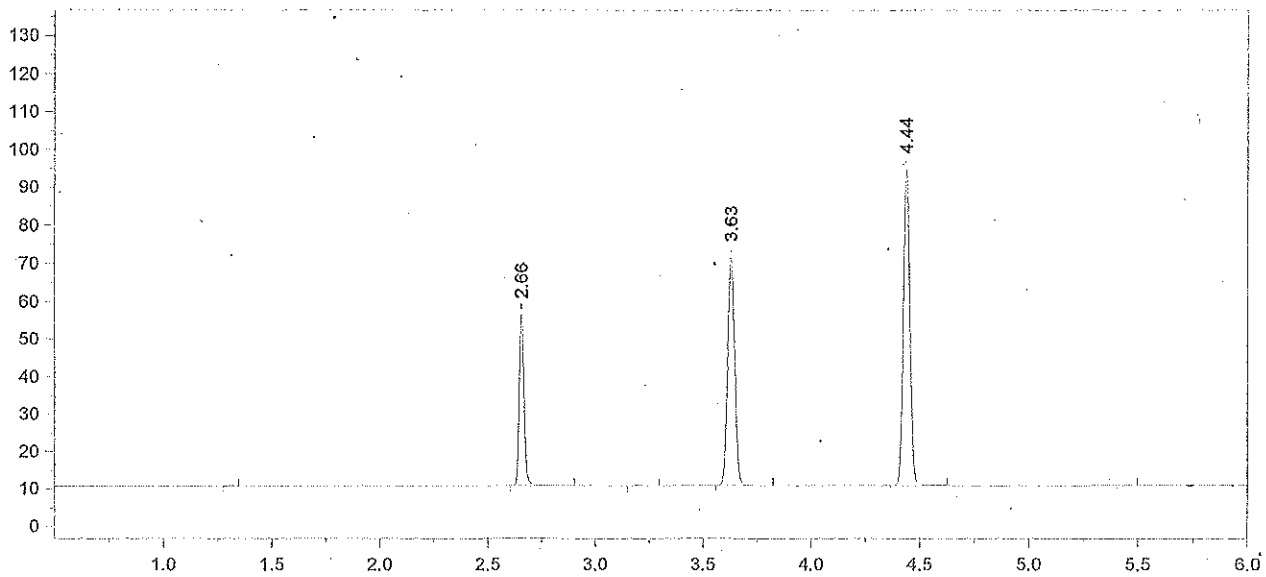


Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 10:59:36 AM
Bound File Name = 07292015.0048.RAW
Sample Name = CCS
Date Taken = 7/30/2015 10:59:32 AM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	83413	0.0786
5	3.63	t-Butanol	150748	0.9837
6	4.44	n-Propanol	199845	1.0000

15-12-100 039 Br



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Bound File Name = 07292015.0049.RAW
Sample Name = CCS
Date Taken = 7/30/2015 11:15:15 AM
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07292015.CAL

Today's Time = 11:15:25 AM

VFL Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	71307	0.0755
4	3.63	t-Butanol	140820	1.0333
5	4.44	n-Propanol	177729	1.0000

CCS MEAN: 0.0770 g/100ml 2011

±5% : 0.0731 - 0.0808

RECOVERY: $\frac{0.077}{0.080}$ = 96.2%

DB 7/30/15

15-12-100 p40 [illegible]

File Name = C:\Alcohol Data\VFL07302015\VFL07302015.SEQ
Version = 2
File Date = 7/30/2015 2:34:46 PM

Entry #	Raw File Name	Method File Name	Sample Name	Sample Wt.	Int. Std. Amount
1	07302015.0001.raw	Blood Alc temp VFL.MET	BLANK	1.00	1.00
2	07302015.0002.raw	Blood Alc temp VFL.MET	TMX	1.00	1.00
3	07302015.0003.raw	Blood Alc temp VFL.MET	STD A	1.00	1.00
4	07302015.0004.raw	Blood Alc temp VFL.MET	STD B	1.00	1.00
5	07302015.0005.raw	Blood Alc temp VFL.MET	STD C	1.00	1.00
6	07302015.0006.raw	Blood Alc temp VFL.MET	STD D	1.00	1.00
7	07302015.0007.raw	Blood Alc temp VFL.MET	STD E	1.00	1.00
8	07302015.0008.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
9	07302015.0009.raw	Blood Alc temp VFL.MET	AQ	1.00	1.00
10	07302015.0010.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
11	07302015.0011.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
12	07302015.0012.raw	simsoln.met	0.100 DP	1.00	1.00
13	07302015.0013.raw	simsoln.met	0.100 DP	1.00	1.00
14	07302015.0014.raw	simsoln.met	0.100 DP	1.00	1.00
15	07302015.0015.raw	simsoln.met	0.100 DP	1.00	1.00
16	07302015.0016.raw	simsoln.met	0.100 DP	1.00	1.00
17	07302015.0017.raw	simsoln.met	0.100 DP	1.00	1.00
18	07302015.0018.raw	simsoln.met	0.100 DP	1.00	1.00
19	07302015.0019.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
20	07302015.0020.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
21	07302015.0021.raw	simsoln.met	0.100 AB	1.00	1.00
22	07302015.0022.raw	simsoln.met	0.100 AB	1.00	1.00
23	07302015.0023.raw	simsoln.met	0.100 AB	1.00	1.00
24	07302015.0024.raw	simsoln.met	0.100 AB	1.00	1.00
25	07302015.0025.raw	simsoln.met	0.100 AB	1.00	1.00
26	07302015.0026.raw	simsoln.met	0.100 AB	1.00	1.00
27	07302015.0027.raw	simsoln.met	0.100 AB	1.00	1.00
28	07302015.0028.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00
29	07302015.0029.raw	Blood Alc temp VFL.MET	CCS	1.00	1.00

File Name: C:\Methods\VFL07302015.CAL
Version: 7

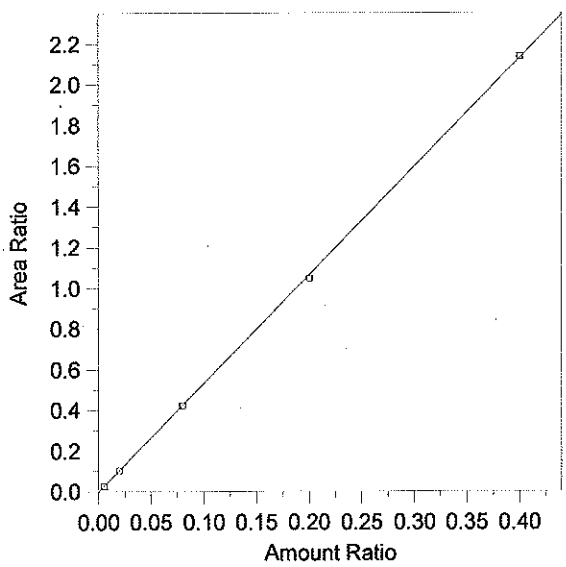
Creator:
Description:
Reason for change:

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:	2.655 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

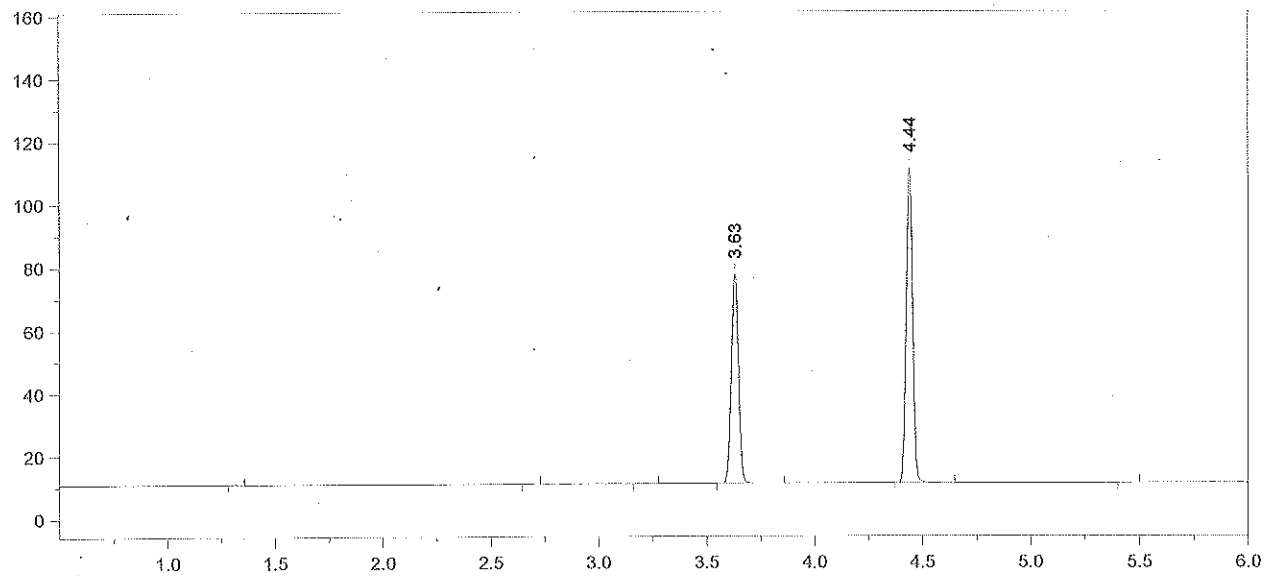
Y = 5.321695 X + 0

Linear fit with equal weighting, forced to origin

Coefficient of determination:	0.9998948
Average error:	1.537%
Average CF:	5.248241
RSD:	1.332%

Level	Amount	Response	Cal Factor	Error, %	Amount Ratio	Response Ratio	Source	Date and time
1	(0.0836)	(85146)	--	--	0.0836	85146	Manual	8/13/2014 9:33:12 AM
2	0.005	5558.91	1111782	-2.332	0.005	2.598801E-02	C:\Alcohol Data\VFL07302015\07302015.0003.BND	7/30/2015 3:45:00 PM
3	0.02	19910.76	995538	-2.891	0.02	0.1033567	C:\Alcohol Data\VFL07302015\07302015.0004.BND	7/30/2015 3:58:15 PM
4	0.08	80249.41	1003118	-0.631	0.08	0.4230509	C:\Alcohol Data\VFL07302015\07302015.0005.BND	7/30/2015 4:15:33 PM
5	0.2	198311.2	991556	-1.441	0.2	1.049005	C:\Alcohol Data\VFL07302015\07302015.0006.BND	7/30/2015 4:31:20 PM
6	0.4	438666.1	1096665	0.393	0.4	2.137044	C:\Alcohol Data\VFL07302015\07302015.0007.BND	7/30/2015 4:45:55 PM

15-12-100 - p42

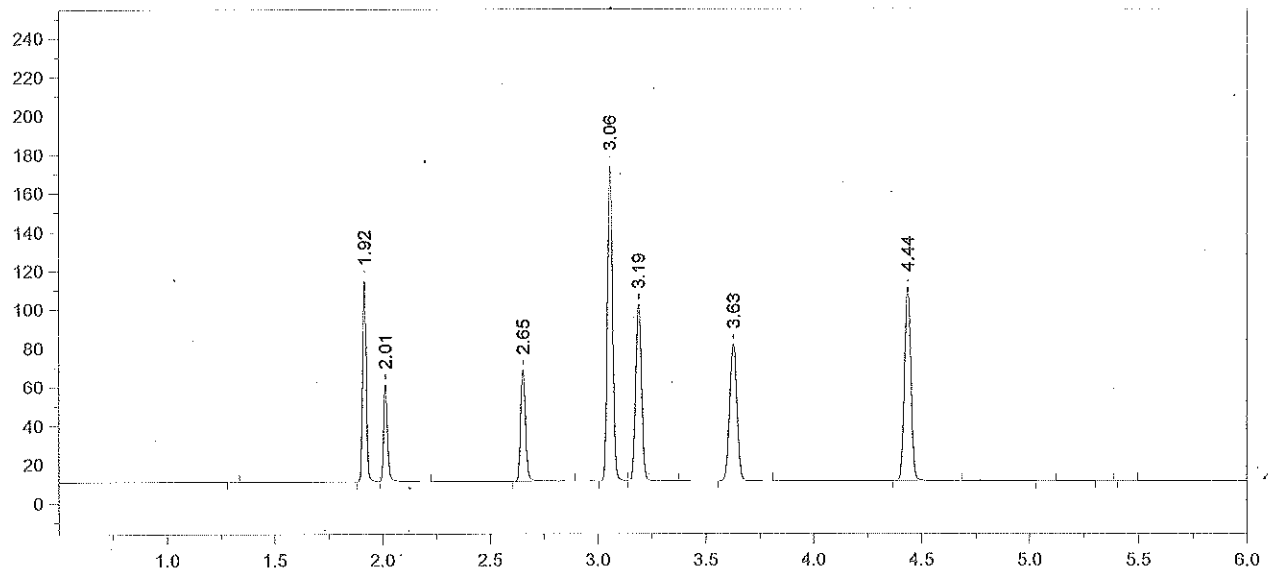


Format File Name = AlcoholVFL.FMT

Today's Date = 7/31/2015
Today's Time = 8:50:44 AM
Bound File Name = 07302015.0001.RAW
Sample Name = BLANK
Date Taken = 7/30/2015 3:12:59 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
4	3.63	t-Butanol	154798	0.9681
5	4.44	n-Propanol	211765	1.0000

15-12-120 p43

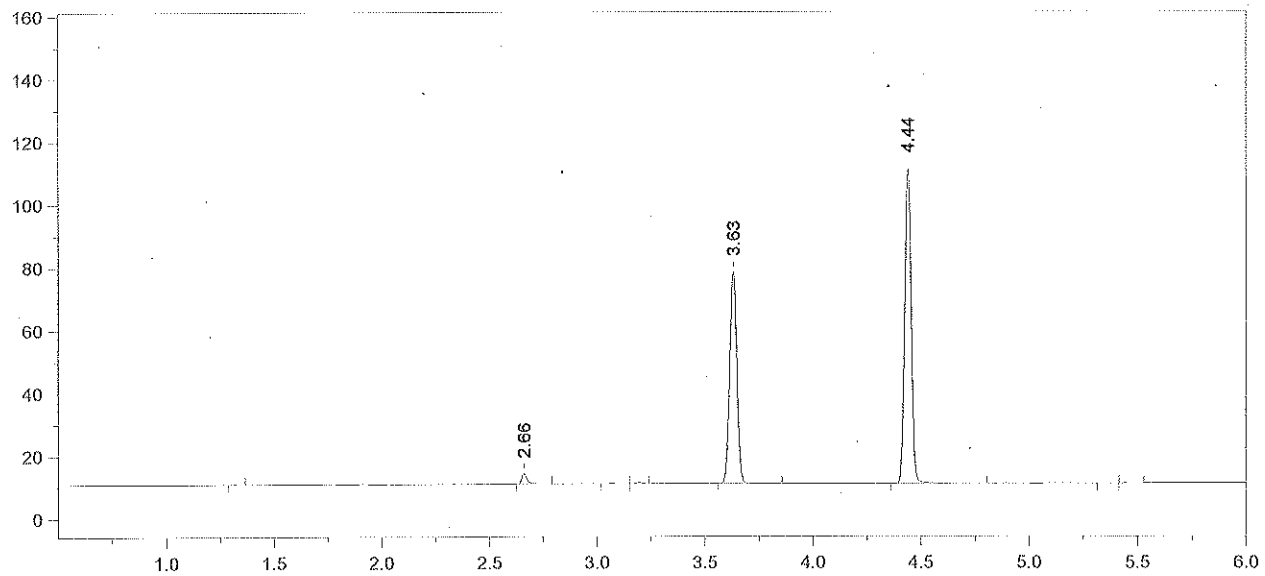


Format File Name = AlcoholVFL.FMT

Today's Date = 7/31/2015
Today's Time = 8:50:50 AM
Bound File Name = 07302015.0002.RAW
Sample Name = TMX
Date Taken = 7/30/2015 3:28:21 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	1.92	Acetaldehyde	121636	0.0695
4	2.01	Methanol	63060	0.1232
5	2.65	Ethanol	89321	0.0793
6	3.06	Acetone	278506	0.0657
7	3.19	Isopropanol	171195	0.0848
8	3.63	t-Butanol	163687	1.0236
9	4.44	n-Propanol	211789	1.0000

15-12-100 p 44

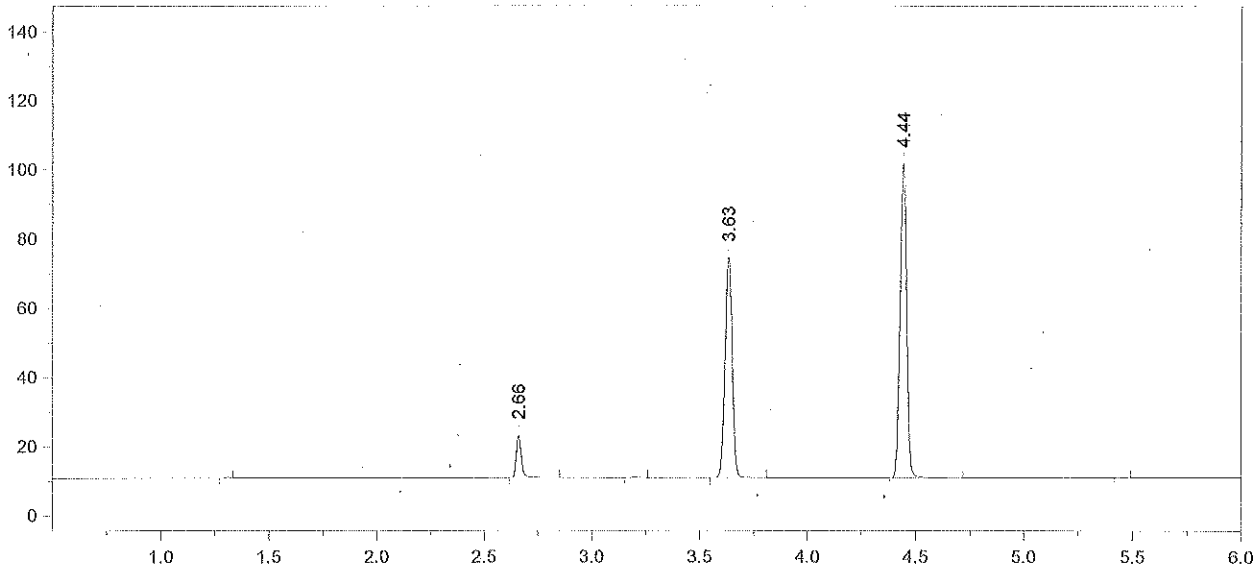


Format File Name = AlcoholVFL.FMT

Today's Date = 7/31/2015
Today's Time = 8:50:55 AM
Bound File Name = 07302015.0003.RAW
Sample Name = STD A
Date Taken = 7/30/2015 3:44:52 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	05559	0.0049
5	3.63	t-Butanol	156908	0.9715
6	4.44	n-Propanol	213903	1.0000

15-12-100 P45

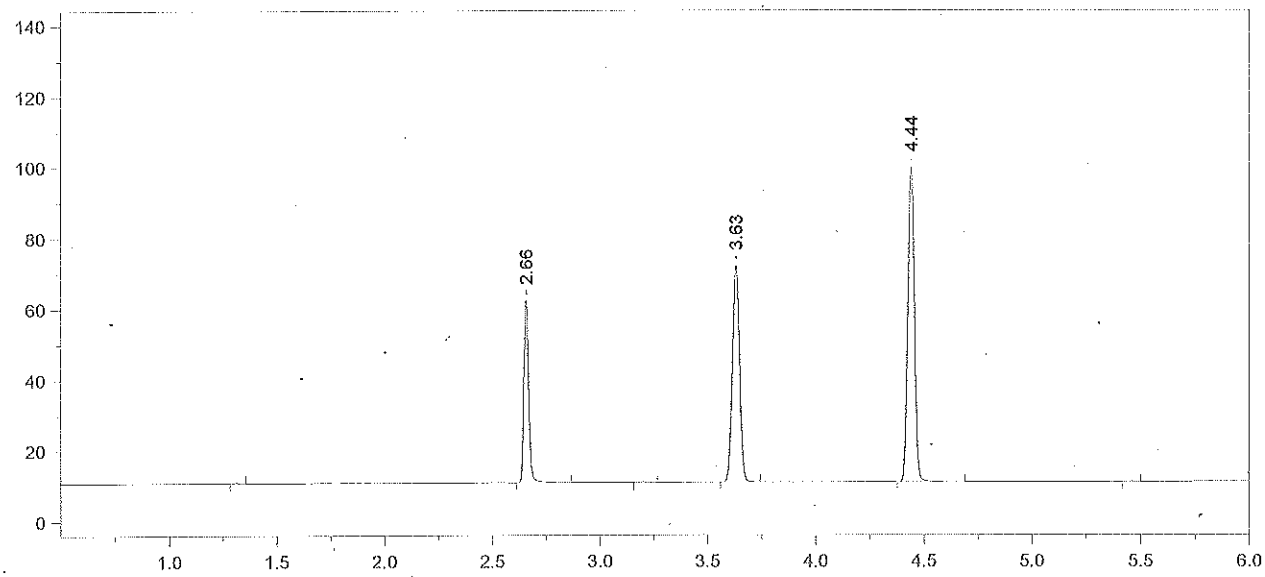


Format File Name = AlcoholVFL.FMT

Today's Date = 7/31/2015
Today's Time = 8:51:01 AM
Bound File Name = 07302015.0004.RAW
Sample Name = STD B
Date Taken = 7/30/2015 3:58:08 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	19911	0.0194
4	3.63	t-Butanol	147976	1.0173
5	4.44	n-Propanol	192641	1.0000

10-R-100 P46 DS

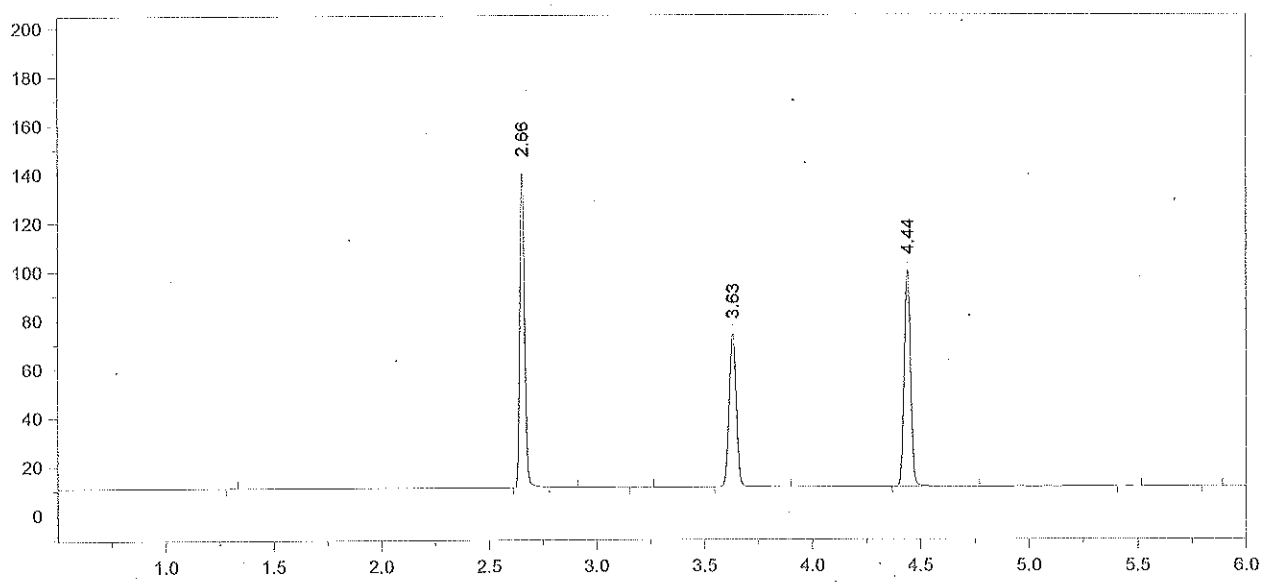


Format File Name = AlcoholVFL.FMT

Today's Date = 7/31/2015
Today's Time = 8:51:07 AM
Bound File Name = 07302015.0005.RAW
Sample Name = STD C
Date Taken = 7/30/2015 4:15:23 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	80249	0.0795
4	3.63	t-Butanol	141471	0.9877
5	4.44	n-Propanol	189692	1.0000

15-12-100 pH 8s

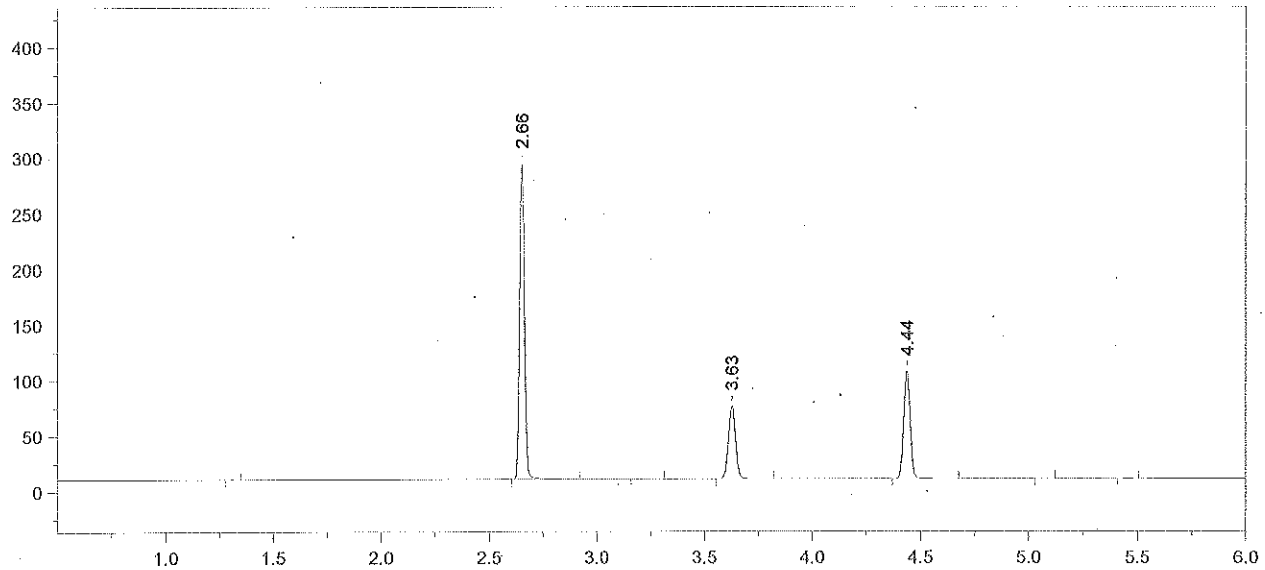


Format File Name = AlcoholVFL.FMT

Today's Date = 7/31/2015
Today's Time = 8:51:12 AM
Bound File Name = 07302015.0006.RAW
Sample Name = STD D
Date Taken = 7/30/2015 4:31:14 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.66	Ethanol	198311	0.1971
5	3.63	t-Butanol	145991	1.0227
6	4.44	n-Propanol	189047	1.0000

15-12-100 p48 Dg

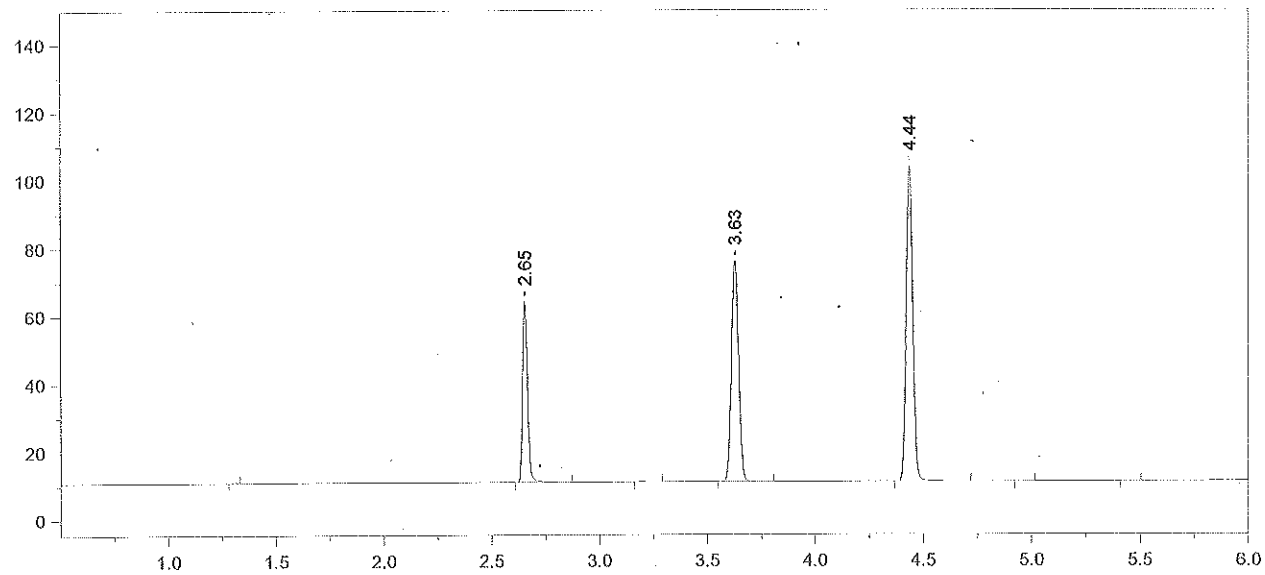


Format File Name = AlcoholVFL.FMT

Today's Date = 7/31/2015
Today's Time = 8:51:18 AM
Bound File Name = 07302015.0007.RAW
Sample Name = STD E
Date Taken = 7/30/2015 4:45:50 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	438666	0.4016
4	3.63	t-Butanol	151467	0.9772
5	4.44	n-Propanol	205268	1.0000

15-12/00 419 86

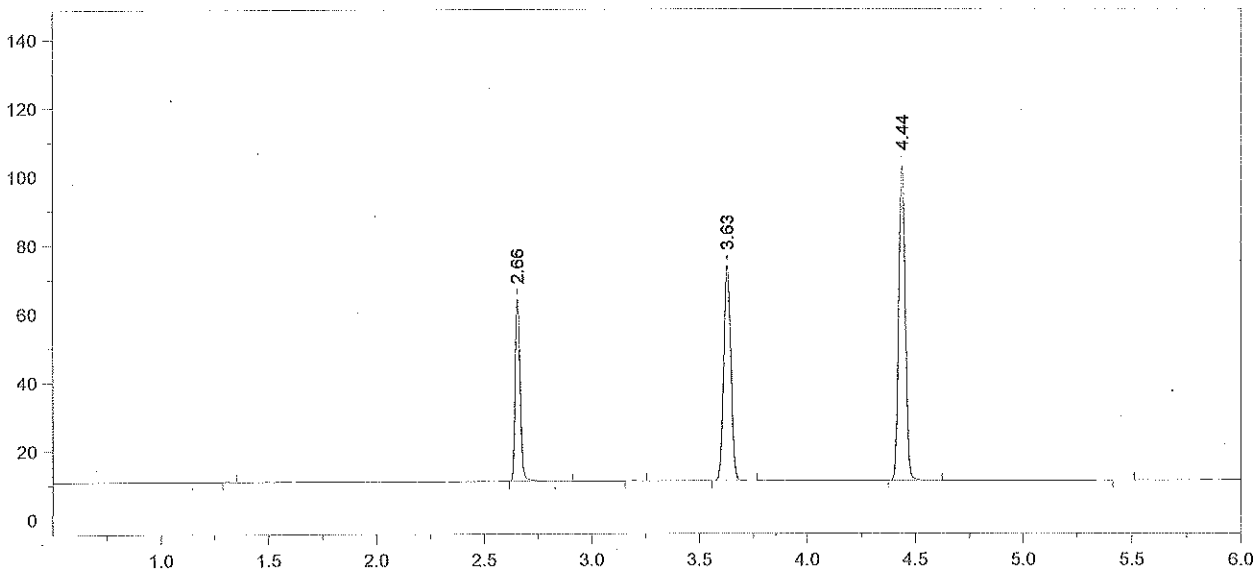


Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 5:01:06 PM
Bound File Name = 07302015.0008.RAW
Sample Name = AQ
Date Taken = 7/30/2015 5:00:58 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	83081	0.0791
4	3.63	t-Butanol	150557	1.0108
5	4.44	n-Propanol	197264	1.0000

15-12-100 p50



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 5:16:00 PM
Bound File Name = 07302015.0009.RAW
Sample Name = AQ
Date Taken = 7/30/2015 5:15:56 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	82997	0.0797
4	3.63	t-Butanol	145165	0.9820
5	4.44	n-Propanol	195780	1.0000

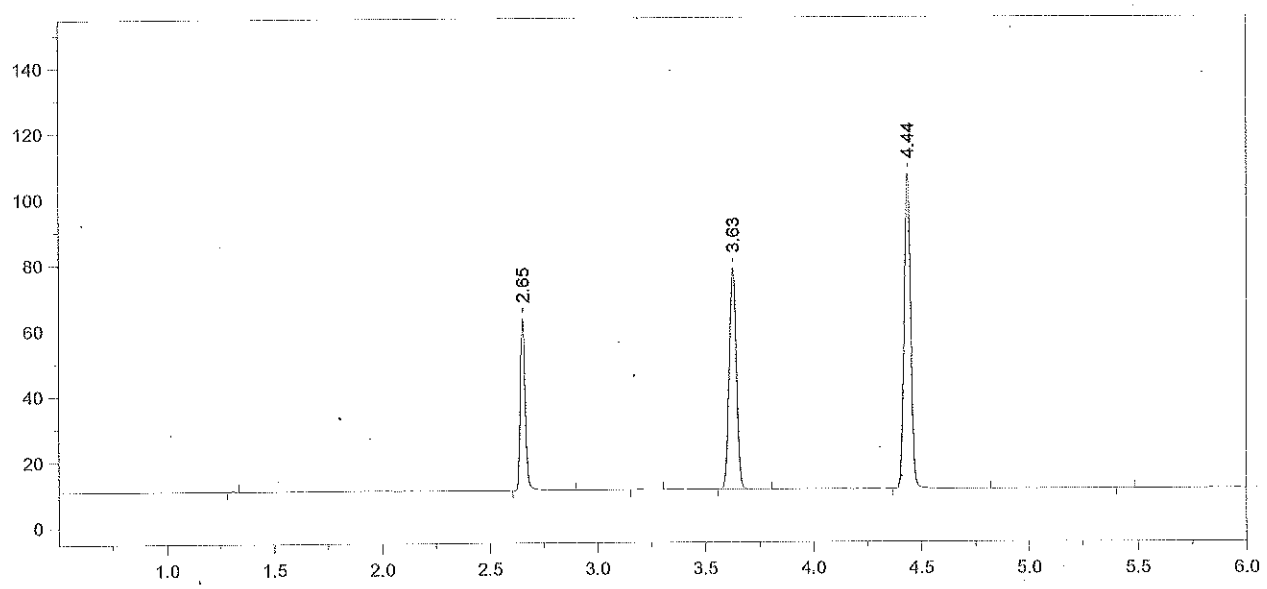
AQ MEAN: 0.0794 g/100 m EtOH

±5%: 0.0754 - 0.0834

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

7/30/15

15-12-100 P51

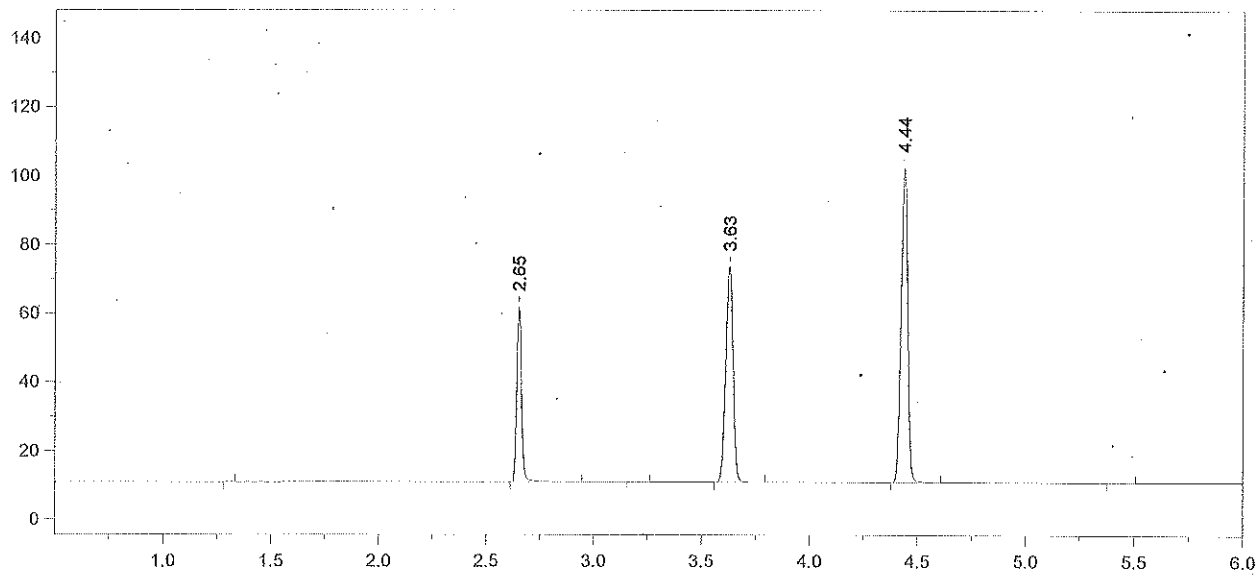


Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 5:30:57 PM
Bound File Name = 07302015.0010.RAW
Sample Name = CCS
Date Taken = 7/30/2015 5:30:49 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	81768	0.0753
4	3.63	t-Butanol	156450	1.0148
5	4.44	n-Propanol	204172	1.0000

15-12-100 p52



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 5:46:54 PM
Bound File Name = 07302015.0011.RAW
Sample Name = CCS
Date Taken = 7/30/2015 5:46:48 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	79764	0.0770
4	3.63	t-Butanol	145566	0.9902
5	4.44	n-Propanol	194682	1.0000

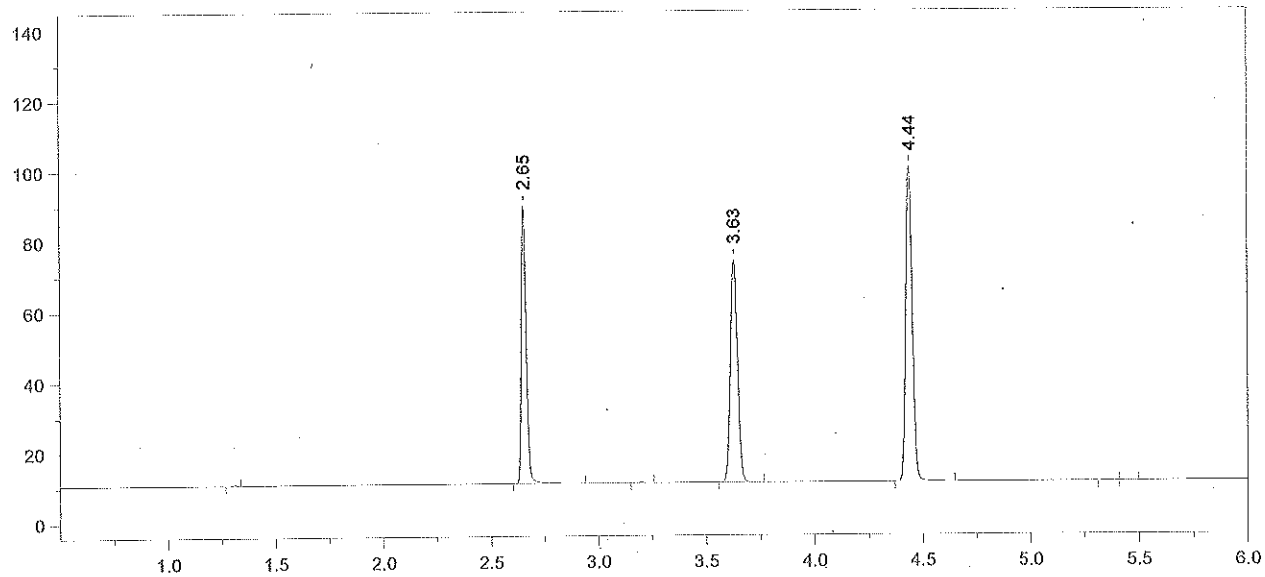
CCS NOW: 0.0761 g/100 mL EtOH

±5% : 0.0723 - 0.0799

Recovery: $\frac{0.076}{0.080}$ = 95.0%

DR 7/31/15

15-12-100 p53 DR

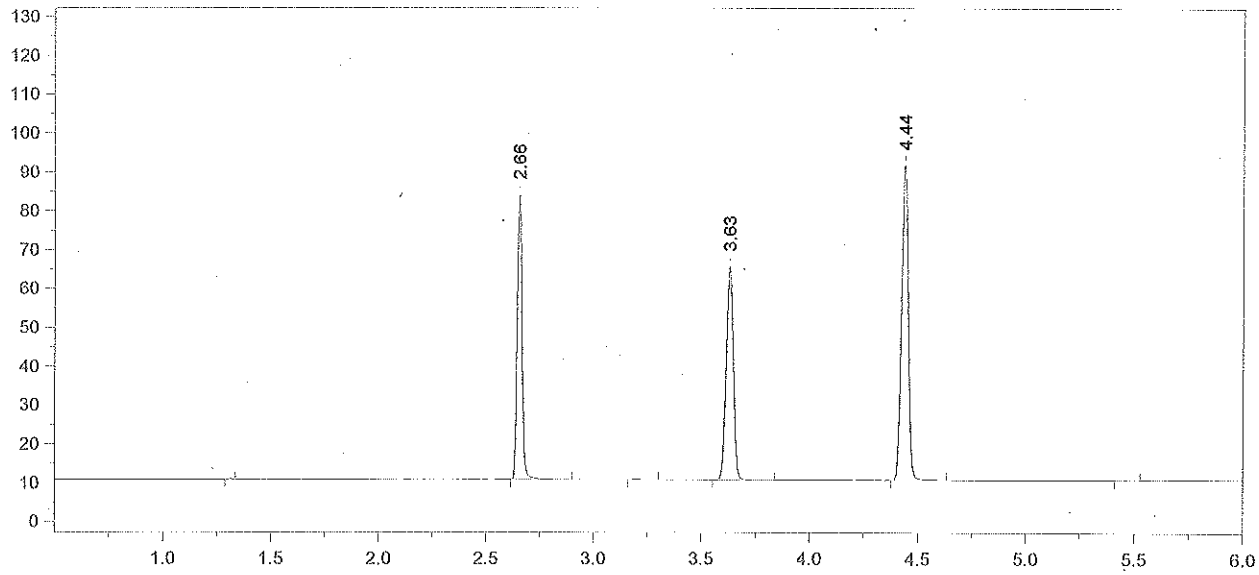


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 6:00:48 PM
Bound File Name = 07302015.0012.RAW
Sample Name = 0.100 DP
Date Taken = 7/30/2015 6:00:41 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	123019	0.1215	0.0991
4	3.63	t-Butanol	146411	1.0188	0.8316
5	4.44	n-Propanol	190313	1.0000	0.8162

15-12-100 054 86

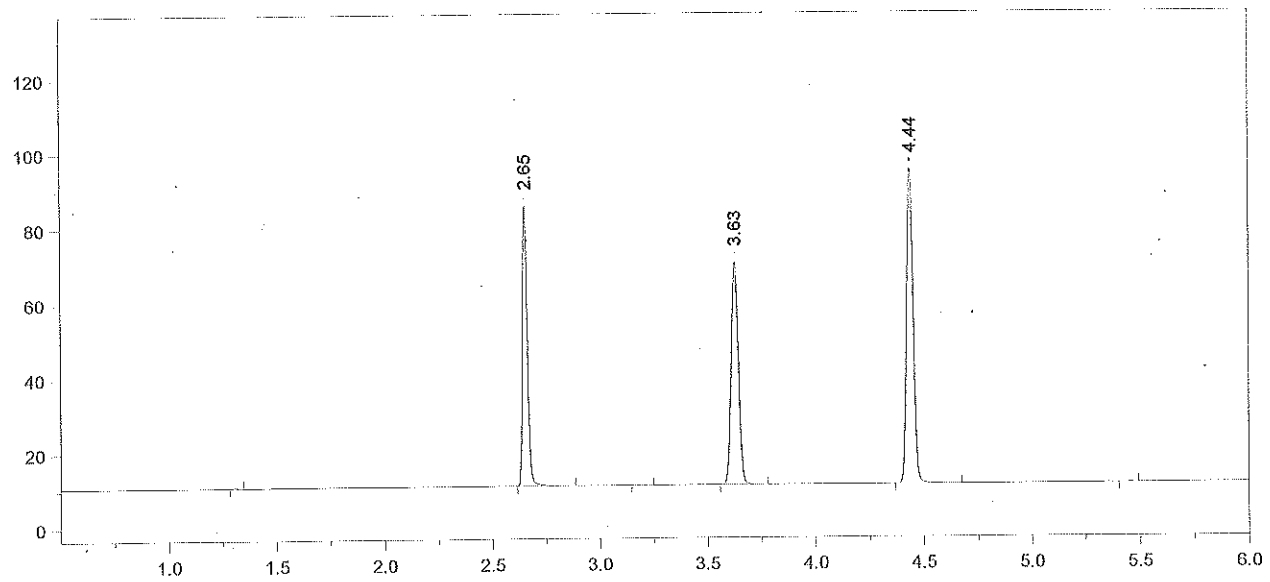


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 6:18:23 PM
Bound File Name = 07302015.0013.RAW
Sample Name = 0.100 DP
Date Taken = 7/30/2015 6:18:13 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	114462	0.1244	0.1016
4	3.63	t-Butanol	126965	0.9728	0.7940
5	4.44	n-Propanol	172854	1.0000	0.8162

15-12-100 p55

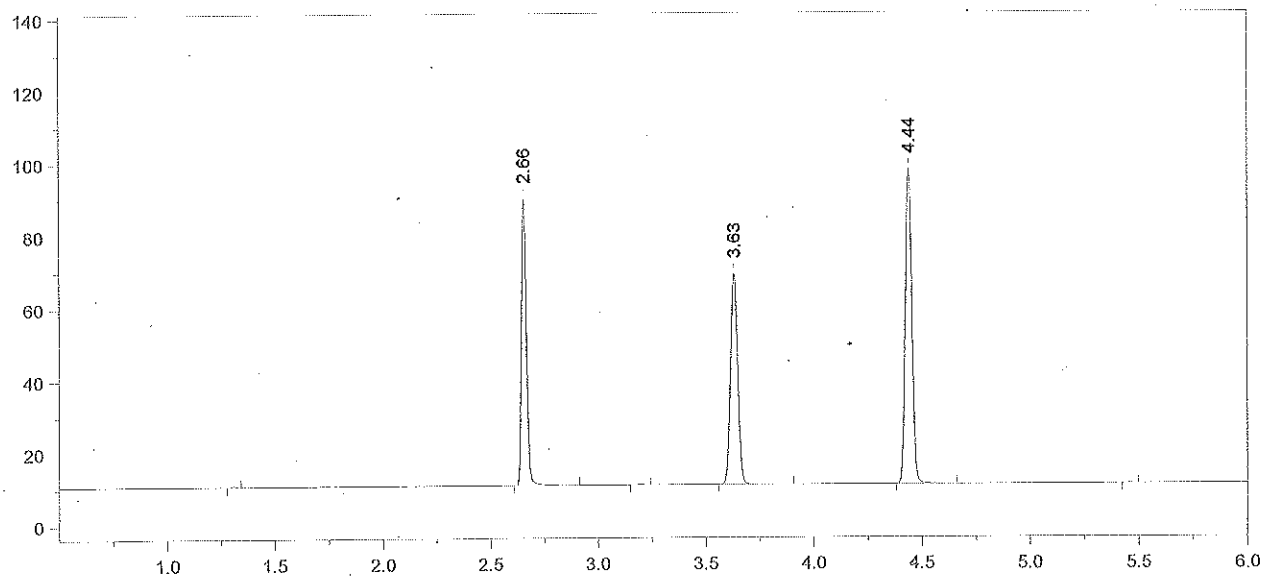


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 6:33:16 PM
Bound File Name = 07302015.0014.RAW
Sample Name = 0.100 DP
Date Taken = 7/30/2015 6:33:08 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	116376	0.1219	0.0995
4	3.63	t-Butanol	137684	1.0161	0.8293
5	4.44	n-Propanol	179459	1.0000	0.8162

15-12-100 0556 DC

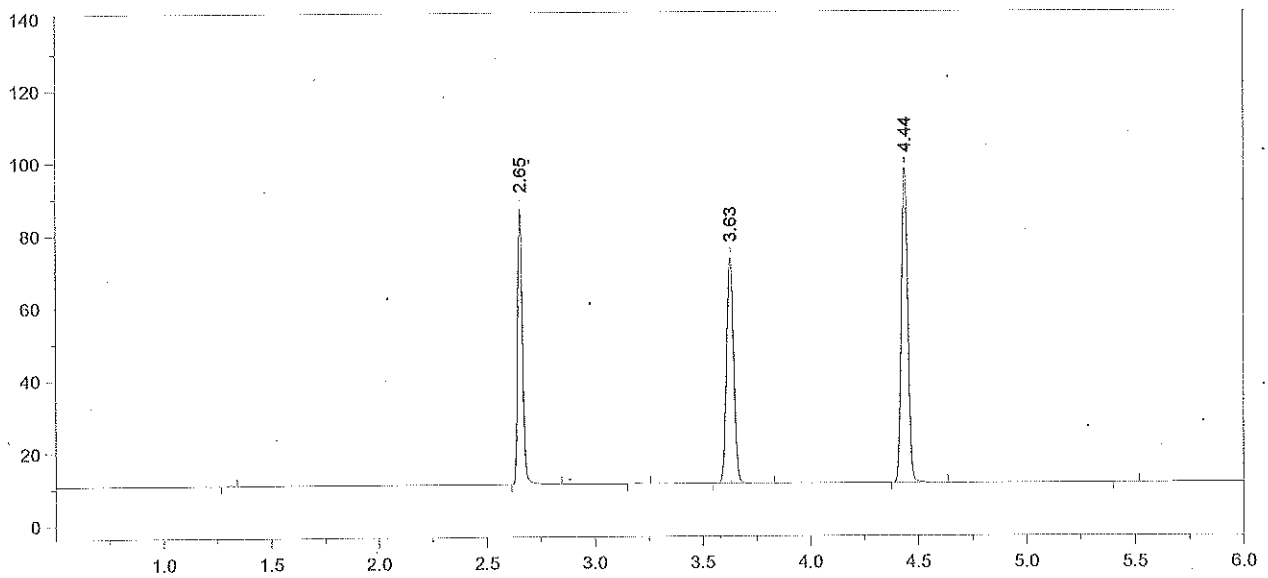


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 6:49:16 PM
Bound File Name = 07302015.0015.RAW
Sample Name = 0.100 DP
Date Taken = 7/30/2015 6:49:12 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	122086	0.1239	0.1011
4	3.63	t-Butanol	135384	0.9683	0.7903
5	4.44	n-Propanol	185162	1.0000	0.8162

15-12-100 057



Format File Name = simsolnVFL.met.FMT

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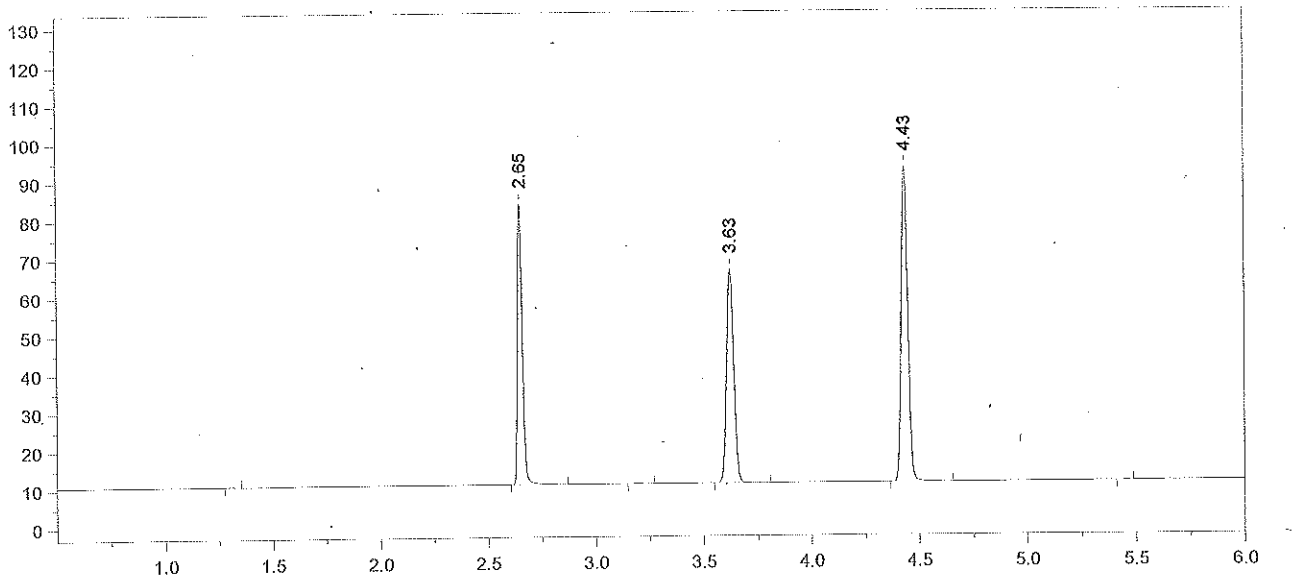
Today's Time = 7:04:39 PM
Bound File Name = 07302015.0016.RAW
Sample Name = 0.100 DP
Date Taken = 7/30/2015 7:04:32 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	117882	0.1197	0.0977
4	3.63	t-Butanol	144588	1.0350	0.8448
5	4.44	n-Propanol	185012	1.0000	0.8162

15-12-100 SP p.58

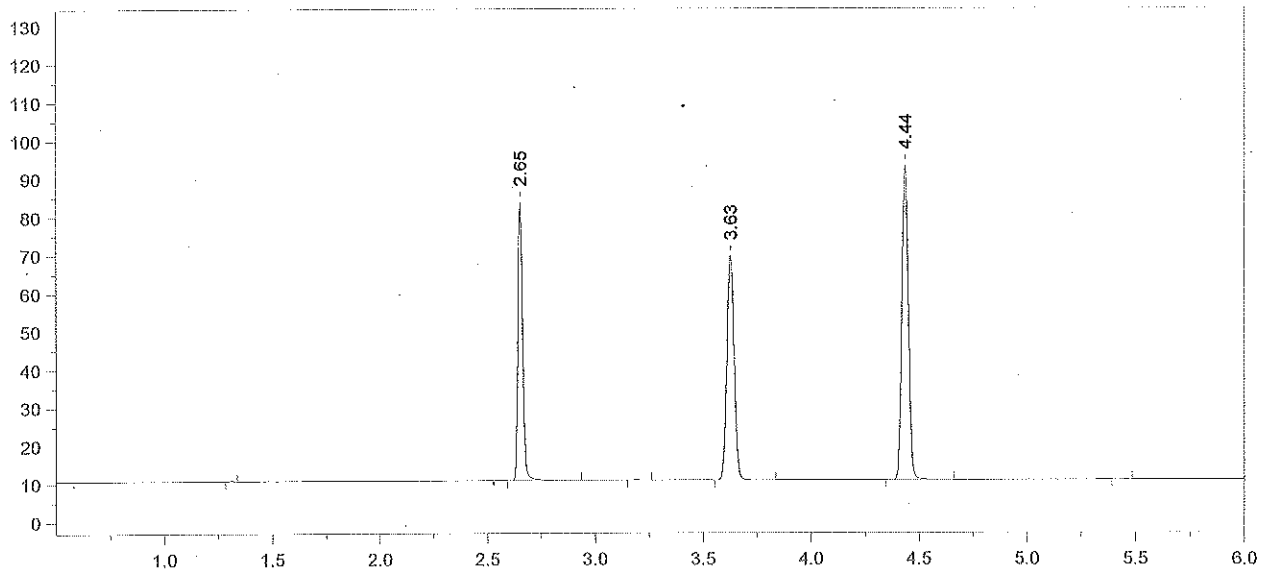


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 7:20:26 PM
Bound File Name = 07302015.0017.RAW
Sample Name = 0.100 DP
Date Taken = 7/30/2015 7:20:16 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	113735	0.1225	0.1000
4	3.63	t-Butanol	128737	0.9772	0.7976
5	4.43	n-Propanol	174474	1.0000	0.8162

15-12-100 pSq dr

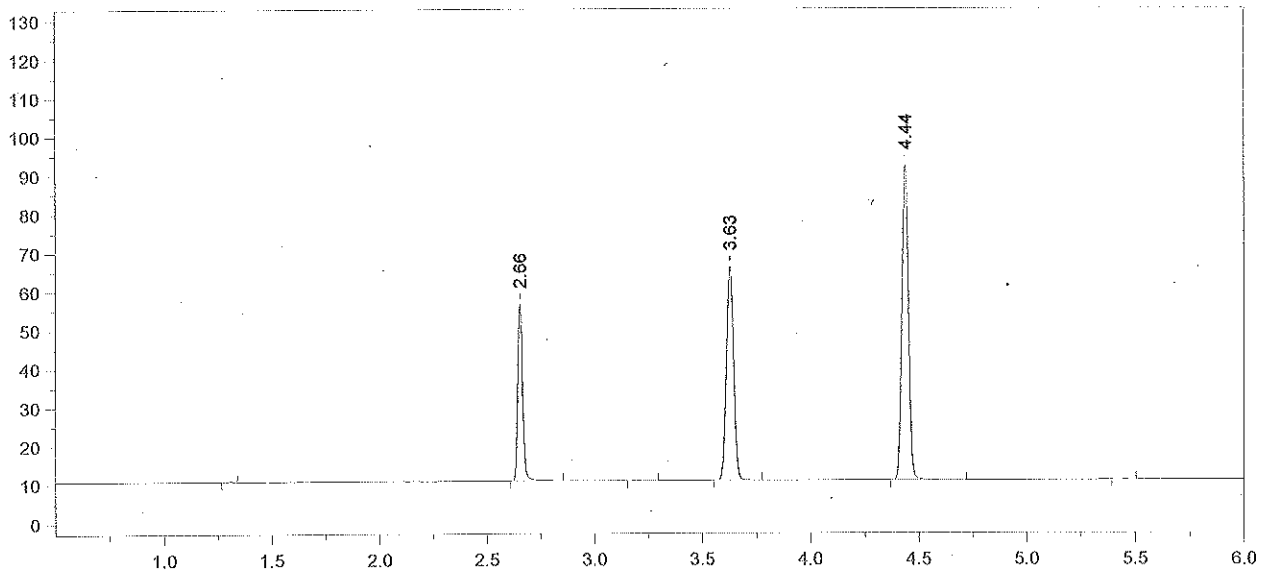


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 7:36:05 PM
Bound File Name = 07302015.0018.RAW
Sample Name = 0.100 DP
Date Taken = 7/30/2015 7:35:57 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	113435	0.1215	0.0992
4	3.63	t-Butanol	136303	1.0292	0.8400
5	4.44	n-Propanol	175398	1.0000	0.8162

15-12-100 CGD

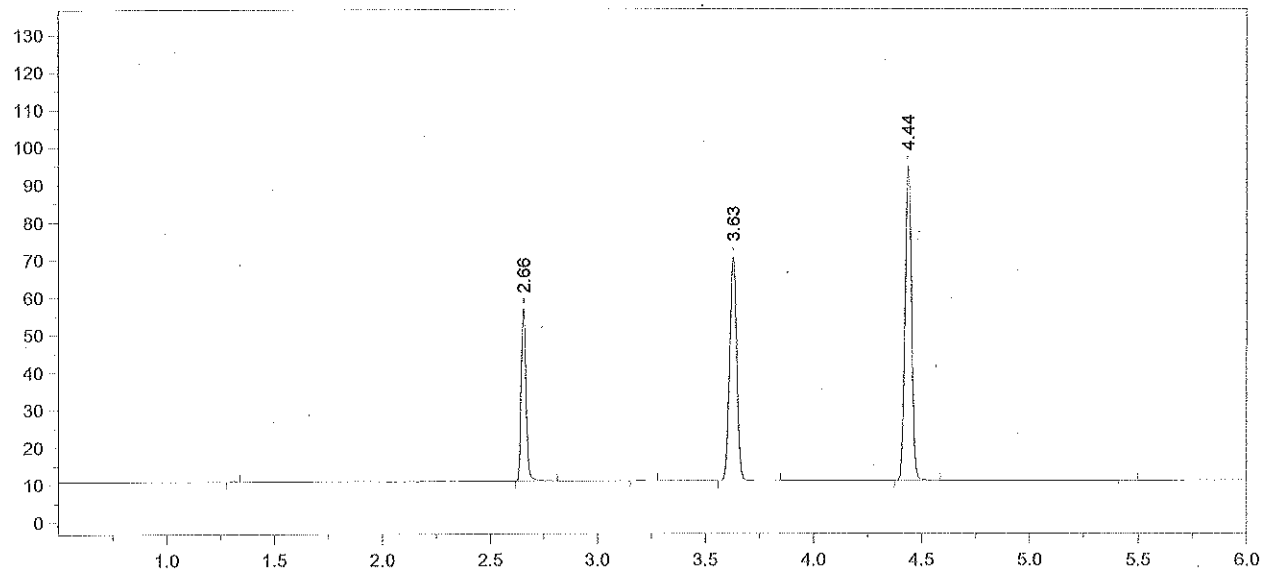


Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 7:51:47 PM
Bound File Name = 07302015.0019.RAW
Sample Name = CCS
Date Taken = 7/30/2015 7:51:40 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	71859	0.0778
4	3.63	t-Butanol	128389	0.9799
5	4.44	n-Propanol	173512	1.0000

15-12-100 PGI



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 8:07:26 PM
Bound File Name = 07302015.0020.RAW
Sample Name = CCS
Date Taken = 7/30/2015 8:07:21 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
3	2.66	Ethanol	71560	0.0755
5	3.63	t-Butanol	138491	1.0294
6	4.44	n-Propanol	178171	1.0000

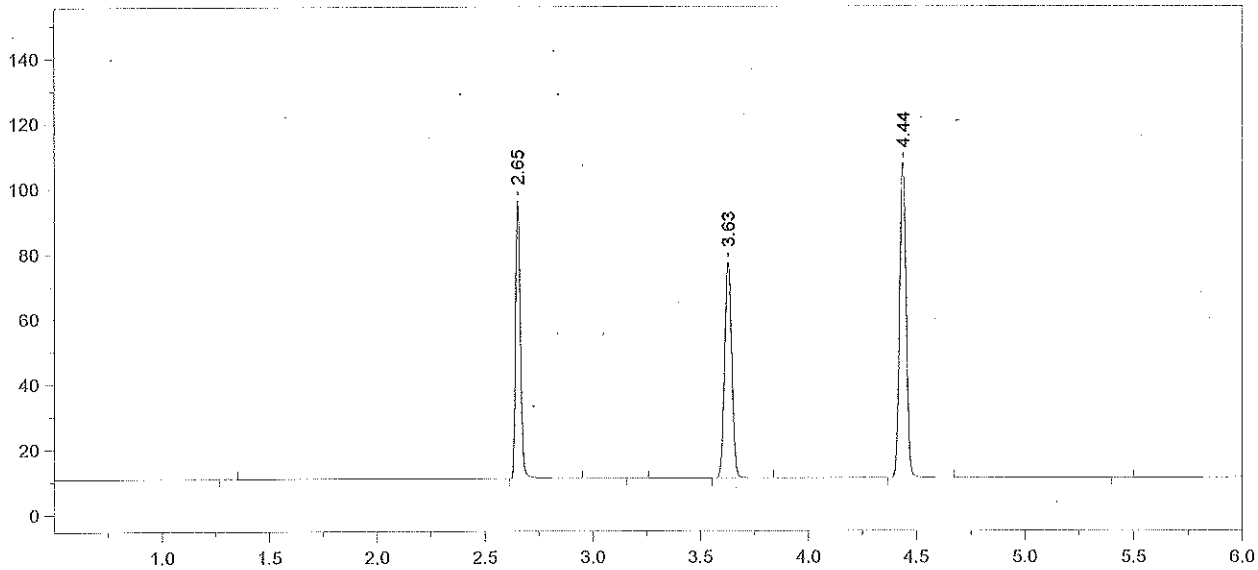
CCS Mean: 0.0766 g/100 mL EtOH

±5% : 0.0728 - 0.0804

Recovery: $\frac{0.076}{0.080}$ = 95.0%

DB 7/31/15

15-12-100 p62 DB

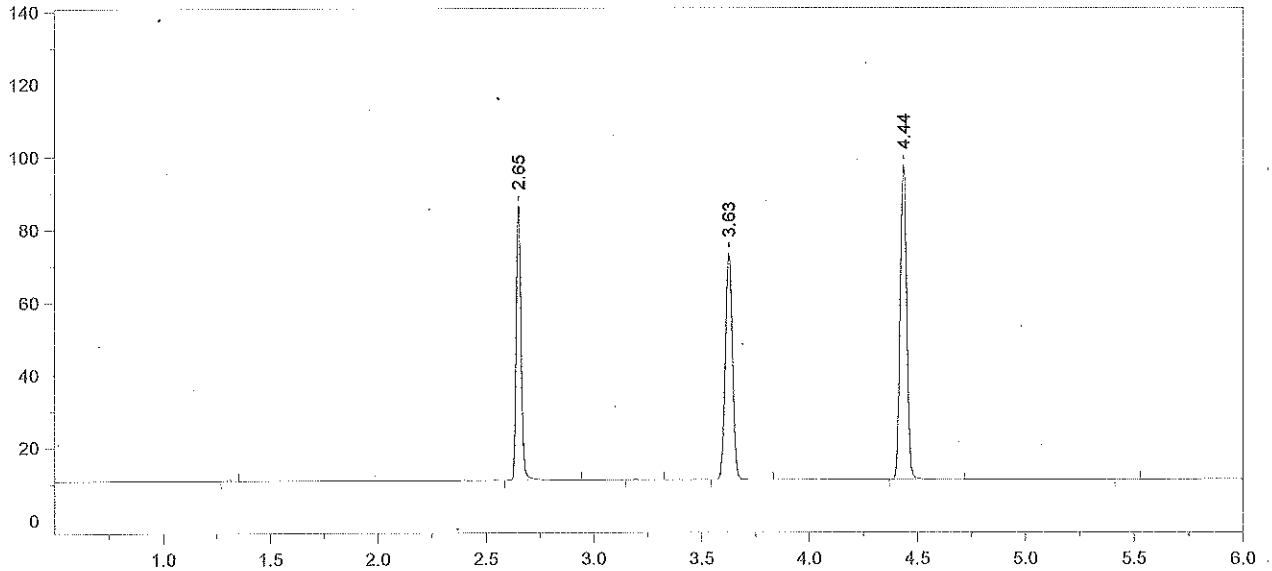


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 8:21:31 PM
Bound File Name = 07302015.0021.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 8:21:27 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	131994	0.1203	0.0982
4	3.63	t-Butanol	153576	0.9863	0.8050
5	4.44	n-Propanol	206217	1.0000	0.8162

15-12-100 #63 Dg

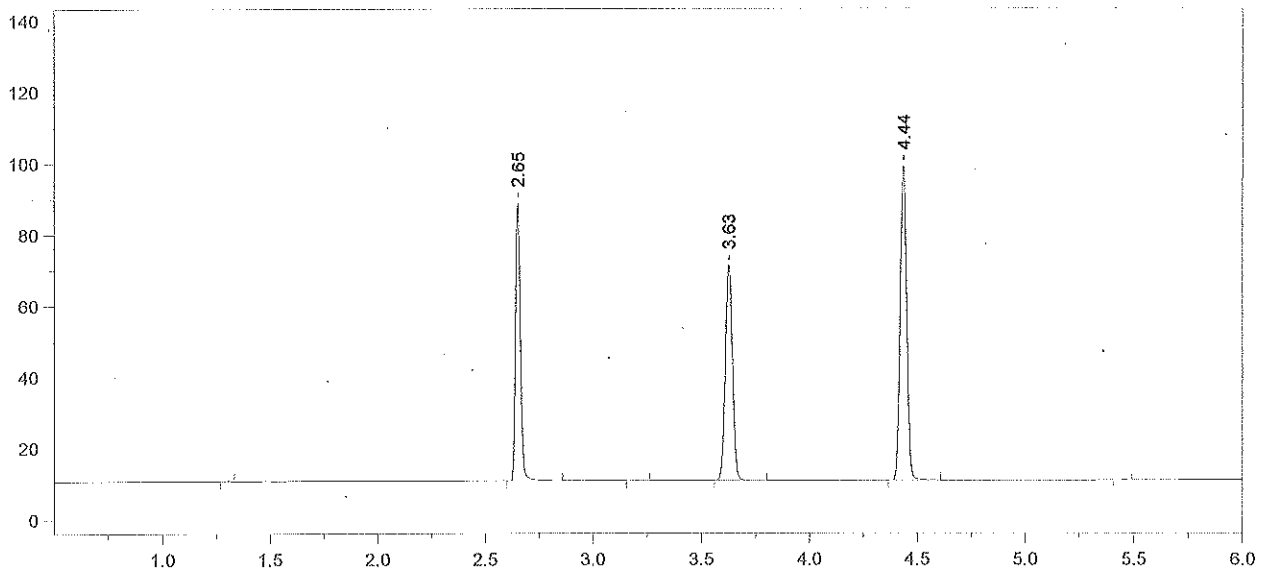


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 8:38:53 PM
Bound File Name = 07302015.0022.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 8:38:46 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	117590	0.1198	0.0978
4	3.63	t-Butanol	144659	1.0389	0.8480
5	4.44	n-Propanol	184406	1.0000	0.8162

15-12-100 p64

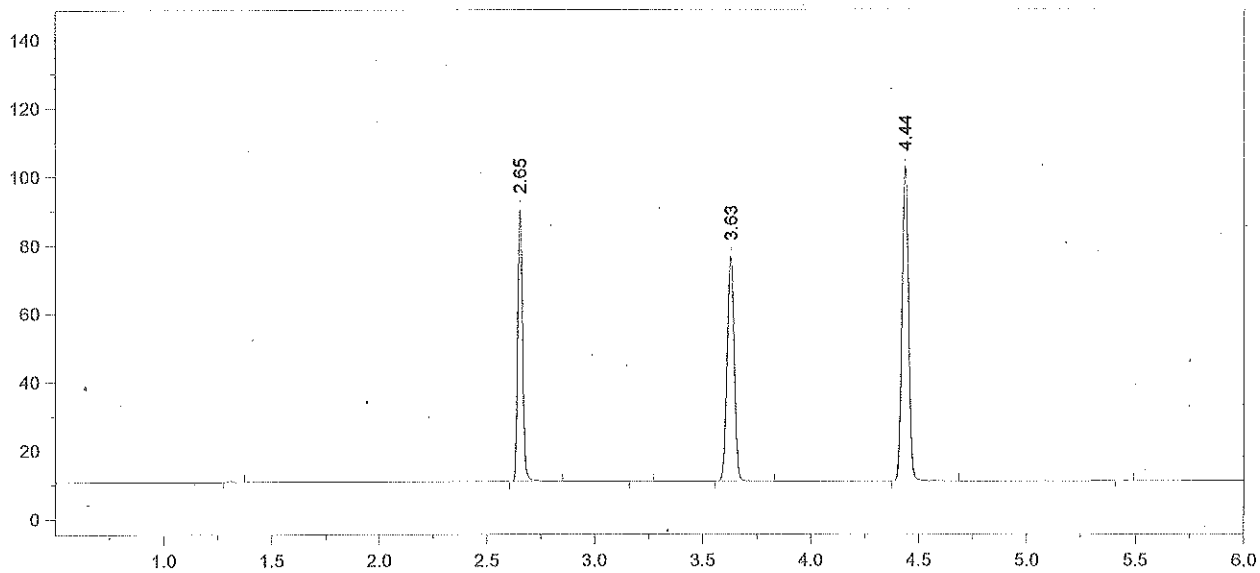


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 8:52:54 PM
Bound File Name = 07302015.0023.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 8:52:49 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	120357	0.1207	0.0985
4	3.63	t-Butanol	140369	0.9922	0.8099
5	4.44	n-Propanol	187355	1.0000	0.8162

15-12-100 p65 [illegible]

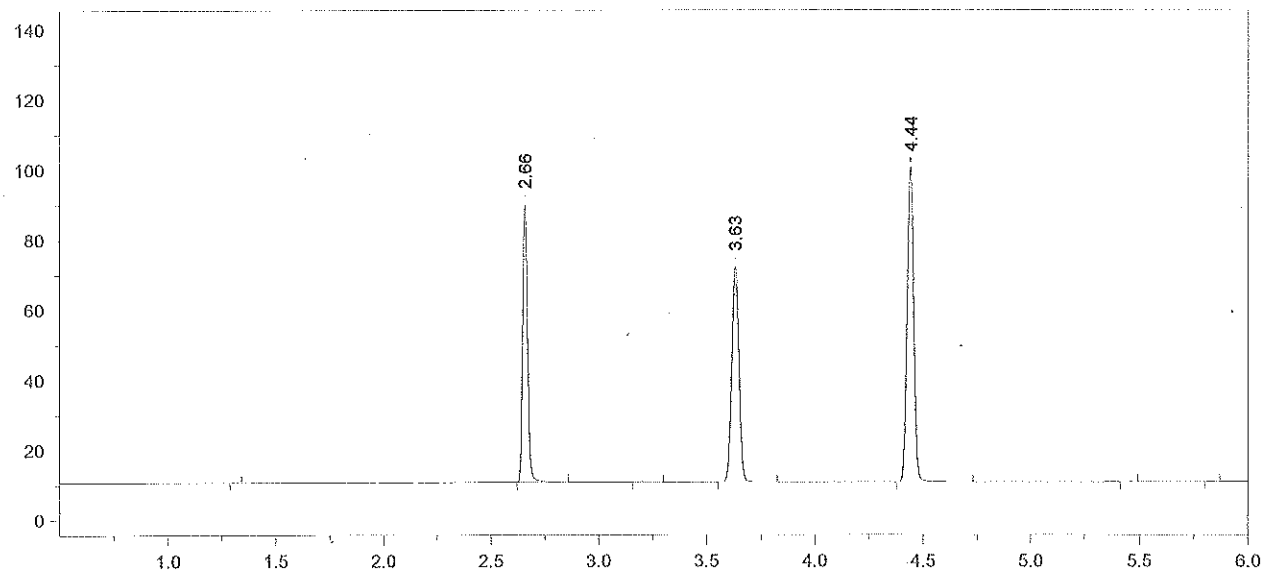


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 9:08:35 PM
Bound File Name = 07302015.0024.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 9:08:29 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	122652	0.1181	0.0964
4	3.63	t-Butanol	152389	1.0341	0.8440
5	4.44	n-Propanol	195158	1.0000	0.8162

15-12-100 066 8x

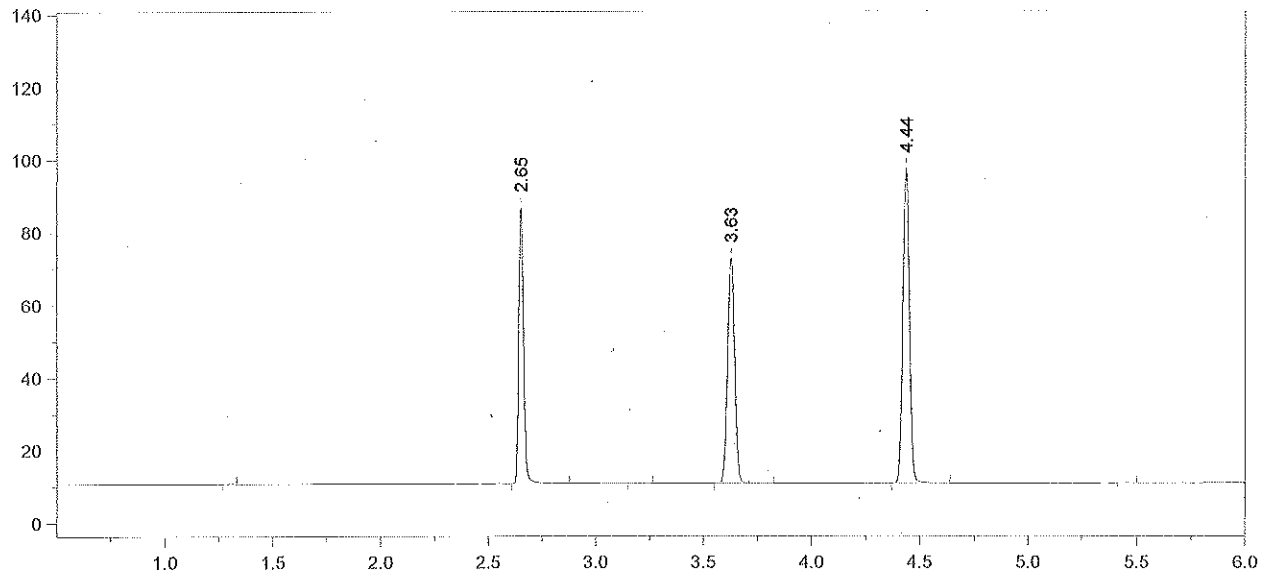


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 9:24:08 PM
Bound File Name = 07302015.0025.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 9:24:03 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.66	Ethanol	122677	0.1201	0.0980
4	3.63	t-Butanol	142425	0.9829	0.8022
5	4.44	n-Propanol	191905	1.0000	0.8162

15-12-100 p67 Ds

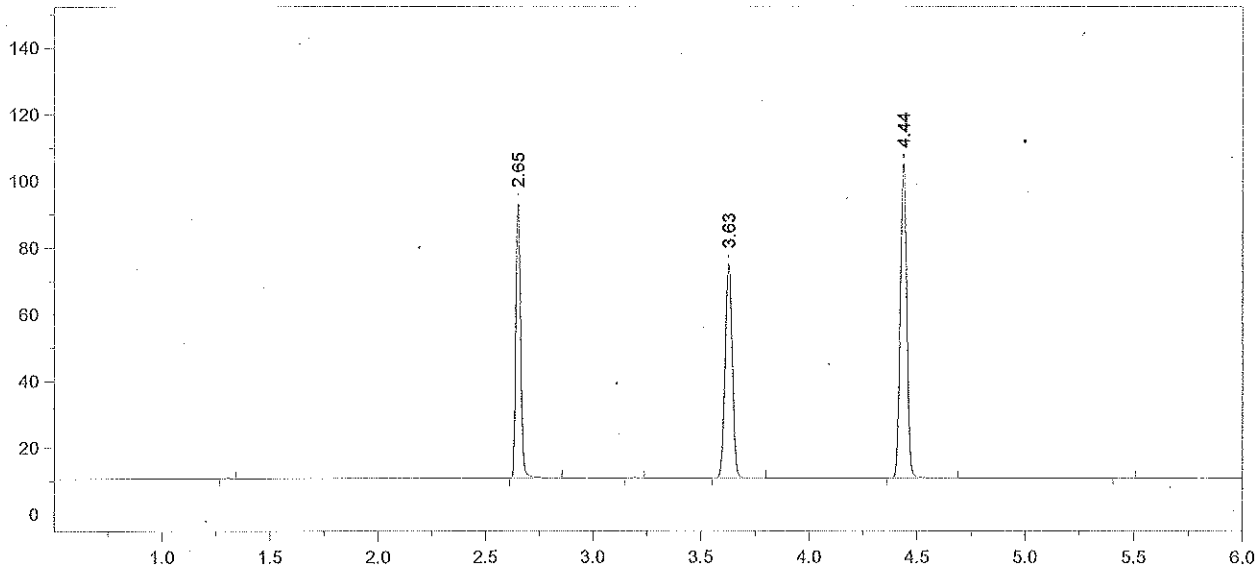


Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Today's Time = 9:40:08 PM
Bound File Name = 07302015.0026.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 9:40:01 PM
VDH Headspace Alcohol
Method file = simsoln.met
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	117076	0.1196	0.0976
4	3.63	t-Butanol	143954	1.0368	0.8462
5	4.44	n-Propanol	183888	1.0000	0.8162

15-12-100 P68



Format File Name = simsolnVFL.met.FMT

Today's Date = 7/30/2015
Bound File Name = 07302015.0027.RAW
Sample Name = 0.100 AB
Date Taken = 7/30/2015 9:53:47 PM
Method file = simsoln.met
Calibration file = VFL07302015.CAL

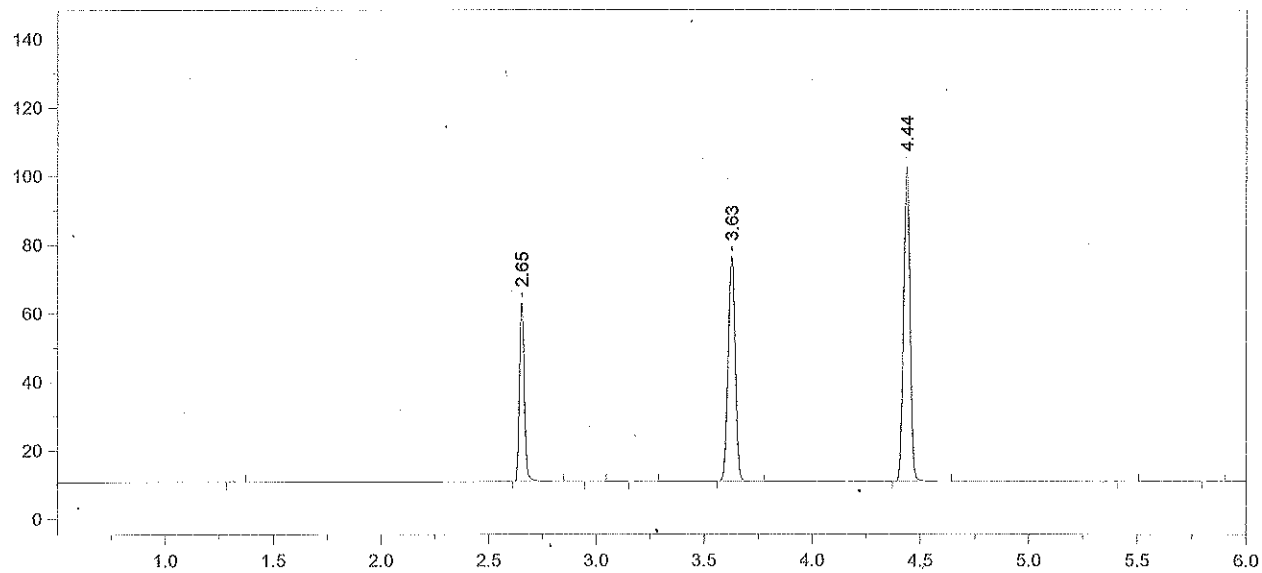
Today's Time = 9:53:53 PM

VDH Headspace Alcohol

Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL	Headspace Conversion
2	2.65	Ethanol	127628	0.1197	0.0977
4	3.63	t-Butanol	149128	0.9858	0.8046
5	4.44	n-Propanol	200350	1.0000	0.8162

15-12-100 . P69 Sr

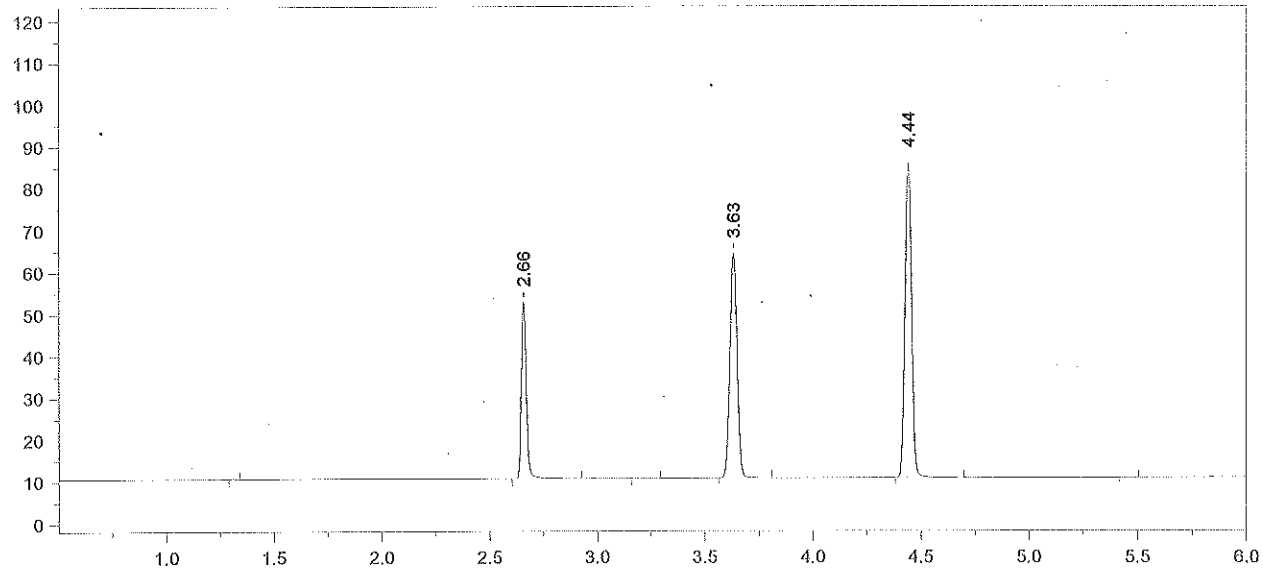


Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 10:11:30 PM
Bound File Name = 07302015.0028.RAW
Sample Name = CCS
Date Taken = 7/30/2015 10:11:26 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.65	Ethanol	81196	0.0784
5	3.63	t-Butanol	152083	1.0354
6	4.44	n-Propanol	194526	1.0000

15-12-100 170 [illegible]



Format File Name = AlcoholVFL.FMT

Today's Date = 7/30/2015
Today's Time = 10:24:49 PM
Bound File Name = 07302015.0029.RAW
Sample Name = CCS
Date Taken = 7/30/2015 10:24:41 PM
VFL Headspace Alcohol
Method file = Blood Alc temp VFL.MET
Calibration file = VFL07302015.CAL
Calibration Version = 7

Peak Number	Ret Time (min)	Peak Name	Area	Amount % WT/VOL
2	2.66	Ethanol	66535	0.0779
4	3.63	t-Butanol	123731	1.0205
5	4.44	n-Propanol	160566	1.0000

CCS Mean: 0.0781 g/100mL ethanol

±5%: 0.0742 - 0.0820

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

7/31/15