VERMONT FORENSIC LABORATORY

BLOOD ALCOHOL DATA REVIEW CHECKLIST

3/22/16
~~AGENCY CASE#~~: Lot # FN07201502 ANALYST: [signature]
~~LAB #~~: _____

TECHNICAL REVIEWER: [signature] DATE: 3/23/16

- [x] Relevant lot numbers listed?
- [x] Batch run within 7 days of valid calibration?
- [x] Calibration line correlation factors (R^2) at least 0.99?
- [x] Calibration data has been reprocessed against complete calibration curve?
- [x] Data processed against correct calibration curves?
- [x] Blank sample chromatograms include only surrogate and internal standard peaks?
- [x] Timing mix chromatogram demonstrates appropriate identification of components and separation from ethanol?
- [x] Aqueous QC, whole blood QC, 0.050% and 0.200% CCS samples present and logged in control charts?
- [x] No more than 10 samples bracketed between alternating CCS?
- [x] Surrogate compound concentrations between 0.900 to 1.100 g/100 ml?
- [x] Internal standard peak areas within ±20% of calibration batch average IS peak area?
- [x] Reported results are means of two or more replicates with two channel values each?
  1. In the event of QNS for 2 (two) replicates 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.
- [x] %CV for all replicate values less than 5%?
- [x] All replicates for each sample within ±5% from the calculated mean?
- [x] Calibration and control results within ± 10% of the known values?
- [x] Data transcribed correctly and calculations verified?

Comments:

ADMINISTRATIVE REVIEWER: [signature] DATE: 3/24/2016

- [NA] Agency Case # and Lab # and Evidence description match submission form?
- [NA] Submitting agency, investigator, suspect, victim, DOB, 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?
- [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: 3/24/2016

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

Check Mark or X = pass, NA= Not Applicable

Result Report

Laboratory Case Number: V

Item Number: FN07201502

	Channel A	Channel B
Replicate 1	**0.1999**	**0.2010**
Replicate 2	**0.2118**	**0.2132**

Additional replicates:	**No**

Mean	**0.2065**
-5%	**0.1962**
+5%	**0.2168**
%CV	**3.39%**

Expanded Uncertainty	**9.1%**
Uncertainty Interval	**0.019**

Blood Analysis Result (99.7% Confidence Interval)

0.206 ± 0.019 g/100 ml ethanol

Analyst: AB

Date: 3/22/16

TV = ~~0.0~~ 0.200 AB 3/22/16

recovery = $\frac{0.206}{0.200}$ = 103% AB 3/22/16

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Study Name : 03172016 **Instrument Name** : Clarus 580 GC

Data Acquisition : Mar 17, 2016 at 08:24:58 AM **Report Date** : Mar 17, 2016 at 09:52:31 AM

Column A Reprocessed 9:51 3/17/16

Cycle	Sample	Instrument Method	Processing Method	Result File
1	BLANK	alc gc method.mth	alc a cal 03172016.mth	03172016A001-20160317-095151.rst
2	STD A	alc gc method.mth	alc a cal 03172016.mth	03172016A002-20160317-095151.rst
3	STD B	alc gc method.mth	alc a cal 03172016.mth	03172016A003-20160317-095151.rst
4	STD C	alc gc method.mth	alc a cal 03172016.mth	03172016A004-20160317-095151.rst
5	STD D	alc gc method.mth	alc a cal 03172016.mth	03172016A005-20160317-095151.rst
6	STD E	alc gc method.mth	alc a cal 03172016.mth	03172016A006-20160317-095151.rst
7	STD F	alc gc method.mth	alc a cal 03172016.mth	03172016A007-20160317-095151.rst
8	BLANK	alc gc method.mth	alc a cal 03172016.mth	03172016A008-20160317-095151.rst

Column B

Cycle	Sample	Instrument Method	Processing Method	Result File
1	BLANK	alc gc method.mth	alc b cal 03172016.mth	03172016B001-20160317-095151.rst
2	STD A	alc gc method.mth	alc b cal 03172016.mth	03172016B002-20160317-095151.rst
3	STD B	alc gc method.mth	alc b cal 03172016.mth	03172016B003-20160317-095151.rst
4	STD C	alc gc method.mth	alc b cal 03172016.mth	03172016B004-20160317-095151.rst
5	STD D	alc gc method.mth	alc b cal 03172016.mth	03172016B005-20160317-095151.rst
6	STD E	alc gc method.mth	alc b cal 03172016.mth	03172016B006-20160317-095151.rst
7	STD F	alc gc method.mth	alc b cal 03172016.mth	03172016B007-20160317-095151.rst
8	BLANK	alc gc method.mth	alc b cal 03172016.mth	03172016B008-20160317-095151.rst

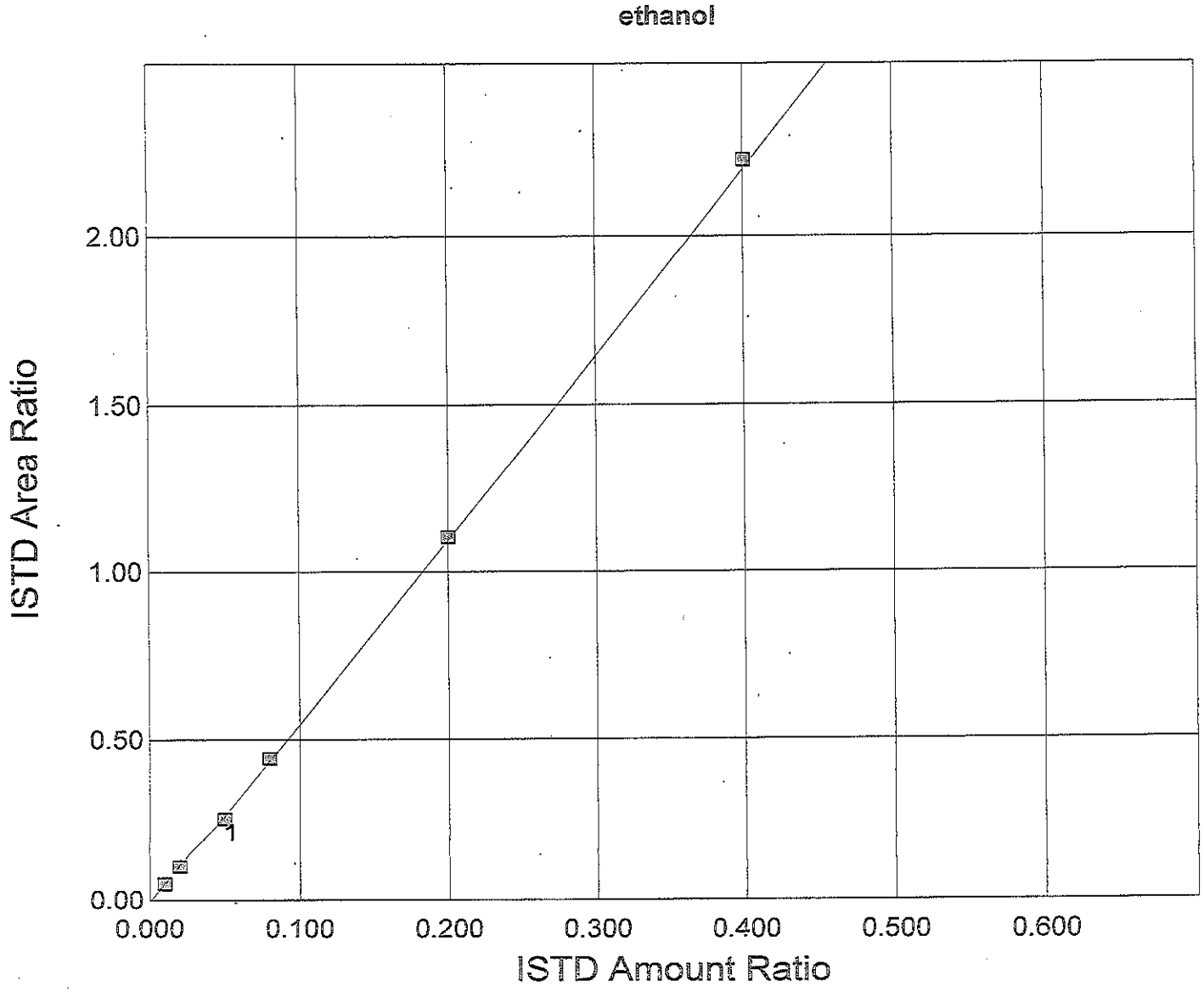
Fit Analysis Output For Method File: C:\TC Data\Data\03172016\ALC A cal 03172016.mth
Reprocess Number : forensic-pc: 4618
Component Name : ethanol
Date : 3/17/2016 9:47:32 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1/(x*x) R-Squared = 0.999303
Calibration Curve : Y = (-0.004710) +(5.493895) X

Curve #1 :

Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.010000	0.010123	-1.230e-04	-1.215	0.050905	0.050	0.001	1.345
2	0.020000	0.019661	0.000339	1.726	0.103304	0.105	-0.002	-1.773
3	0.050000	0.048250	0.001750	3.627	0.260369	0.270	-0.010	-3.562
4	0.080000	0.081593	-0.001593	-1.952	0.443551	0.435	0.009	2.012
5	0.200000	0.201617	-0.001617	-0.802	1.102953	1.094	0.009	0.812
6	0.400000	0.404672	-0.004672	-1.155	2.218515	2.193	0.026	1.170



FN07201502 3

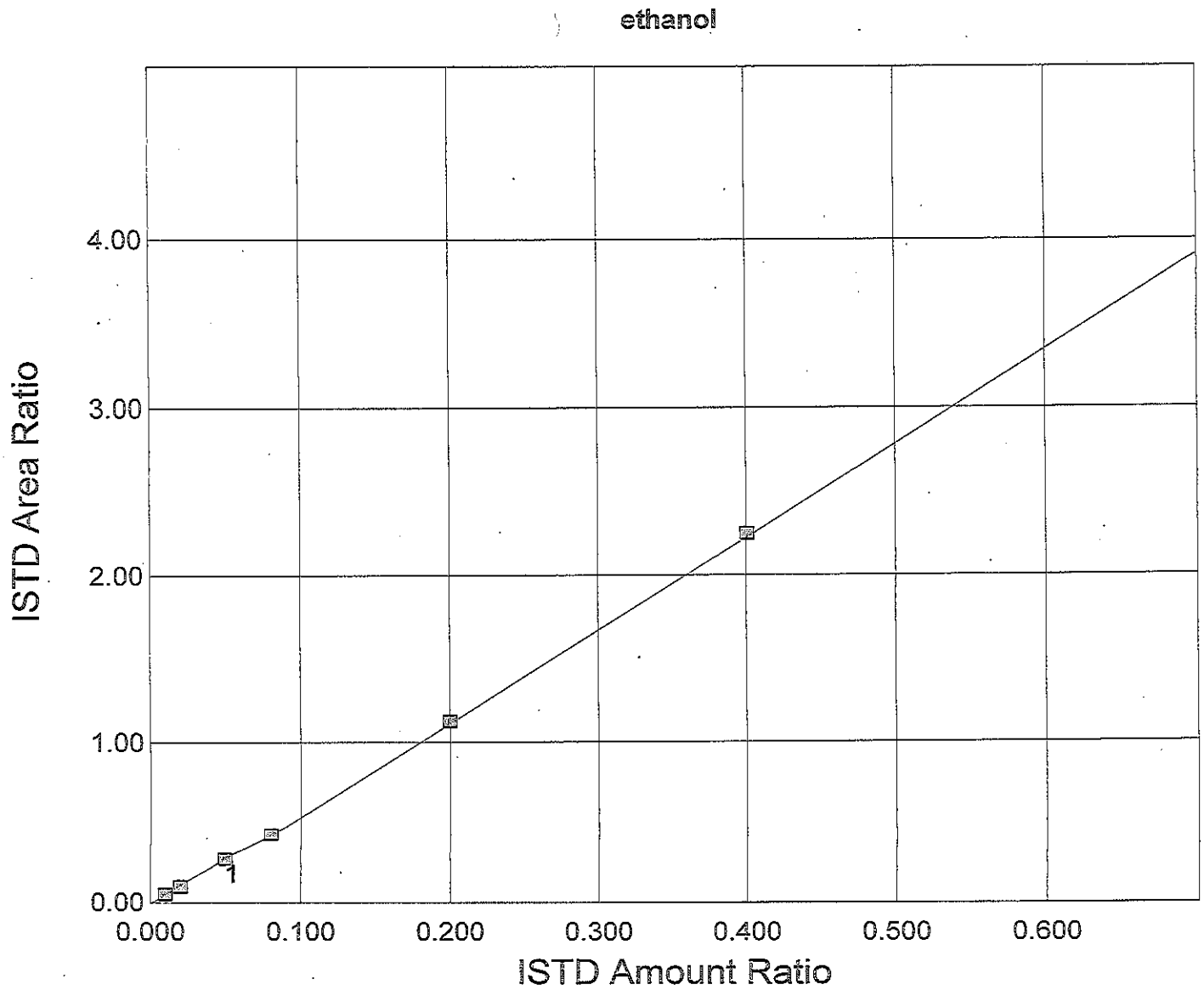
Fit Analysis Output For Method File: C:\TC Data\Data\03172016\ALC B cal 03172016.mth
Reprocess Number : forensic-pc: 4618
Component Name : ethanol
Date : 3/17/2016 9:47:45 AM

Curve Parameters:

Curve #1 : 1st Order
Weighting Factor = 1/(x*x) R-Squared = 0.998132
Calibration Curve : Y = (-0.005576) +(5.583646) X

Curve #1 :

Level Name	Observed X-Value	Calculated X-Value	Delta	%Diff.	Observed Y-Value	Calculated Y-Value	Delta	%Diff.
1	0.010000	0.010315	-3.149e-04	-3.053	0.052019	0.050	0.002	3.499
2	0.020000	0.018652	0.001348	7.229	0.098568	0.106	-0.008	-7.096
3	0.050000	0.049844	0.000156	0.313	0.272735	0.274	-0.001	-0.318
4	0.080000	0.081228	-0.001228	-1.512	0.447973	0.441	0.007	1.555
5	0.200000	0.202643	-0.002643	-1.304	1.125910	1.111	0.015	1.328
6	0.400000	0.404192	-0.004192	-1.037	2.251290	2.228	0.023	1.051



FN07201502 AS 4

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : BLANK
Data Acquisition : Mar 17, 2016 at 08:24:58 AM
Cycle : 1

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

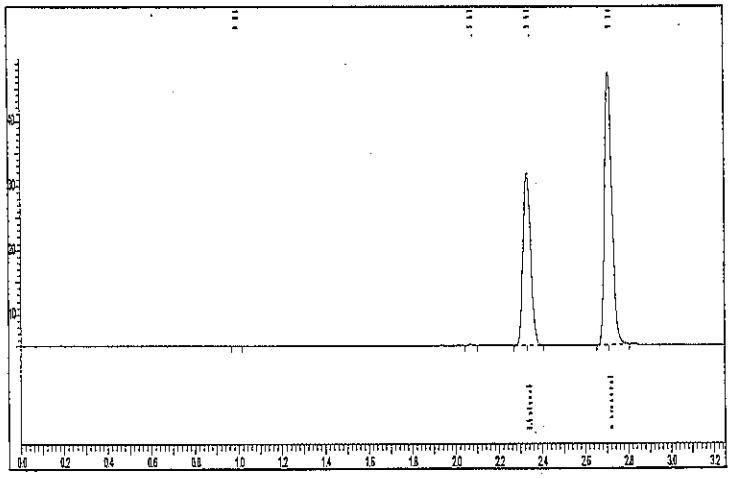
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

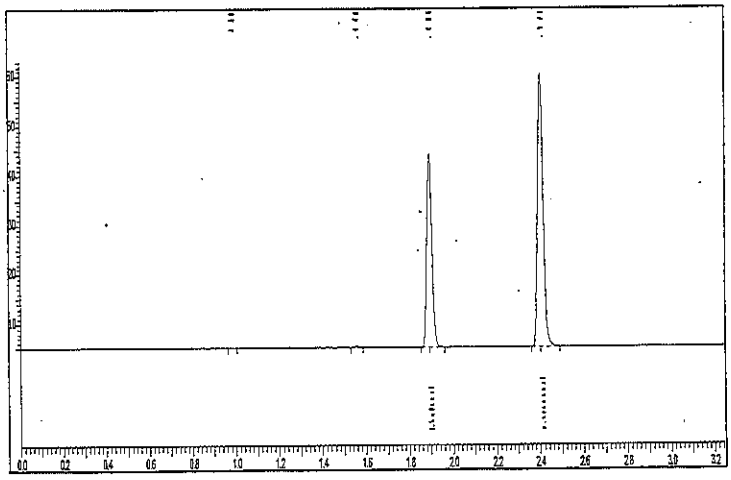
Result File : C:\TC Data\Data\03172016\03172016A001-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B001-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	2.333	t-butanol	66304	1.0123
4	2.713	n-propanol	100898	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.895	t-butanol	65546	1.0171
4	2.406	n-propanol	98879	1.0000

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : STD A
Data Acquisition : Mar 17, 2016 at 08:34:58 AM
Cycle : 2

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

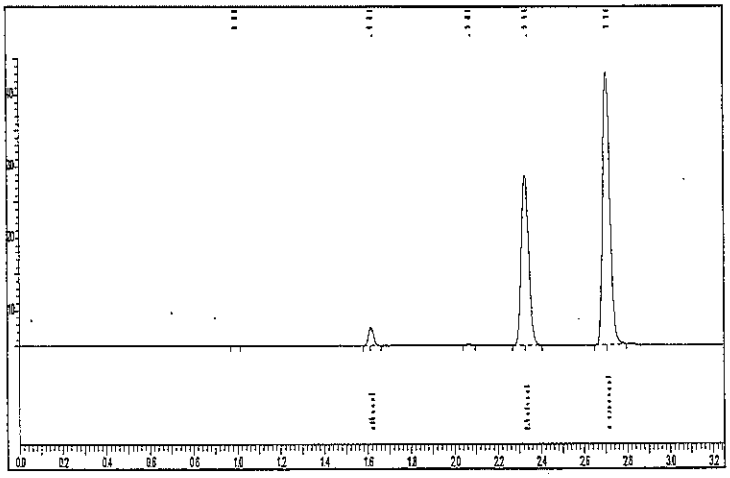
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

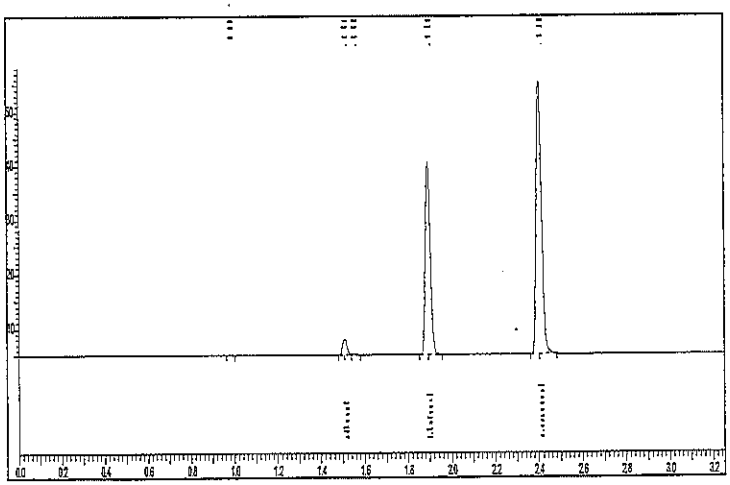
Result File : C:\TC Data\Data\03172016\03172016A002-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B002-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.615	ethanol	4442	0.0101
4	2.328	t-butanol	56931	1.0051
5	2.707	n-propanol	87258	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.509	ethanol	4450	0.0103
4	1.894	t-butanol	56281	1.0093
5	2.404	n-propanol	85555	1.0000

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : STD B
Data Acquisition : Mar 17, 2016 at 08:44:59 AM
Cycle : 3

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

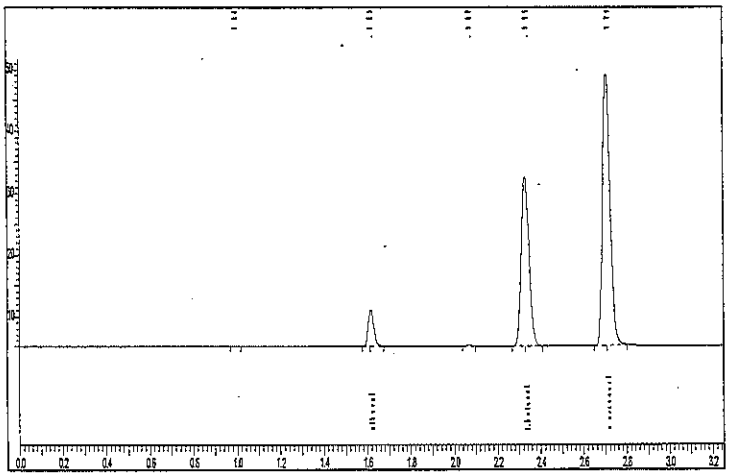
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

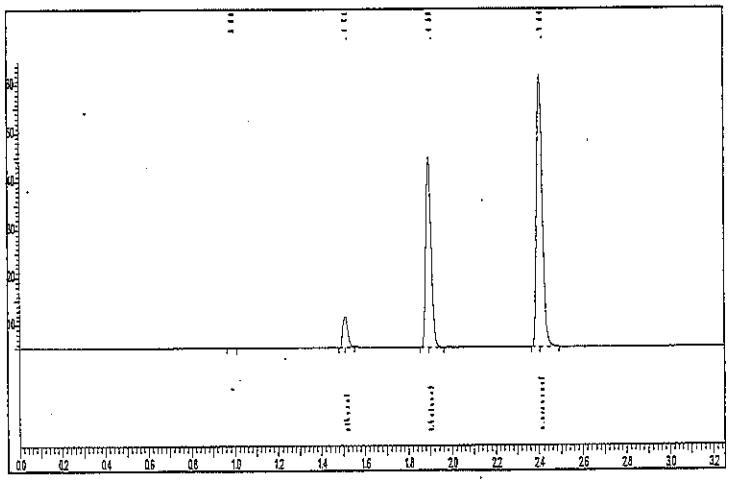
Result File : C:\TC Data\Data\03172016\03172016A003-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B003-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.616	ethanol	11100	0.0197
4	2.330	t-butanol	69744	0.9998
5	2.709	n-propanol	107454	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.510	ethanol	10401	0.0187
3	1.896	t-butanol	68978	1.0029
4	2.406	n-propanol	105519	1.0000

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : STD C
Data Acquisition : Mar 17, 2016 at 08:55:00 AM
Cycle : 4

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

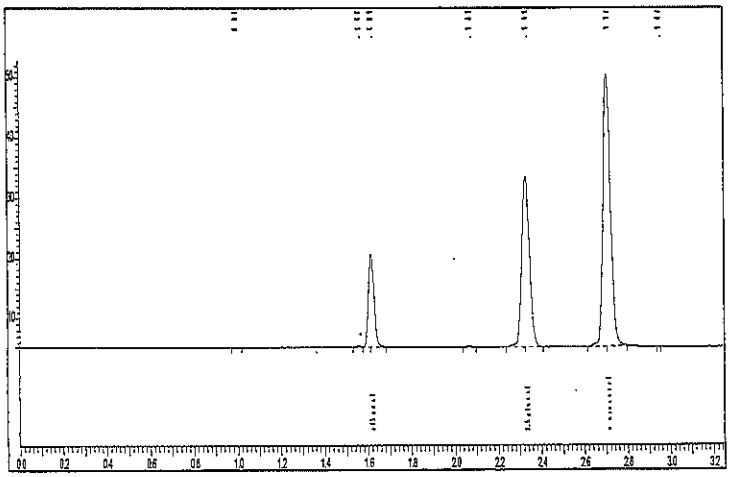
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

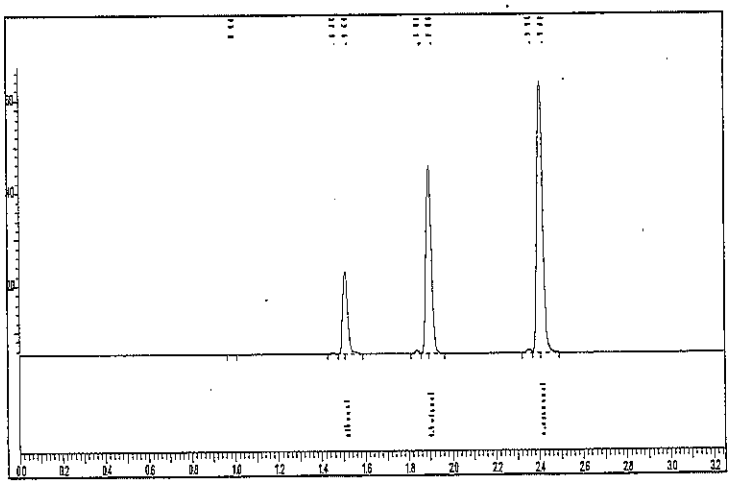
Result File : C:\TC Data\Data\03172016\03172016A004-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B004-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.616	ethanol	28466	0.0483
5	2.330	t-butanol	71707	1.0104
6	2.708	n-propanol	109329	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.510	ethanol	29077	0.0498
5	1.896	t-butanol	69992	1.0073
7	2.406	n-propanol	106612	1.0000

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : STD D
Data Acquisition : Mar 17, 2016 at 09:05:01 AM
Cycle : 5

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

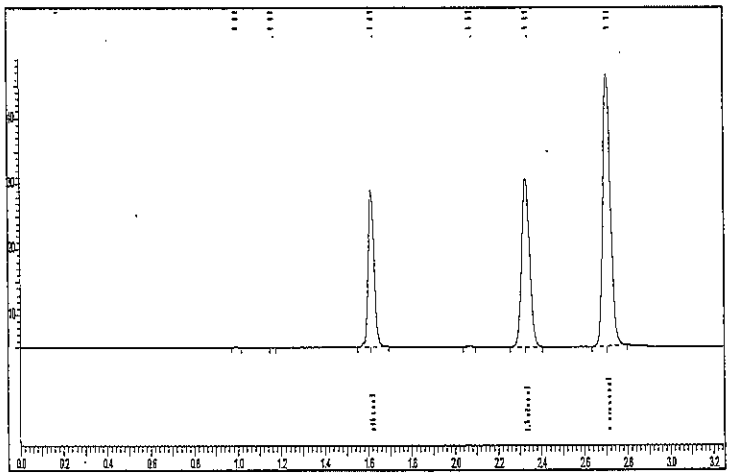
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

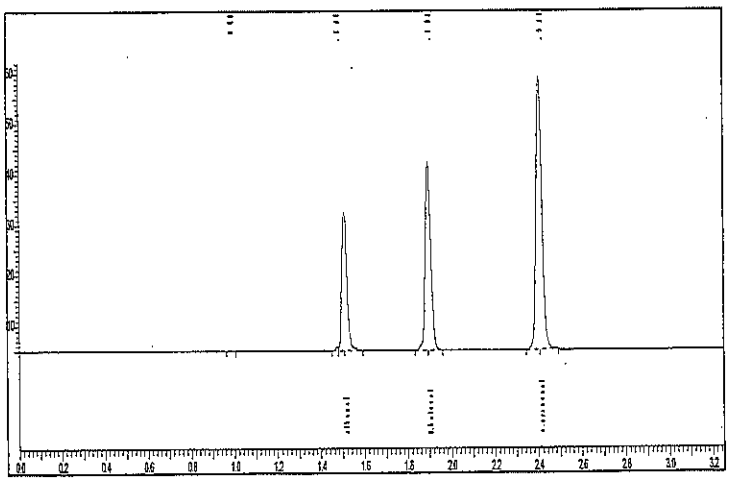
Result File : C:\TC Data\Data\03172016\03172016A005-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B005-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.616	ethanol	45546	0.0816
5	2.330	t-butanol	66424	0.9965
6	2.708	n-propanol	102686	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.510	ethanol	45366	0.0812
4	1.896	t-butanol	65723	0.9957
5	2.407	n-propanol	101270	1.0000

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : STD E
Data Acquisition : Mar 17, 2016 at 09:15:02 AM
Cycle : 6

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

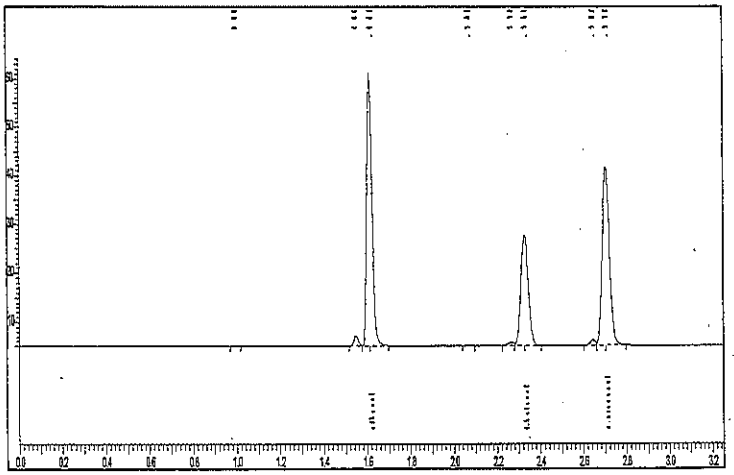
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

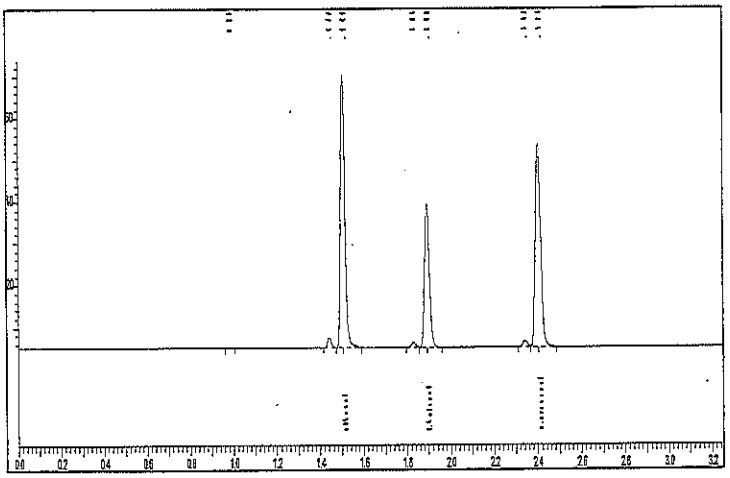
Result File : C:\TC Data\Data\03172016\03172016A006-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B006-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.613	ethanol	93748	0.2016
6	2.327	t-butanol	54776	0.9927
8	2.705	n-propanol	84998	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.507	ethanol	93814	0.2026
5	1.893	t-butanol	53802	0.9907
7	2.404	n-propanol	83323	1.0000

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : STD F
Data Acquisition : Mar 17, 2016 at 09:25:01 AM
Cycle : 7

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

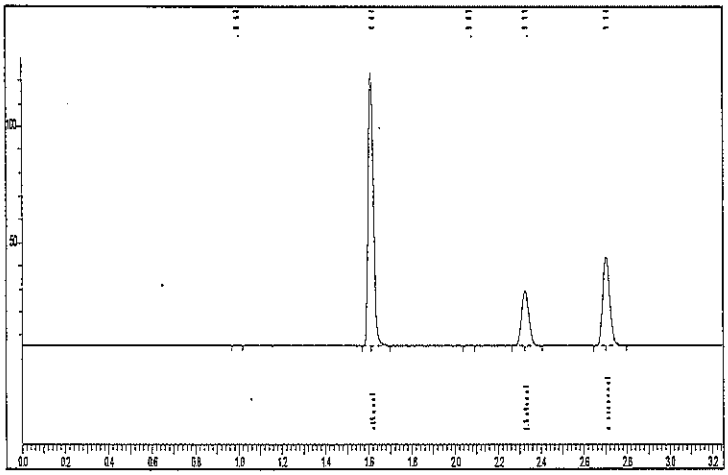
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

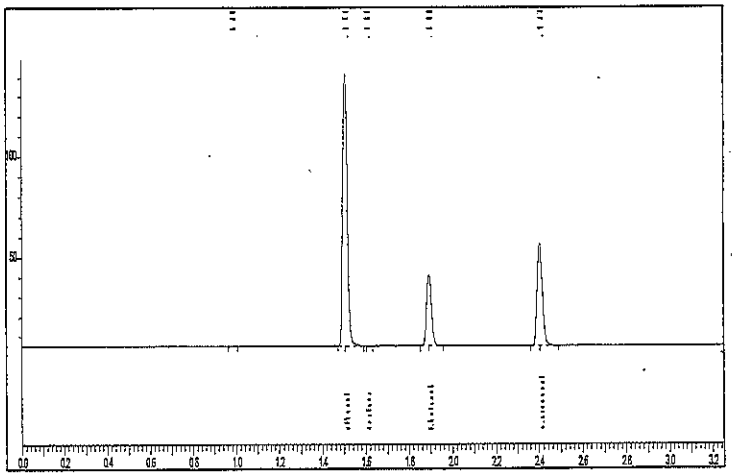
Result File : C:\TC Data\Data\03172016\03172016A007-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B007-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.613	ethanol	198831	0.4047
4	2.327	t-butanol	57921	0.9955
5	2.705	n-propanol	89623	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.507	ethanol	198898	0.4042
4	1.894	t-butanol	57246	0.9941
5	2.404	n-propanol	88349	1.0000

Sequence : C:\TC Data\Data\03172016\ALC cal 03172016.idx

Sample Name : BLANK
Data Acquisition : Mar 17, 2016 at 09:35:01 AM
Cycle : 8

Instrument Name : Clarus 580 GC
Report Date : Mar 17, 2016 at 09:52:28 AM
Sequence Name: : 03172016

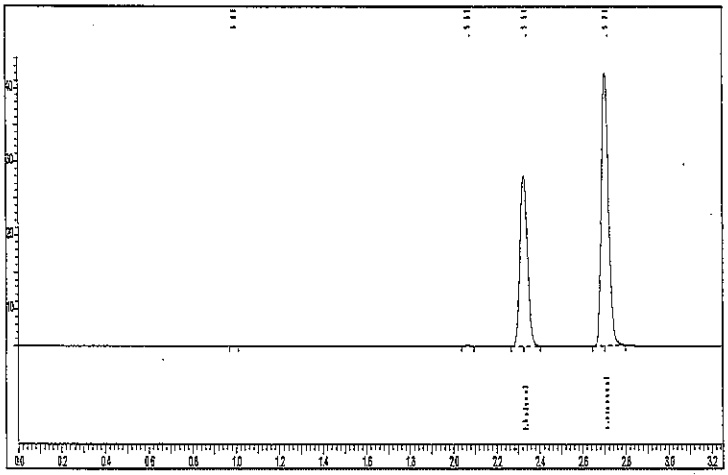
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

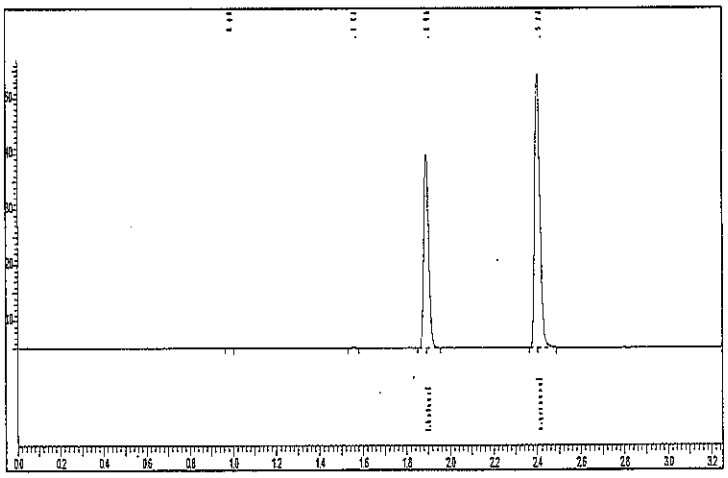
Result File : C:\TC Data\Data\03172016\03172016A008-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016B008-20160317-095151.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	2.328	t-butanol	55679	1.0043
4	2.705	n-propanol	85399	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.894	t-butanol	55080	1.0096
4	2.404	n-propanol	83705	1.0000

Sample	IS Area	
	Channel A	Channel B
Blank	100898	98879
STD A	87258	85555
STD B	107454	105519
STD C	109329	106612
STD D	102686	101270
STD E	84998	83323
STD F	89623	88349
Blank	85399	83705
Average	95054	
±20%	**76043**	**114064**

FN07201502 AB 13

Quality Control Summary Sheet

Batch: _____ Analyst: AB Run date: 3/17/16 + 3/18/16

Material	Replicate 1 Channel A	Replicate 1 Channel B	Replicate 2 Channel A	Replicate 2 Channel B	Mean	-5%	+5%	%CV	Target	Recovery
Whole Blood	0.0793	0.0803	0.0759	0.0769	0.0781	0.0742	0.0820	2.62%	0.078	100.0%
Aqueous Control	0.0783	0.0799	0.0831	0.0841	0.0814	0.0773	0.0855	3.33%	0.080	101.3%
0.05% CCS	0.0507	0.0518	0.0487	0.0503	0.0504	0.0479	0.0529	2.55%	0.050	100.0%
0.20% CCS	0.2062	0.2060	0.2016	0.2024	0.2041	0.1939	0.2143	1.17%	0.200	102.0%
0.05% CCS	0.0515	0.0499	0.0514	0.0499	0.0507	0.0482	0.0532	1.77%	0.050	100.0%
0.20% CCS	0.2063	0.2073	0.1985	0.2018	0.2035	0.1933	0.2137	2.01%	0.200	101.5%
0.05% CCS	0.0489	0.0465	0.0496	0.0481	0.0483	0.0459	0.0507	2.76%	0.050	96.0%

AQ QC 1st run A 0.0754, B 0.0766. Avg of 3 reps = 0.0796

-5% 0.0756 +5% = 0.0836

%CV = 4.4%

recovery = 98.8%

AB 3/18/16

1st run of AQ dropped due to points being out of ±5% of Avg. only 2nd run used in Avg for QC

AB 3/22/16

QC samples must be labeled "AQ" for aqueous or "WB" for whole blood controls
Control check samples must be labeled "CCS 05" for 0.050% ethanol or "CCS 20" for 0.200% ethanol
If QC or CCS fail and should not be included in final calculations, enter an asterisk (*) before the sample name
Case samples must be formatted as the V number and item number in FA, e.g. "V15-1234 A1-1"

COPY AND PASTE DATA OUTPUT BELOW

Channel	Cycle	Sample	Peak Name	Peak #	RT	Peak Area	IS Area	Concentration
A		1 BLANK	ethanol				0	
B		1 BLANK	ethanol				0	
A		2 TMX	ethanol	4	1.614	37286	87659	0.0783
B		2 TMX	ethanol	4	1.507	37714	86093	0.0795
A		3 WB	ethanol	2	1.616	42894	99575	0.0793
B		3 WB	ethanol	2	1.51	43323	97846	0.0803
A		4 WB	ethanol	2	1.613	35863	87016	0.0759
B		4 WB	ethanol	2	1.508	36171	85371	0.0769
A		5 AQ	ethanol	4	1.613	34585	84441	0.0754
B		5 AQ	ethanol	3	1.508	34959	82855	0.0766
A		6 AQ	ethanol	3	1.616	47331	116224*	0.075
B		6 AQ	ethanol	3	1.51	47721	114047	0.0759
A		7 CCS 05	ethanol	2	1.615	28943	105764	0.0507
B		7 CCS 05	ethanol	2	1.51	29460	103932	0.0518
A		8 CCS 05	ethanol	2	1.616	29766	113339	0.0487
B		8 CCS 05	ethanol	2	1.511	30408	110492	0.0503
A		9 V16-366 A1-1	ethanol	4	1.615	103072	116105	0.1624
B		9 V16-366 A1-1	ethanol	3	1.509	103193	114086	0.163
A		10 V16-366 A1-1	ethanol	3	1.615	102625	115207	0.163
B		10 V16-366 A1-1	ethanol	3	1.51	102667	112278	0.1648
A		11 V16-366 A1-2	ethanol	3	1.613	38091	99804	0.0703
B		11 V16-366 A1-2	ethanol	3	1.507	38315	97588	0.0713
A		12 V16-366 A1-2	ethanol	3	1.616	43809	110838	0.0728
B		12 V16-366 A1-2	ethanol	3	1.511	44279	109187	0.0736
A		13 V16-366 A1-3	ethanol	3	1.615	118224	109084	0.1981
B		13 V16-366 A1-3	ethanol	3	1.509	118265	107352	0.1983
A		14 V16-366 A1-3	ethanol	4	1.613	103439	99199	0.1907
B		14 V16-366 A1-3	ethanol	4	1.507	103278	96365	0.1929
A		15 V16-366 A1-4	ethanol	3	1.616	140638	101764	0.2524
B		15 V16-366 A1-4	ethanol	3	1.51	140520	100053	0.2525
A		16 V16-366 A1-4	ethanol	5	1.615	144745	109303	0.2419
B		16 V16-366 A1-4	ethanol	5	1.509	144739	104911	0.2481
A		17 V16-482 A1-1	ethanol	4	1.613	61960	94372	0.1204
B		17 V16-482 A1-1	ethanol	5	1.508	61574	92730	0.1199
A		18 V16-482 A1-1	ethanol	4	1.615	72837	112929	0.1183
B		18 V16-482 A1-1	ethanol	5	1.509	72699	109777	0.1196
A		19 CCS 20	ethanol	3	1.613	107049	94873	0.2062
B		19 CCS 20	ethanol	3	1.507	107123	93607	0.206
A		20 CCS 20	ethanol	2	1.615	112478	101976	0.2016
B		20 CCS 20	ethanol	2	1.51	112644	100173	0.2024
A		21 V16-496 A1-1	ethanol	3	1.613	52511	97713	0.0987
B		21 V16-496 A1-1	ethanol	5	1.507	51990	95537	0.0985
A		22 V16-496 A1-1	ethanol	5	1.613	52153	98861	0.0969
B		22 V16-496 A1-1	ethanol	5	1.507	51664	96566	0.0968
A		23 V FN07201502	ethanol	2	1.616	117775	107706	0.1999
B		23 V FN07201502	ethanol	2	1.511	117934	105586	0.201
A		24 V FN07201502	ethanol	2	1.613	101313	87402	0.2118
B		24 V FN07201502	ethanol	2	1.508	101279	85477	0.2132
A		25 V FN06181501	ethanol	2	1.616	56009	104204	0.0987
B		25 V FN06181501	ethanol	1	1.51	56231	100893	0.1008
A		26 V FN06181501	ethanol	4	1.615	59307	109330	0.0996
B		26 V FN06181501	ethanol	4	1.509	59665	105941	0.1019

IS not within range, sample reanalyzed AB 3/22/16

FN07201502 AB 15

A	27	V FN10281510	ethanol	2	1.615	48439	113740	0.0784
B	27	V FN10281510	ethanol	2	1.51	48788	110221	0.0803
A	28	V FN10281510	ethanol	2	1.614	39328	87818	0.0824
B	28	V FN10281510	ethanol	2	1.507	39582	85903	0.0835
A	29	CCS 05	ethanol	1	1.614	22499	80866	0.0515
B	29	CCS 05	ethanol	1	1.508	21607	79112	0.0499
A	30	CCS 05	ethanol	2	1.614	23660	85258	0.0514
B	30	CCS 05	ethanol	1	1.508	22712	83254	0.0499
A	31	BLANK	ethanol				0	
B	31	BLANK	ethanol				0	
A	32	BLANK 03182016	ethanol				0	
B	32	BLANK 03182016	ethanol				0	
A	33	AQ	ethanol	3	1.614	38394	90215	0.0783
B	33	AQ	ethanol	3	1.508	38792	88085	0.0799
A	34	AQ	ethanol	2	1.616	46324	102574	0.0831
B	34	AQ	ethanol	2	1.511	46767	100773	0.0841
A	35	CCS 05	ethanol	2	1.614	24405	92434	0.0489
B	35	CCS 05	ethanol	3	1.508	22977	90463	0.0465
A	36	CCS 05	ethanol	2	1.613	22560	84183	0.0496
B	36	CCS 05	ethanol	2	1.508	21542	81969	0.0481
A	37	V16-366 A1-1	ethanol	3	1.615	104422	118067	0.1618
B	37	V16-366 A1-1	ethanol	3	1.51	104603	114629	0.1644
A	38	V16-366 A1-1	ethanol	4	1.613	87130	99021	0.161
B	38	V16-366 A1-1	ethanol	4	1.506	87129	96684	0.1624
A	39	CCS 20	ethanol	2	1.614	110928	98271	0.2063
B	39	CCS 20	ethanol	2	1.508	110927	96278	0.2073
A	40	CCS 20	ethanol	2	1.615	111095	102306	0.1985
B	40	CCS 20	ethanol	2	1.51	111296	99284	0.2018
A	41	BLANK	ethanol				0	
B	41	BLANK	ethanol				0	

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Study Name : 03172016 **Instrument Name** : Clarus 580 GC
Data Acquisition : Mar 17, 2016 at 03:33:19 PM **Report Date** : Mar 18, 2016 at 07:57:04 AM

Column A

Cycle	Sample	Instrument Method	Processing Method	Result File
1	BLANK	alc gc method.mth	alc a cal 03172016.mth	03172016Adata001.rst
2	TMX	alc gc method.mth	alc a cal 03172016.mth	03172016Adata002.rst
3	WB	alc gc method.mth	alc a cal 03172016.mth	03172016Adata003.rst
4	WB	alc gc method.mth	alc a cal 03172016.mth	03172016Adata004.rst
5	AQ	alc gc method.mth	alc a cal 03172016.mth	03172016Adata005.rst
6	AQ	alc gc method.mth	alc a cal 03172016.mth	03172016Adata006.rst
7	CCS 05	alc gc method.mth	alc a cal 03172016.mth	03172016Adata007.rst
8	CCS 05	alc gc method.mth	alc a cal 03172016.mth	03172016Adata008.rst
9	V16-366 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata009.rst
10	V16-366 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata010.rst
11	V16-366 A1-2	alc gc method.mth	alc a cal 03172016.mth	03172016Adata011.rst
12	V16-366 A1-2	alc gc method.mth	alc a cal 03172016.mth	03172016Adata012.rst
13	V16-366 A1-3	alc gc method.mth	alc a cal 03172016.mth	03172016Adata013.rst
14	V16-366 A1-3	alc gc method.mth	alc a cal 03172016.mth	03172016Adata014.rst
15	V16-366 A1-4	alc gc method.mth	alc a cal 03172016.mth	03172016Adata015.rst
16	V16-366 A1-4	alc gc method.mth	alc a cal 03172016.mth	03172016Adata016.rst
17	V16-482 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata017.rst
18	V16-482 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata018.rst
19	CCS 20	alc gc method.mth	alc a cal 03172016.mth	03172016Adata019.rst
20	CCS 20	alc gc method.mth	alc a cal 03172016.mth	03172016Adata020.rst
21	V16-496 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata021.rst
22	V16-496 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata022.rst
23	FN07201502	alc gc method.mth	alc a cal 03172016.mth	03172016Adata023.rst
24	FN07201502	alc gc method.mth	alc a cal 03172016.mth	03172016Adata024.rst
25	FN06181501	alc gc method.mth	alc a cal 03172016.mth	03172016Adata025.rst
26	FN06181501	alc gc method.mth	alc a cal 03172016.mth	03172016Adata026.rst
27	FN10281510	alc gc method.mth	alc a cal 03172016.mth	03172016Adata027.rst
28	FN10281510	alc gc method.mth	alc a cal 03172016.mth	03172016Adata028.rst
29	CCS 05	alc gc method.mth	alc a cal 03172016.mth	03172016Adata029.rst
30	CCS 05	alc gc method.mth	alc a cal 03172016.mth	03172016Adata030.rst
31	BLANK	alc gc method.mth	alc a cal 03172016.mth	03172016Adata031.rst

Column B

Cycle	Sample	Instrument Method	Processing Method	Result File
1	BLANK	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata001.rst
2	TMX	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata002.rst
3	WB	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata003.rst
4	WB	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata004.rst
5	AQ	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata005.rst
6	AQ	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata006.rst
7	CCS 05	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata007.rst
8	CCS 05	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata008.rst
9	V16-366 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata009.rst
10	V16-366 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata010.rst
11	V16-366 A1-2	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata011.rst
12	V16-366 A1-2	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata012.rst
13	V16-366 A1-3	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata013.rst
14	V16-366 A1-3	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata014.rst
15	V16-366 A1-4	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata015.rst

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Cycle	Sample	Instrument Method	Processing Method	Result File
16	V16-366 A1-4	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata016.rst
17	V16-482 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata017.rst
18	V16-482 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata018.rst
19	CCS 20	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata019.rst
20	CCS 20	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata020.rst
21	V16-496 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata021.rst
22	V16-496 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata022.rst
23	FN07201502	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata023.rst
24	FN07201502	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata024.rst
25	FN06181501	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata025.rst
26	FN06181501	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata026.rst
27	FN10281510	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata027.rst
28	FN10281510	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata028.rst
29	CCS 05	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata029.rst
30	CCS 05	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata030.rst
31	BLANK	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata031.rst

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Study Name : 03172016 **Instrument Name** : Clarus 580 GC
Data Acquisition : Mar 18, 2016 at 11:31:09 AM **Report Date** : Mar 18, 2016 at 01:25:04 PM

Column A

Cycle	Sample	Instrument Method	Processing Method	Result File
32	BLANK 03182016	alc gc method.mth	alc a cal 03172016.mth	03172016Adata032.rst
33	AQ	alc gc method.mth	alc a cal 03172016.mth	03172016Adata033.rst
34	AQ	alc gc method.mth	alc a cal 03172016.mth	03172016Adata034.rst
35	CCS 05	alc gc method.mth	alc a cal 03172016.mth	03172016Adata035.rst
36	CCS 05	alc gc method.mth	alc a cal 03172016.mth	03172016Adata036.rst
37	V16-366 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata037.rst
38	V16-366 A1-1	alc gc method.mth	alc a cal 03172016.mth	03172016Adata038.rst
39	CCS 20	alc gc method.mth	alc a cal 03172016.mth	03172016Adata039.rst
40	CCS 20	alc gc method.mth	alc a cal 03172016.mth	03172016Adata040.rst
41	BLANK	alc gc method.mth	alc a cal 03172016.mth	03172016Adata041.rst

Column B

Cycle	Sample	Instrument Method	Processing Method	Result File
32	BLANK 03182016	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata031-20160318-113554.rst
33	AQ	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata005-20160318-114554.rst
34	AQ	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata006-20160318-115555.rst
35	CCS 05	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata007-20160318-120556.rst
36	CCS 05	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata008-20160318-121557.rst
37	V16-366 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata009-20160318-122558.rst
38	V16-366 A1-1	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata010-20160318-123559.rst
39	CCS 20	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata031-20160318-124600.rst
40	CCS 20	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata031-20160318-125601.rst
41	BLANK	alc gc method.mth	alc b cal 03172016.mth	03172016Bdata031-20160318-130601.rst

forgot to update result file name for B column in sequence 3/22/16

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

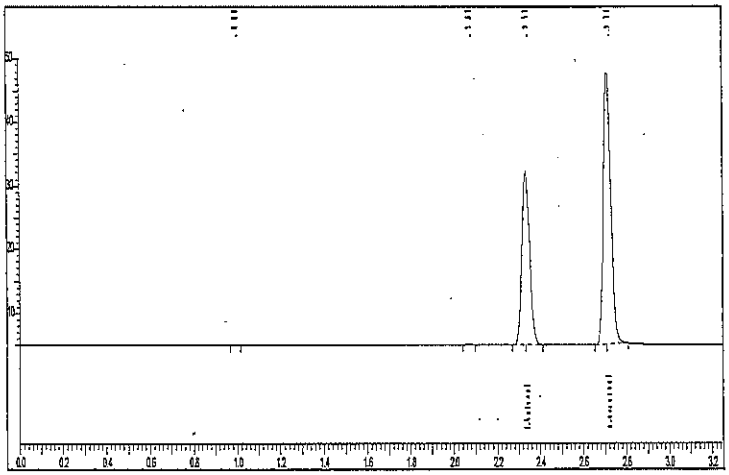
Sample Name : BLANK
Data Acquisition : Mar 17, 2016 at 03:33:19 PM
Cycle : 1

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

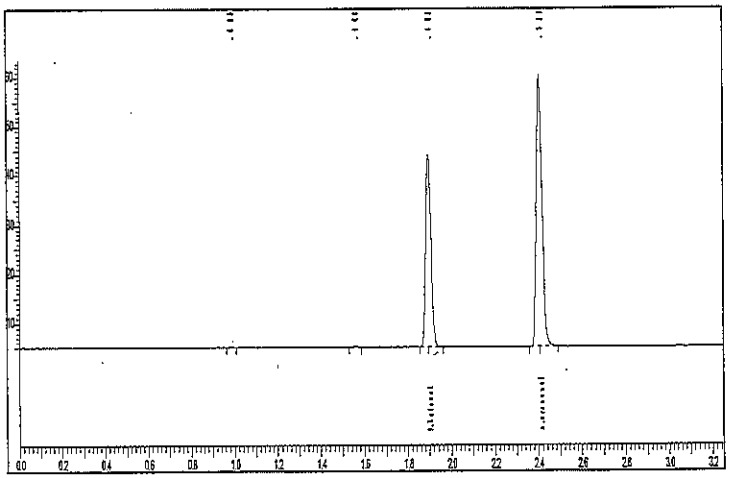
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata001.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata001.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	2.334	t-butanol	67824	1.0133
4	2.714	n-propanol	103103	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.897	t-butanol	67066	1.0192
4	2.407	n-propanol	100955	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

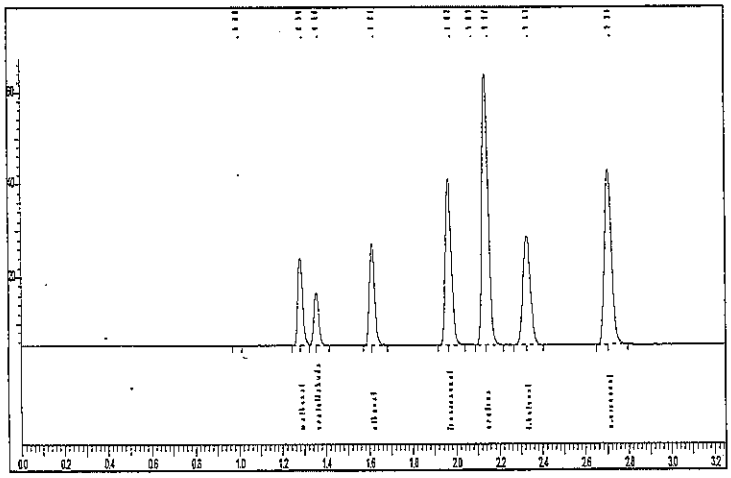
Sample Name : TMX
Data Acquisition : Mar 17, 2016 at 03:43:20 PM
Cycle : 2

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

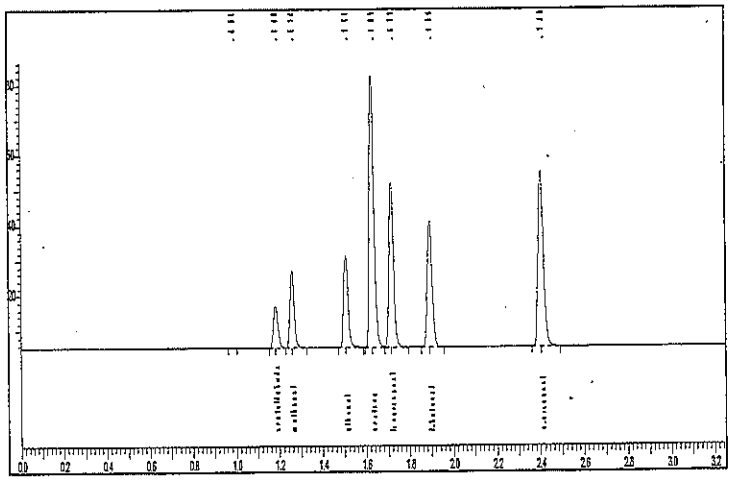
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata002.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata002.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.284	methanol	30244	0.1228
3	1.358	acetaldehyde	18426	0.0707
4	1.614	ethanol	37286	0.0783
5	1.967	isopropanol	70256	0.0778
7	2.139	acetone	115875	0.0582
8	2.329	t-butanol	57223	1.0056
9	2.707	n-propanol	87659	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.183	acetaldehyde	17899	0.0619
3	1.259	methanol	30203	0.1218
4	1.507	ethanol	37714	0.0795
5	1.629	acetone	114188	0.0575
6	1.718	isopropanol	68751	0.0759
7	1.893	t-butanol	56652	1.0096
8	2.404	n-propanol	86093	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

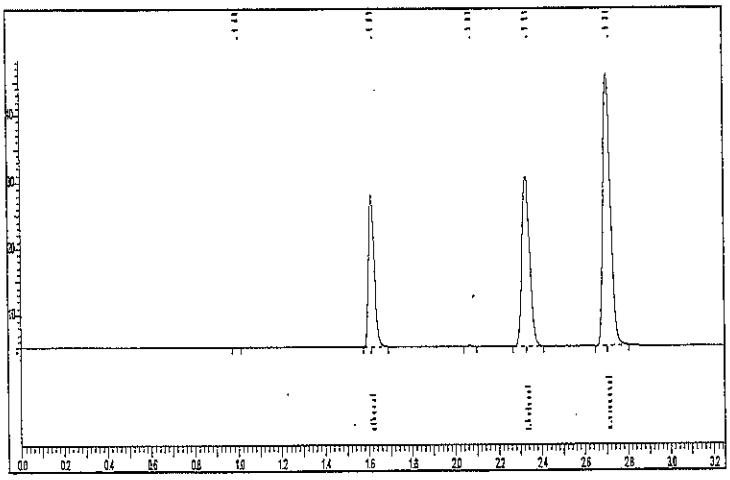
Sample Name : WB
Data Acquisition : Mar 17, 2016 at 03:53:21 PM
Cycle : 3

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

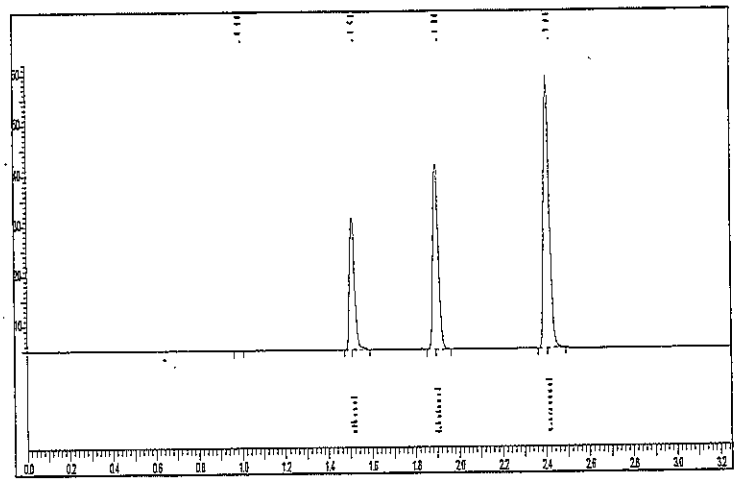
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata003.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata003.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.616	ethanol	42894	0.0793
4	2.330	t-butanol	64658	1.0003
5	2.708	n-propanol	99575	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.510	ethanol	43323	0.0803
3	1.897	t-butanol	63974	1.0031
4	2.407	n-propanol	97846	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

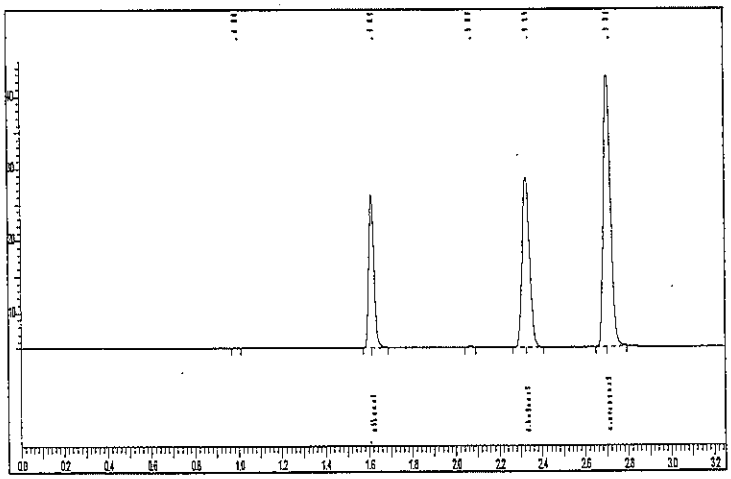
Sample Name : WB
Data Acquisition : Mar 17, 2016 at 04:03:22 PM
Cycle : 4

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

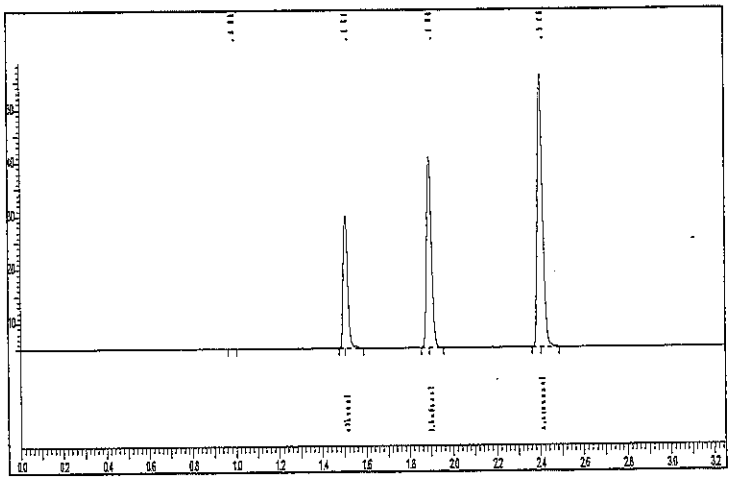
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata004.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata004.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.613	ethanol	35863	0.0759
4	2.328	t-butanol	56870	1.0068
5	2.706	n-propanol	87016	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.508	ethanol	36171	0.0769
3	1.894	t-butanol	56171	1.0095
4	2.405	n-propanol	85371	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

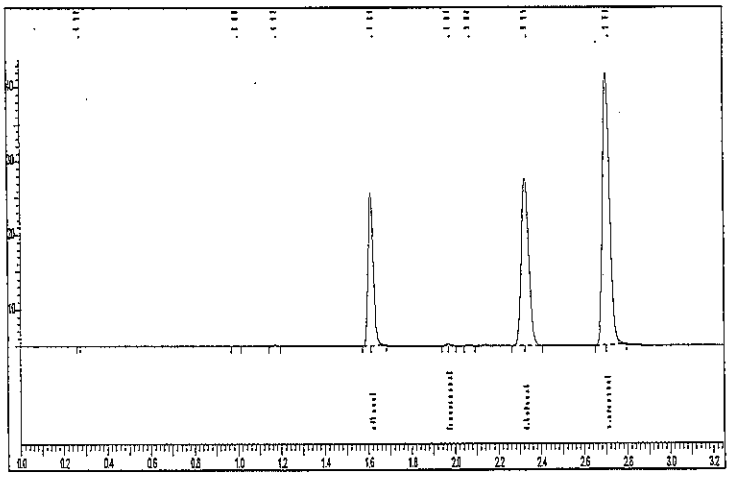
Sample Name : AQ
Data Acquisition : Mar 17, 2016 at 04:13:22 PM
Cycle : 5

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

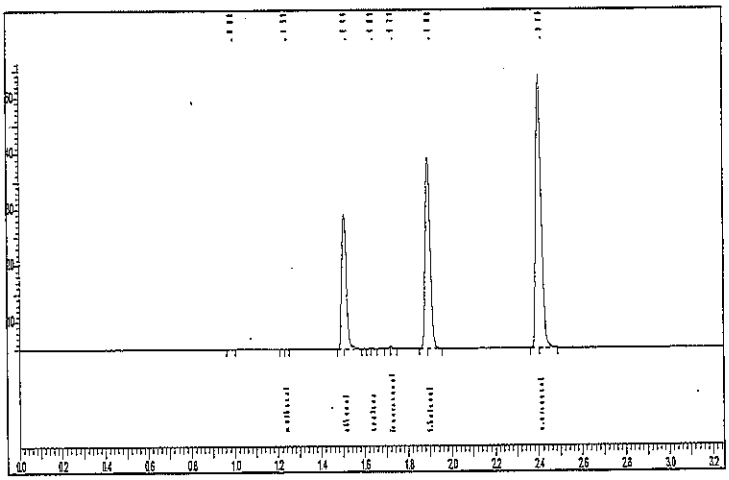
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata005.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata005.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
4	1.613	ethanol	34585	0.0754
7	2.327	t-butanol	54218	0.9891
8	2.705	n-propanol	84441	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.508	ethanol	34959	0.0766
6	1.894	t-butanol	53591	0.9924
7	2.404	n-propanol	82855	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

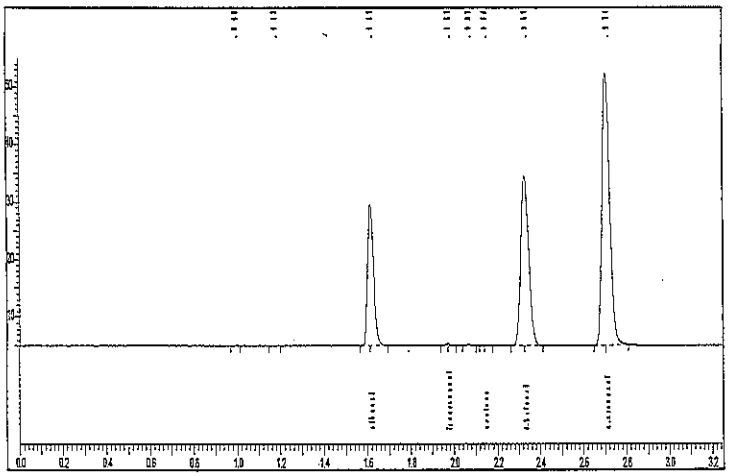
Sample Name : AQ
Data Acquisition : Mar 17, 2016 at 04:23:22 PM
Cycle : 6

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

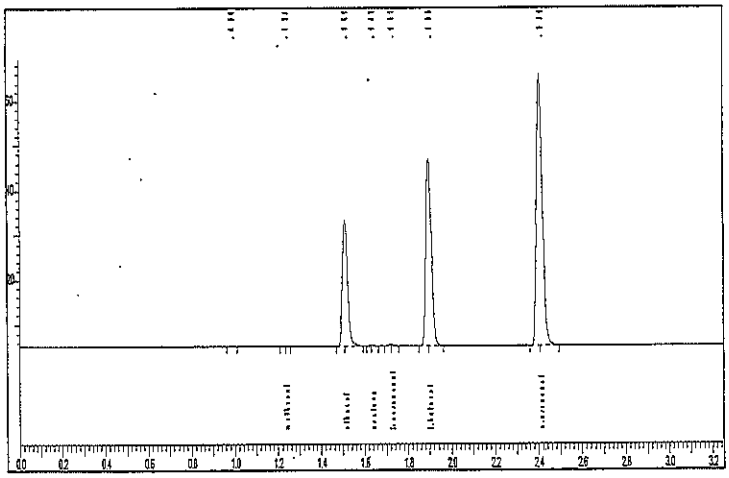
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata006.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata006.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.616	ethanol	47331	0.0750
7	2.330	t-butanol	75565	1.0016
8	2.708	n-propanol	* 116224	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.510	ethanol	47721	0.0759
6	1.897	t-butanol	74633	1.0040
7	2.408	n-propanol	114047	1.0000

IS Area count
not w/in target.
will be reanalyzed
AB 3/18/16

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

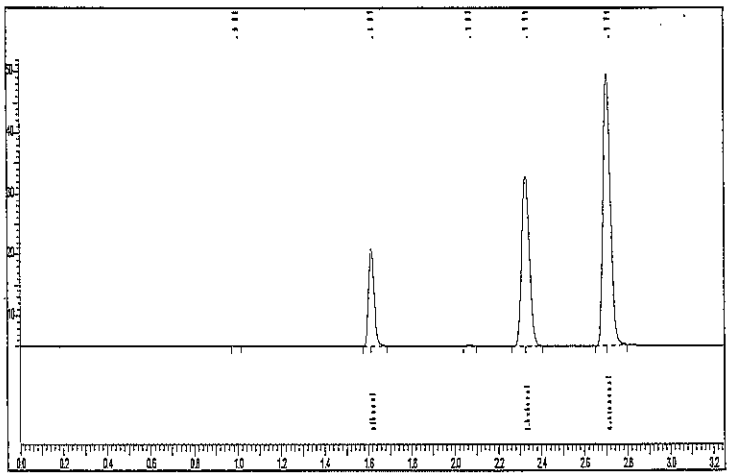
Sample Name : CCS 05
Data Acquisition : Mar 17, 2016 at 04:33:23 PM
Cycle : 7

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

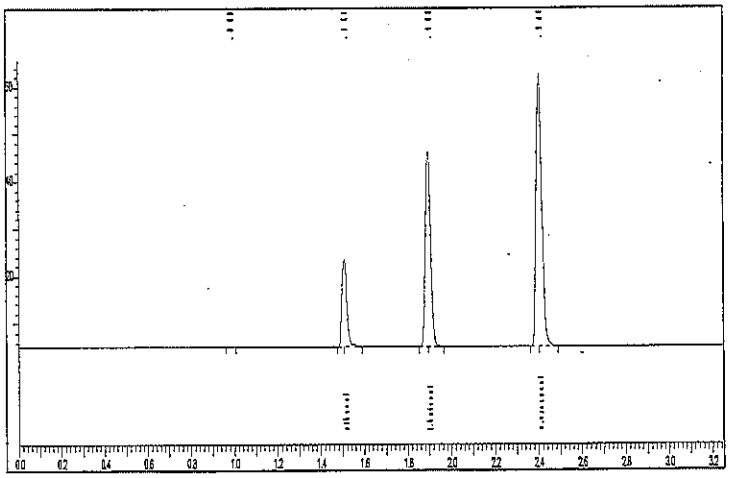
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata007.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata007.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.615	ethanol	28943	0.0507
4	2.329	t-butanol	69682	1.0149
5	2.706	n-propanol	105764	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.510	ethanol	29460	0.0518
3	1.896	t-butanol	69040	1.0192
4	2.406	n-propanol	103932	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

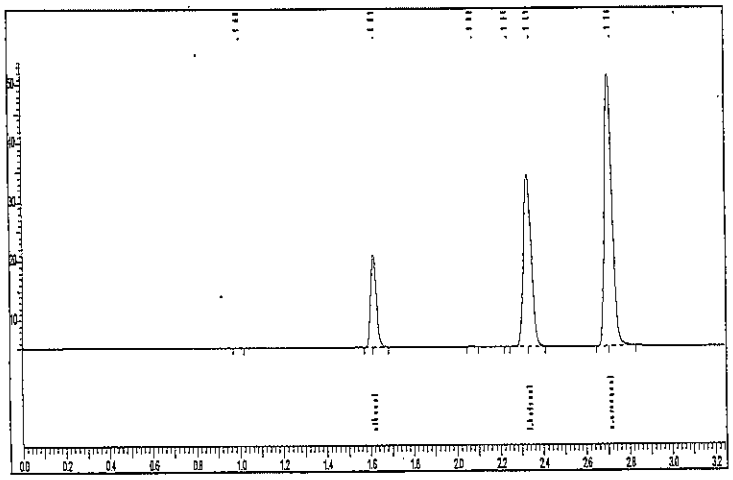
Sample Name : CCS 05
Data Acquisition : Mar 17, 2016 at 04:43:23 PM
Cycle : 8

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

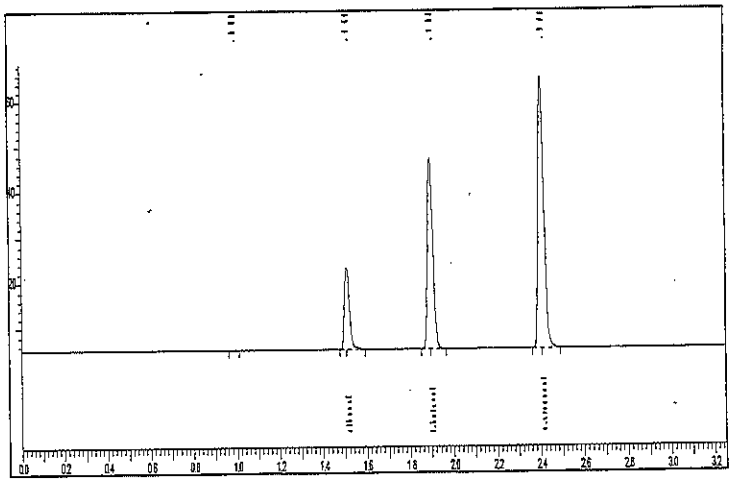
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata008.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata008.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.616	ethanol	29766	0.0487
5	2.330	t-butanol	74283	1.0096
6	2.708	n-propanol	113339	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.511	ethanol	30408	0.0503
3	1.897	t-butanol	73365	1.0187
4	2.408	n-propanol	110492	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

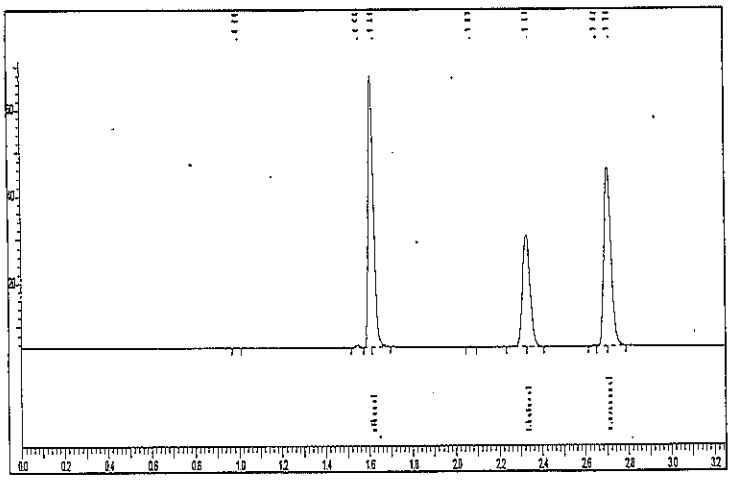
Sample Name : CCS 20
Data Acquisition : Mar 17, 2016 at 06:33:30 PM
Cycle : 19

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

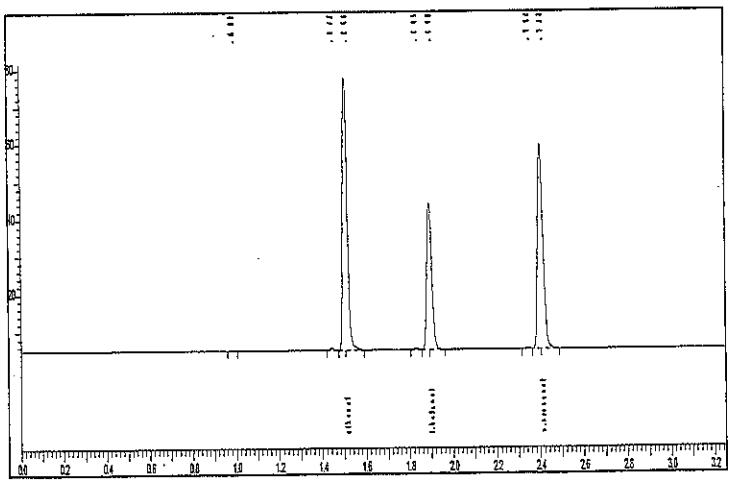
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata019.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata019.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.613	ethanol	107049	0.2062
5	2.327	t-butanol	63086	1.0243
7	2.706	n-propanol	94873	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.507	ethanol	107123	0.2060
5	1.894	t-butanol	61994	1.0161
7	2.404	n-propanol	93607	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

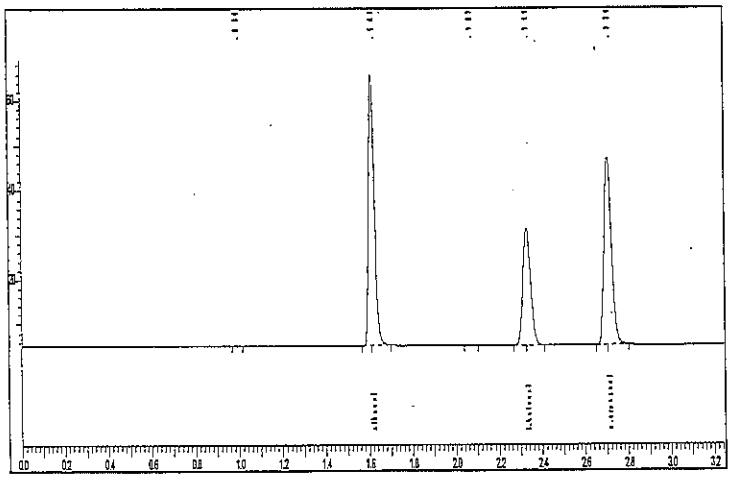
Sample Name : CCS 20
Data Acquisition : Mar 17, 2016 at 06:43:30 PM
Cycle : 20

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

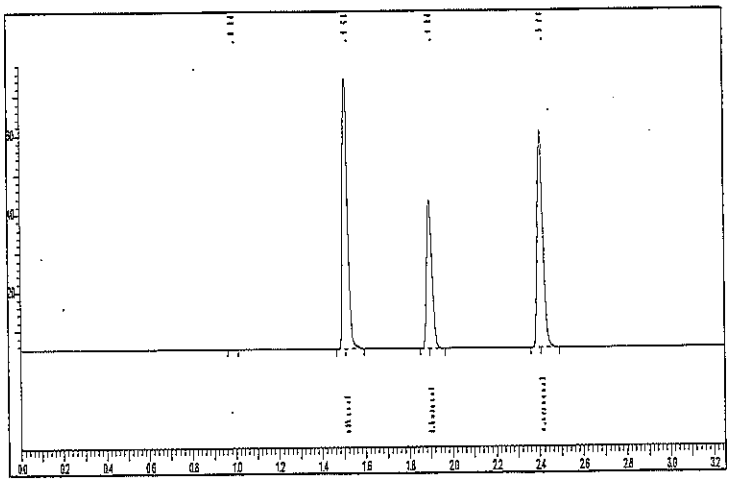
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata020.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata020.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.615	ethanol	112478	0.2016
4	2.330	t-butanol	66349	1.0023
5	2.708	n-propanol	101976	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.510	ethanol	112644	0.2024
3	1.897	t-butanol	65598	1.0047
4	2.407	n-propanol	100173	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

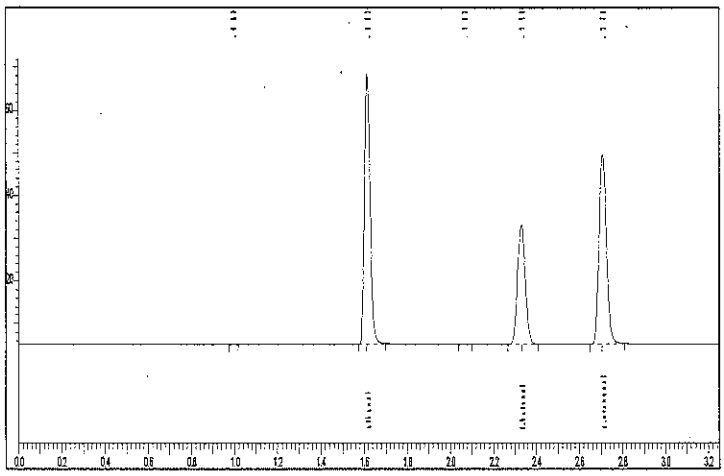
Sample Name : FN07201502
Data Acquisition : Mar 17, 2016 at 07:13:30 PM
Cycle : 23

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

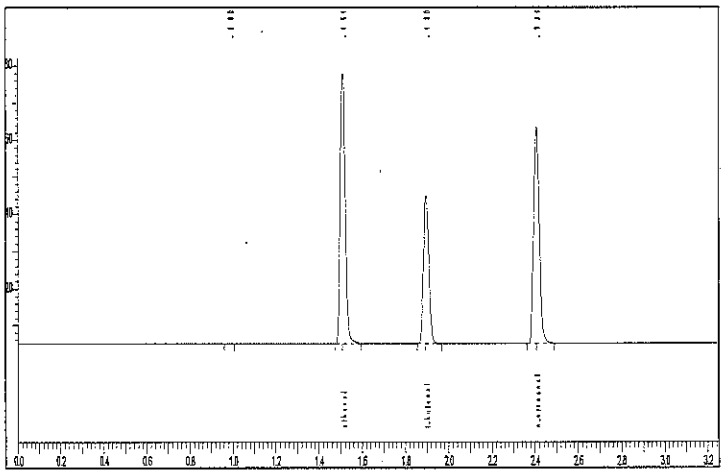
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata023.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata023.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.616	ethanol	117775	0.1999
4	2.330	t-butanol	70314	1.0056
5	2.708	n-propanol	107706	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.511	ethanol	117934	0.2010
3	1.897	t-butanol	69577	1.0110
4	2.408	n-propanol	105586	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

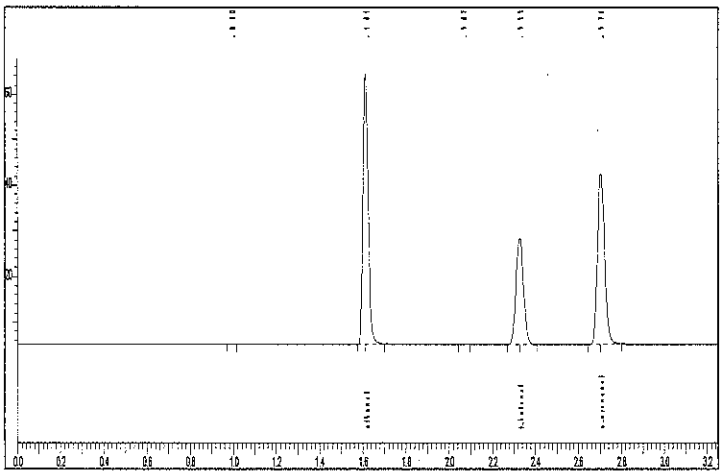
Sample Name : FN07201502
Data Acquisition : Mar 17, 2016 at 07:23:31 PM
Cycle : 24

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

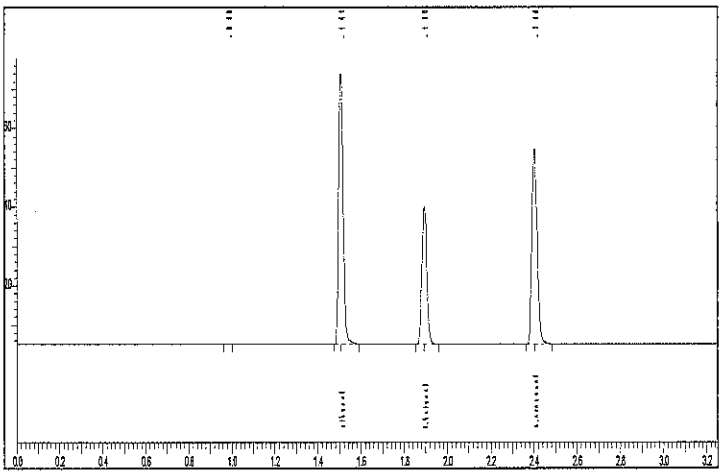
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata024.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata024.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.613	ethanol	101313	0.2118
4	2.328	t-butanol	56701	0.9994
5	2.706	n-propanol	87402	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.508	ethanol	101279	0.2132
3	1.894	t-butanol	56185	1.0085
4	2.404	n-propanol	85477	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

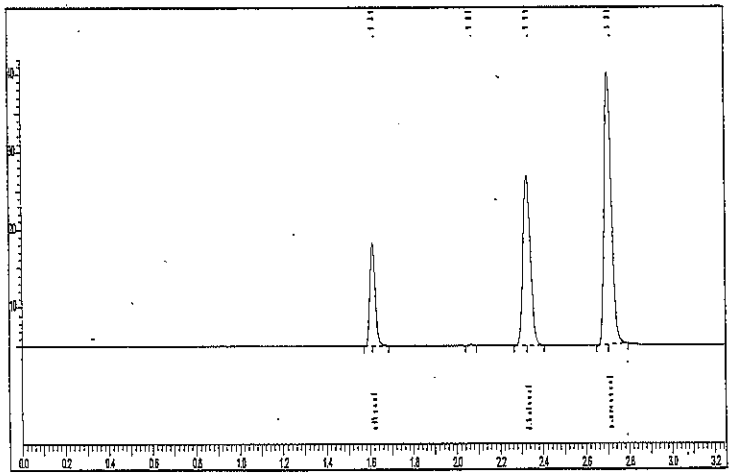
Sample Name : CCS 05
Data Acquisition : Mar 17, 2016 at 08:13:35 PM
Cycle : 29

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

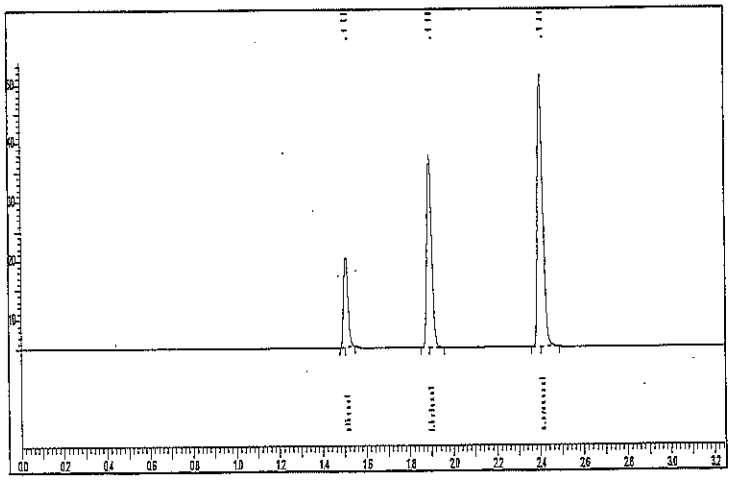
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata029.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata029.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
1	1.614	ethanol	22499	0.0515
3	2.329	t-butanol	52327	0.9968
4	2.707	n-propanol	80866	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
1	1.508	ethanol	21607	0.0499
2	1.895	t-butanol	51740	1.0034
3	2.405	n-propanol	79112	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Sample Name : CCS 05
Data Acquisition : Mar 17, 2016 at 08:23:35 PM
Cycle : 30

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

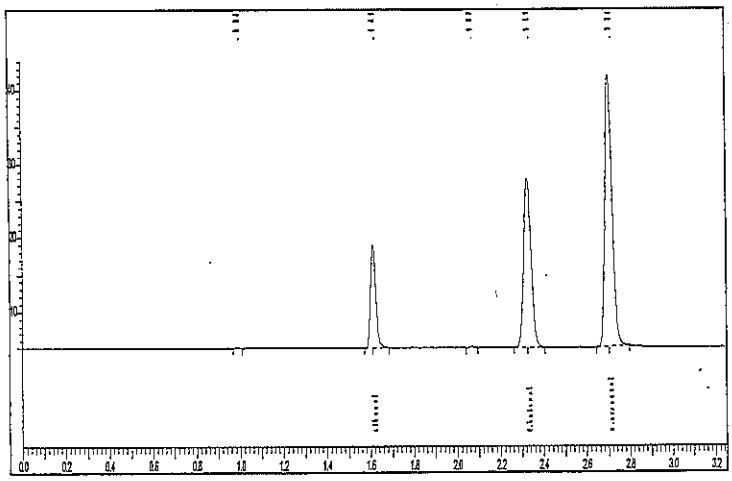
Result File : C:\TC Data\Data\03172016\03172016Adata030.rst

Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

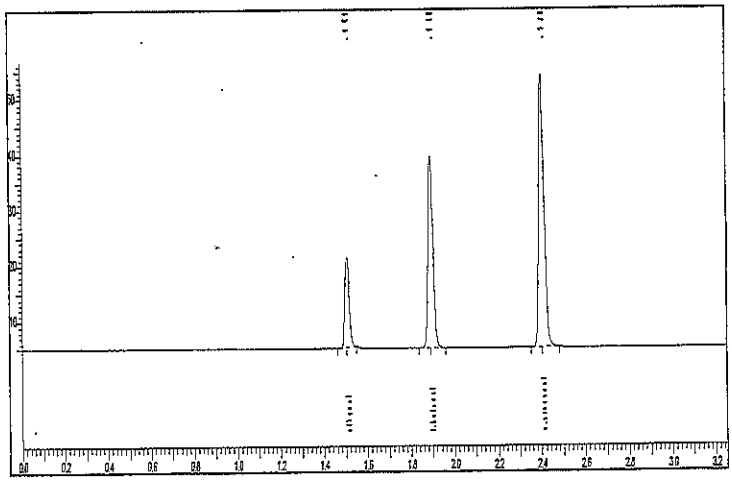
Channel B:

Result File : C:\TC Data\Data\03172016\03172016Bdata030.rst

Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.614	ethanol	23660	0.0514
4	2.328	t-butanol	55442	1.0017
5	2.707	n-propanol	85258	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
1	1.508	ethanol	22712	0.0499
2	1.894	t-butanol	54808	1.0100
3	2.404	n-propanol	83254	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

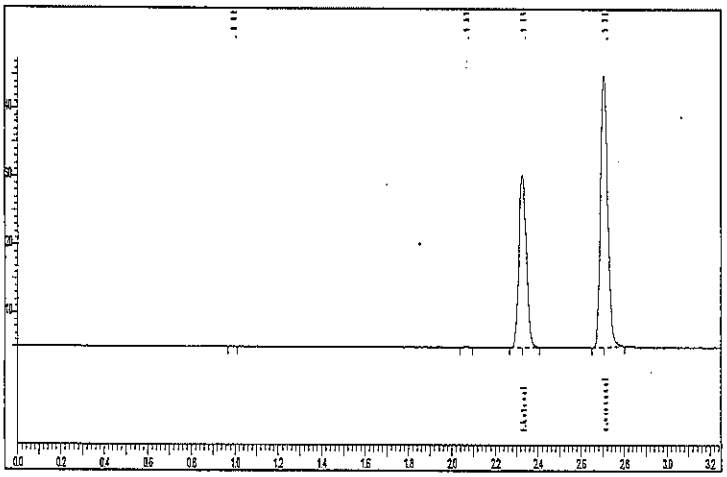
Sample Name : BLANK
Data Acquisition : Mar 17, 2016 at 08:33:36 PM
Cycle : 31

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 07:56:54 AM
Sequence Name: : 03172016

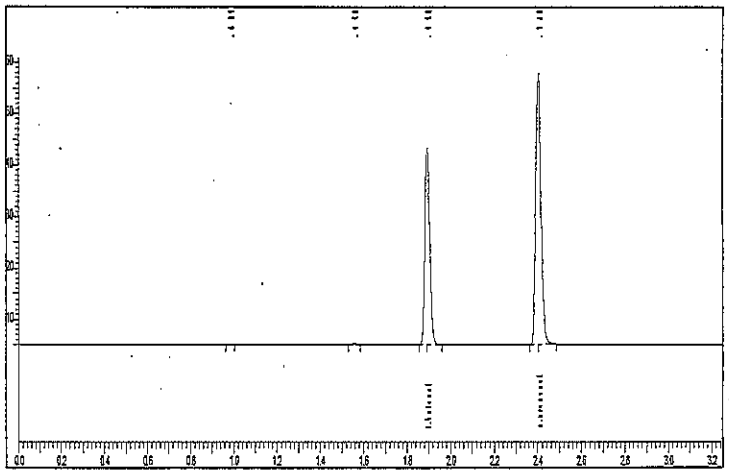
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata031.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata031.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	2.328	t-butanol	61370	1.0194
4	2.707	n-propanol	92740	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.894	t-butanol	60608	1.0286
4	2.405	n-propanol	90406	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Sample Name : BLANK 03182016
Data Acquisition : Mar 18, 2016 at 11:31:09 AM
Cycle : 32

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

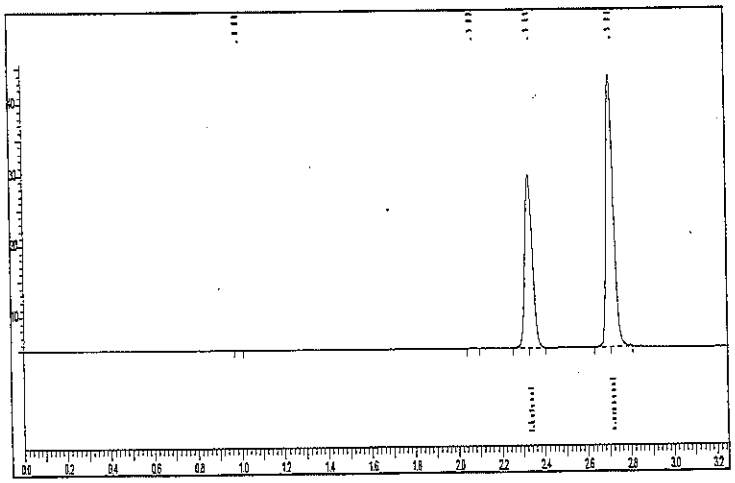
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

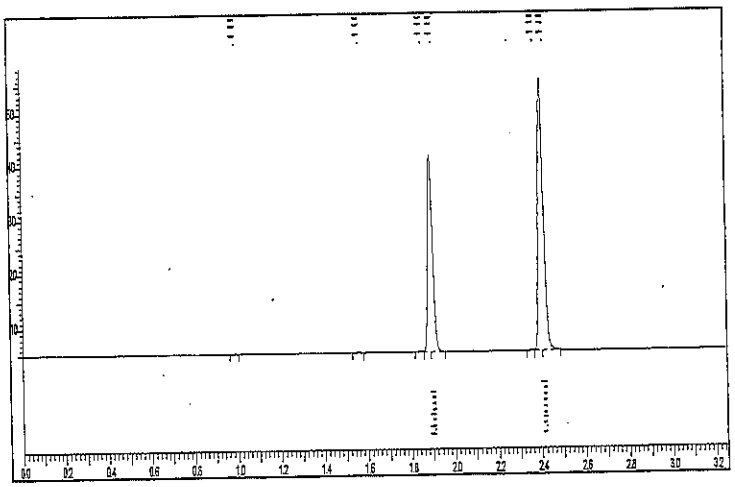
Result File : C:\TC Data\Data\03172016\03172016Adata032.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016Bdata031-20160318-113554.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	2.332	t-butanol	59637	1.0239
4	2.711	n-propanol	89720	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
4	1.894	t-butanol	58379	1.0318
6	2.404	n-propanol	86811	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

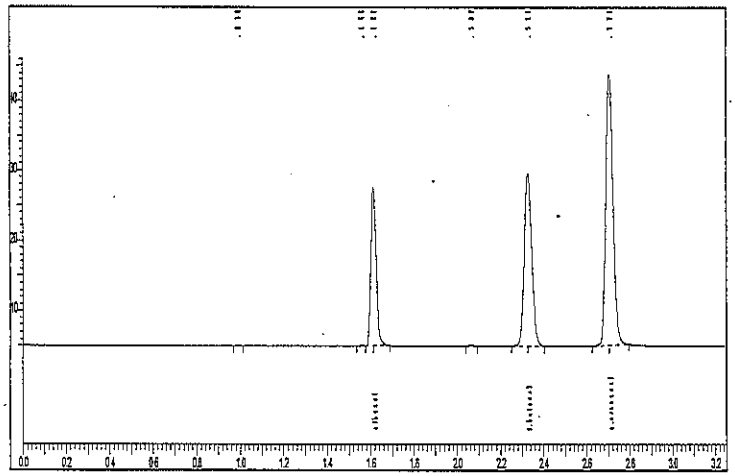
Sample Name : AQ
Data Acquisition : Mar 18, 2016 at 11:41:09 AM
Cycle : 33

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

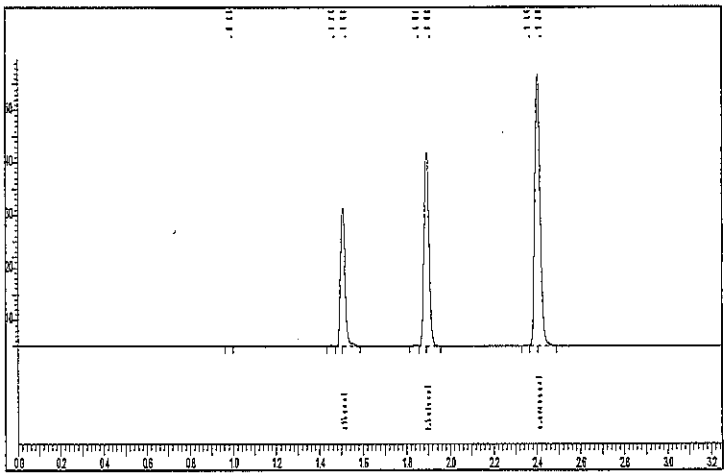
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata033.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata005-20160318-114554.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.614	ethanol	38394	0.0783
5	2.329	t-butanol	59713	1.0196
6	2.707	n-propanol	90215	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.508	ethanol	38792	0.0799
5	1.894	t-butanol	58735	1.0231
7	2.404	n-propanol	88085	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Sample Name : AQ
Data Acquisition : Mar 18, 2016 at 11:51:10 AM
Cycle : 34

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

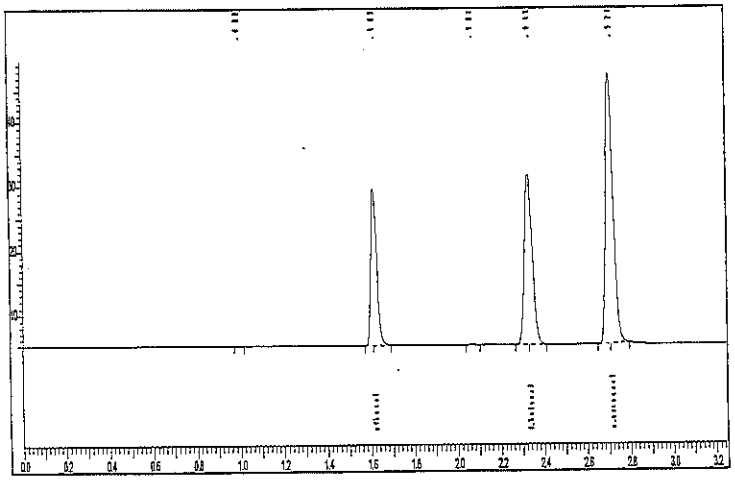
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

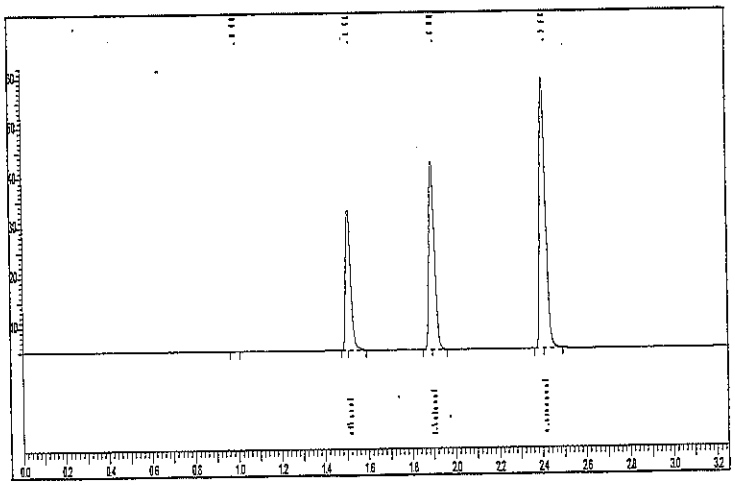
Result File : C:\TC Data\Data\03172016\03172016Adata034.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016Bdata006-20160318-115555.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.616	ethanol	46324	0.0831
4	2.331	t-butanol	67555	1.0145
5	2.709	n-propanol	102574	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.511	ethanol	46767	0.0841
3	1.897	t-butanol	66759	1.0164
4	2.408	n-propanol	100773	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Sample Name : CCS 05
Data Acquisition : Mar 18, 2016 at 12:01:10 PM
Cycle : 35

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

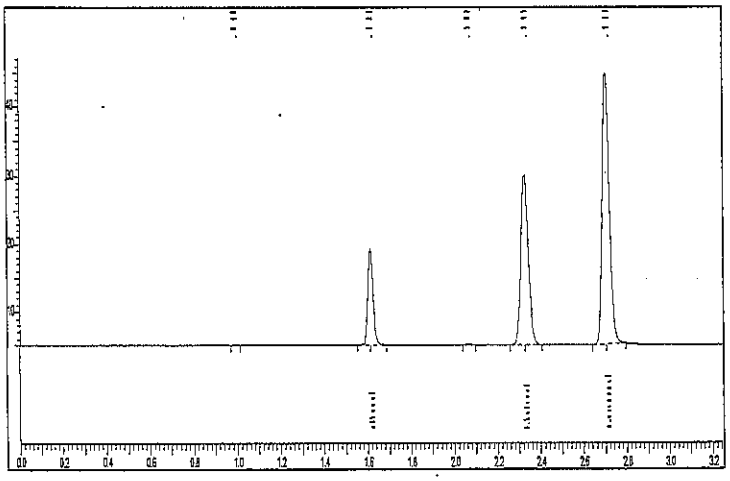
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

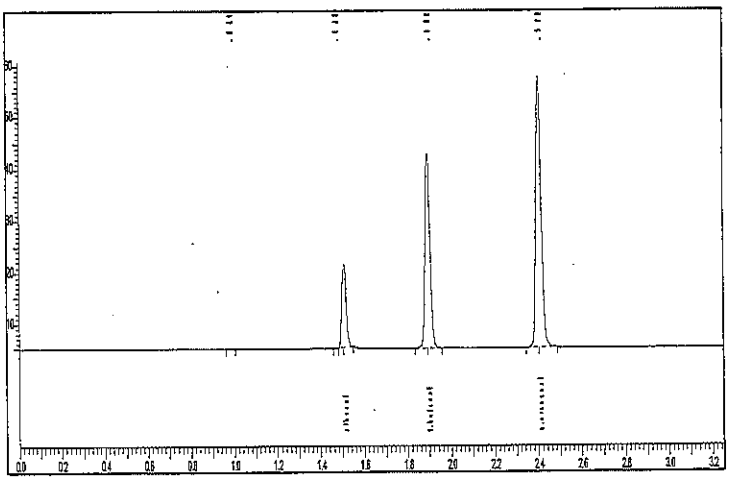
Result File : C:\TC Data\Data\03172016\03172016Adata035.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016Bdata007-20160318-120556.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.614	ethanol	24405	0.0489
4	2.328	t-butanol	61261	1.0209
5	2.706	n-propanol	92434	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	1.508	ethanol	22977	0.0465
4	1.895	t-butanol	60575	1.0274
5	2.405	n-propanol	90463	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

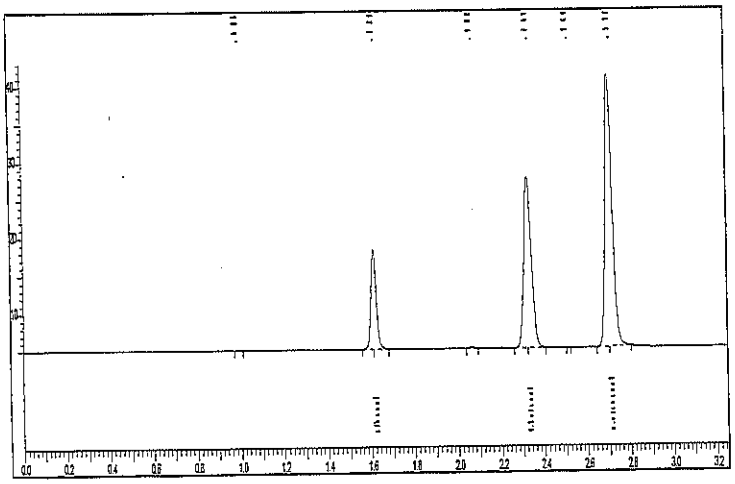
Sample Name : CCS 05
Data Acquisition : Mar 18, 2016 at 12:11:11 PM
Cycle : 36

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

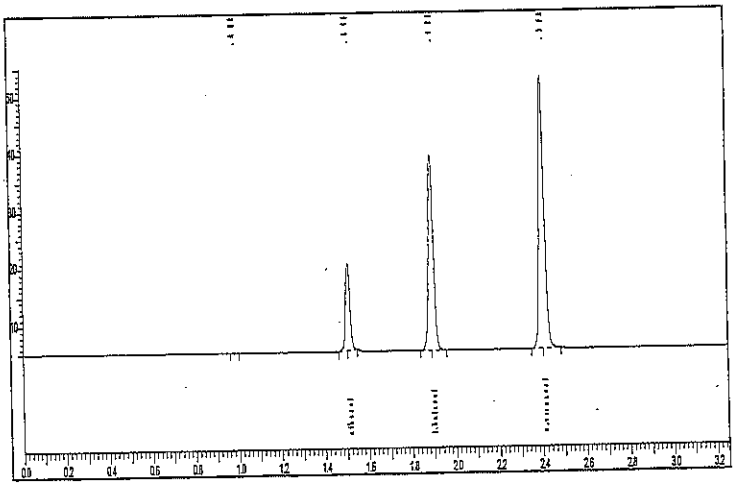
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata036.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata008-20160318-121557.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.613	ethanol	22560	0.0496
4	2.327	t-butanol	55544	1.0164
6	2.706	n-propanol	84183	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.508	ethanol	21542	0.0481
3	1.894	t-butanol	54816	1.0260
4	2.404	n-propanol	81969	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

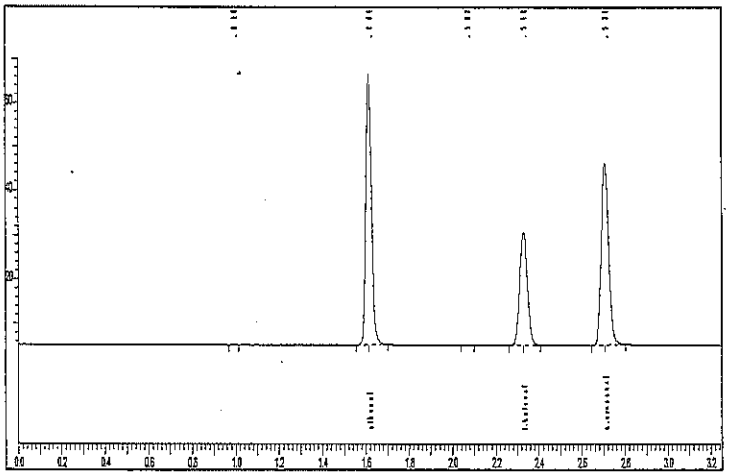
Sample Name : CCS 20
Data Acquisition : Mar 18, 2016 at 12:41:14 PM
Cycle : 39

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

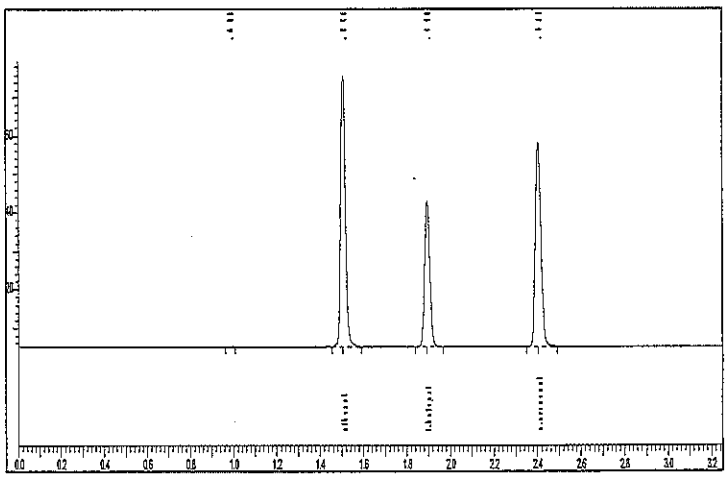
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:
Result File : C:\TC Data\Data\03172016\03172016Adata039.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:
Result File : C:\TC Data\Data\03172016\03172016Bdata031-20160318-124600.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.614	ethanol	110928	0.2063
4	2.328	t-butanol	63911	1.0018
5	2.707	n-propanol	98271	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.508	ethanol	110927	0.2073
3	1.895	t-butanol	63255	1.0080
4	2.405	n-propanol	96278	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Sample Name : CCS 20
Data Acquisition : Mar 18, 2016 at 12:51:15 PM
Cycle : 40

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

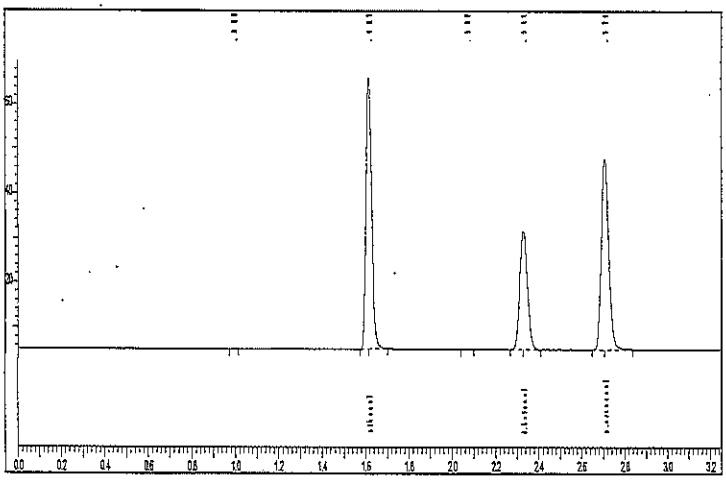
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

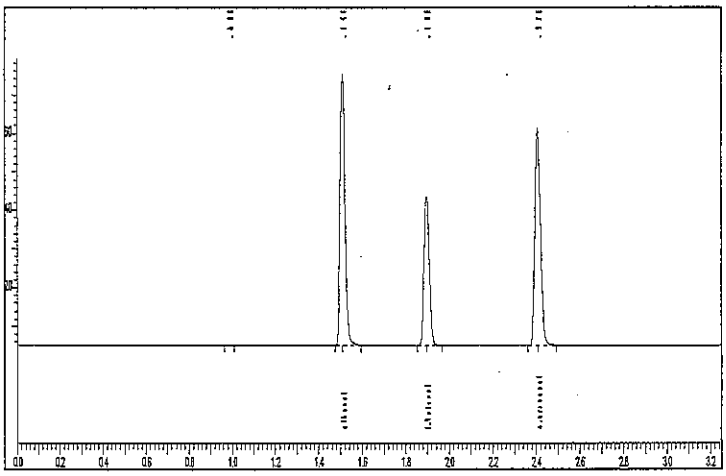
Result File : C:\TC Data\Data\03172016\03172016Adata040.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016Bdata031-20160318-125601.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.615	ethanol	111095	0.1985
4	2.330	t-butanol	66114	0.9955
5	2.708	n-propanol	102306	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
2	1.510	ethanol	111296	0.2018
3	1.896	t-butanol	65441	1.0113
4	2.407	n-propanol	99284	1.0000

Sequence : C:\TC Data\Data\03172016\ALC batch 03172016.seq

Sample Name : BLANK
Data Acquisition : Mar 18, 2016 at 01:01:14 PM
Cycle : 41

Instrument Name : Clarus 580 GC
Report Date : Mar 18, 2016 at 01:25:00 PM
Sequence Name: : 03172016

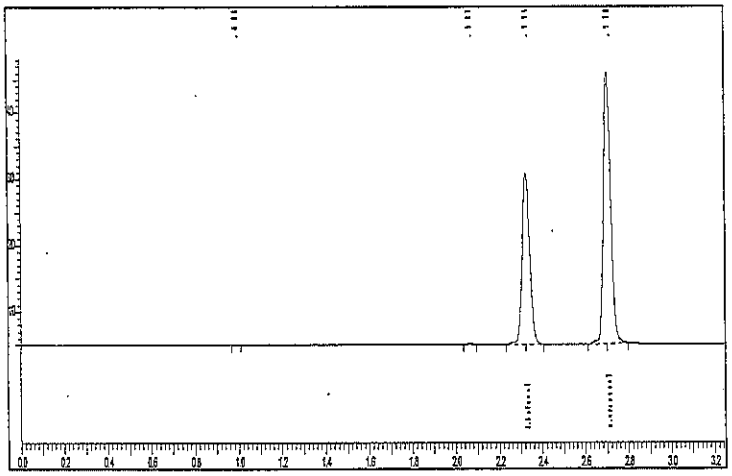
Inst Method : c:\tc data\methods\alc gc method.mth
Report : C:\TC Data\Methods\ALCreport.tpm

Channel A:

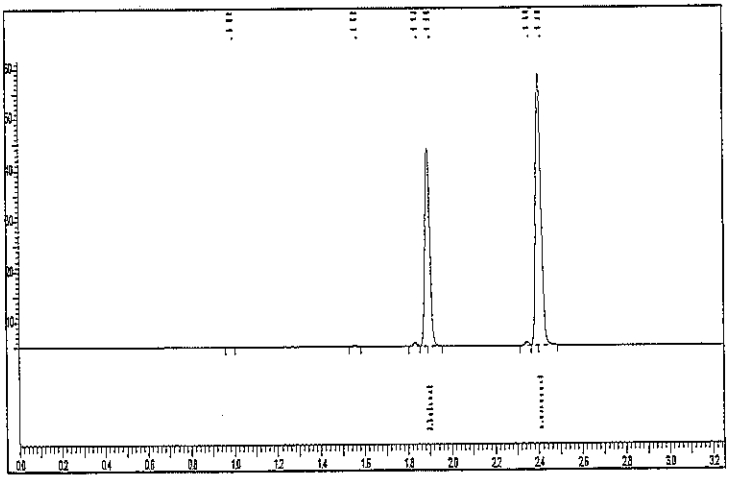
Result File : C:\TC Data\Data\03172016\03172016Adata041.rst
Proc Method : c:\tc data\data\03172016\alc a cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc a cal 03172016.mth

Channel B:

Result File : C:\TC Data\Data\03172016\03172016Bdata031-20160318-130601.rst
Proc Method : c:\tc data\data\03172016\alc b cal 03172016.mth
Cal Method : c:\tc data\data\03172016\alc b cal 03172016.mth



Channel A Chromatogram



Channel B Chromatogram

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
3	2.327	t-butanol	63651	1.0269
4	2.705	n-propanol	95485	1.0000

Peak #	Ret (min)	Compound	Area	Amount (g/100 ml)
4	1.893	t-butanol	61807	1.0326
6	2.403	n-propanol	91836	1.0000

Standard	Manufacturer	Lot No.	Target	-10%	10%
WB Control	Cliniqa	1407031	0.078	0.070	0.086
AQ Control	Cerilliant	FN05211402	0.080	0.072	0.088
IS		IS-12232015			
TMX		TMX-08142015			
STD A	Cerilliant	FN080612-04	0.010	0.009	0.011
STD B	Cerilliant	FN08101401	0.020	0.018	0.022
STD C	Cerilliant	FN06231406	0.050	0.045	0.055
STD D	Cerilliant	FN09051304	0.080	0.072	0.088
STD E	Cerilliant	FN12011401	0.200	0.180	0.220
STD F	Cerilliant	FN11191402	0.400	0.360	0.440
BLANK		BL-12302015			