

Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB 503A Liquid Processor/Dilutor Serial Number: MD96BC1382/MD94AM10010

**Run Date(s): 9/12/17
calibration: 9/12/17**

Volatiles Quality Assurance Controls

| Control level | Expiration | Lot # | Target Value | Acceptable Range | Overall Results |
|--|------------|---------|--------------|------------------|---|
| Level 1 | Jul-18 | 1407031 | 0.0780 | 0.0702 - 0.0858 | 0.0753 g/100cc 0.0773 g/100cc g/100cc |
| Level 2 | Jul-18 | 1407032 | 0.2020 | 0.1818 - 0.2222 | 0.1995 g/100cc 0.2053 g/100cc g/100cc |
| Multi-Component mixture: Curve Fit: | | | Lot # | FN09231404 | OK |
| | | | Column 1 | 0.99997 | Column2 |
| | | | Column 1 | 0.99981 | 0.99981 |

| Ethanol Calibration Reference Material | | Target Value | Acceptable Range | Column 1 | Column 2 | Precision | Mean |
|--|------------|--------------|------------------|----------|----------|-----------|---------|
| Calibrator level | Expiration | | | | | | |
| 0.050 | Jul-19 | 0.050 | 0.045 - 0.055 | 0.0486 | 0.0460 | 0.0026 | 0.0473 |
| 0.080 | | 0.080 | 0.072 - 0.088 | | | 0 | #DIV/0! |
| 0.100 | Jun-20 | 0.100 | 0.090 - 0.110 | 0.0981 | 0.0945 | 0.0036 | 0.0963 |
| 0.200 | Dec-19 | 0.200 | 0.180 - 0.220 | 0.1970 | 0.1935 | 0.0035 | 0.1952 |
| 0.300 | Feb-21 | 0.300 | 0.270 - 0.330 | 0.2988 | 0.2957 | 0.0031 | 0.2972 |
| 0.400 | | 0.400 | 0.360 - 0.440 | | | 0 | #DIV/0! |
| 0.500 | Aug-19 | 0.500 | 0.450 - 0.550 | 0.5025 | 0.5067 | 0.0042 | 0.5046 |

| Aqueous Controls | | Target Value | Acceptable Range | Overall Results |
|------------------|------------|--------------|------------------|-----------------|
| Control level | Expiration | | | |
| 0.080 | Nov-20 | 0.08000 | 0.076 - 0.084 | 0.078 g/100cc |

Issued: 4/22/2015





~Any information on this document can be changed for laboratory use, except for the precision and mean determination formulas.

Volatiles QA/QC data spreadsheet Rev 5

Issuing Authority: Quality Manager

NB

Worklist: 1891

| <u>LAB CASE</u> | <u>ITEM</u> | <u>TASK ID</u> | <u>DESCRIPTION</u> | |
|-----------------|-------------|----------------|--------------------|--|
| M2017-4078 | 1 | 93591 | Alcohol Analysis |  |
| M2017-4079 | 1 | 93597 | Alcohol Analysis |  |
| M2017-4080 | 1 | 93602 | Alcohol Analysis |  |
| M2017-4083 | 1 | 93634 | Alcohol Analysis |  |
| M2017-4101 | 1 | 93807 | Alcohol Analysis |  |
| M2017-4102 | 1 | 93811 | Alcohol Analysis |  |
| M2017-4103 | 1 | 93812 | Alcohol Analysis |  |
| M2017-4110 | 2 | 93830 | Alcohol Analysis |  |
| M2017-4113 | 1 | 93858 | Alcohol Analysis |  |
| M2017-4117 | 1 | 93883 | Alcohol Analysis |  |
| M2017-4117 | 2 | 94575 | Alcohol Analysis |  |
| M2017-4118 | 1 | 93887 | Alcohol Analysis |  |
| M2017-4120 | 21 | 93909 | Alcohol Analysis |  |
| M2017-4121 | 1 | 93913 | Alcohol Analysis |  |
| M2017-4130 | 1 | 93983 | Alcohol Analysis |  |
| M2017-4132 | 1 | 93988 | Alcohol Analysis |  |
| M2017-4148 | 1 | 94087 | Alcohol Analysis |  |
| M2017-4152 | 1 | 94094 | Alcohol Analysis |  |
| M2017-4156 | 1 | 94143 | Alcohol Analysis |  |
| M2017-4157 | 1 | 94147 | Alcohol Analysis |  |
| M2017-4158 | 1 | 94148 | Alcohol Analysis |  |
| M2017-4173 | 1 | 94190 | Alcohol Analysis |  |
| M2017-4174 | 1 | 94198 | Alcohol Analysis |  |

Worklist: 1891

| <u>LAB CASE</u> | <u>ITEM</u> | <u>TASK ID</u> | <u>DESCRIPTION</u> |
|-----------------|-------------|----------------|--------------------|
| M2017-4175 | 1 | 94199 | Alcohol Analysis |



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Calibration Table
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General Calibration Setting

Calib. Data Modified : Tuesday, September 12, 2017 11:27:10 AM
Signals calculated separately : No

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Default Sample ISTD Information (if not set in sample table):

| ISTD # | ISTD Amount [g/100cc] | Name |
|--------|-----------------------|------------|
| 1 | 1.00000 | n-propanol |
| 2 | 1.00000 | n-propanol |

Signal Details

Signal 1: FID1 A, Front Signal
Signal 2: FID2 B, Back Signal

Overview Table

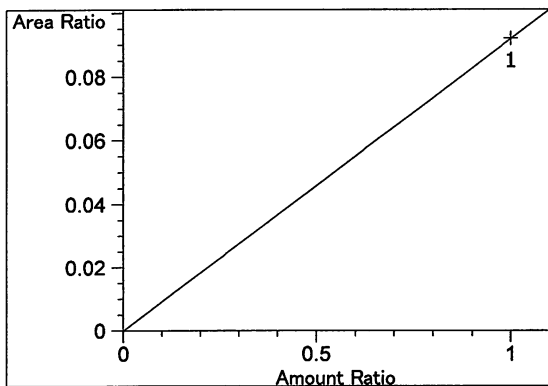
NB

| RT | Sig | Lvl | Amount [g/100cc] | Area | Rsp.Factor | Ref | ISTD # | Compound |
|-------|-----|-----|---------------------|----------|------------|-----|--------|-------------------|
| 2.586 | 1 | 1 | 1.00000 | 3.69669 | 2.70512e-1 | No | No 1 | methanol |
| 2.809 | 1 | 1 | 1.00000 | 4.26100 | 2.34687e-1 | No | No 2 | Acetaldehyde |
| 2.977 | 2 | 1 | 1.00000 | 4.26100 | 2.34687e-1 | No | No 2 | Acetaldehyde |
| 3.073 | 1 | 1 | 5.00000e-2 | 4.24110 | 1.17894e-2 | No | No 1 | ethanol |
| | | 2 | 1.00000e-1 | 8.45468 | 1.18278e-2 | | | |
| | | 3 | 2.00000e-1 | 16.87510 | 1.18518e-2 | | | |
| | | 4 | 3.00000e-1 | 25.73605 | 1.16568e-2 | | | |
| | | 5 | 5.00000e-1 | 43.29668 | 1.15482e-2 | | | |
| 3.388 | 2 | 1 | 1.00000 | 4.26062 | 2.34707e-1 | No | No 2 | methanol |
| 3.628 | 1 | 1 | 1.00000 | 9.73055 | 1.02769e-1 | No | No 1 | isopropyl alcohol |
| 4.285 | 2 | 1 | 5.00000e-2 | 4.24285 | 1.17845e-2 | No | No 2 | ethanol |
| | | 2 | 1.00000e-1 | 8.47001 | 1.18064e-2 | | | |
| | | 3 | 2.00000e-1 | 17.16740 | 1.16500e-2 | | | |
| | | 4 | 3.00000e-1 | 26.33364 | 1.13923e-2 | | | |
| | | 5 | 5.00000e-1 | 44.85263 | 1.11476e-2 | | | |
| 4.308 | 1 | 1 | 1.00000 | 6.49940 | 1.53860e-1 | No | No 1 | acetone |
| 4.617 | 1 | 1 | 1.00000 | 40.20046 | 2.48753e-2 | No | Yes 1 | n-propanol |
| | | 2 | 1.00000 | 39.68890 | 2.51960e-2 | | | |
| | | 3 | 1.00000 | 39.43798 | 2.53563e-2 | | | |
| | | 4 | 1.00000 | 39.65158 | 2.52197e-2 | | | |
| | | 5 | 1.00000 | 39.66722 | 2.52097e-2 | | | |
| 4.661 | 2 | 1 | 1.00000 | 6.89301 | 1.45075e-1 | No | No 2 | acetone |
| 4.969 | 2 | 1 | 1.00000 | 10.70642 | 9.34019e-2 | No | No 2 | isopropyl alcohol |
| 7.549 | 2 | 1 | 1.00000 | 40.78691 | 2.45177e-2 | No | Yes 2 | n-propanol |
| | | 2 | 1.00000 | 39.65588 | 2.52169e-2 | | | |
| | | 3 | 1.00000 | 39.24088 | 2.54836e-2 | | | |
| | | 4 | 1.00000 | 39.37551 | 2.53965e-2 | | | |
| | | 5 | 1.00000 | 39.14603 | 2.55454e-2 | | | |

Peak Sum Table

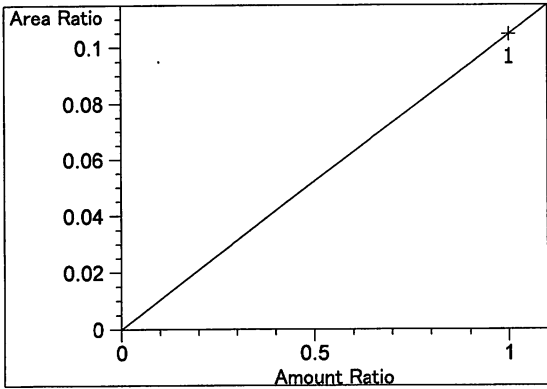
No Entries in table

Calibration Curves

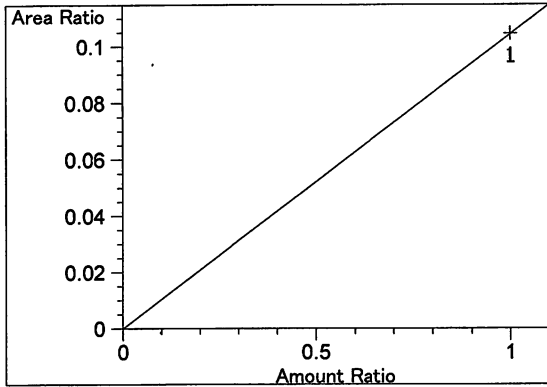


methanol at exp. RT: 2.586
 FID1 A, Front Signal
 Correlation: 1.00000
 Residual Std. Dev.: 0.00000
 Formula: $y = mx$
 m: 9.19565e-2
 x: Amount Ratio
 y: Area Ratio

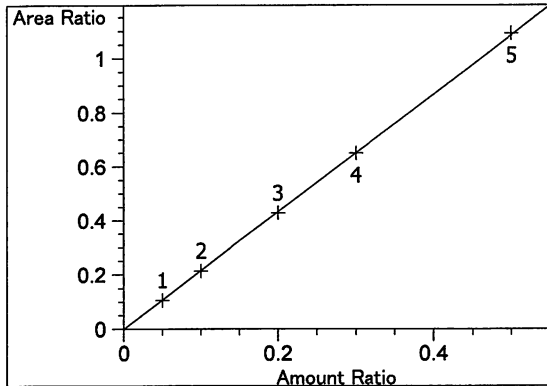
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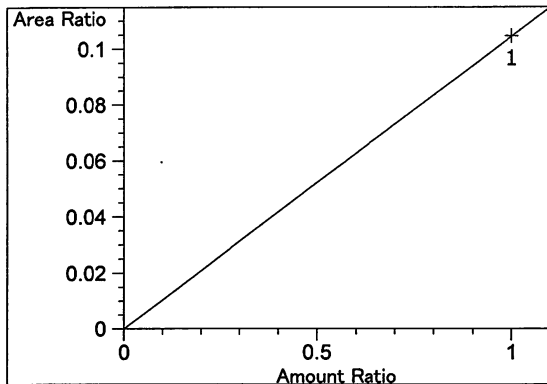
Acetaldehyde at exp. RT: 2.809
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 1.04470e-1
x: Amount Ratio
y: Area Ratio



Acetaldehyde at exp. RT: 2.977
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 1.04470e-1
x: Amount Ratio
y: Area Ratio

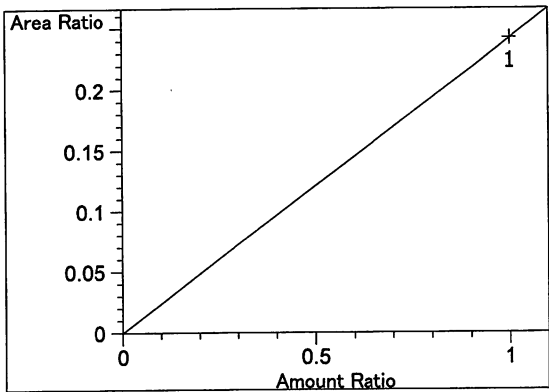


ethanol at exp. RT: 3.073
FID1 A, Front Signal
Correlation: 0.99997
Residual Std. Dev.: 0.00515
Formula: $y = mx$
m: 2.17228
x: Amount Ratio
y: Area Ratio

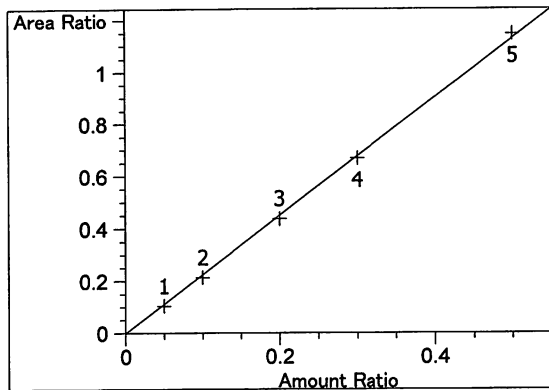


methanol at exp. RT: 3.388
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 1.04461e-1
x: Amount Ratio
y: Area Ratio

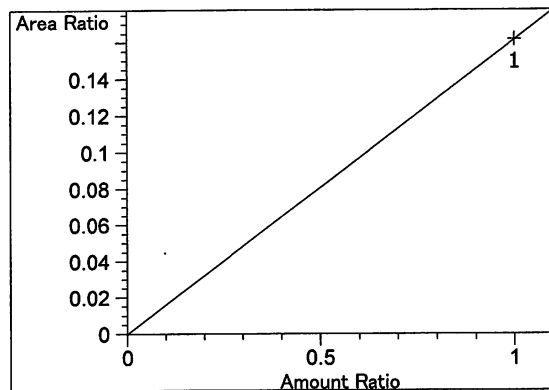
NB



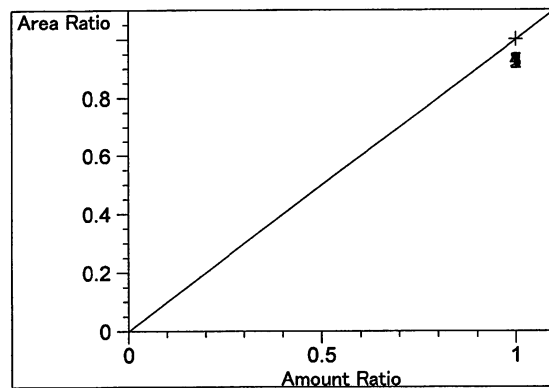
isopropyl alcohol at exp. RT: 3.628
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 2.42051e-1
x: Amount Ratio
y: Area Ratio



ethanol at exp. RT: 4.285
FID2 B, Back Signal
Correlation: 0.99981
Residual Std. Dev.: 0.01395
Formula: $y = mx$
m: 2.26135
x: Amount Ratio
y: Area Ratio

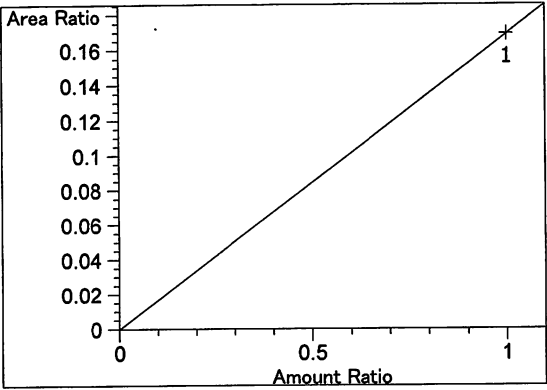


acetone at exp. RT: 4.308
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 1.61675e-1
x: Amount Ratio
y: Area Ratio

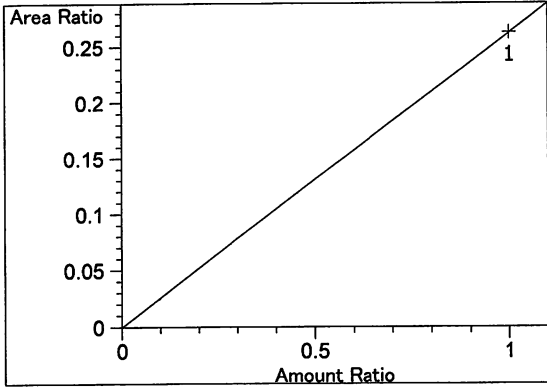


n-propanol at exp. RT: 4.617
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 1.00000
x: Amount Ratio
y: Area Ratio

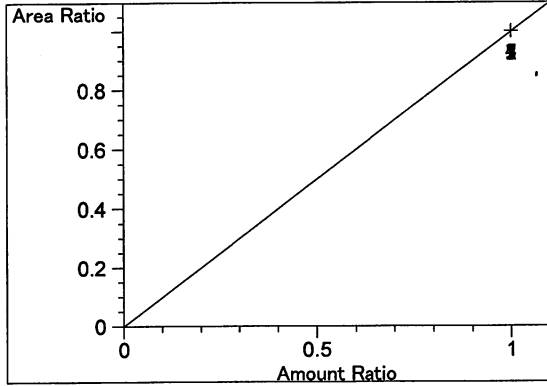
NB



acetone at exp. RT: 4.661
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 1.69001e-1
x: Amount Ratio
y: Area Ratio



isopropyl alcohol at exp. RT: 4.969
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 2.62496e-1
x: Amount Ratio
y: Area Ratio



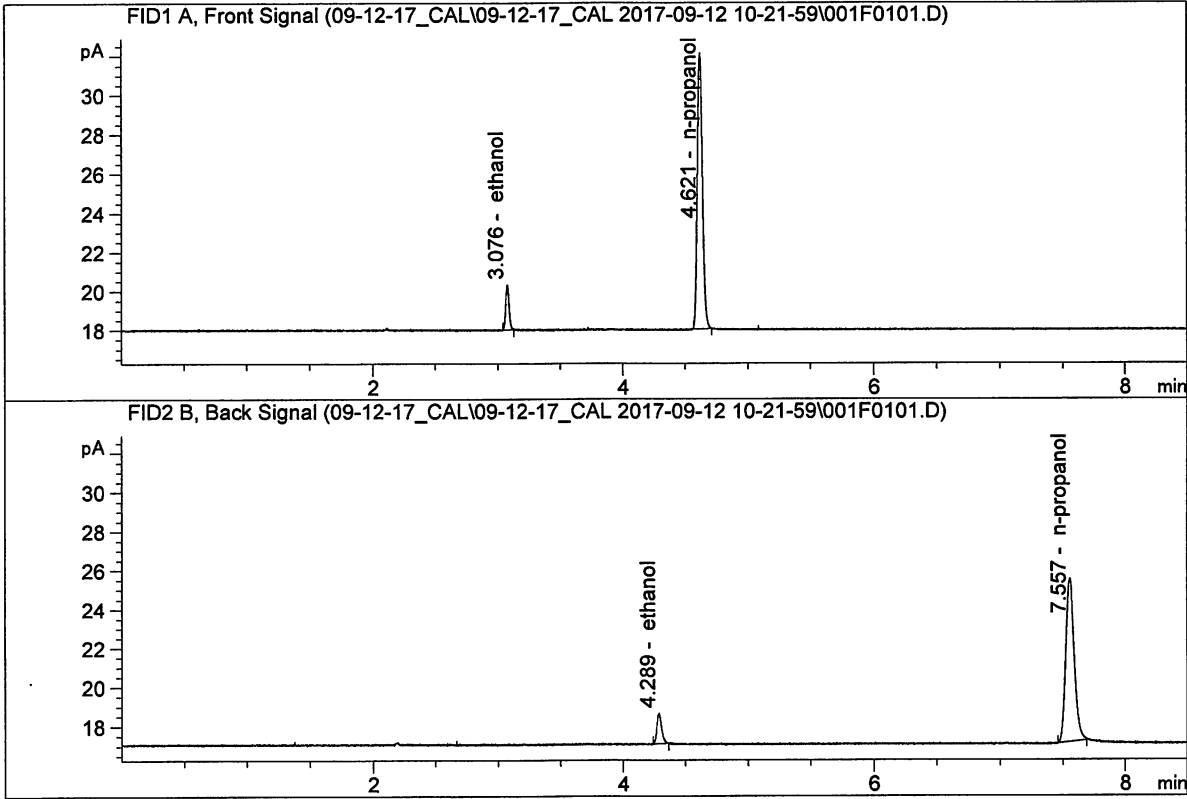
n-propanol at exp. RT: 7.549
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: $y = mx$
m: 1.00000
x: Amount Ratio
y: Area Ratio

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ISP Forensic Services Blood Alcohol Report

Sample Name : 0.050 FN06231406
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

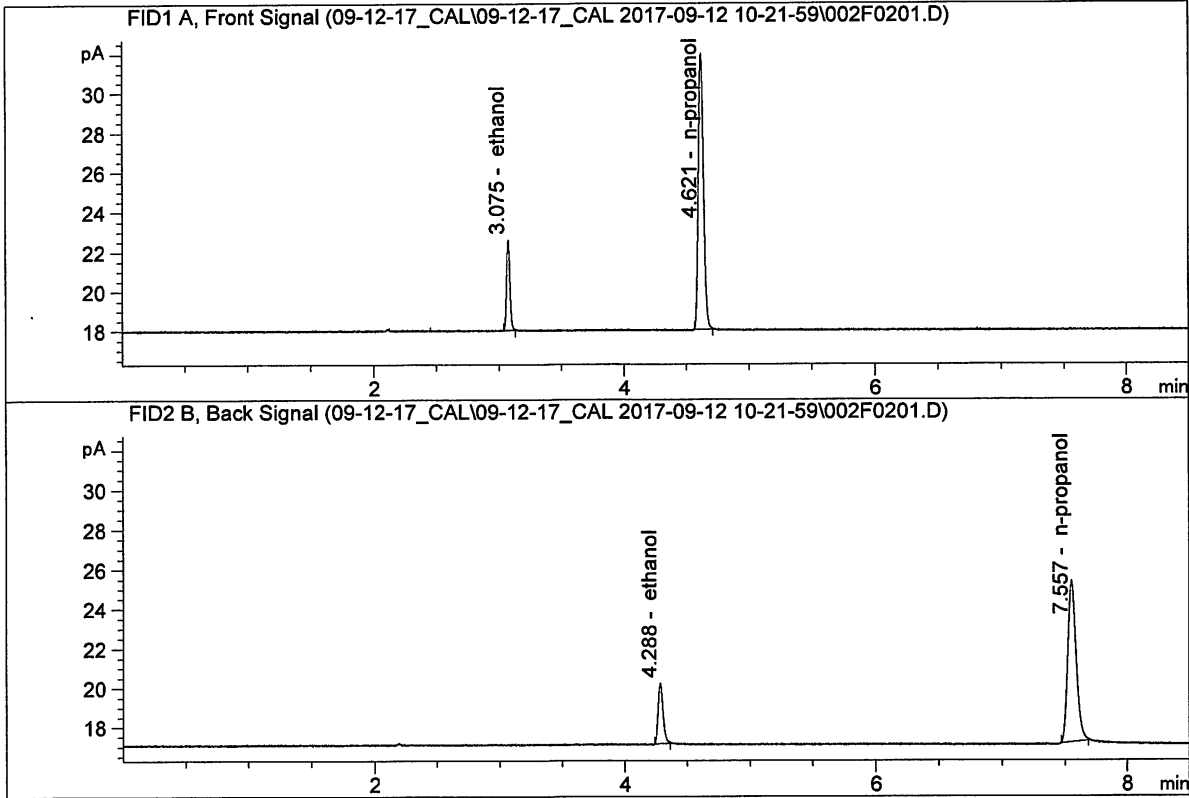


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 4.24110 | 0.0486 | g/100cc |
| 2. | Ethanol | Column 2: | 4.24285 | 0.0460 | g/100cc |
| 3. | n-Propanol | Column 1: | 40.20046 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 40.78691 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.100 FN06181501
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

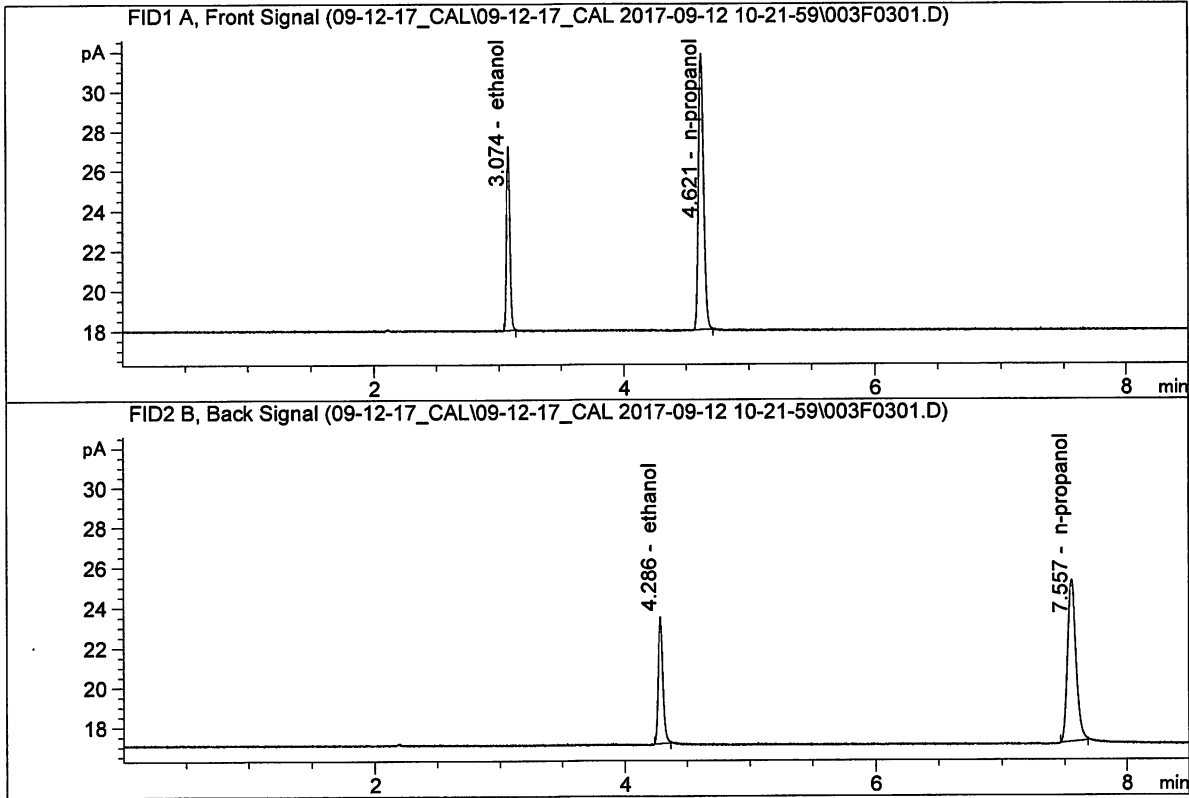


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 8.45468 | 0.0981 | g/100cc |
| 2. | Ethanol | Column 2: | 8.47001 | 0.0945 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.68890 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.65588 | 1.0000 | g/100cc |

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ISP Forensic Services Blood Alcohol Report

Sample Name : 0.200 FN12011401
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

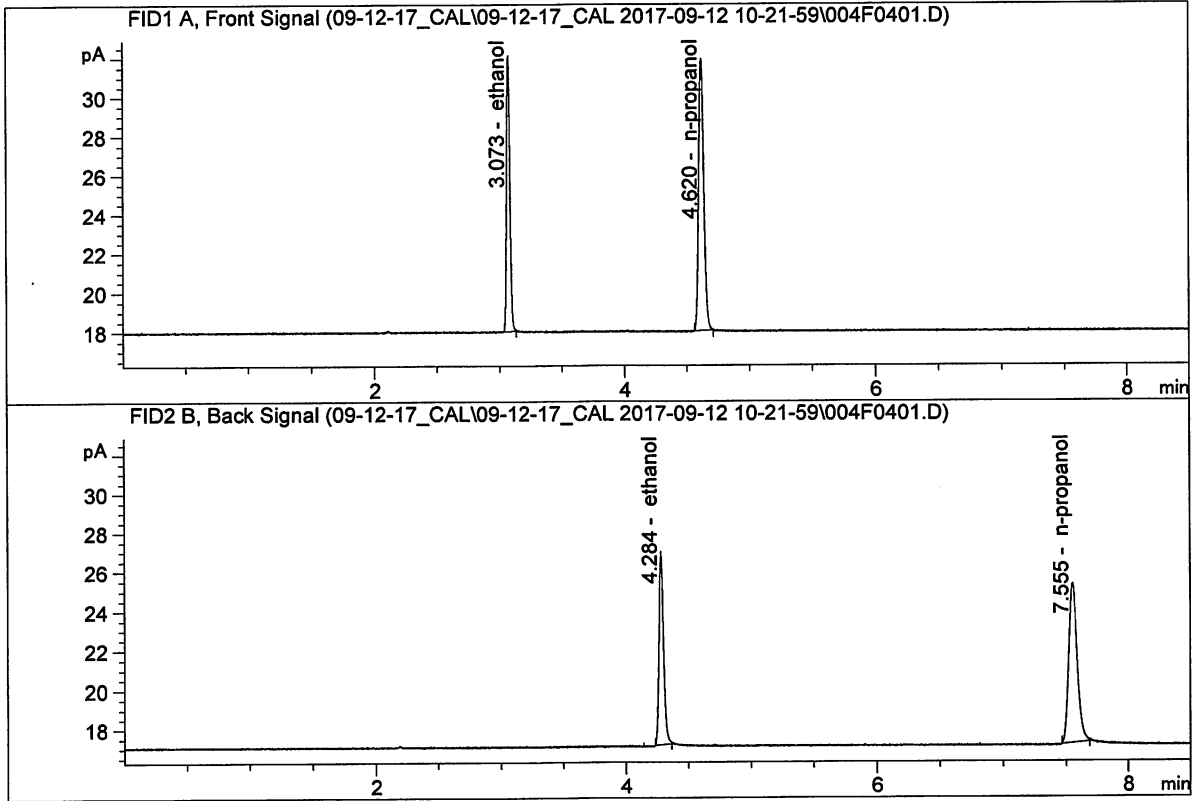


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 16.87510 | 0.1970 | g/100cc |
| 2. | Ethanol | Column 2: | 17.16740 | 0.1935 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.43798 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.24088 | 1.0000 | g/100cc |

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ISP Forensic Services Blood Alcohol Report

Sample Name : 0.300 FN02121601
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

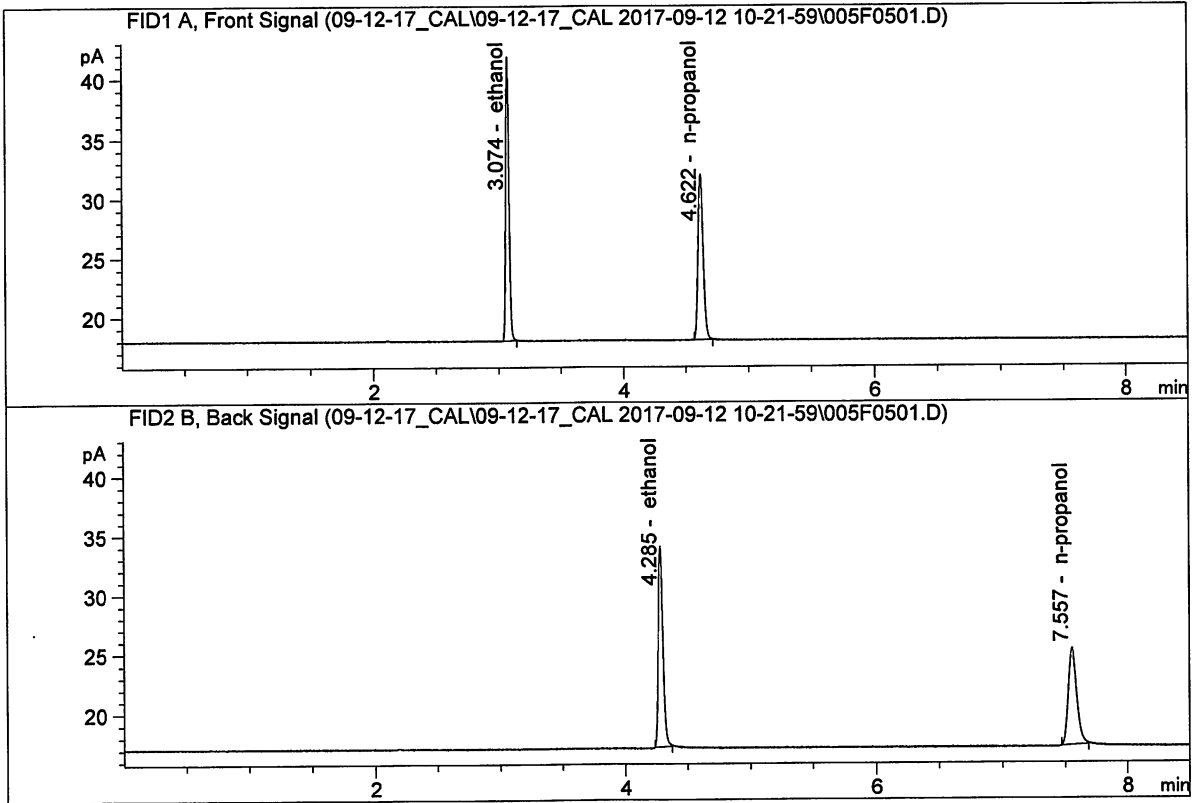


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 25.73605 | 0.2988 | g/100cc |
| 2. | Ethanol | Column 2: | 26.33364 | 0.2957 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.65158 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.37551 | 1.0000 | g/100cc |

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ISP Forensic Services Blood Alcohol Report

Sample Name : 0.500 FN07031402
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

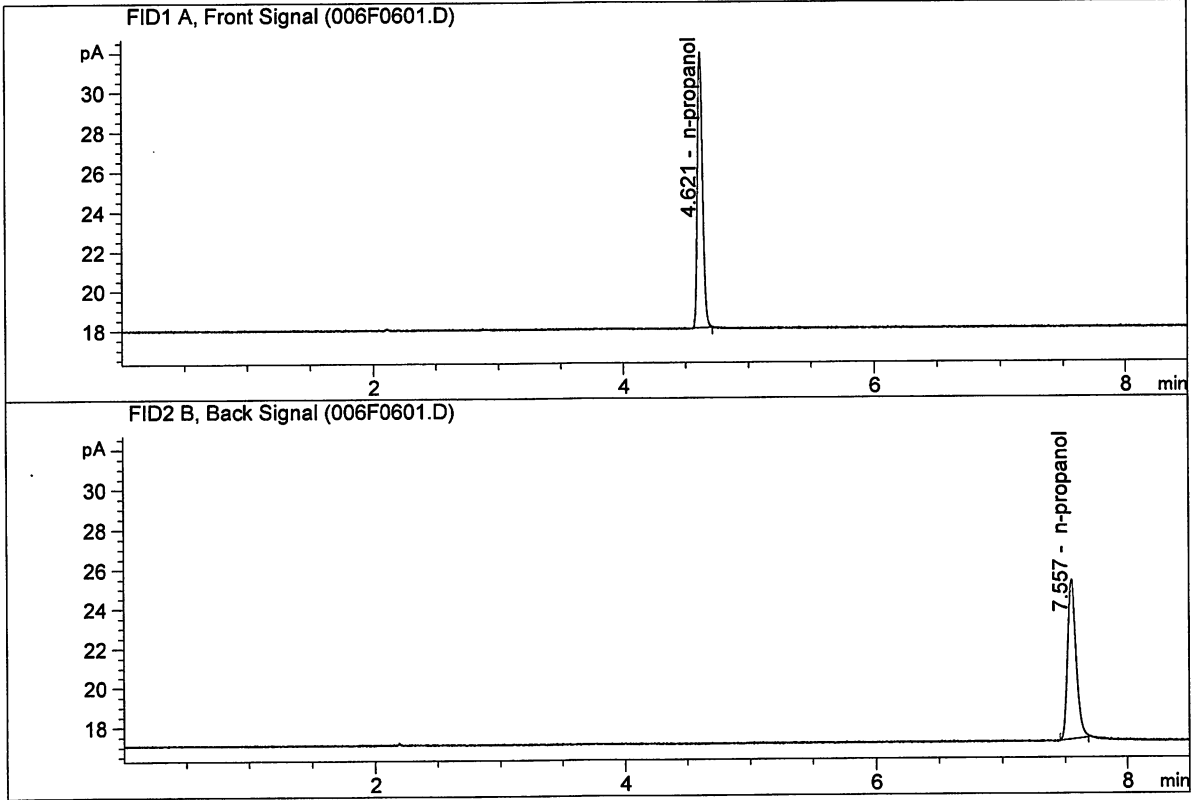


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 43.29668 | 0.5025 | g/100cc |
| 2. | Ethanol | Column 2: | 44.85263 | 0.5067 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.66722 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.14603 | 1.0000 | g/100cc |

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ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STANDARD BLANK
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.66848 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.47014 | 1.0000 | g/100cc |

NB

S a m p l e S u m m a r y

Sequence table: C:\Chem32\1\Data\09-02-17_CAL\09-02-17_CAL 2017-09-12 10-21-59\09-02-17_CAL.S

Data directory path: C:\Chem32\1\Data\09-02-17_CAL\09-02-17_CAL 2017-09-12 10-21-59\

Logbook: C:\Chem32\1\Data\09-02-17_CAL\09-02-17_CAL 2017-09-12 10-21-59\09-02-17_CAL.LOG

Sequence start: 9/12/2017 10:36:38 AM

Sequence Operator: SYSTEM

Operator: SYSTEM

Method file name: C:\Chem32\1\Data\09-02-17_CAL\09-02-17_CAL 2017-09-12 10-21-59\ALCOHOL.M

| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | # Cmp |
|-------|------------|-------|------------------|----------------------|-------------------|------------|-------|-------|
| 1 | 1 | 1 | 0.050 FN06231406 | - | 1.0000 | 001F0101.D | * | 4 |
| 2 | 2 | 1 | 0.100 FN06181501 | - | 1.0000 | 002F0201.D | * | 4 |
| 3 | 3 | 1 | 0.200 FN12011401 | - | 1.0000 | 003F0301.D | * | 4 |
| 4 | 4 | 1 | 0.300 FN02121601 | - | 1.0000 | 004F0401.D | * | 4 |
| 5 | 5 | 1 | 0.500 FN07031402 | - | 1.0000 | 005F0501.D | * | 4 |
| 6 | 6 | 1 | INTERNAL STANDAR | - | 1.0000 | 006F0601.D | | 2 |

mistakenly created a "09-02-17_CAL" folder instead of "09-12-17_CAL" folder. I corrected the data names/ file path to reflect the Calibration run date.

Master alcohol method saved w/ this calibration curve

NB 9/12/17

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VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-1

Analysis Date(s): 12 Sep 2017

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|---------------------|------------|---------------|--|
| Sample Results | 0.0773 | 0.0744 | 0.0029 | 0.0758 | 0.0753 | |
| (g/100cc) | 0.0764 | 0.0734 | 0.0030 | 0.0749 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M
Hamilton Auto-Dilutor Serial Number:
MD96BC1382/MD94AM10010

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.075 | 0.071 | 0.079 | 0.004 |

| | | |
|--|------------------------|--|
| | Reported Result | |
| | 0.075 | |

Calibration and control data are stored centrally.



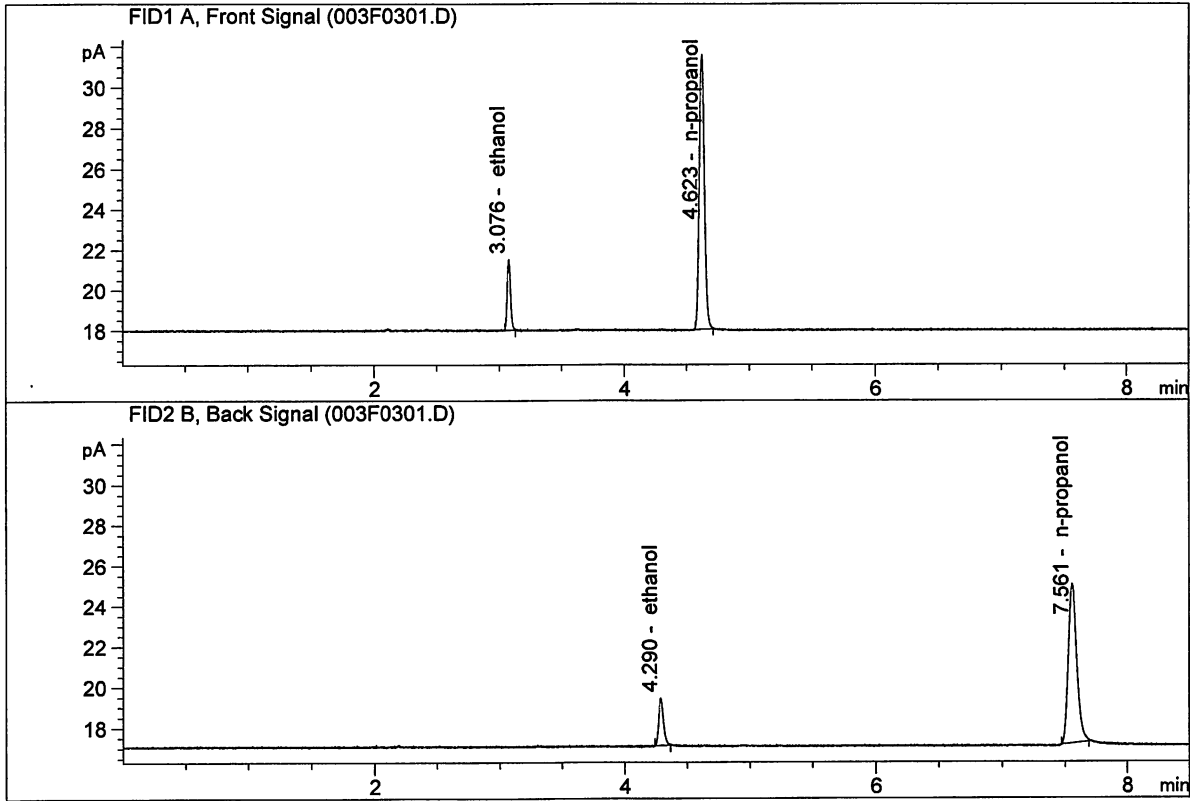
Issued: 12/30/2016

Volatiles BAC Calculation Spreadsheet Rev 4

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-A
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

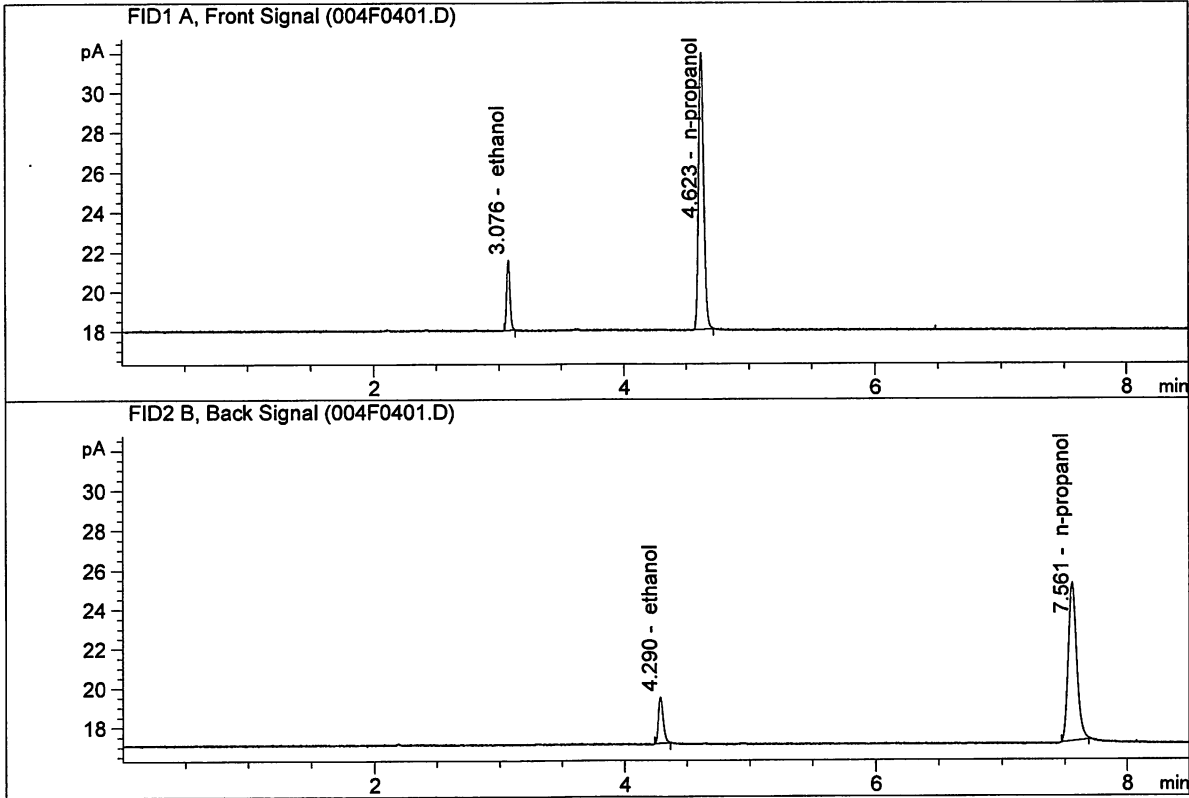


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 6.48923 | 0.0773 | g/100cc |
| 2. | Ethanol | Column 2: | 6.41224 | 0.0744 | g/100cc |
| 3. | n-Propanol | Column 1: | 38.62188 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 38.13503 | 1.0000 | g/100cc |

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ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-B
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 6.59668 | 0.0764 | g/100cc |
| 2. | Ethanol | Column 2: | 6.52227 | 0.0734 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.76422 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.31297 | 1.0000 | g/100cc |

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-2

Analysis Date(s): 12 Sep 2017

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|---------------------|------------|---------------|--|
| Sample Results | 0.0789 | 0.0761 | 0.0028 | 0.0775 | 0.0773 | |
| (g/100cc) | 0.0784 | 0.0760 | 0.0024 | 0.0772 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information *Instrument method is stored centrally.*

Refer to Instrument Method: ALCOHOL.M
Hamilton Auto-Dilutor Serial Number:
MD96BC1382/MD94AM10010

| Reporting of Results | Uncertainty of Measurement (UM%): 5.00% | | |
|------------------------|---|-------|------------|
| Overall Mean (g/100cc) | Low | High | 5% of Mean |
| 0.077 | 0.073 | 0.081 | 0.004 |

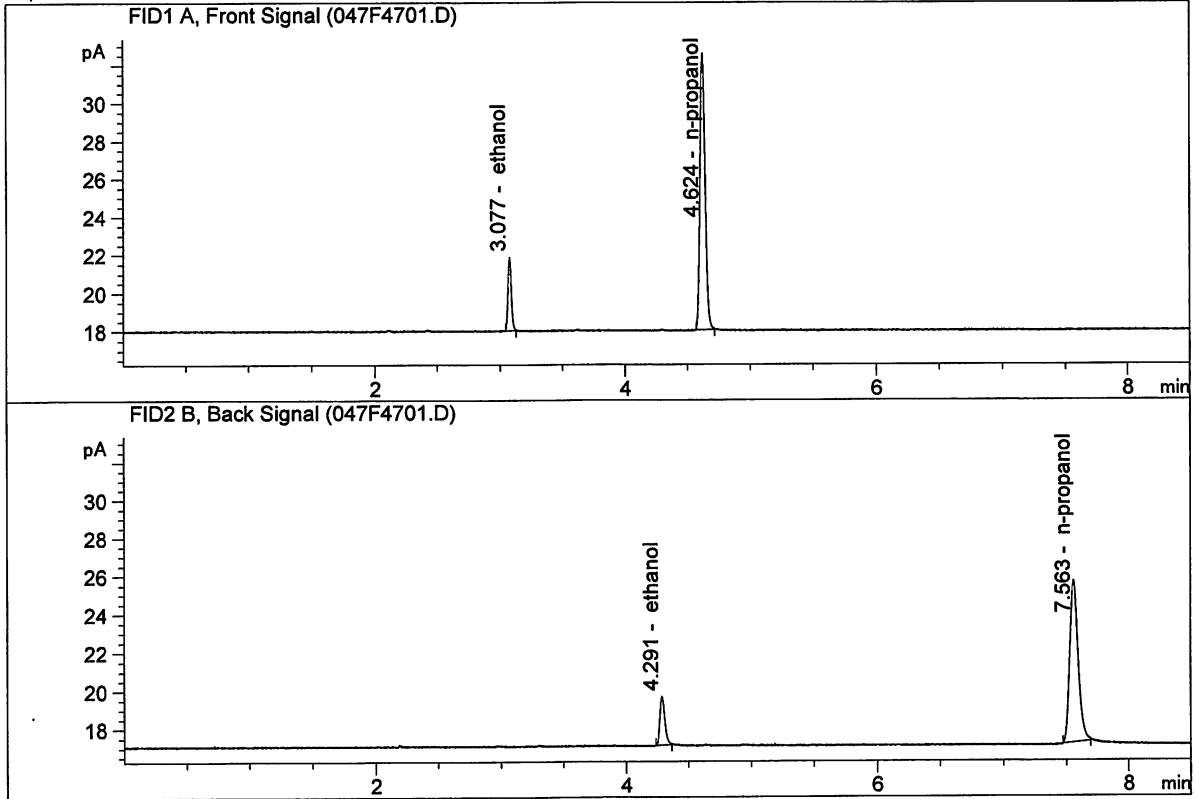
| | | |
|--|------------------------|--|
| | Reported Result | |
| | 0.077 | |

Calibration and control data are stored centrally.

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-2-A
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

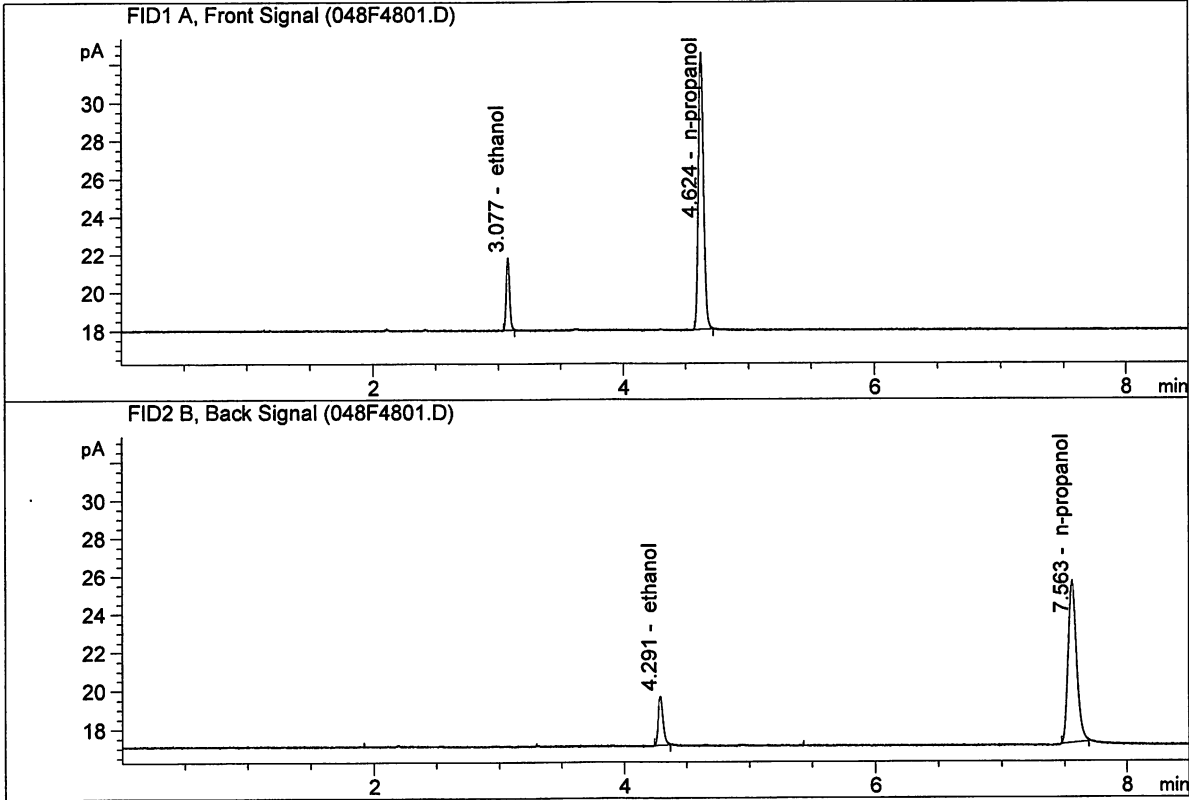


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 7.11935 | 0.0789 | g/100cc |
| 2. | Ethanol | Column 2: | 7.08194 | 0.0761 | g/100cc |
| 3. | n-Propanol | Column 1: | 41.54126 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 41.17117 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-2-B
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 7.05540 | 0.0784 | g/100cc |
| 2. | Ethanol | Column 2: | 7.05028 | 0.0760 | g/100cc |
| 3. | n-Propanol | Column 1: | 41.43952 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 41.02994 | 1.0000 | g/100cc |

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-1

Analysis Date(s): 12 Sep 2017

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|---------------------|------------|---------------|--|
| Sample Results | 0.2006 | 0.1966 | 0.0040 | 0.1986 | 0.1995 | |
| (g/100cc) | 0.2019 | 0.1991 | 0.0028 | 0.2005 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M
Hamilton Auto-Dilutor Serial Number:
MD96BC1382/MD94AM10010

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.199 | 0.189 | 0.209 | 0.010 |

| | | |
|--|-------------------------------------|--|
| | Reported Result 0.199 | |
|--|-------------------------------------|--|

Calibration and control data are stored centrally.

NB

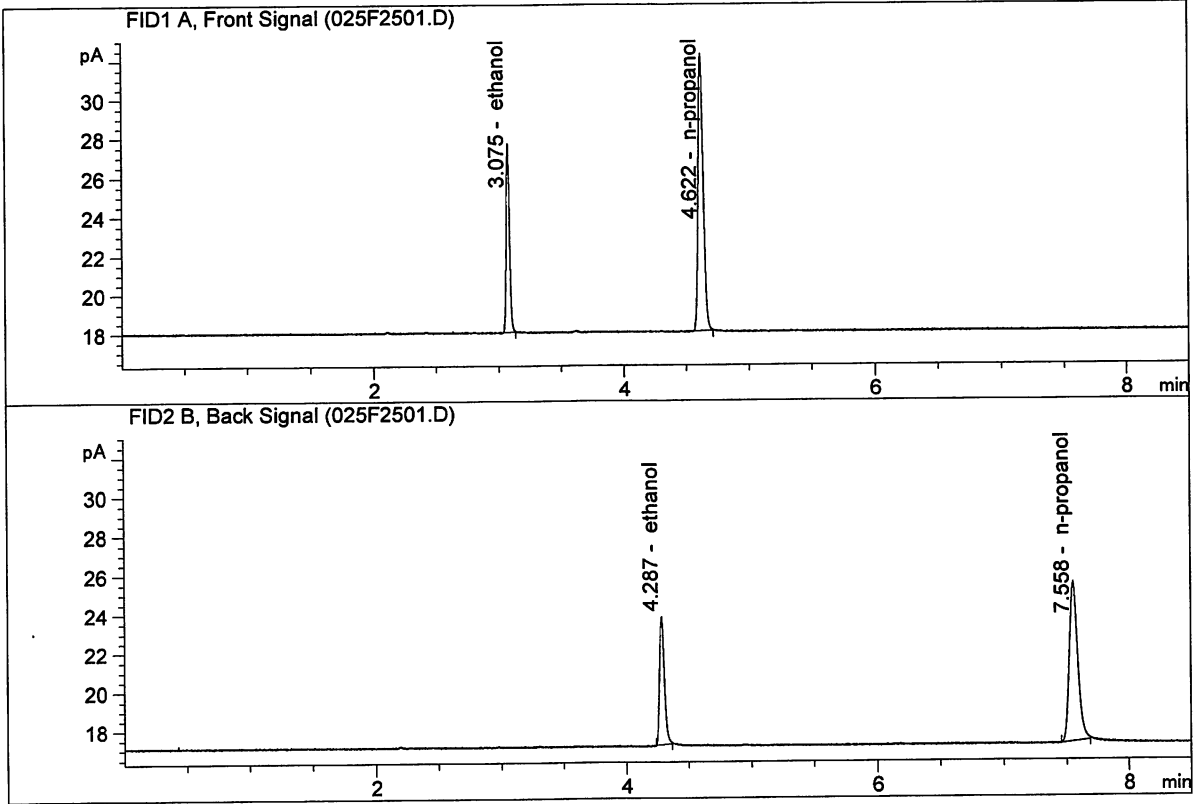
Issued: 12/30/2016

Volatiles BAC Calculation Spreadsheet Rev 4

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-1-A
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

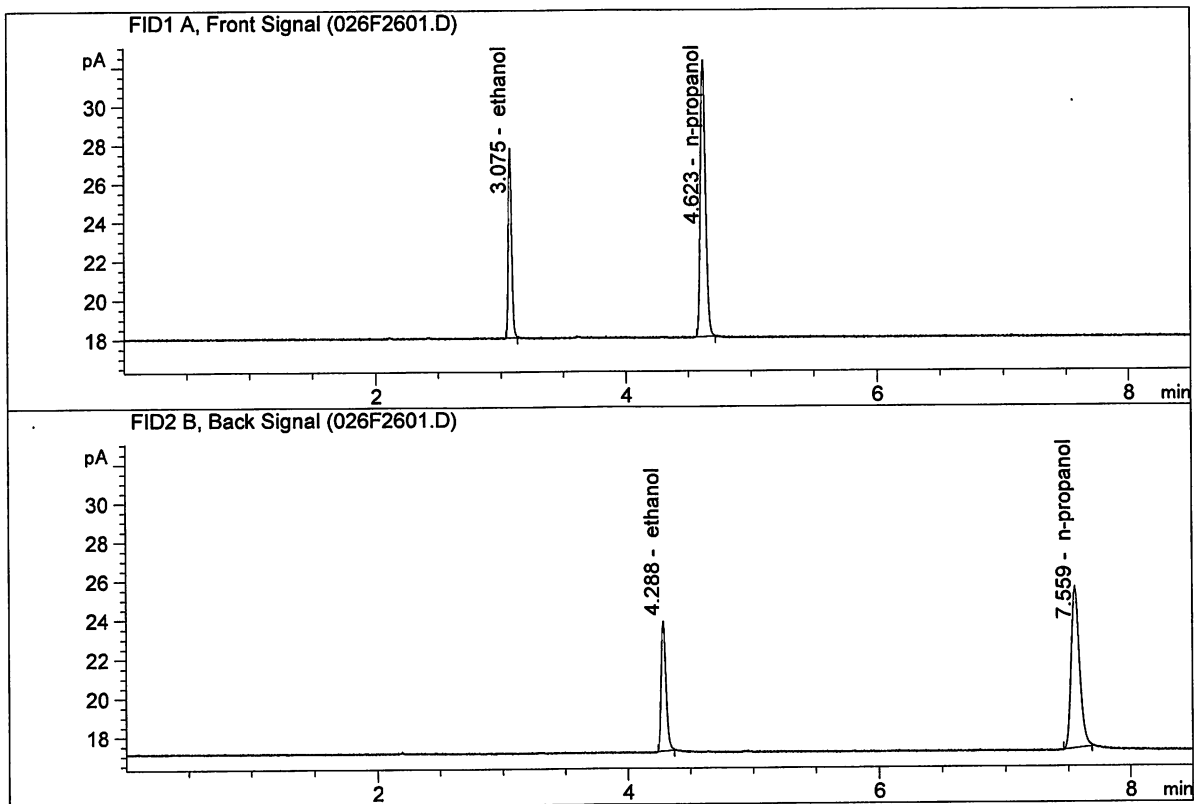


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 17.62886 | 0.2006 | g/100cc |
| 2. | Ethanol | Column 2: | 17.86207 | 0.1966 | g/100cc |
| 3. | n-Propanol | Column 1: | 40.45070 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 40.17303 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-1-B
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 17.80440 | 0.2019 | g/100cc |
| 2. | Ethanol | Column 2: | 18.09573 | 0.1991 | g/100cc |
| 3. | n-Propanol | Column 1: | 40.59621 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 40.19983 | 1.0000 | g/100cc |

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-2

Analysis Date(s): 12 Sep 2017

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|---------------------|------------|---------------|--|
| Sample Results | 0.2074 | 0.2054 | 0.0020 | 0.2064 | 0.2053 | |
| (g/100cc) | 0.2055 | 0.2031 | 0.0024 | 0.2043 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M
Hamilton Auto-Dilutor Serial Number:
MD96BC1382/MD94AM10010

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.205 | 0.194 | 0.216 | 0.011 |

| | | |
|--|-------------------------------------|--|
| | Reported Result 0.205 | |
|--|-------------------------------------|--|

Calibration and control data are stored centrally.

NB

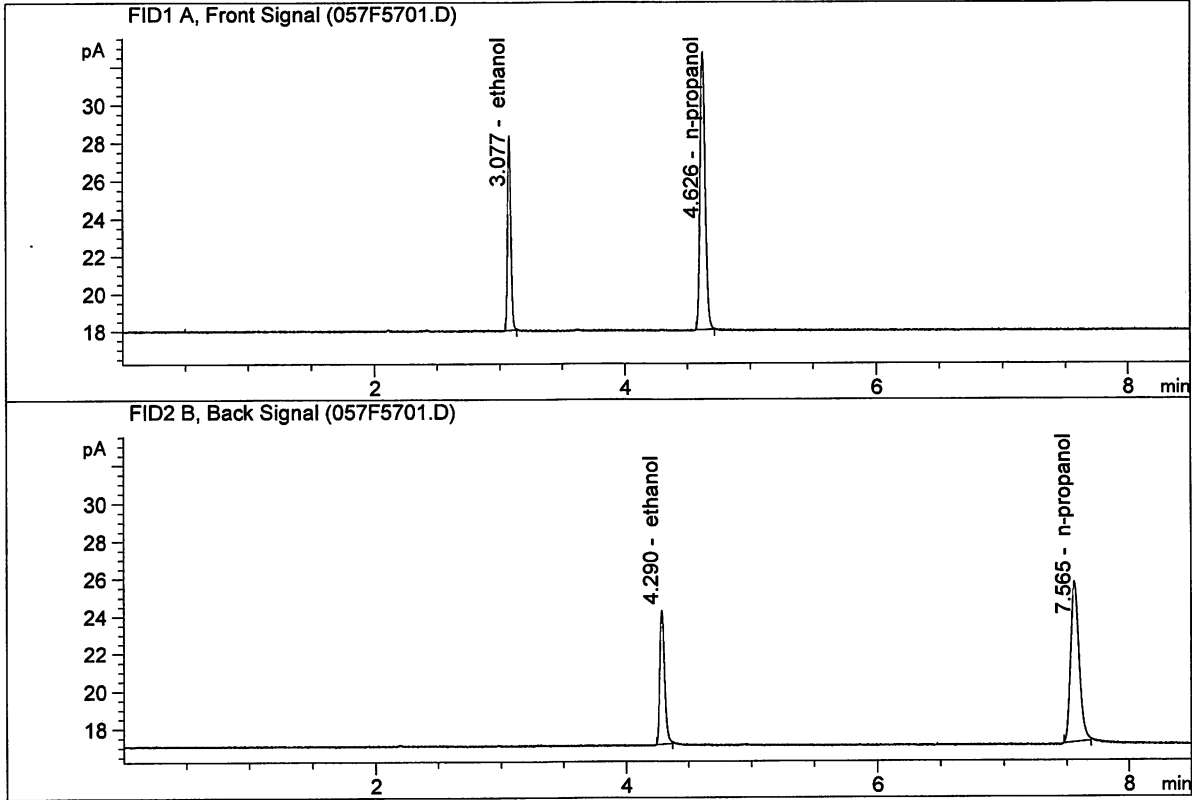
Issued: 12/30/2016

Volatiles BAC Calculation Spreadsheet Rev 4

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-2-A
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

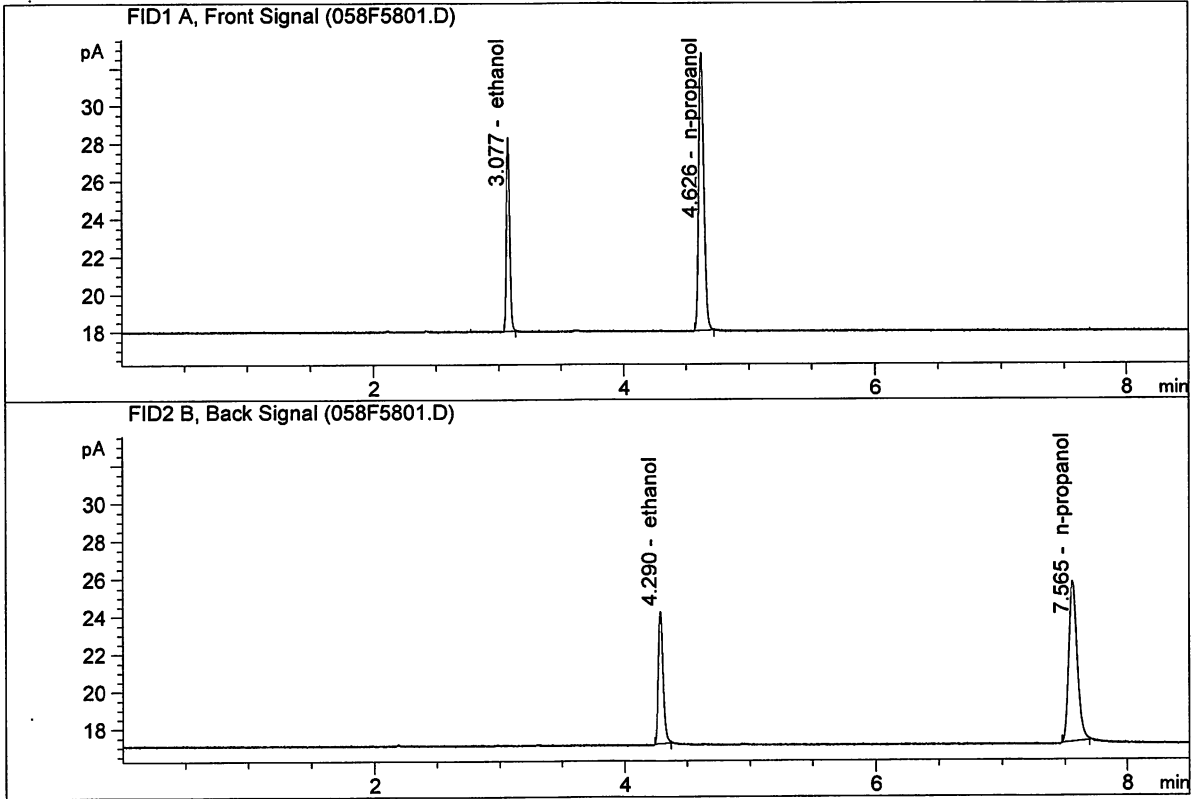


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 18.86834 | 0.2074 | g/100cc |
| 2. | Ethanol | Column 2: | 19.21273 | 0.2054 | g/100cc |
| 3. | n-Propanol | Column 1: | 41.87423 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 41.36814 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-2-B
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 18.81436 | 0.2055 | g/100cc |
| 2. | Ethanol | Column 2: | 19.12960 | 0.2031 | g/100cc |
| 3. | n-Propanol | Column 1: | 42.13659 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 41.64298 | 1.0000 | g/100cc |

MB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.08 FN10281510

Analysis Date(s): 12 Sep 2017

| | Column 1 FID A | Column 2 FID B | Column Precision | Mean Value | Over-all Mean | |
|----------------|-------------------|-------------------|---------------------|------------|---------------|--|
| Sample Results | 0.0795 | 0.0768 | 0.0027 | 0.0781 | 0.0783 | |
| (g/100cc) | 0.0796 | 0.0775 | 0.0021 | 0.0785 | | |

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M
Hamilton Auto-Dilutor Serial Number:
MD96BC1382/MD94AM10010

Reporting of Results

Uncertainty of Measurement (UM%): 5.00%

| Overall Mean (g/100cc) | Low | High | 5% of Mean |
|------------------------|-------|-------|------------|
| 0.078 | 0.074 | 0.082 | 0.004 |

| | | |
|--|------------------------|--|
| | Reported Result | |
| | 0.078 | |

Calibration and control data are stored centrally.

NB

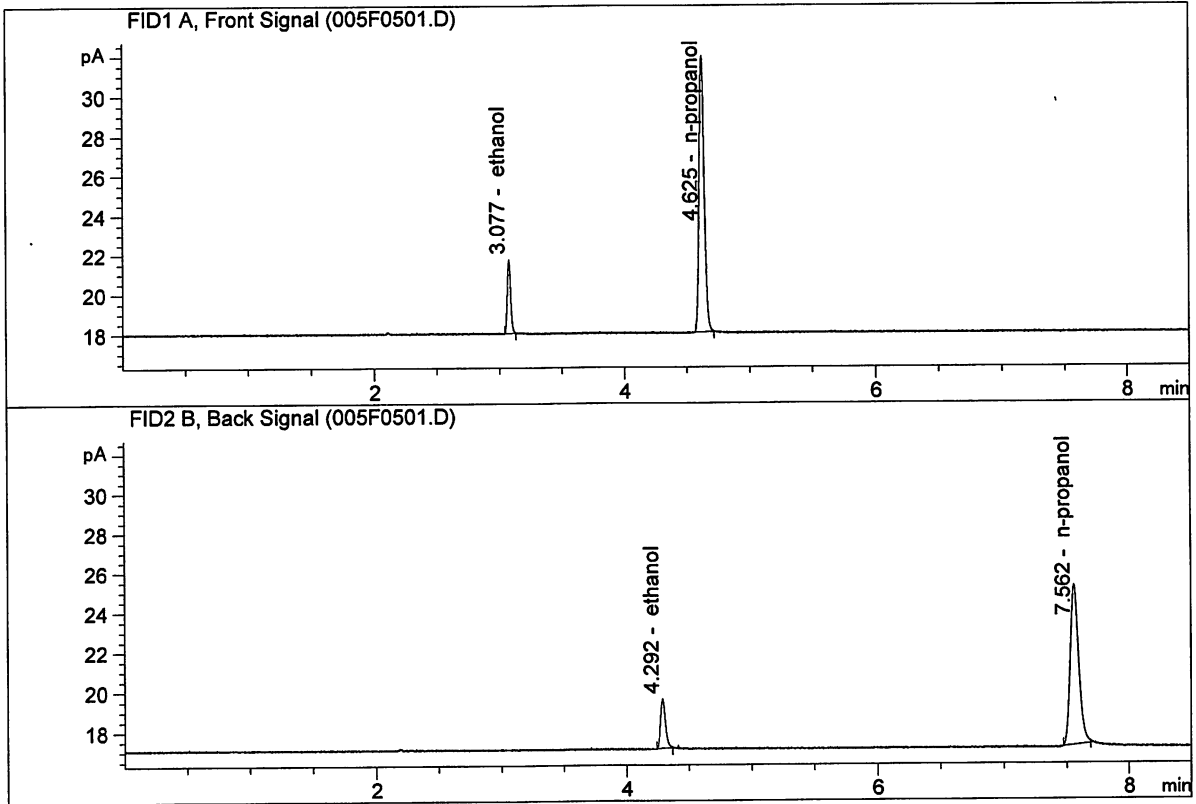
Issued: 12/30/2016

Volatiles BAC Calculation Spreadsheet Rev 4

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN10281510-A
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

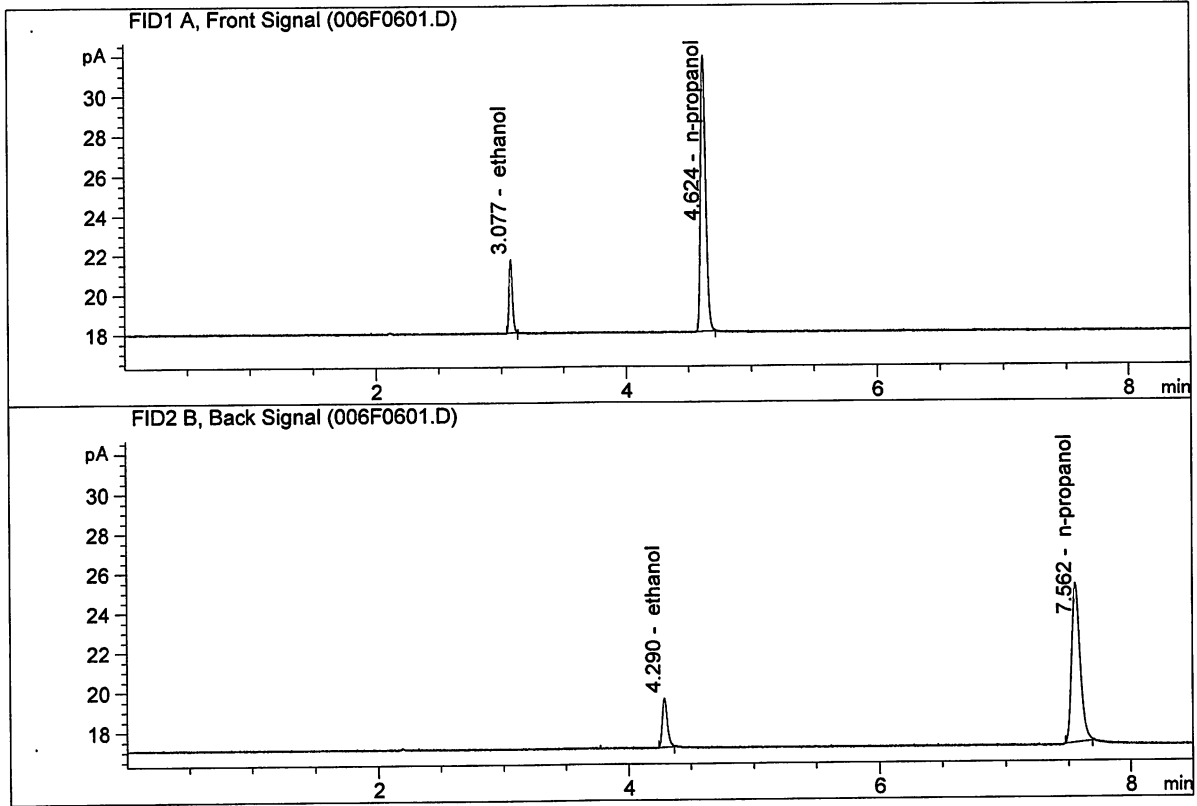


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 6.86298 | 0.0795 | g/100cc |
| 2. | Ethanol | Column 2: | 6.81647 | 0.0768 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.72272 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.23682 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN10281510-B
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

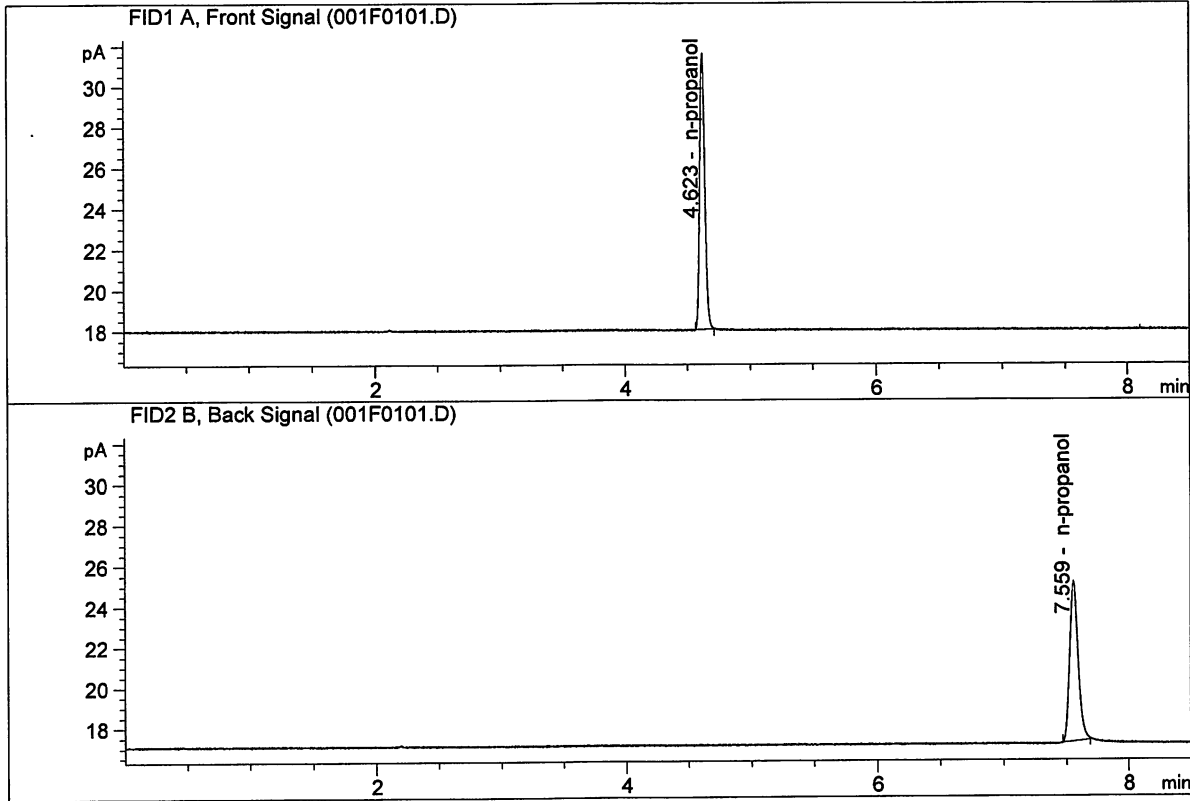


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 6.84338 | 0.0796 | g/100cc |
| 2. | Ethanol | Column 2: | 6.83608 | 0.0775 | g/100cc |
| 3. | n-Propanol | Column 1: | 39.59669 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.00565 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK 1
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

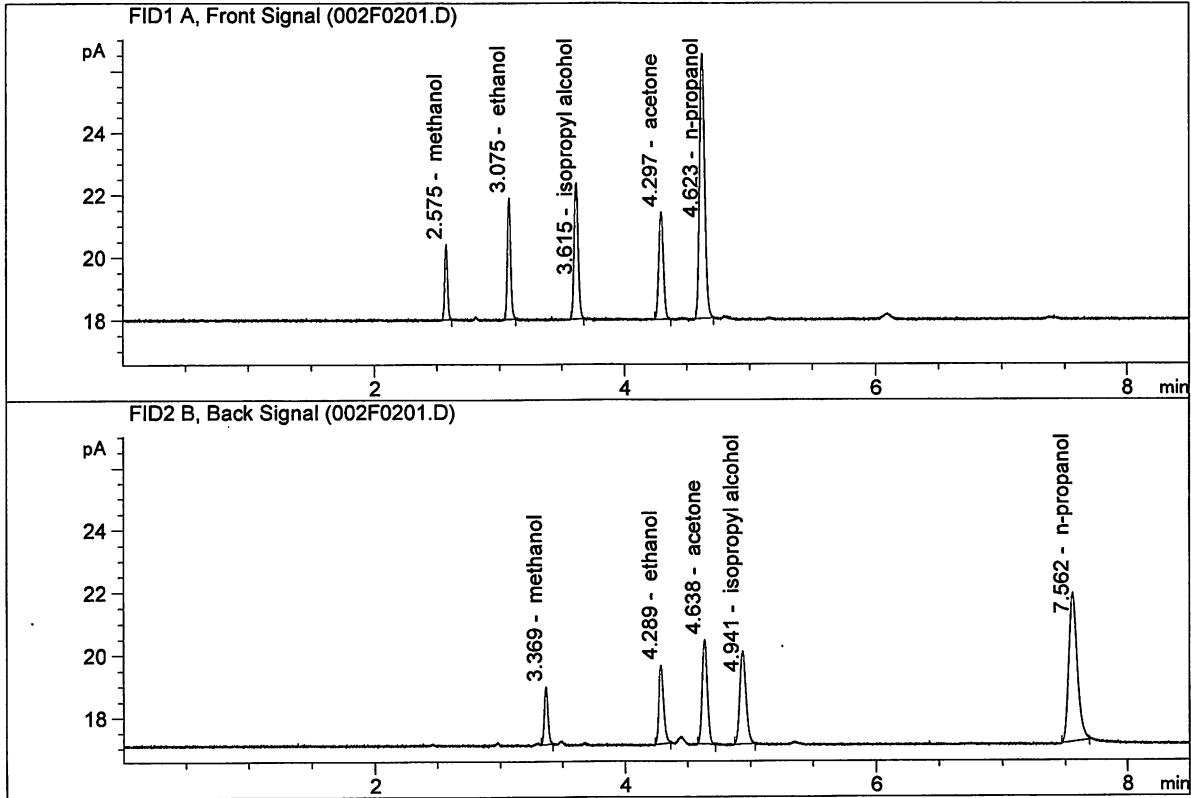


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 38.60847 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 38.51418 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : MIX VOL FN09231404
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167

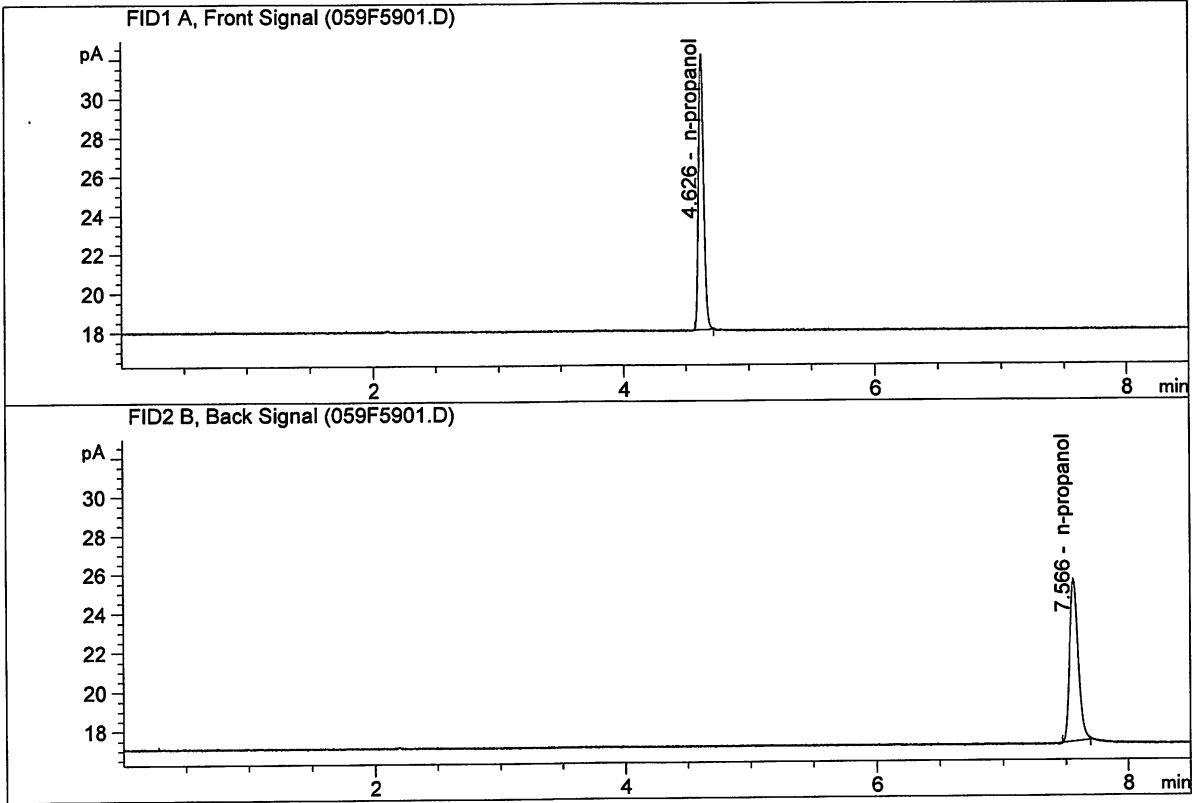


| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 6.93841 | 0.1322 | g/100cc |
| 2. | Ethanol | Column 2: | 6.94185 | 0.1307 | g/100cc |
| 3. | n-Propanol | Column 1: | 24.16170 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 23.48410 | 1.0000 | g/100cc |

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK
 Laboratory : Meridian
 Injection Date : Sep 12, 2017
 Method : ALCOHOL.M
 Acq. Instrument: CN11180014-CN11041167



| # | Compound | Column | Area | Amount | Units |
|----|------------|-----------|----------|--------|---------|
| 1. | Ethanol | Column 1: | 0.00000 | 0.0000 | g/100cc |
| 2. | Ethanol | Column 2: | 0.00000 | 0.0000 | g/100cc |
| 3. | n-Propanol | Column 1: | 40.35473 | 1.0000 | g/100cc |
| 4. | n-Propanol | Column 2: | 39.99143 | 1.0000 | g/100cc |

NB

Sample Summary

Sequence table: C:\Chem32\1\Data\09-12-17_SAMPLES\09-12-17_SAMPLES 2017-09-12 12-07-19\09-12-17_SAMPLES.S
 Data directory path: C:\Chem32\1\Data\09-12-17_SAMPLES\09-12-17_SAMPLES 2017-09-12 12-07-19\
 Logbook: C:\Chem32\1\Data\09-12-17_SAMPLES\09-12-17_SAMPLES 2017-09-12 12-07-19\09-12-17_SAMPLES.LOG
 Sequence start: 9/12/2017 12:22:09 PM
 Sequence Operator: SYSTEM
 Operator: SYSTEM
 Method file name: C:\Chem32\1\Data\09-12-17_SAMPLES\09-12-17_SAMPLES 2017-09-12 12-07-19\ALCOHOL.M

| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | Cmp |
|-------|------------|-------|------------------|----------------------|-------------------|------------|-------|-----|
| 1 | 1 | 1 | INTERNAL STD BLK | - | 1.0000 | 001F0101.D | | 2 |
| 2 | 2 | 1 | MIX VOL FN092314 | - | 1.0000 | 002F0201.D | | 10 |
| 3 | 3 | 1 | QC1-1-A | - | 1.0000 | 003F0301.D | | 4 |
| 4 | 4 | 1 | QC1-1-B | - | 1.0000 | 004F0401.D | | 4 |
| 5 | 5 | 1 | 0.08 FN10281510- | - | 1.0000 | 005F0501.D | | 4 |
| 6 | 6 | 1 | 0.08 FN10281510- | - | 1.0000 | 006F0601.D | | 4 |
| 7 | 7 | 1 | M2017-4078-1-A | - | 1.0000 | 007F0701.D | | 2 |
| 8 | 8 | 1 | M2017-4078-1-B | - | 1.0000 | 008F0801.D | | 2 |
| 9 | 9 | 1 | M2017-4079-1-A | - | 1.0000 | 009F0901.D | | 6 |
| 10 | 10 | 1 | M2017-4079-1-B | - | 1.0000 | 010F1001.D | | 6 |
| 11 | 11 | 1 | M2017-4080-1-A | - | 1.0000 | 011F1101.D | | 6 |
| 12 | 12 | 1 | M2017-4080-1-B | - | 1.0000 | 012F1201.D | | 6 |
| 13 | 13 | 1 | M2017-4083-1-A | - | 1.0000 | 013F1301.D | | 2 |
| 14 | 14 | 1 | M2017-4083-1-B | - | 1.0000 | 014F1401.D | | 2 |
| 15 | 15 | 1 | M2017-4101-1-A | - | 1.0000 | 015F1501.D | | 5 |
| 16 | 16 | 1 | M2017-4101-1-B | - | 1.0000 | 016F1601.D | | 4 |
| 17 | 17 | 1 | M2017-4102-1-A | - | 1.0000 | 017F1701.D | | 4 |
| 18 | 18 | 1 | M2017-4102-1-B | - | 1.0000 | 018F1801.D | | 4 |
| 19 | 19 | 1 | M2017-4103-1-A | - | 1.0000 | 019F1901.D | | 5 |
| 20 | 20 | 1 | M2017-4103-1-B | - | 1.0000 | 020F2001.D | | 6 |
| 21 | 21 | 1 | M2017-4110-2-A | - | 1.0000 | 021F2101.D | | 6 |
| 22 | 22 | 1 | M2017-4110-2-B | - | 1.0000 | 022F2201.D | | 6 |
| 23 | 23 | 1 | M2017-4113-1-A | - | 1.0000 | 023F2301.D | | 6 |
| 24 | 24 | 1 | M2017-4113-1-B | - | 1.0000 | 024F2401.D | | 6 |
| 25 | 25 | 1 | QC2-1-A | - | 1.0000 | 025F2501.D | | 4 |
| 26 | 26 | 1 | QC2-1-B | - | 1.0000 | 026F2601.D | | 4 |
| 27 | 27 | 1 | M2017-4117-1-A | - | 1.0000 | 027F2701.D | | 2 |
| 28 | 28 | 1 | M2017-4117-1-B | - | 1.0000 | 028F2801.D | | 2 |
| 29 | 29 | 1 | M2017-4117-2-A | - | 1.0000 | 029F2901.D | | 2 |
| 30 | 30 | 1 | M2017-4117-2-B | - | 1.0000 | 030F3001.D | | 2 |
| 31 | 31 | 1 | M2017-4118-1-A | - | 1.0000 | 031F3101.D | | 2 |
| 32 | 32 | 1 | M2017-4118-1-B | - | 1.0000 | 032F3201.D | | 2 |
| 33 | 33 | 1 | M2017-4120-21-A | - | 1.0000 | 033F3301.D | | 2 |
| 34 | 34 | 1 | M2017-4120-21-B | - | 1.0000 | 034F3401.D | | 2 |
| 35 | 35 | 1 | M2017-4121-1-A | - | 1.0000 | 035F3501.D | | 6 |
| 36 | 36 | 1 | M2017-4121-1-B | - | 1.0000 | 036F3601.D | | 6 |
| 37 | 37 | 1 | M2017-4130-1-A | - | 1.0000 | 037F3701.D | | 6 |
| 38 | 38 | 1 | M2017-4130-1-B | - | 1.0000 | 038F3801.D | | 6 |
| 39 | 39 | 1 | M2017-4132-1-A | - | 1.0000 | 039F3901.D | | 4 |
| 40 | 40 | 1 | M2017-4132-1-B | - | 1.0000 | 040F4001.D | | 4 |
| 41 | 41 | 1 | M2017-4148-1-A | - | 1.0000 | 041F4101.D | | 2 |
| 42 | 42 | 1 | M2017-4148-1-B | - | 1.0000 | 042F4201.D | | 2 |
| 43 | 43 | 1 | M2017-4152-1-A | - | 1.0000 | 043F4301.D | | 6 |

NB

| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | # Cmp |
|-------|------------|-------|------------------|----------------------|-------------------|------------|-------|-------|
| 44 | 44 | 1 | M2017-4152-1-B | - | 1.0000 | 044F4401.D | | 6 |
| 45 | 45 | 1 | M2017-4156-1-A | - | 1.0000 | 045F4501.D | | 2 |
| 46 | 46 | 1 | M2017-4156-1-B | - | 1.0000 | 046F4601.D | | 2 |
| 47 | 47 | 1 | QC1-2-A | - | 1.0000 | 047F4701.D | | 4 |
| 48 | 48 | 1 | QC1-2-B | - | 1.0000 | 048F4801.D | | 4 |
| 49 | 49 | 1 | M2017-4157-1-A | - | 1.0000 | 049F4901.D | | 6 |
| 50 | 50 | 1 | M2017-4157-1-B | - | 1.0000 | 050F5001.D | | 4 |
| 51 | 51 | 1 | M2017-4173-1-A | - | 1.0000 | 051F5101.D | | 6 |
| 52 | 52 | 1 | M2017-4173-1-B | - | 1.0000 | 052F5201.D | | 6 |
| 53 | 53 | 1 | M2017-4174-1-A | - | 1.0000 | 053F5301.D | | 2 |
| 54 | 54 | 1 | M2017-4174-1-B | - | 1.0000 | 054F5401.D | | 2 |
| 55 | 55 | 1 | M2017-4175-1-A | - | 1.0000 | 055F5501.D | | 6 |
| 56 | 56 | 1 | M2017-4175-1-B | - | 1.0000 | 056F5601.D | | 6 |
| 57 | 57 | 1 | QC2-2-A | - | 1.0000 | 057F5701.D | | 4 |
| 58 | 58 | 1 | QC2-2-B | - | 1.0000 | 058F5801.D | | 4 |
| 59 | 59 | 1 | INTERNAL STD BLK | - | 1.0000 | 059F5901.D | | 2 |

Method file name: C:\Chem32\1\Data\09-12-17_SAMPLES\09-12-17_SAMPLES 2017-09-12 12-07-19 \SHUTDOWN.M

| Run # | Location # | Inj # | Sample Name | Sample Amt [g/100cc] | Multip.* Dilution | File name | Cal # | # Cmp |
|-------|------------|-------|-------------|----------------------|-------------------|------------|-------|-------|
| 60 | 60 | 1 | EMPTY | - | 1.0000 | 060F6001.D | | 0 |

NB