

WASHINGTON STATE TOXICOLOGY LABORATORY
SIMULATOR SOLUTION DATA ENTRY REVIEW



Reviewer/s: KEN DENTON / ROD GULBERG Date: 1-14-2008

Location: TOX LAB SEATTLE Solution Batch Number: 02019

	YES	NO	N/A
Preparation date precedes all analysis dates:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Data entry corresponds to all chromatograms:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
All signatures present on Analysis sheet:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Avg. solution concentration correct?:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard deviation correct:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Range correct if applicable:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Equivalent vapor concentration correct?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
External Control information correct: (lot # present and future date)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Complies with accuracy and precision requirements established by the State Toxicologist:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CV% Correct?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

INCORRECT DATA ENTERED FOR JAYNE THATCHER

Reviewer Signature: Date: 1-14-08

Reviewer Signature: Date: 1/14/2008

WASHINGTON STATE TOXICOLOGY LABORATORY
 FORENSIC LABORATORY SERVICES BUREAU
 WASHINGTON STATE PATROL
 2203 AIRPORT WAY S, SUITE 360
 SEATTLE, WASHINGTON 98134-2027
 (206) 464-5435 FAX (206) 389-2738

Preparation and certification of **0.08** g/210L **Quality Assurance solution**

Batch number **02019**

Date: 6/25/2002

Preparation: 22.2 mL of absolute ethyl alcohol diluted to 18 Liters with water

Concentration of ethanol (g/100mL) measured by gas chromatography:

RFP
1-14-08

	Anal 1	Anal 2	Anal 3	Anal 4	Anal 5	Anal 6	Anal 7	Anal 8	Anal 9	Anal 10	Anal 11	Anal 12
1	0.098	0.101	0.102	0.098								
2	0.097	0.101	0.103	0.099								
3	0.096	0.101	0.103	0.099								
4	0.100	0.100	0.102	0.099								
5	0.096	0.099	0.103	0.099								
Ctrl	0.096	0.104	0.100									

RFP
1-14-08

External Control:
 Lot #: a021986 Exp date: 01/2005
 Target concentration: 0.10 g/100mL

Statistics:
 Avg. solution concent.: 0.1001 g/100 mL
 SD: 0.00245
 Range (3xSD): 0.0928 to 0.1075
 Precision CV (%): 2.4423 %

Equivalent vapor concent.: 0.0814 g/210L

Analyst	Name	Signature	Date
1	Melissa Pemberton	<i>Melissa Pemberton</i>	06/25/02
2	Egle Weiss	<i>Egle Weiss</i>	06/25/02
3	Jayne Thatcher	<i>Jayne E. Thatcher</i>	06/25/02
4			
5			
6			
7			
8			
9			
10			
11			
12			



STATE OF WASHINGTON

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BAC VERIFIER DATAMASTER QUALITY ASSURANCE SOLUTION
CERTIFICATION

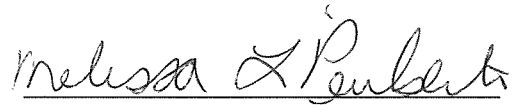
I, Melissa L. Pemberton, do certify under penalty of perjury that:

I am employed by the Washington State Toxicology Laboratory, and a part of my responsibilities includes preparing and testing the alcohol solutions for the BAC Verifier Data Master breath testing instrument.

I possess the following qualifications: Bachelors degree in Microbiology and ten years of experience as a forensic toxicologist.

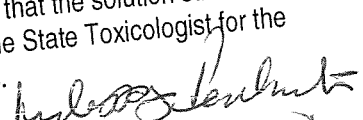
The simulator solution, Lot Number 02019 was prepared in the Washington State Toxicology Laboratory. I examined and tested this solution. The mean concentration of the alcohol was 0.1001 grams per 100ml.

Dated: 6/26/02
Seattle, WA


Melissa L. Pemberton
Forensic Toxicologist

MP/nf
MPQA

A review of solution batch records was recently completed. After this review, I checked the file for this solution and reviewed all changes that were made. I found that the solution still conformed to those standards established by the State Toxicologist for the certification of simulator solutions.


1-15-02





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BAC VERIFIER DATAMASTER QUALITY ASSURANCE SOLUTION
CERTIFICATION

I, Egle Weiss, do certify under penalty of perjury that:

I am employed by the Washington State Toxicology Laboratory, and a part of my responsibilities includes preparing and testing the alcohol solutions for the BAC Verifier Data Master breath test instrument.

I possess the following qualifications: MS degree in Chemistry and twenty-six years experience in analytical chemistry, and eighteen years of experience in the Washington State Toxicology Laboratory.

The simulator solution, Lot Number 02019, was prepared in the Washington State Toxicology Laboratory. I examined and tested this solution. The mean concentration of the alcohol was 0.1001 grams per 100ml.

Dated: 6/26/02
Seattle, WA

Egle Weiss
Forensic Toxicologist

EW/nf
EWQA





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BAC VERIFIER DATAMASTER QUALITY ASSURANCE SOLUTION
CERTIFICATION

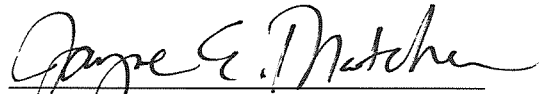
I, Jayne E. Thatcher, do certify under penalty of perjury as follows:

I am employed by the Washington State Toxicology Laboratory, and a part of my responsibilities includes preparing and testing the alcohol solutions for the BAC Verifier Data Master breath test instrument.

I possess the following qualifications: B.S. degree in Cell and Molecular Biology and two years experience in the Washington State Toxicology Laboratory.

The simulator solution, Lot Number 02019, was prepared in the Washington State Toxicology Laboratory. I examined and tested this solution. The mean concentration of the alcohol was 0.1001 grams per 100ml.

Dated: 6/26/02
Seattle, WA


Jayne E. Thatcher
Forensic Toxicologist

JET/nf
JTQA

A review of solution batch records was recently completed. After this review, I checked the file for this solution and reviewed all changes that were made. I found that the solution still conformed to those standards established by the State Toxicologist for the certification of simulator solutions.

 1/17/2008



To: File

From: Jayne E. Thatcher

Subject: Opinion of inconsistencies surrounding solution batches 02018 and 02019

Date: January 6, 2008

MEMO

I am a Forensic Toxicologist for the Washington State Patrol. I have been employed with the agency since June 1998 and employed at the Washington State Toxicology Laboratory since June 2000.

My duties in 2002 involved the preparation, sampling, and preparation of documentation regarding the sampling of Quality Assurance Procedure Solutions and Simulator External Standard Solutions. I have a Bachelors of Science in Cell and Molecular Biology and minors in Chemistry and Microbiology from the University of Washington. I am presently a graduate student in the Department of Pharmaceutics, University of Washington. However, I have maintained a part time position with the WSTL. I am currently filling in as the Acting Quality Assurance Manager.

On June 25, 2002 I aliquoted and tested both Simulator Solution 02018 and QAP Solution 02019.

On December 27, 2007 I received an e-mail from Trooper Ken Denton of the WSP breath test section requesting I call him. I didn't receive this e-mail until I was coming home from school that evening and tried to return his call but was unable to get a connection and decided to try back in the morning.

A few hours later I noticed an e-mail from Dr. Logan requesting I call him, which I did. He informed me that one of the (QA solutions or Sim Solutions) I had certified listed values in the database that did not match the values listed on the chromatograms. He asked if I recalled why this was the case, and I informed him I didn't. I suggested that we pull the case folder that would have contained the sequence logs, standards and controls. On occasion I would run the simulator solution on both instruments, even though data for only one instrument is collected. Therefore, I proposed that I may have entered the results from one instrument, but filed the chromatograms from the other instrument. I apologized for having possibly made an error, and requested that he let me know what the outcome of the search revealed.

On the morning of December 28th I again attempted to contact Trooper Denton, first around 7:00am at the breath test section but the phone was not answered. Around 7:30am I reached him on his cell phone. I informed him that Dr. Logan had informed me of the discrepancy and I informed Trooper Denton that I didn't recall what had occurred

and offered the same possible explanation as I had provided to Dr. Logan. He informed me he would be going to the toxicology lab later that morning to look into the matter.

Either Trooper Denton or Dr. Logan, I don't remember which, asked if I would had any notes that would explain why there was a discrepancy and I informed him that I did not.

That afternoon I received a voicemail from Dr. Logan and when I returned his call he informed me it was discovered I had analyzed a (QA solutions or Sim Solution) of the same concentration as the (QA solutions or Sim Solution) on the same date and at approximately the same time and that the values entered in the database for QA Solution 02019 matched the values on the chromatograms corresponding to Simulator Solution 02018 and vice versa. We agreed that I had likely entered the values incorrectly and that we would look at the data when I was in on Sunday, December 30th.

On December 30th Dr. Logan showed me the folders containing the data for batches 02018 and 02019. He showed me my chromatograms for the two batches and the values on the worksheets. It is my belief that when I entered the values into the filemaker database, I entered the 02019 values from instrument #1 into the database spreadsheet for batch 02018 and that I entered the 02018 values from instrument #2.

After reviewing the data I do not believe that I mislabeled my sequence because the values I entered into the 02018 spreadsheet, while well within the acceptable range, appear to be lower than all of the other data points. My results are the only data points less than 0.100%. The values I entered into the 02019 spreadsheet, which I believe should have been entered into the 02018 spreadsheet are consistent with the other values. I also would have made a note of the error and any corrective action on the chromatograms if I had knowingly switched the vials on the instrument/mislabeled the sequence, leading me to purposely enter the results from 02018 into 02019 and vice versa.

On the evening of January 4th I received an e-mail from Dr. Logan indicating I would likely need to testify in court.

On January 6th he again showed me the folders and suggested I review them and see if I could form an opinion as to what I did. Shortly after this, I spoke with Prosecutor Matt Anderson. I explained that I believe I may have switched the values for the two solutions when I entered the results into the database.

The following are the results of the data as it was sampled (chromatogram values) and as it was entered (values as they appear on the filemaker database worksheet).

Chromatogram values

Instrument #	Vial #	Time	Sample Name	EtOH value
2	12	5:26:38 PM	02018-1	0.102
2	13	5:29:53 PM	02018-2	0.103
2	14	5:32:55 PM	02018-3	0.103
2	15	5:35:57 PM	02018-4	0.102
2	16	5:38:58 PM	02018-5	0.103
2	10	5:20:34 PM	0.10 CONTROL	0.099

Values as they appear on the filemaker database worksheets

Worksheet 02018
<i>0.098</i>
<i>0.099</i>
<i>0.099</i>
<i>0.099</i>
<i>0.099</i>
<i>0.099</i>

Instrument #	Vial #	Time	Sample Name	EtOH value
1	12	5:28:00 PM	02019-1	<i>0.098</i>
1	13	5:31:17 PM	02019-2	<i>0.099</i>
1	14	5:34:18 PM	02019-3	<i>0.099</i>
1	15	5:37:20 PM	02019-4	<i>0.099</i>
1	16	5:40:22 PM	02019-5	<i>0.099</i>
1	10	5:21:57 PM	0.10 CONTROL	0.100

Worksheet 02019
0.102
0.103
0.103
0.102
0.103
0.100

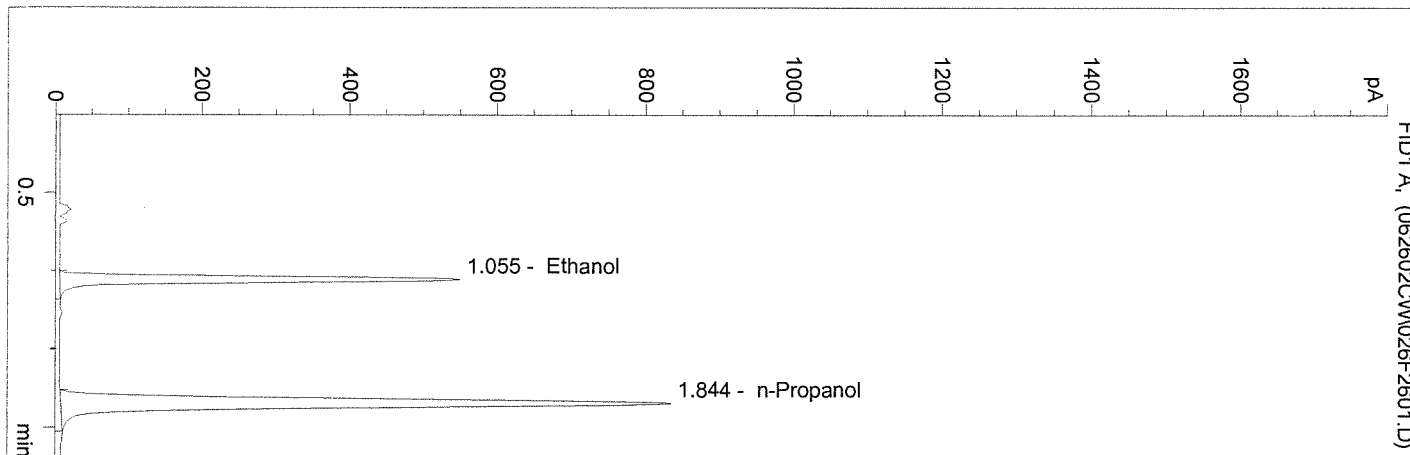
As shown in bold type, the values on the chromatograms labeled as 02018 are the same as the values entered into the worksheet for 02019. Likewise, as shown in italicized type, the values on the chromatograms labeled as 02019 are the same as the values entered on the worksheet for 02018.

The values from instrument #2 which are labeled as 02018 should have been entered into the worksheet for 02018 and the values from instrument #1 labeled as 02019 should have been entered into the worksheet for 02019.

C:\HPCHEM\2\METHODS\BLDALCO2.M
 6/25/02 11:57:58 AM
 Instrument 2
 FID1-ALC1

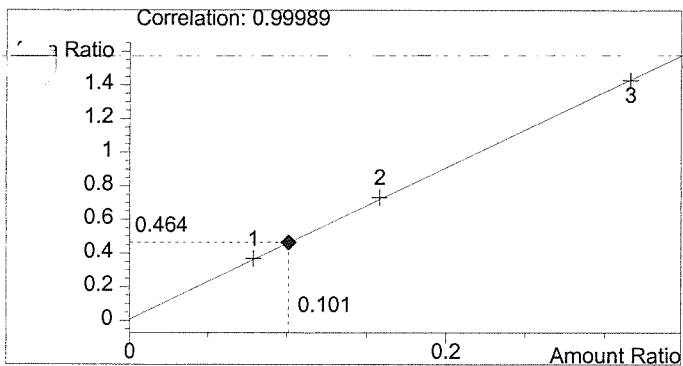
QA SOL 02019
 EGLE WEISS

vial # 26

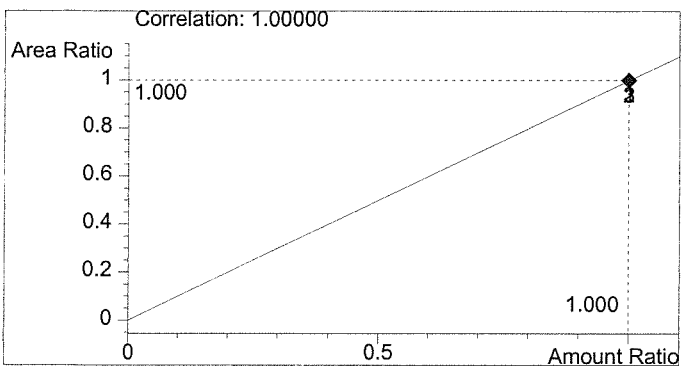


#	Compound	Area	RT
1	Ethanol	1476	1.055
2	n-Propanol	3182	1.844

Totals:



Ethanol 0.101 g/100ml

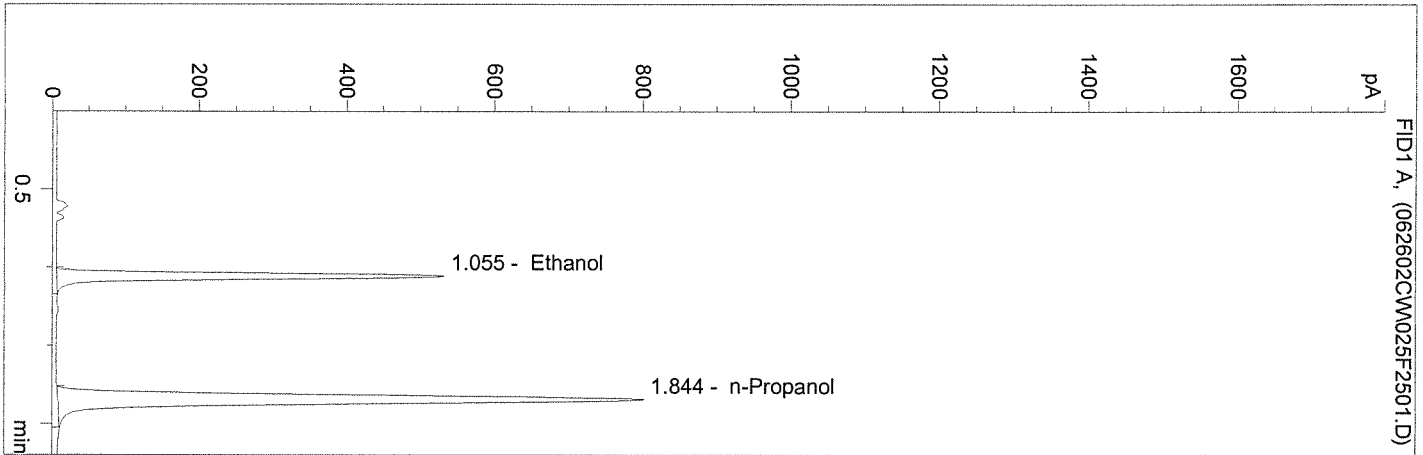


n-Propanol 1.000 g/100ml

C:\HPCHEM\2\METHODS\BLDALCO2.M
 6/25/02 11:54:51 AM
 Instrument 2
 FID1 ALC1

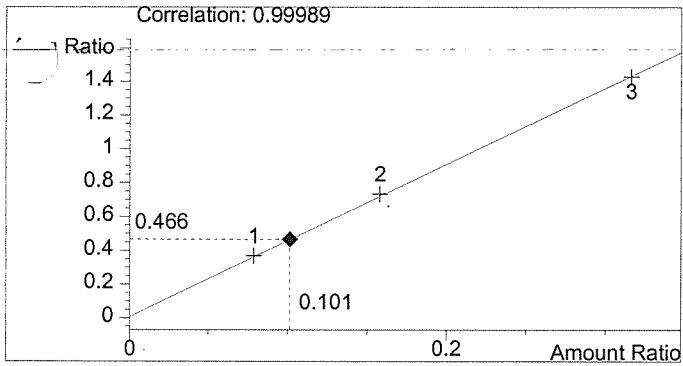
QA SOL 02019
 EGLE WEISS

vial # 25

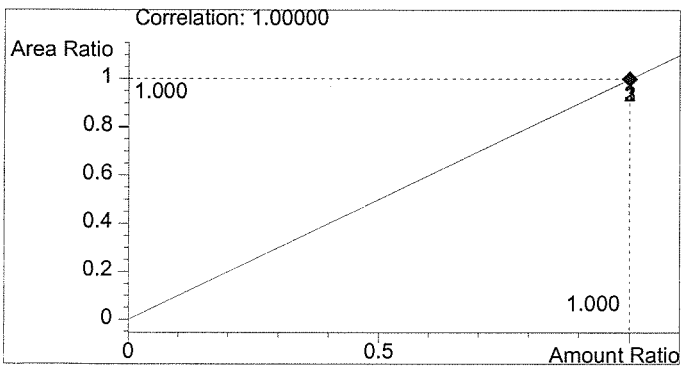


#	Compound	Area	RT
1	Ethanol	1425	1.055
2	n-Propanol	3058	1.844

Totals:



Ethanol 0.101 g/100ml

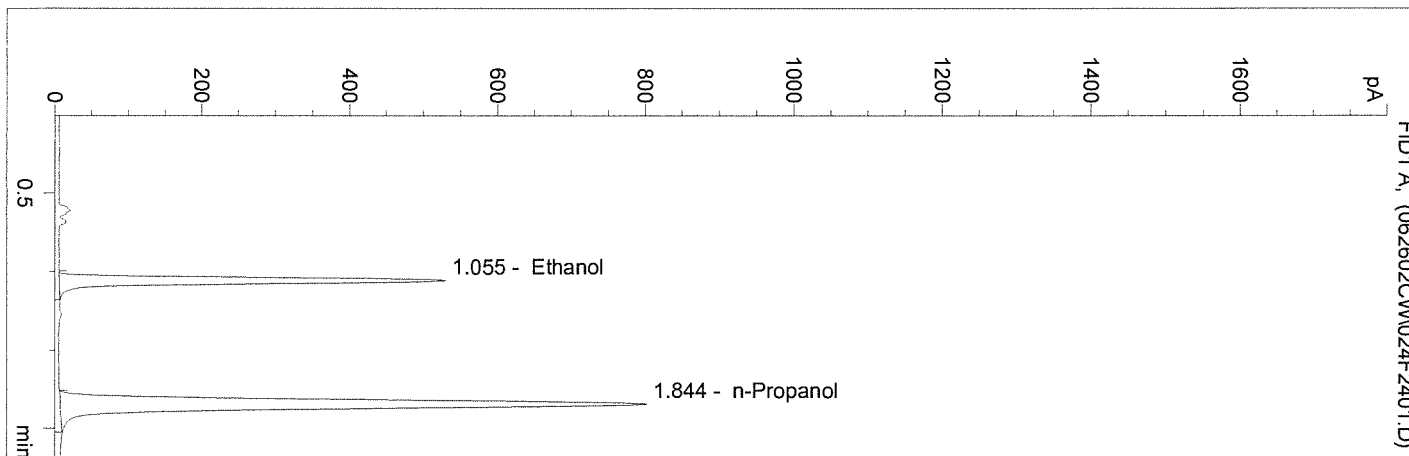


n-Propanol 1.000 g/100ml

C:\HPCHEM\2\METHODS\BLDALCO2.M
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 Instrument 2
 FID1 ALC1

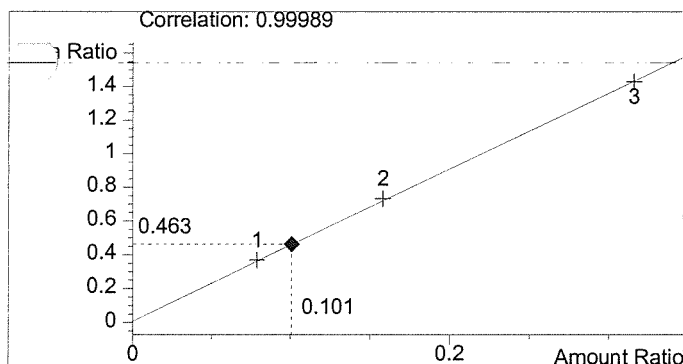
QA SOL 02019
 EGLE WEISS

vial # 24

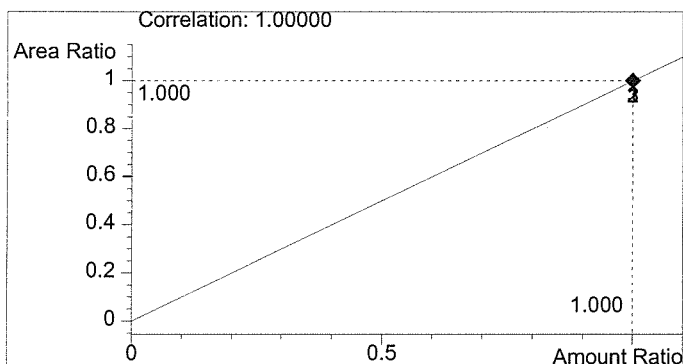


#	Compound	Area	RT
1	Ethanol	1417	1.055
2	n-Propanol	3059	1.844

Totals:



Ethanol 0.101 g/100ml

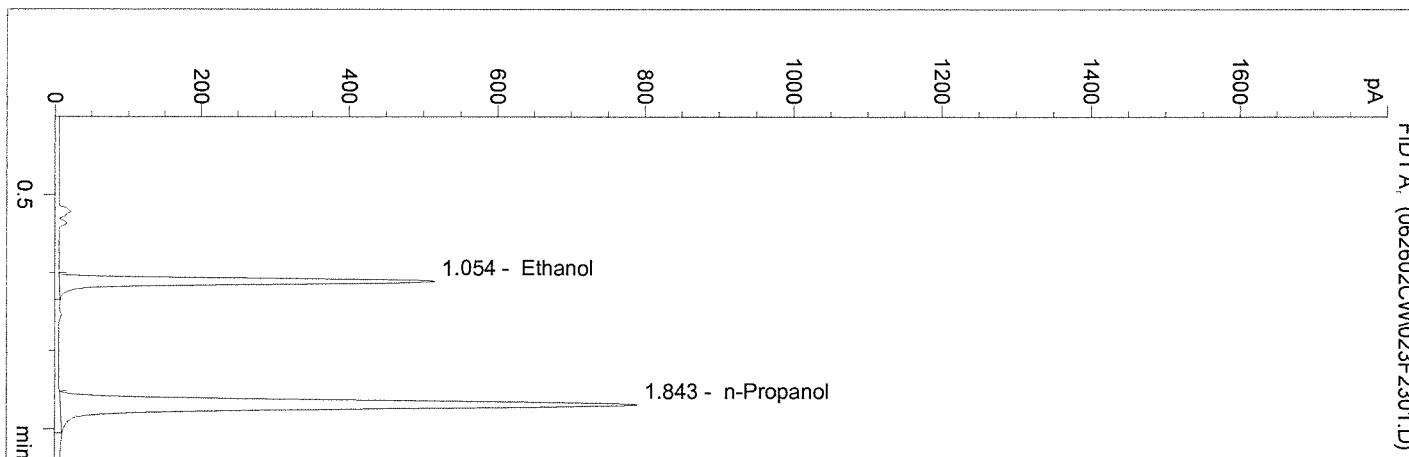


n-Propanol 1.000 g/100ml

C:\HPCHEM\2\METHODS\BLDALCO2.M
 6/25/02 11:48:34 AM
 Instrument 2
 ALC1

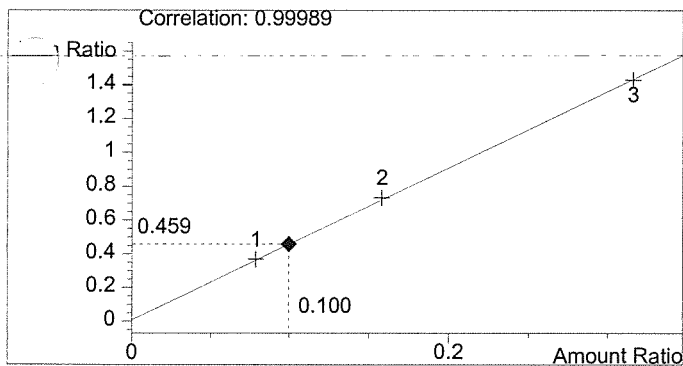
QA SOL 02019
 EGLE WEISS

vial # 23

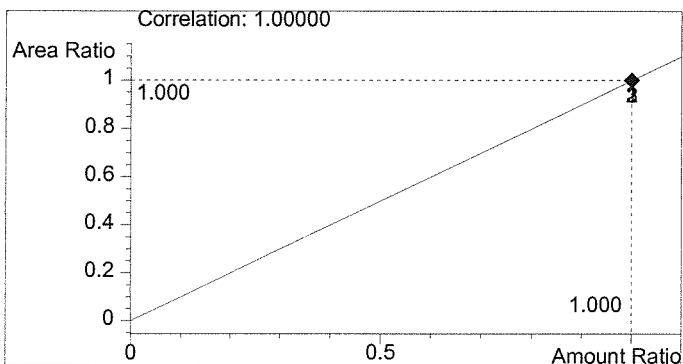


#	Compound	Area	RT
1	Ethanol	1385	1.054
2	n-Propanol	3020	1.843

Totals:

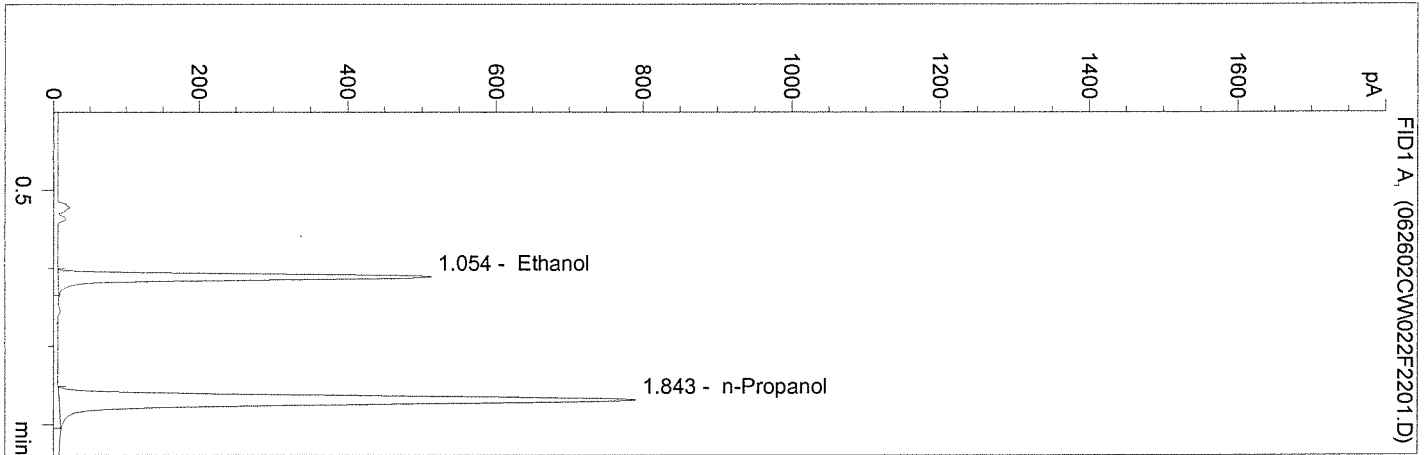


Ethanol 0.100 g/100ml



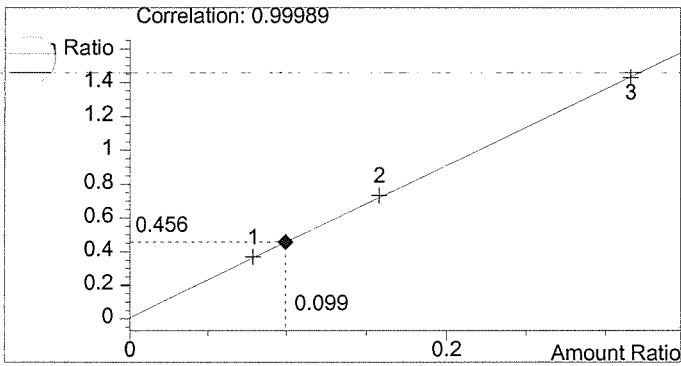
n-Propanol 1.000 g/100ml

vial # 22

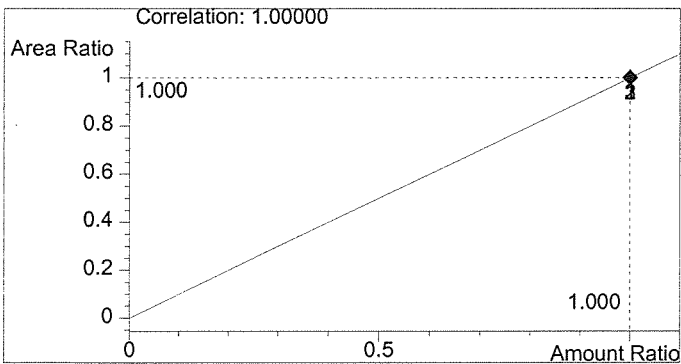


#	Compound	Area	RT
1	Ethanol	1378	1.054
2	n-Propanol	3020	1.843

Totals:



Ethanol 0.099 g/100ml

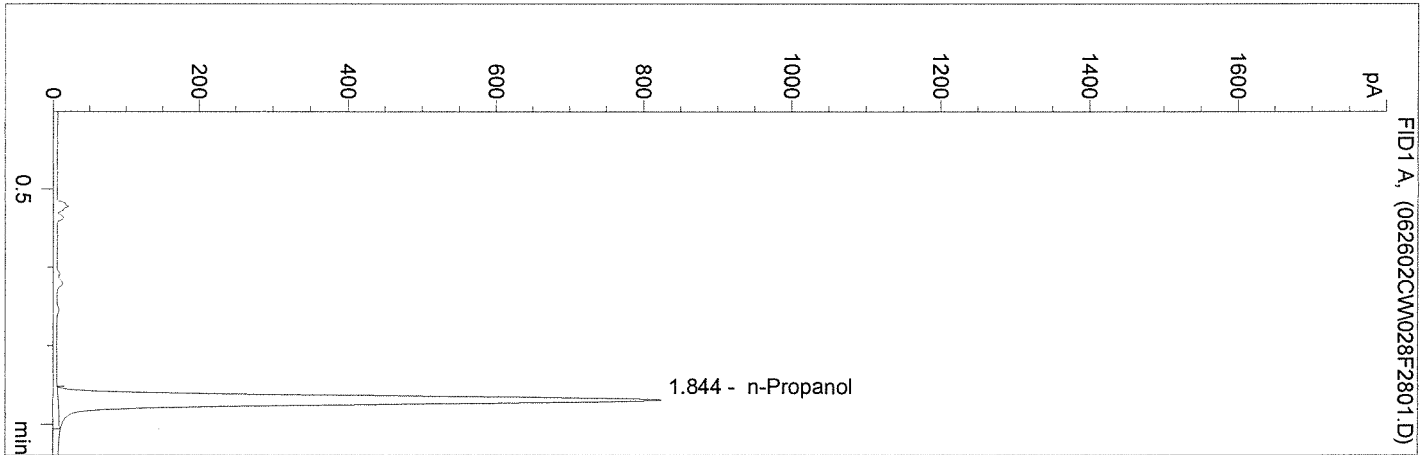


n-Propanol 1.000 g/100ml

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 6/25/02 12:04:15 PM
 Instrument 2
 ALC1

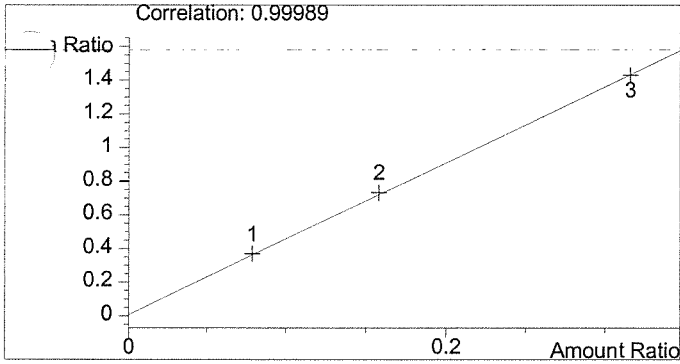
BLK
 EGLE WEISS

vial # 28

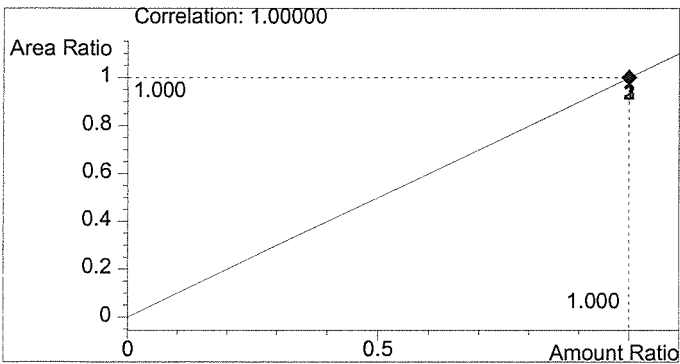


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	3143	1.844

Totals:



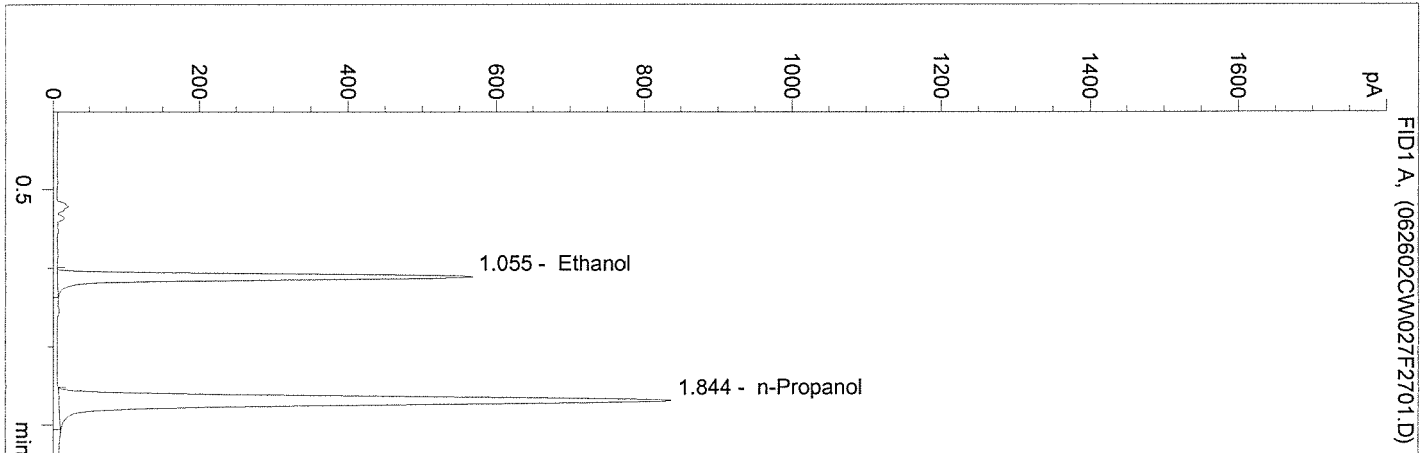
Ethanol 0.000 g/100ml



n-Propanol 1.000 g/100ml

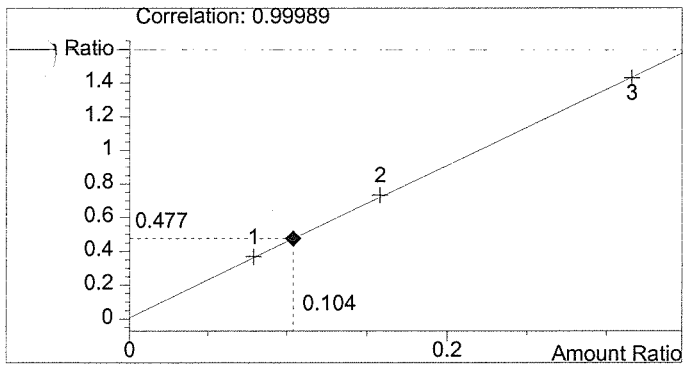
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 Instrument 2
 ALC1

0.100 CONTROL
 EGLE WEISS
 vial # 27

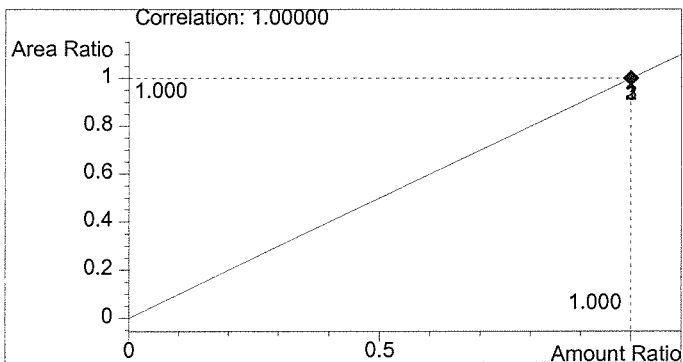


#	Compound	Area	RT
1	Ethanol	1519	1.055
2	n-Propanol	3187	1.844

Totals:



Ethanol 0.104 g/100ml



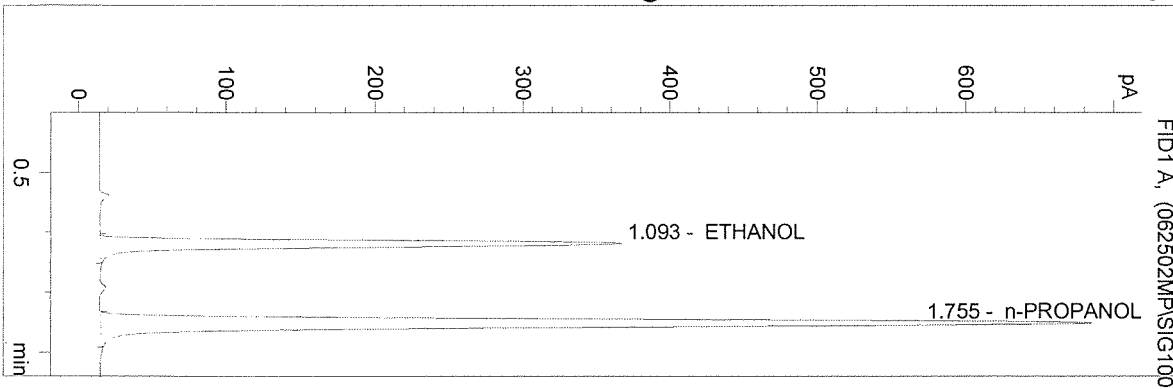
n-Propanol 1.000 g/100ml

C:\HPCHEM\1\METHODS\BLDALCO3.M
 6/25/02 7:41:38 AM
 Instrument 3
 DB-ALC1

See 02018 for cal

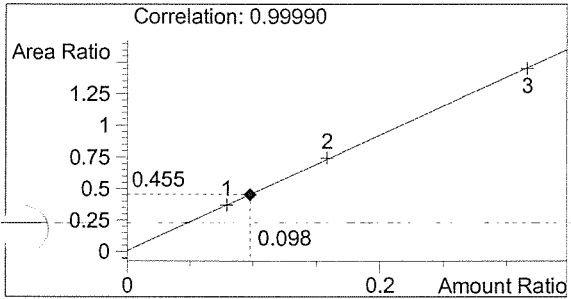
02019 0.08 qa
 m pemberton

vial # 15

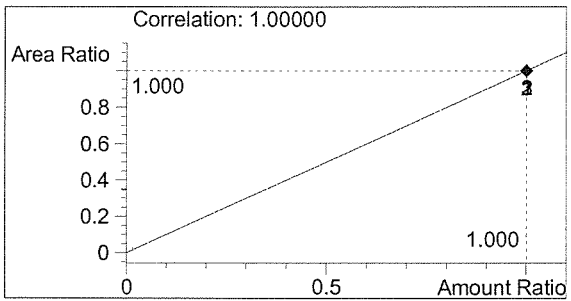


#	Compound	Area	RT
1	ETHANOL	1392	1.093
2	n-PROPANOL	3058	1.755

Totals:



ETHANOL 0.098 mg/L



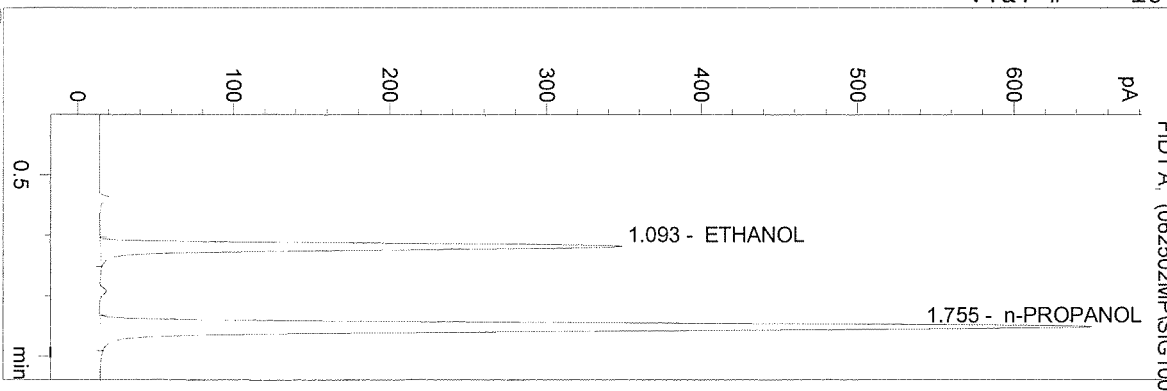
n-PROPANOL 1.000 mg/L

*MS
 7-15-06*

C:\HPCHEM\1\METHODS\BLDALCO3.M
 6/25/02 7:44:48 AM
 Instrument 3
 DB-ALC1

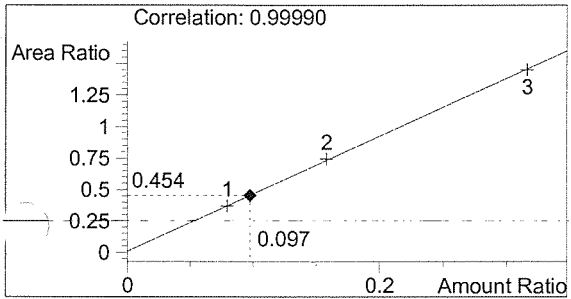
02019 0.08 qa
 m pemberton

vial # 16

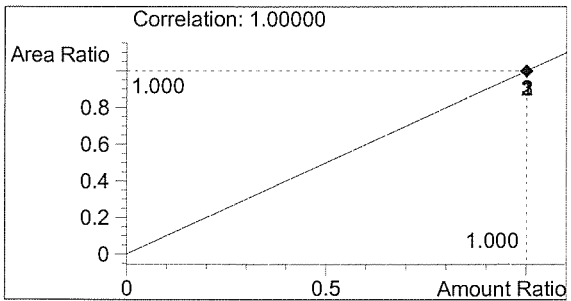


#	Compound	Area	RT
1	ETHANOL	1309	1.093
2	n-PROPANOL	2887	1.755

Totals:



ETHANOL 0.097 mg/L



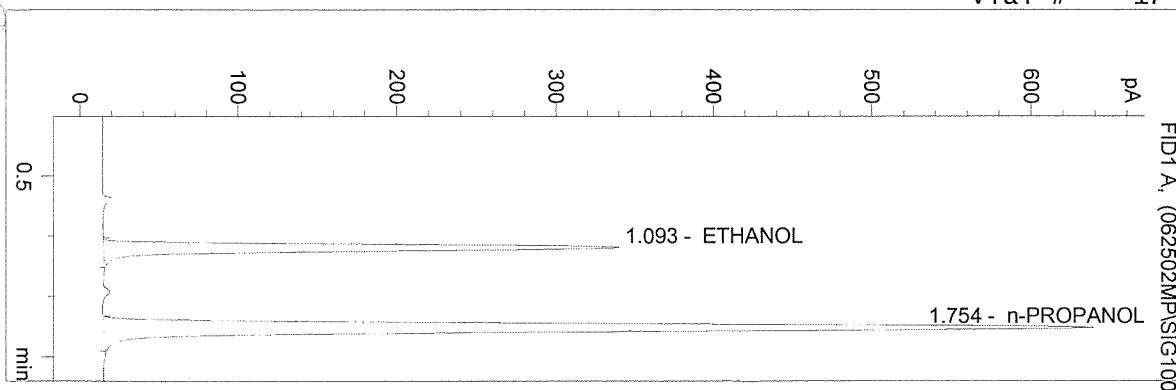
n-PROPANOL 1.000 mg/L

Handwritten: kmp
 1-15-05

C:\HPCHEM\1\METHODS\BLDALCO3.M
6/25/02 7:48:11 AM
Instrument 3
DB-ALC1

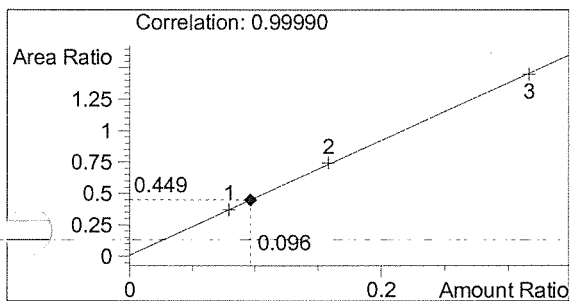
02019 0.08 qa
m pemberton

vial # 17

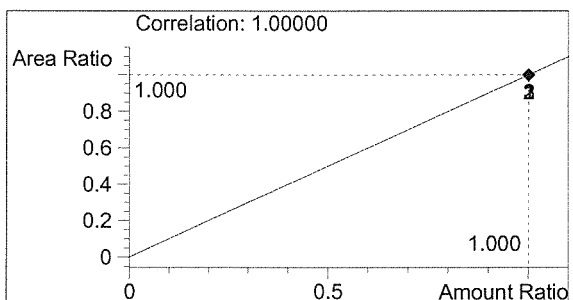


#	Compound	Area	RT
1	ETHANOL	1274	1.093
2	n-PROPANOL	2836	1.754

Totals:



ETHANOL 0.096 mg/L



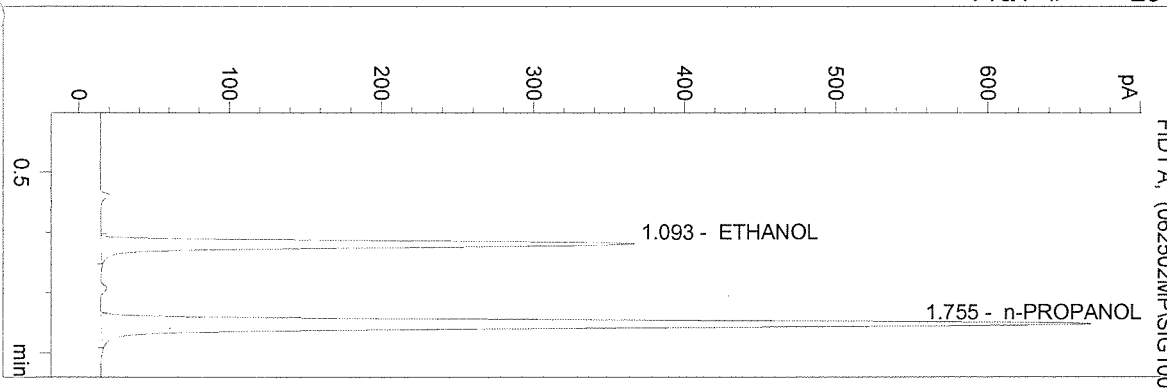
n-PROPANOL 1.000 mg/L

Handwritten: 1-15-28

C:\HPCHEM\1\METHODS\BLDALCO3.M
 6/25/02 7:51:21 AM
 Instrument 3
 DB-ALC1

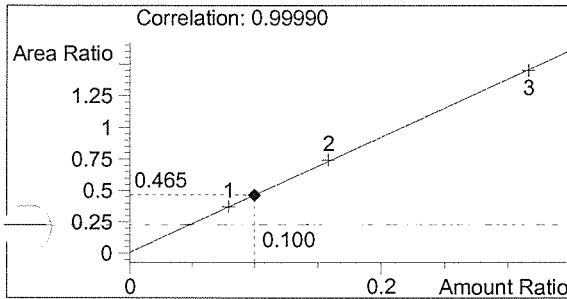
02019 0.08 qa
 m pemberton

vial # 18

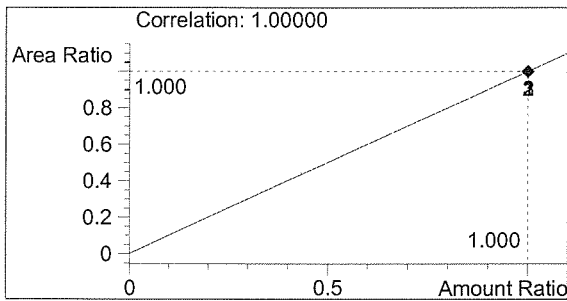


#	Compound	Area	RT
1	ETHANOL	1378	1.093
2	n-PROPANOL	2965	1.755

Totals:



ETHANOL 0.100 mg/L



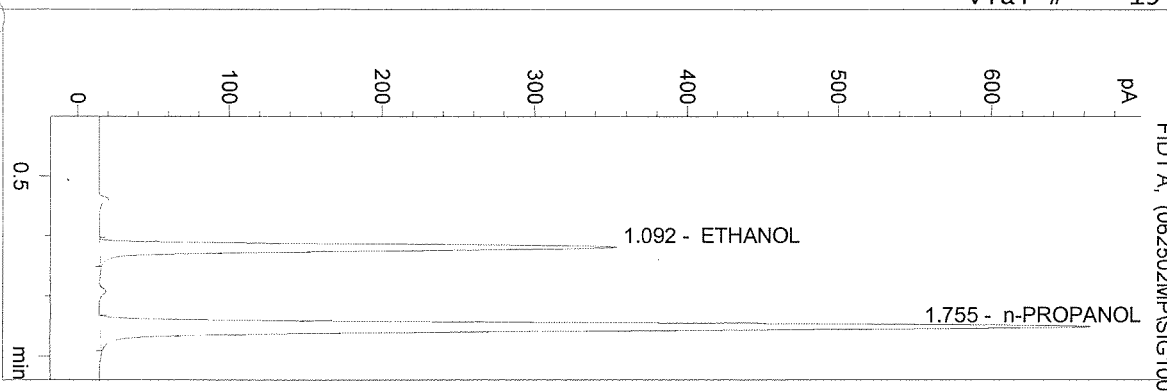
n-PROPANOL 1.000 mg/L

*bp
 7-15-02*

C:\HPCHEM\1\METHODS\BLDALCO3.M
 6/25/02 7:54:31 AM
 Instrument 3
 DB-ALC1

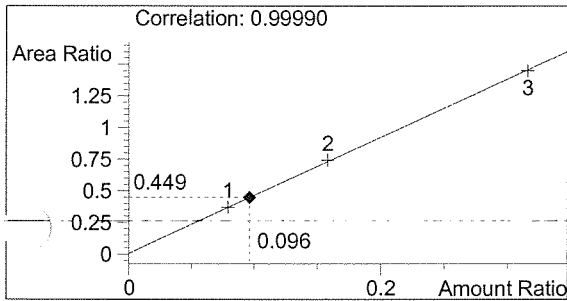
02019 0.08 qa
 m pemberton

vial # 19

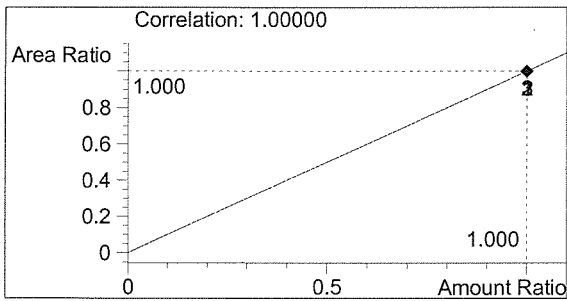


#	Compound	Area	RT
1	ETHANOL	1334	1.092
2	n-PROPANOL	2969	1.755

Totals:



ETHANOL 0.096 mg/L



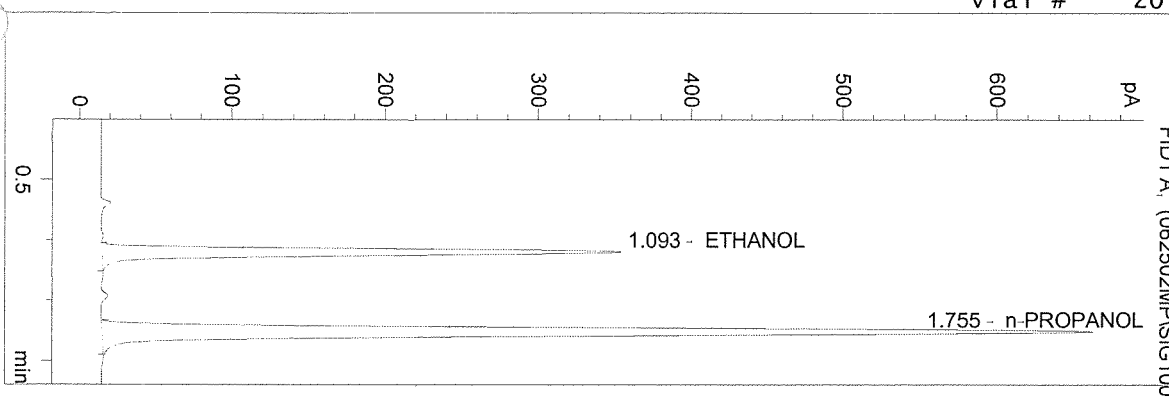
n-PROPANOL 1.000 mg/L

Handwritten signature
 7-15-06

C:\HPCHEM\1\METHODS\BLDALCO3.M
 6/25/02 7:57:40 AM
 Instrument 3
 DB-ALC1

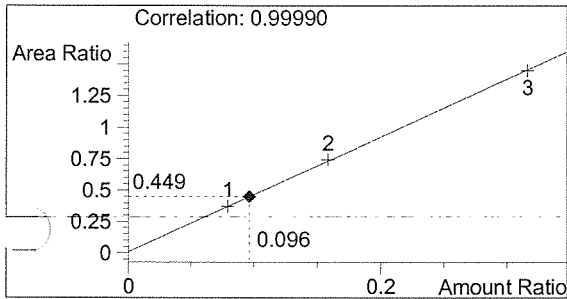
0.10 control
 m pemberton

vial # 20

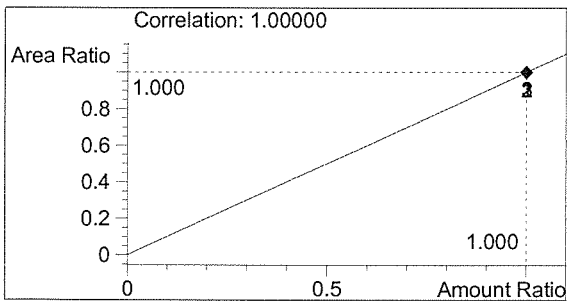


#	Compound	Area	RT
1	ETHANOL	1325	1.093
2	n-PROPANOL	2950	1.755

Totals:

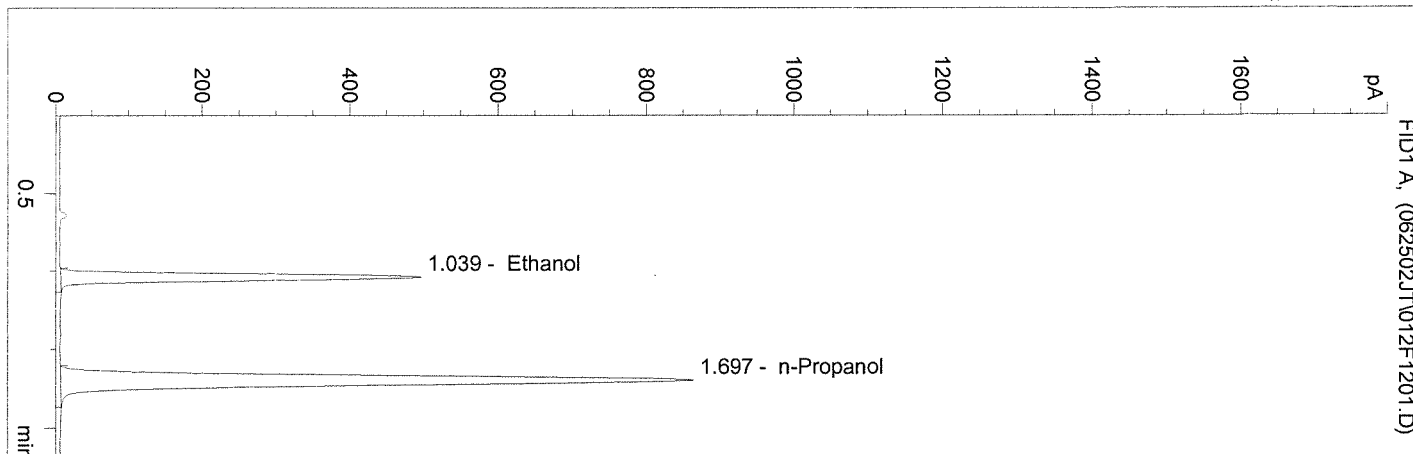


ETHANOL 0.096 mg/L



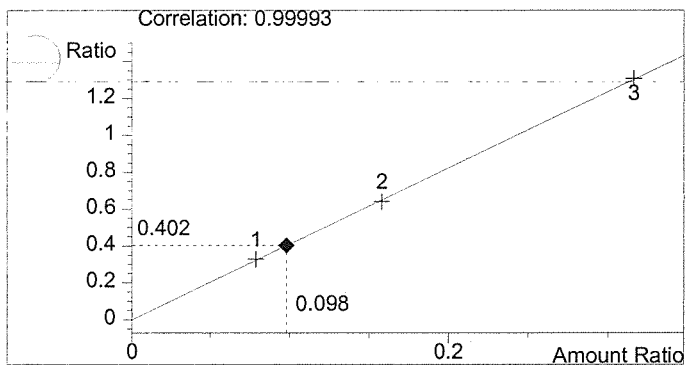
n-PROPANOL 1.000 mg/L

LD
7-15-02

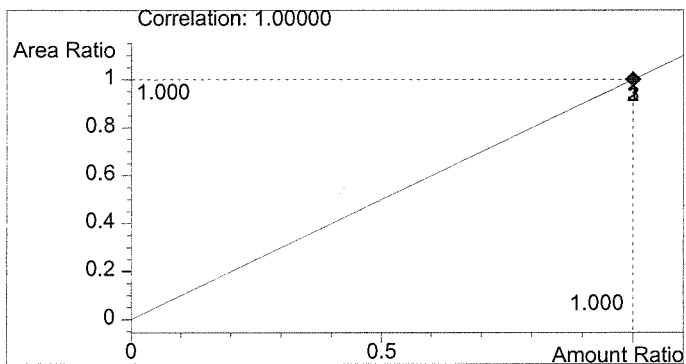


#	Compound	Area	RT
1	Ethanol	1430	1.039
2	n-Propanol	3558	1.697

Totals:



Ethanol 0.098 g/100ml



n-Propanol 1.000 g/100ml

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6/25/02 5:31:17 PM

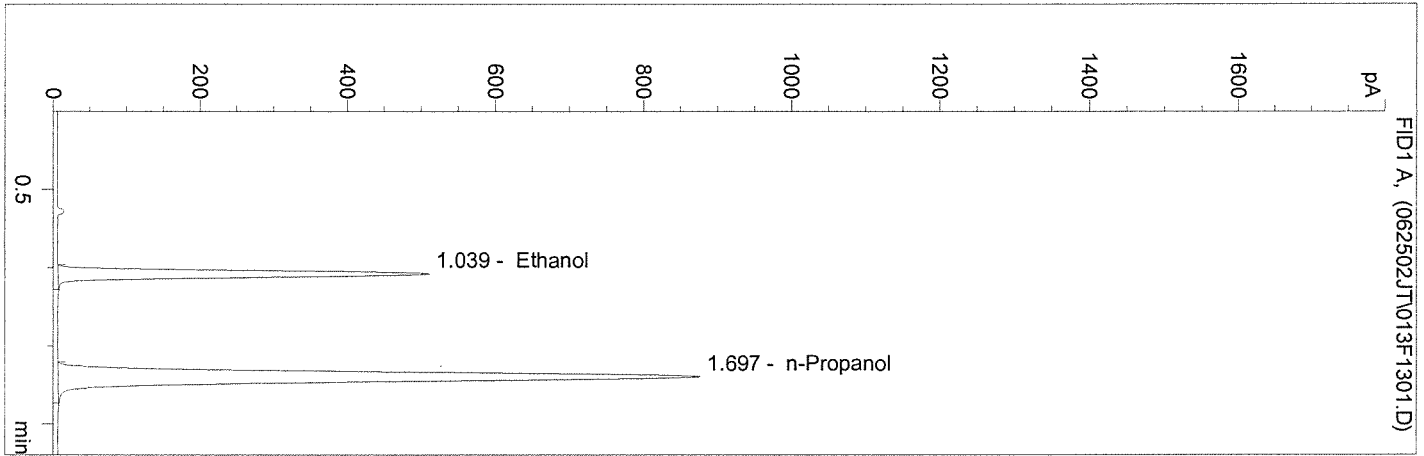
Instrument 1

ALC1

02019-2

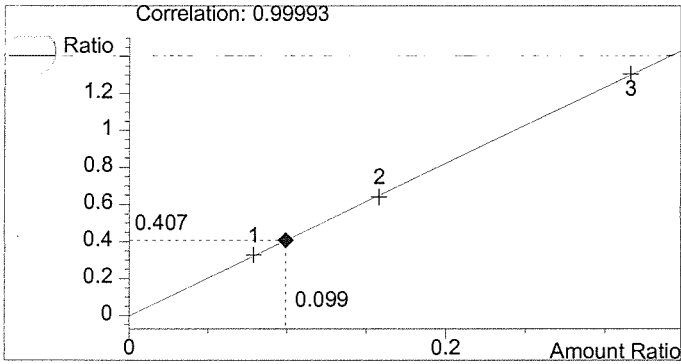
JAYNE THATCHER

vial # 13

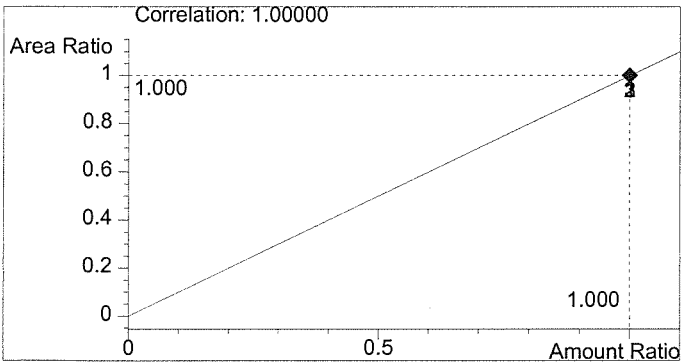


#	Compound	Area	RT
1	Ethanol	1463	1.039
2	n-Propanol	3593	1.697

Totals:



Ethanol 0.099 g/100ml



n-Propanol 1.000 g/100ml

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6/25/02 5:34:18 PM

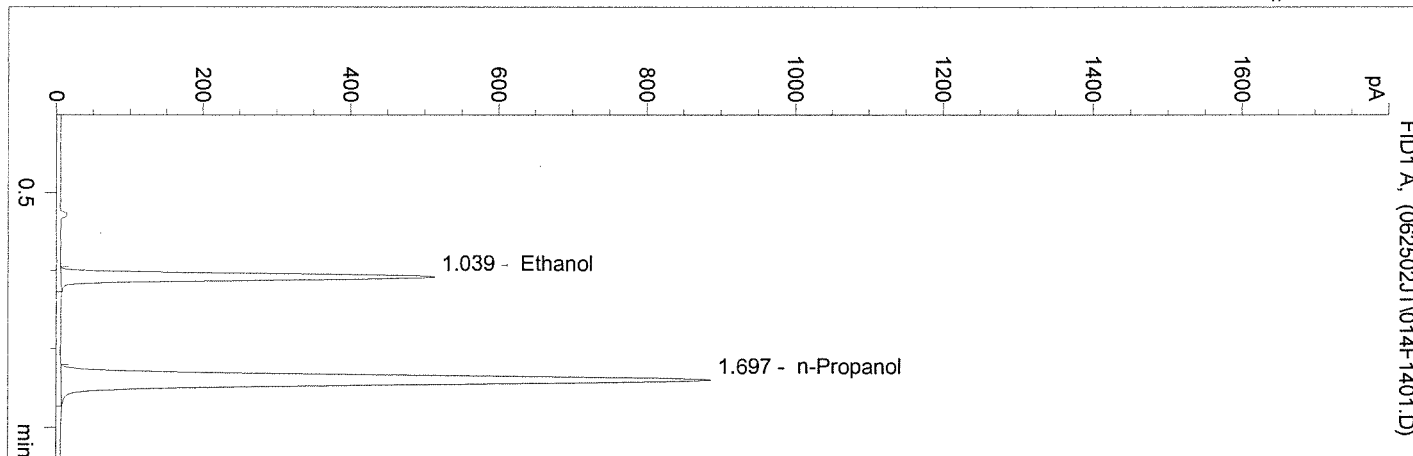
Instrument 1

ALC1

02019-3

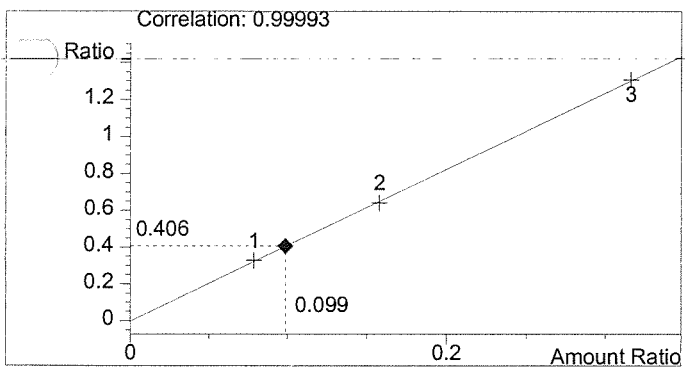
JAYNE THATCHER

vial # 14

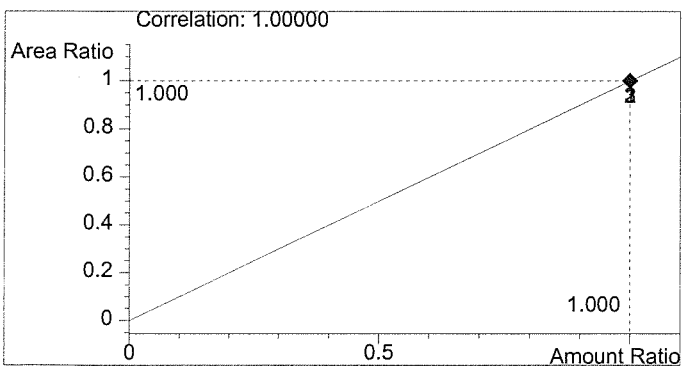


#	Compound	Area	RT
1	Ethanol	1480	1.039
2	n-Propanol	3650	1.697

Totals:



Ethanol 0.099 g/100ml

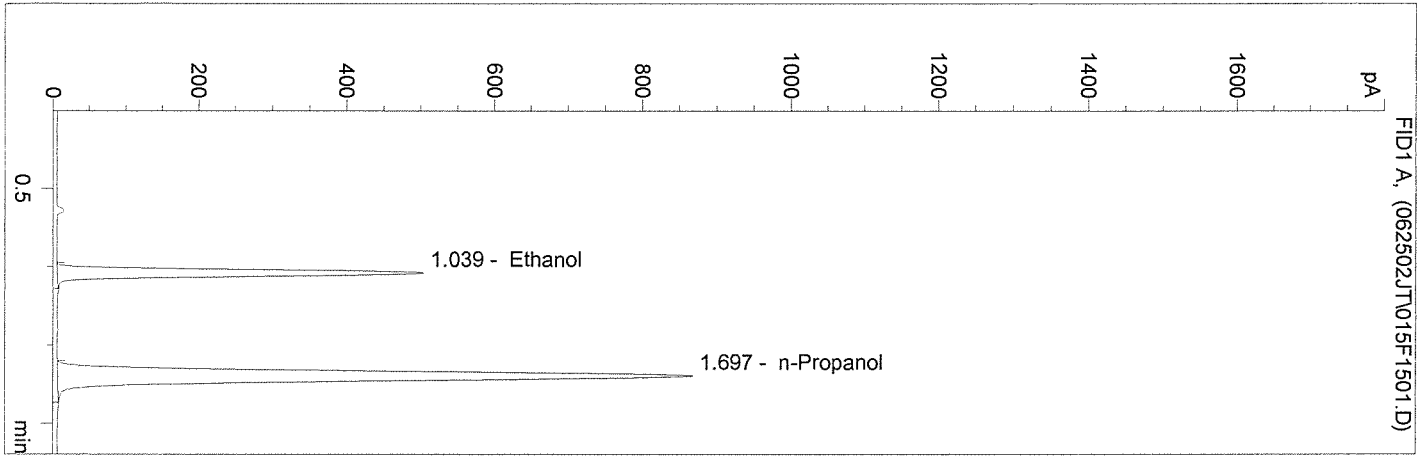


n-Propanol 1.000 g/100ml

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 6/25/02 5:37:20 PM
 Instrument 1
 ALC1

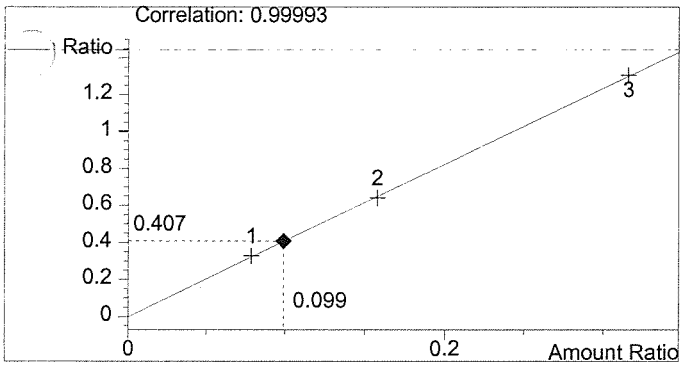
02019-4
 JAYNE THATCHER

vial # 15

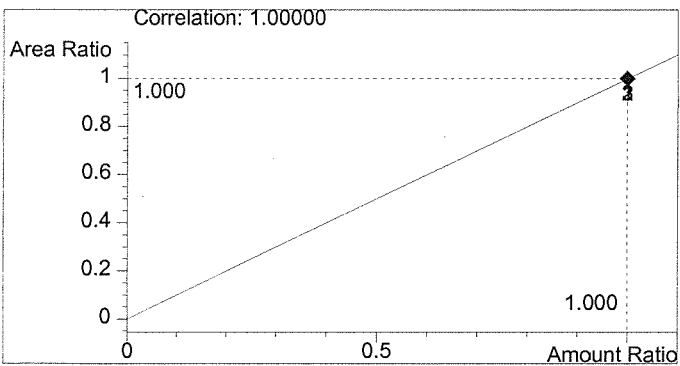


#	Compound	Area	RT
1	Ethanol	1453	1.039
2	n-Propanol	3566	1.697

Totals:



Ethanol 0.099 g/100ml

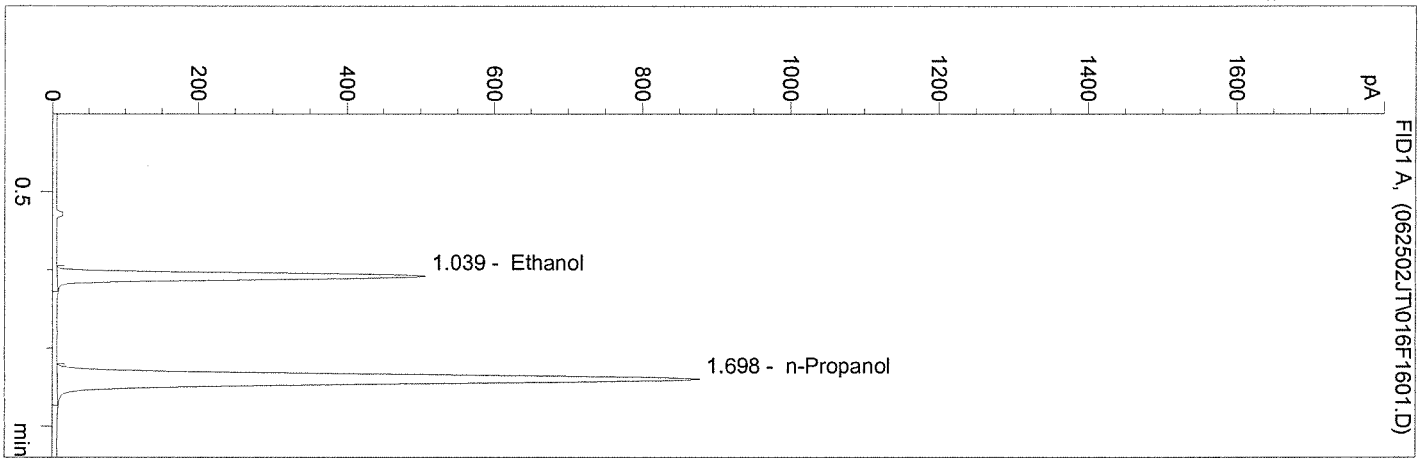


n-Propanol 1.000 g/100ml

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 6/25/02 5:40:22 PM
 Instrument 1
 ALC1

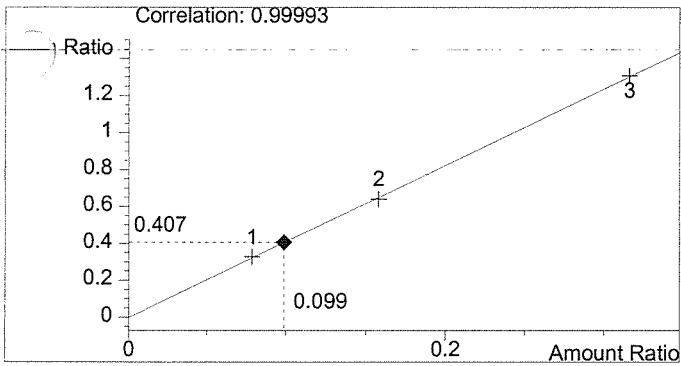
02019-5
 JAYNE THATCHER

vial # 16

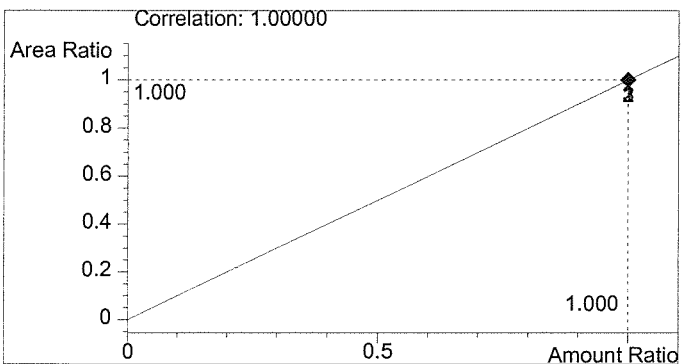


#	Compound	Area	RT
1	Ethanol	1472	1.039
2	n-Propanol	3622	1.698

Totals:



Ethanol 0.099 g/100ml

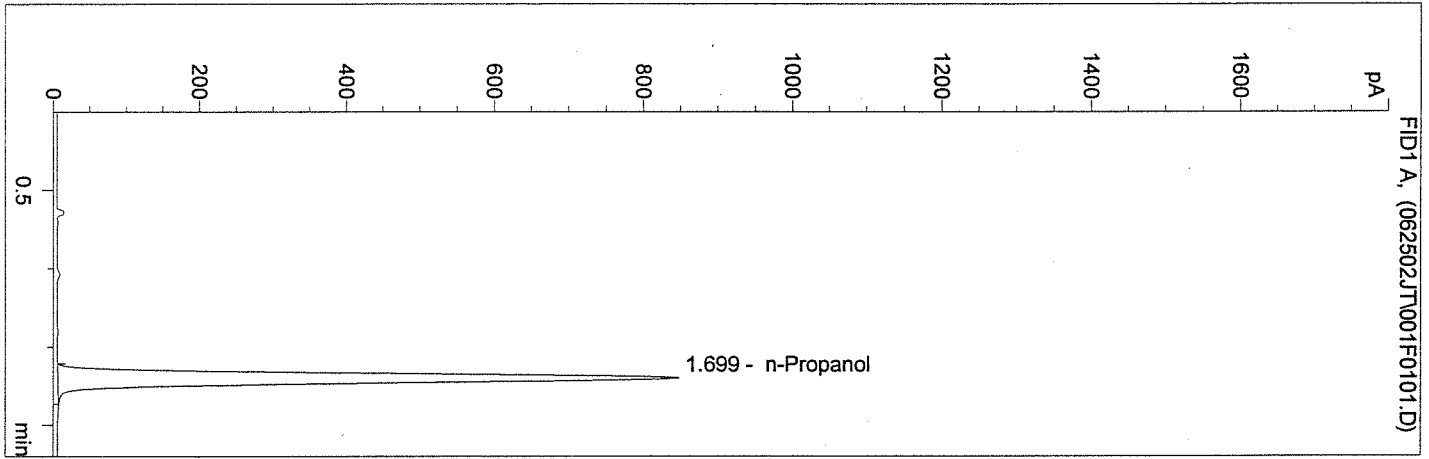


n-Propanol 1.000 g/100ml

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 Instrument 1
 ALC1

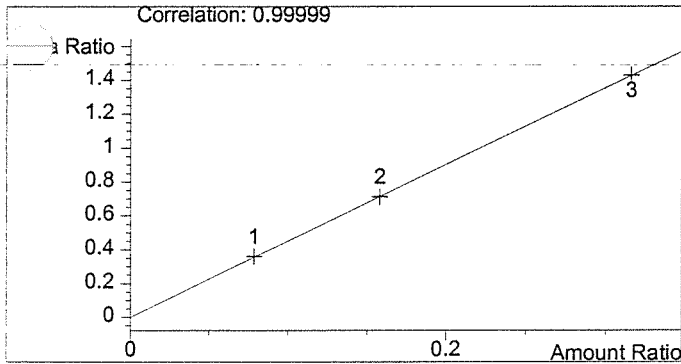
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 JAYNE THATCHER

vial # 1

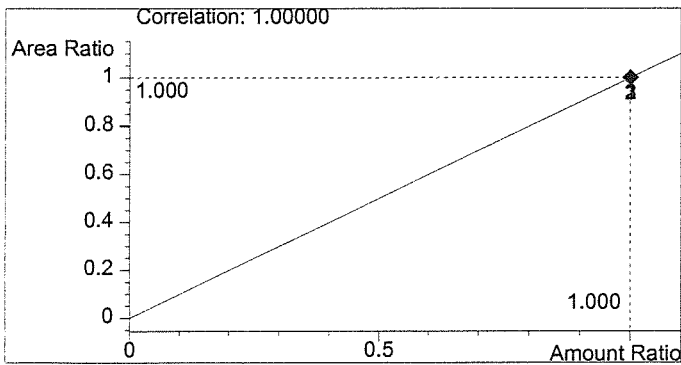


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	3484	1.699

Totals:



Ethanol 0.000 g/100ml

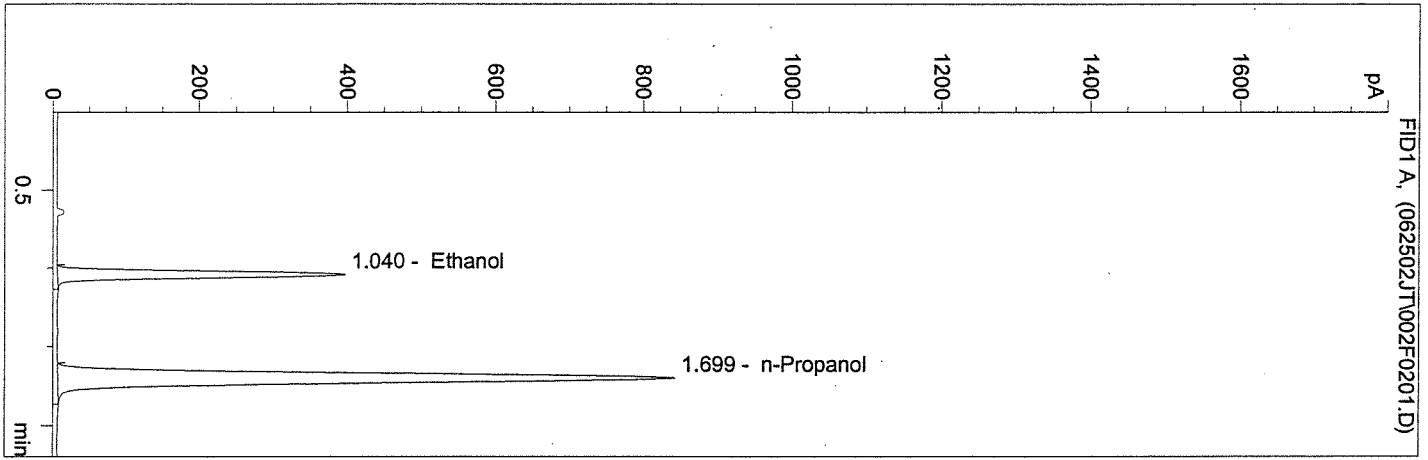


n-Propanol 1.000 g/100ml

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 6/25/02 3:54:46 PM
 Instrument 1
 ALC1

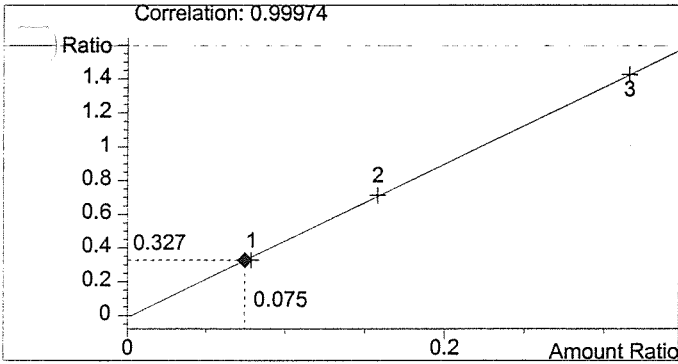
0.079 CAL
 JAYNE THATCHER

vial # 2

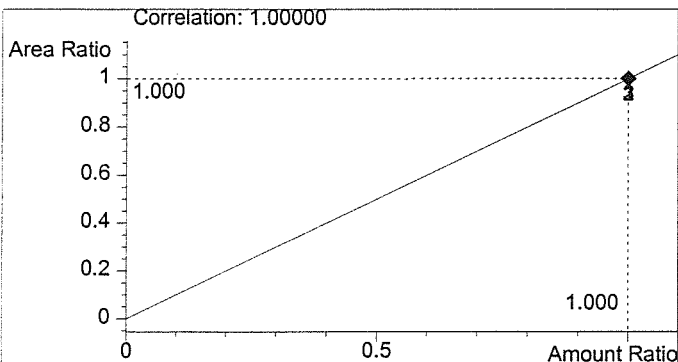


#	Compound	Area	RT
1	Ethanol	1136	1.040
2	n-Propanol	3470	1.699

Totals:



Ethanol 0.075 g/100ml

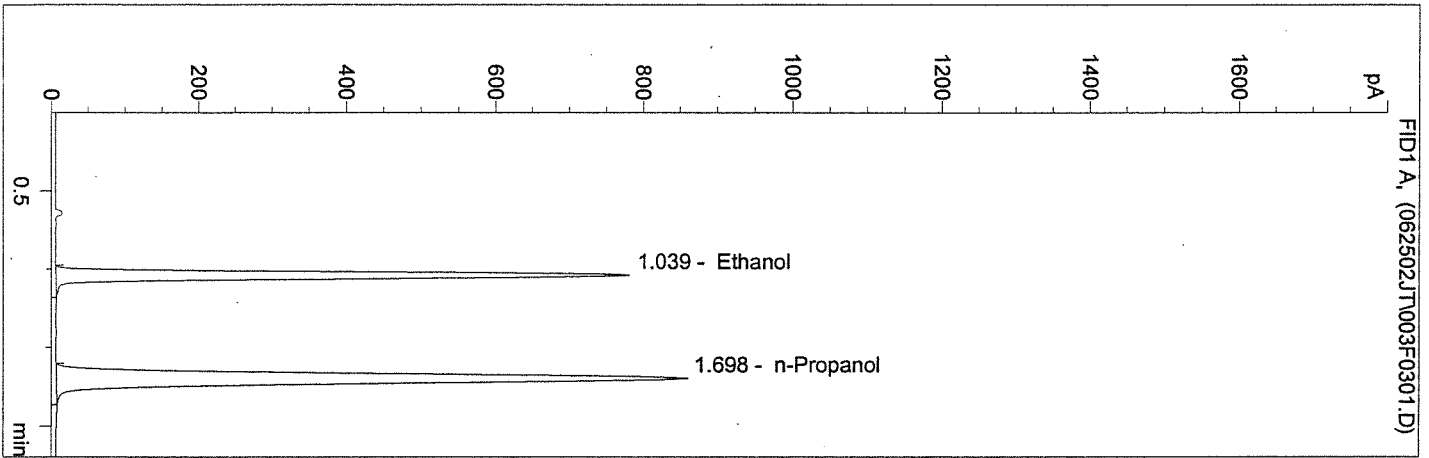


n-Propanol 1.000 g/100ml

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 6/25/02 3:57:51 PM
 Instrument 1
 -ALC1

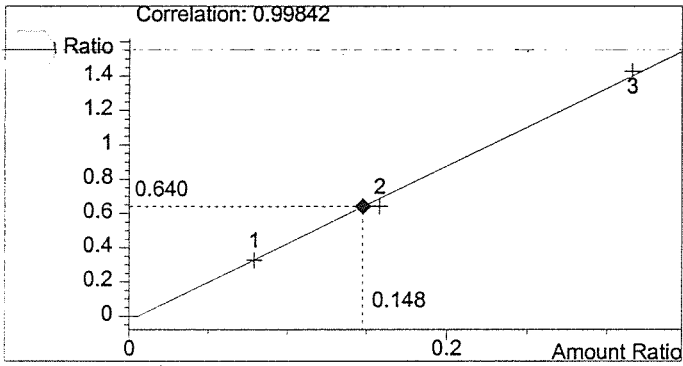
0.158 CAL
 JAYNE THATCHER

vial # 3

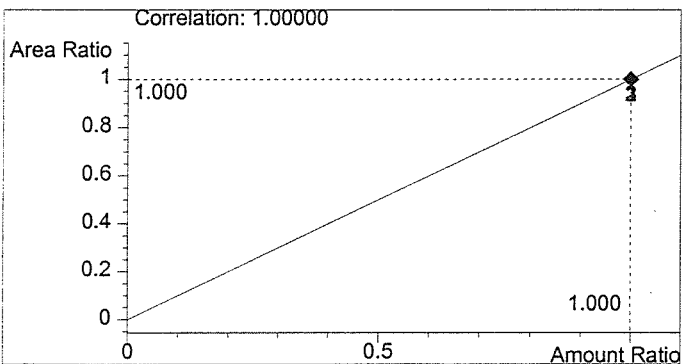


#	Compound	Area	RT
1	Ethanol	2265	1.039
2	n-Propanol	3536	1.698

Totals:



Ethanol 0.148 g/100ml

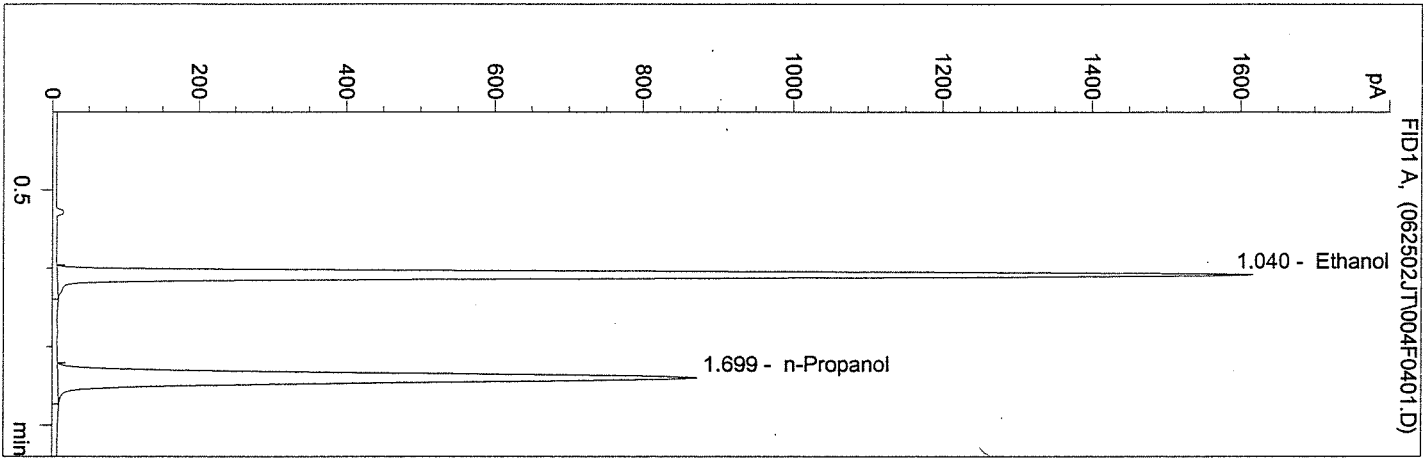


n-Propanol 1.000 g/100ml

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 6/25/02 4:00:56 PM
 Instrument 1
 -ALC1

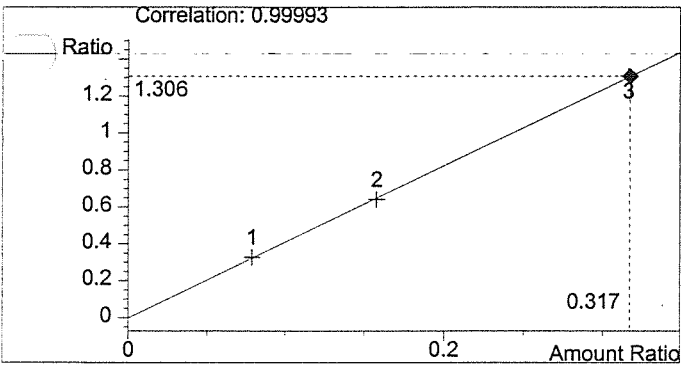
0.316 CAL
 JAYNE THATCHER

vial # 4

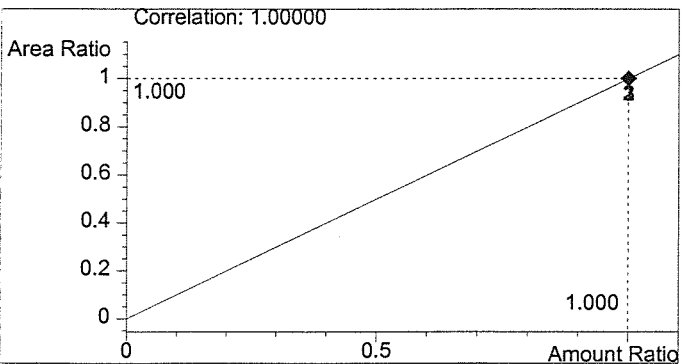


#	Compound	Area	RT
1	Ethanol	4693	1.040
2	n-Propanol	3593	1.699

Totals:



Ethanol 0.317 g/100ml

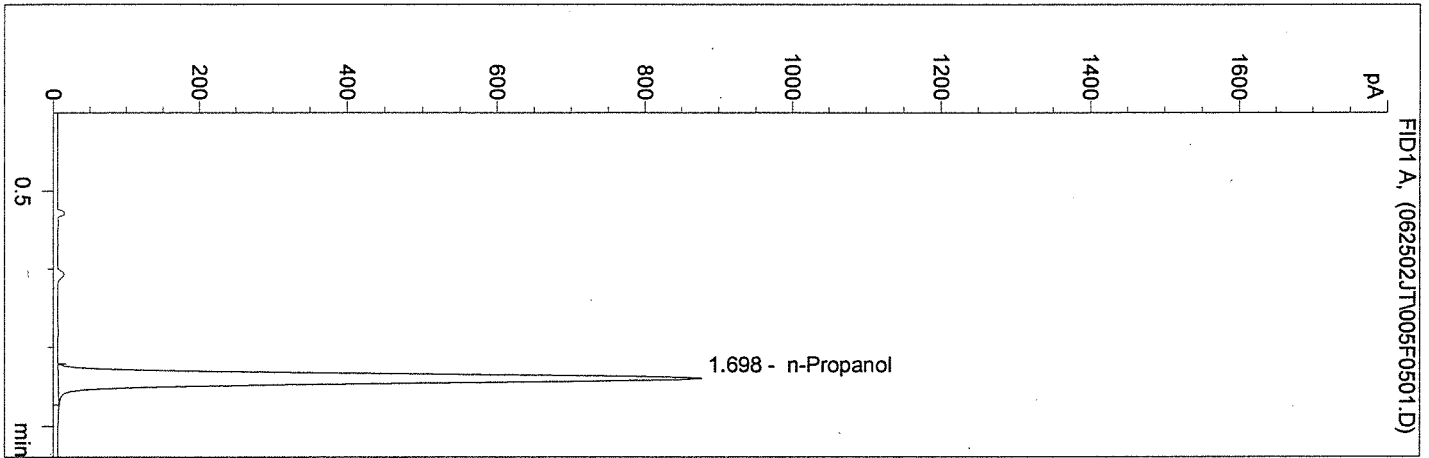


n-Propanol 1.000 g/100ml

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 6/25/02 4:04:22 PM
 Instrument 1
 -ALC1

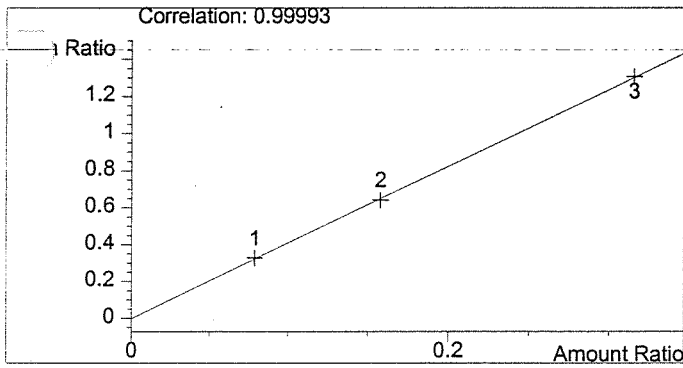
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 JAYNE THATCHER

vial # 5

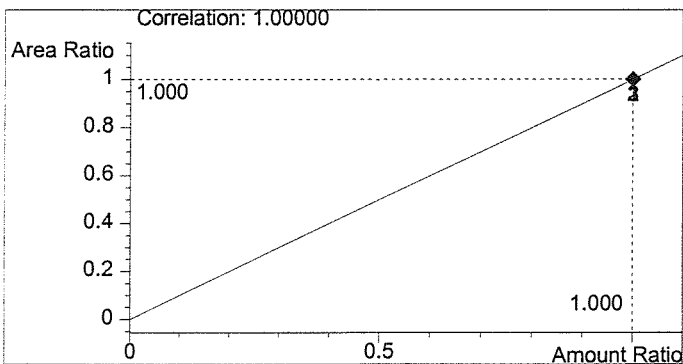


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	3599	1.698

Totals:



Ethanol 0.000 g/100ml



n-Propanol 1.000 g/100ml

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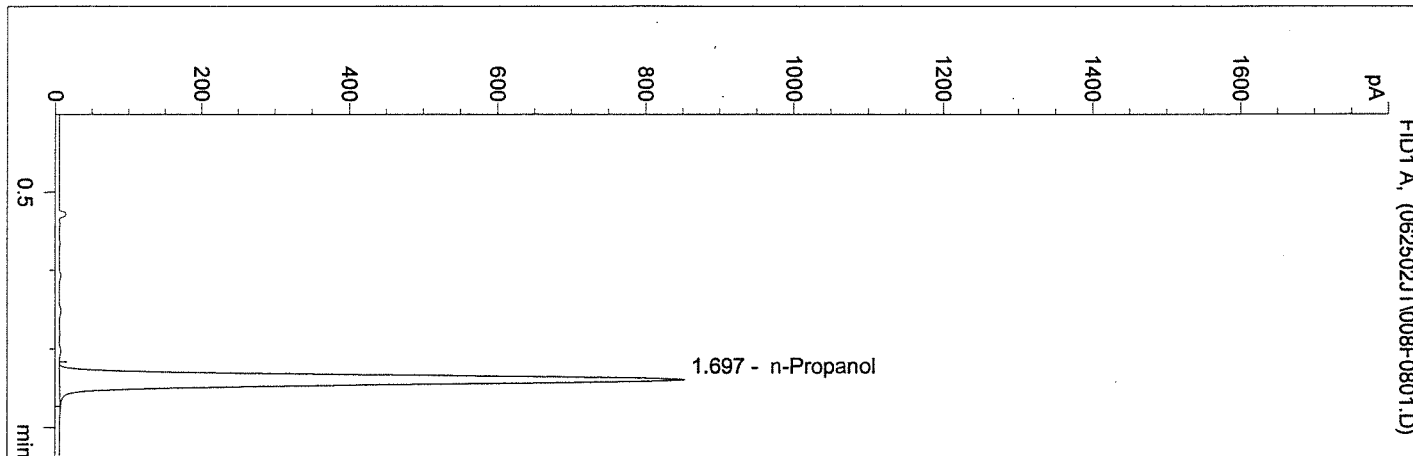
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Instrument 1

-ALC1

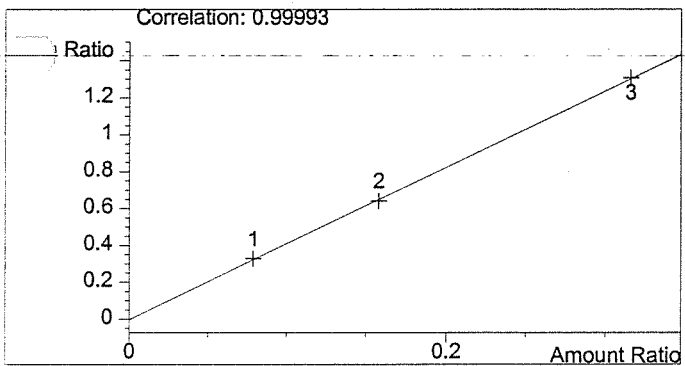
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JAYNE THATCHER

vial # 8

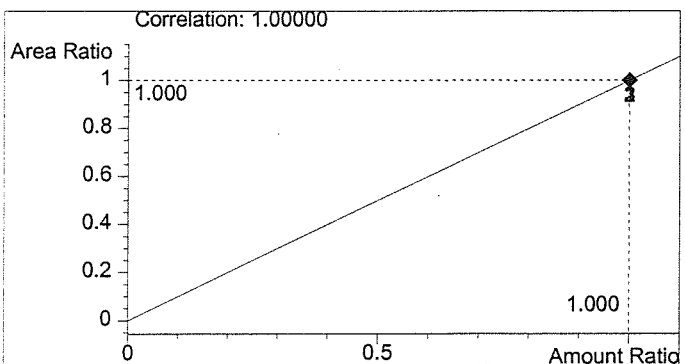


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	3501	1.697

Totals:



Ethanol 0.000 g/100ml



n-Propanol 1.000 g/100ml

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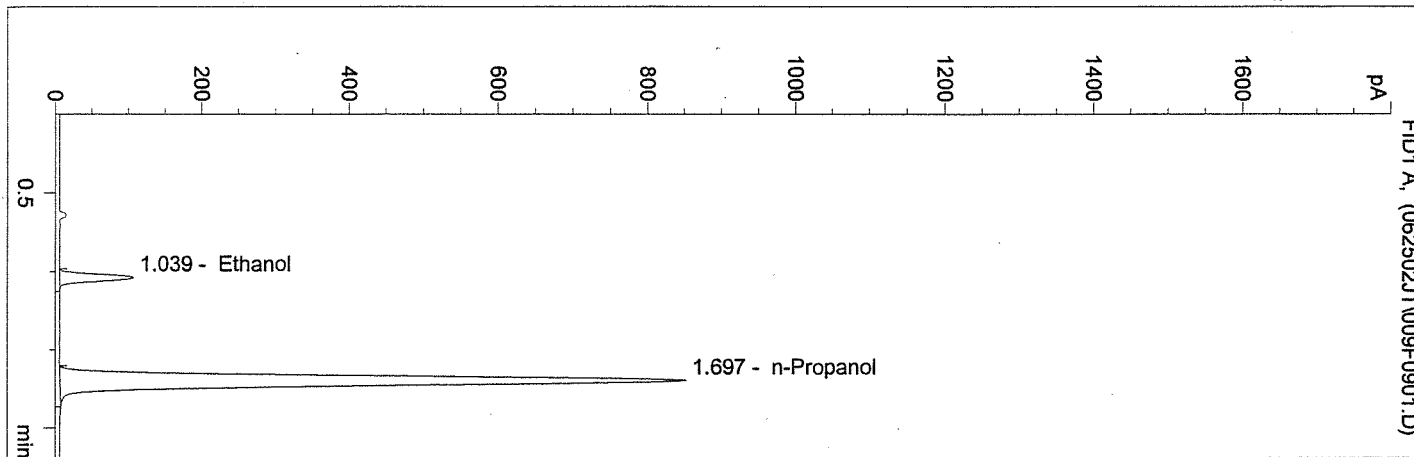
Instrument 1

3-ALC1

0.02 STD

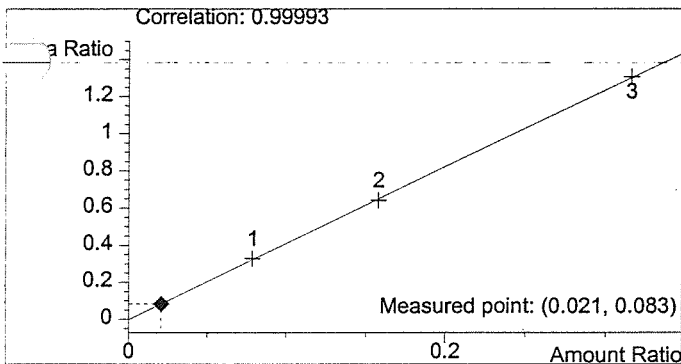
JAYNE THATCHER

vial # 9

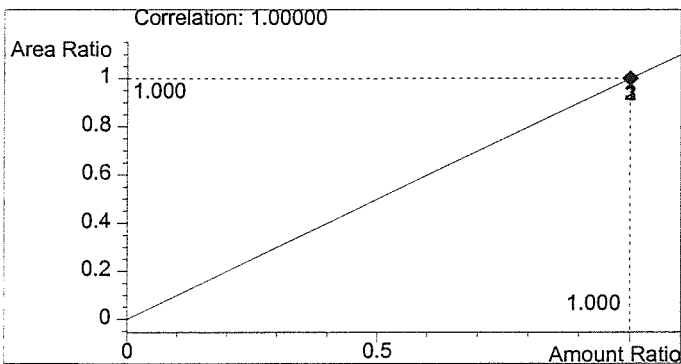


#	Compound	Area	RT
1	Ethanol	291	1.039
2	n-Propanol	3491	1.697

Totals:



Ethanol 0.021 g/100ml

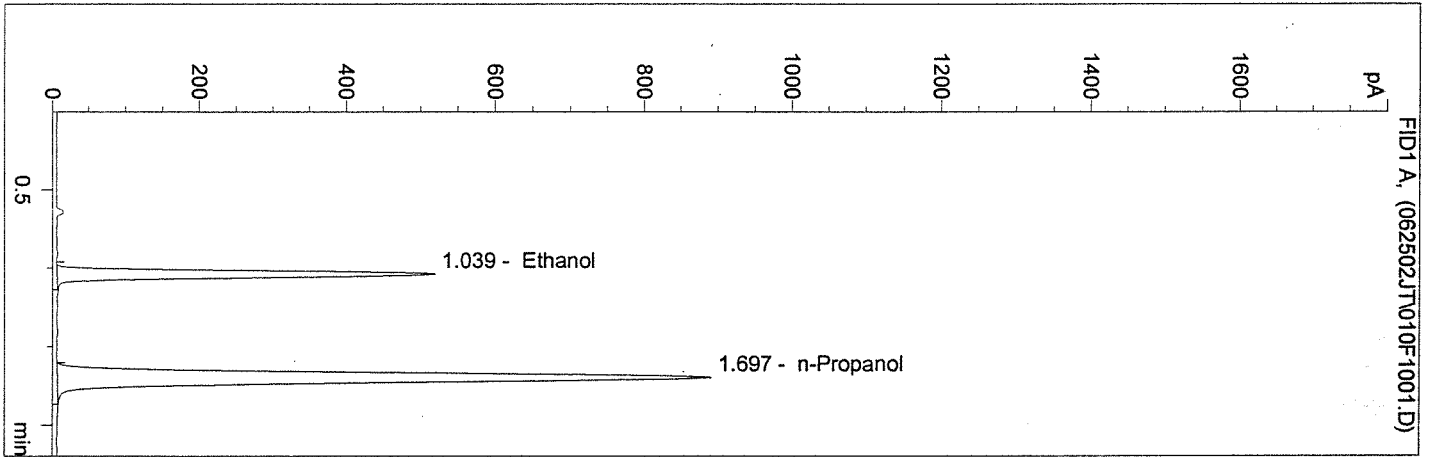


n-Propanol 1.000 g/100ml

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 6/25/02 5:21:57 PM
 Instrument 1
 DB-ALC1

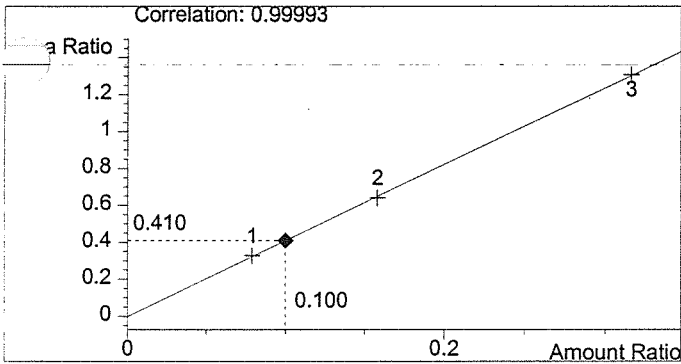
0.10 CONTROL
 JAYNE THATCHER

vial # 10

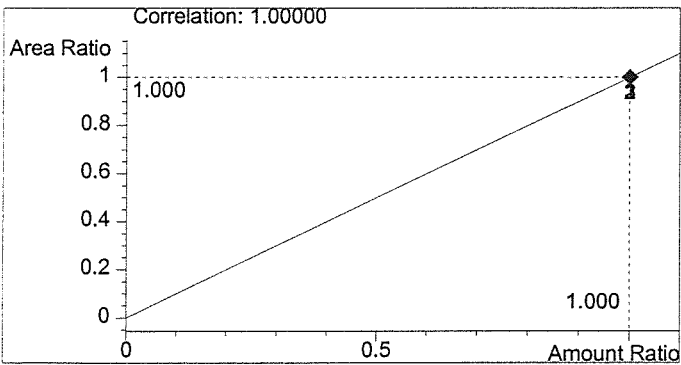


#	Compound	Area	RT
1	Ethanol	1502	1.039
2	n-Propanol	3667	1.697

Totals:



Ethanol 0.100 g/100ml



n-Propanol 1.000 g/100ml

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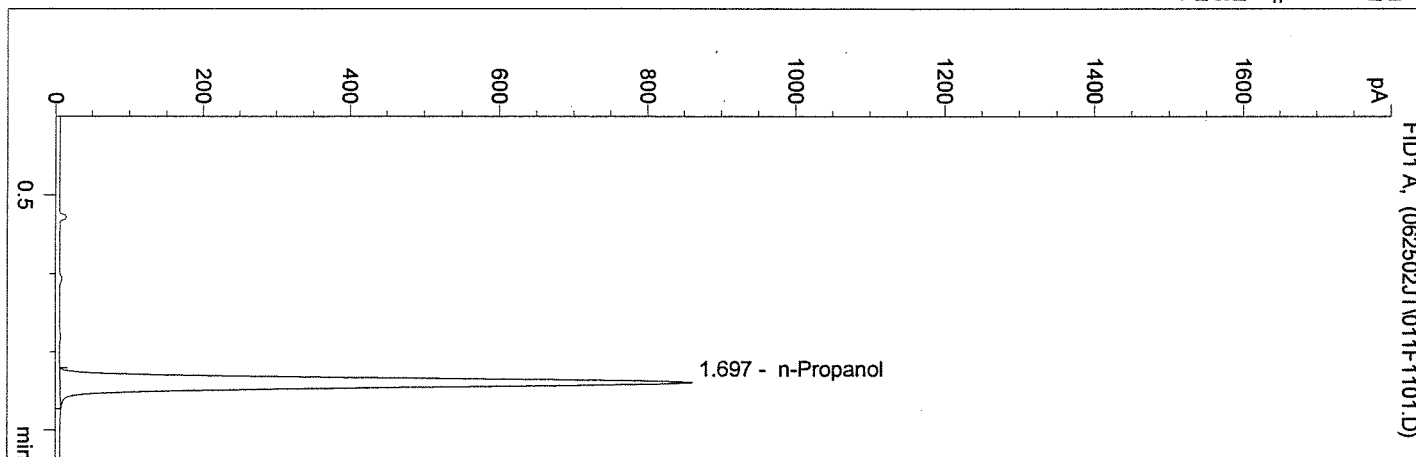
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Instrument 1

3-ALC1

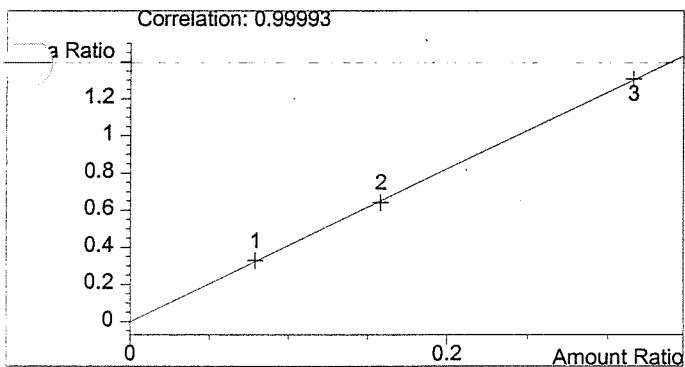
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JAYNE THATCHER

vial # 11

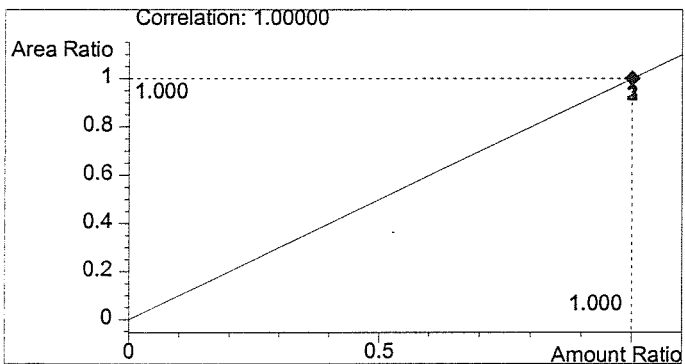


#	Compound	Area	RT
1	Ethanol	0	0.000
2	n-Propanol	3532	1.697

Totals:



Ethanol 0.000 g/100ml



n-Propanol 1.000 g/100ml