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): 10/29/15

Volatiles Quality Assurance Controls **calibration: 10/20/15**

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Dec-16	1212090	0.0773	0.0696 - 0.0850	0.0762 g/100cc
					0.0786 g/100cc
					g/100cc
Level 2	Jan-17	1212091	0.2020	0.1818 - 0.2222	0.2053 g/100cc
					g/100cc
					g/100cc
Multi-Component mixture:		**Exp date: Jan 2016**	**Lot #**	FN012111-01	OK
Curve Fit:		**Column 1**	0.99998	**Column2**	0.99992

Ethanol Calibration Reference Material								
Calibrator level	**Expiration**	**Cerilliant Lot #**	**Target Value**	**Acceptable Range**	**Column 1**	**Column 2**	**Precision**	**Mean**
0.050	Jan-17	FN010912-01	0.050	0.045 - 0.055	0.0500	0.0474	0.0026	0.0487
0.080			0.080	0.072 - 0.088			0	#DIV/0!
0.100	Mar-19	FN02021403	0.100	0.090 - 0.110	0.0978	0.0934	0.0044	0.0956
0.200			0.200	0.180 - 0.220			0	#DIV/0!
0.300	Dec-15	FN121510-01	0.300	0.270 - 0.330	0.3016	0.2963	0.0053	0.2989
0.400	Jan-17	FN012712-01	0.400	0.360 - 0.440	0.4025	0.4037	0.0012	0.4031
0.500	Jan-18	FN012813-01	0.500	0.450 - 0.550	0.4975	0.5009	0.0034	0.4992

Aqueous Controls					
Control level	**Expiration**	**Cerilliant Lot #**	**Target Value**	**Acceptable Range**	**Overall Results**
0.080	Jan-17	FN011712-02	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 fomulas.

Volatiles QA/QC data spreadsheet Rev 5

Issuing Authority: Quality Manager

MB

10/29/2015

Worklist: 884

LAB_CASE	ITEM	TASK_ID	DESCRIPTION
M2015-3861	1	43995	Alcohol Analysis
M2015-3867	1	44011	Alcohol Analysis
M2015-3873	1	44037	Alcohol Analysis
M2015-3874	1	44053	Alcohol Analysis
M2015-3875	1	44054	Alcohol Analysis
M2015-3876	1	44058	Alcohol Analysis
M2015-3877	1	44062	Alcohol Analysis
M2015-3878	1	44063	Alcohol Analysis
M2015-3896	1	44109	Alcohol Analysis
M2015-3905	1	44128	Alcohol Analysis
M2015-3910	1	44140	Alcohol Analysis
M2015-3914	1	44163	Alcohol Analysis
M2015-3915	1	44167	Alcohol Analysis
M2015-3948	1	44269	Alcohol Analysis
M2015-3949	1	44270	Alcohol Analysis
M2015-3956	1	44342	Alcohol Analysis

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-1 **Analysis Date(s): 29 Oct 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.0783	0.0735	0.0048	0.0759	0.0762
(g/100cc)	0.0785	0.0747	0.0038	0.0766	

Analysis Method

Refer to Volatiles Analytical Method 1.0

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
0.076	0.072	0.080	0.004

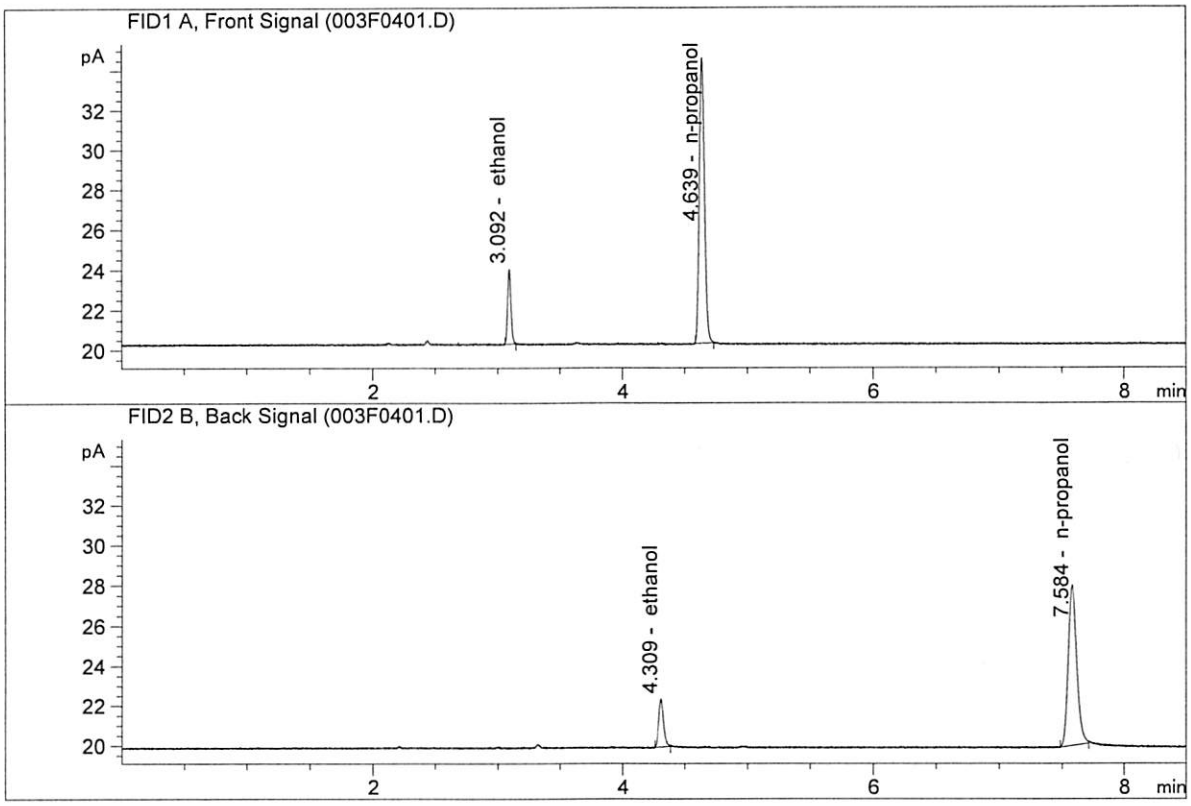
Reported Result
0.076

Calibration and control data are stored centrally. **Analyst:** NB

Issued: 01/16/2014
Volatiles BAC Calculation Spreadsheet Rev 3
Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-A
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

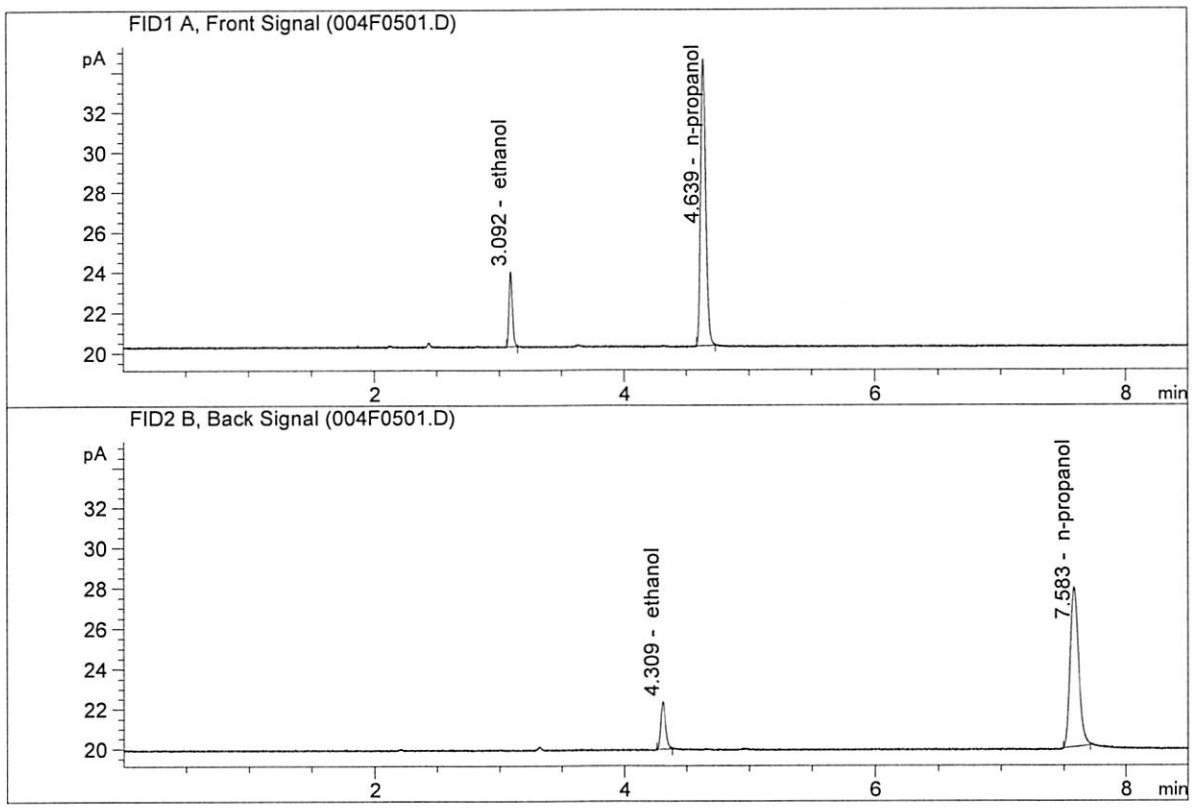


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	6.96147	0.0783	g/100cc
2.	Ethanol	Column 2:	6.59804	0.0735	g/100cc
3.	n-Propanol	Column 1:	41.11334	1.0000	g/100cc
4.	n-Propanol	Column 2:	39.20789	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-1-B
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	6.94861	0.0785	g/100cc
2.	Ethanol	Column 2:	6.59159	0.0747	g/100cc
3.	n-Propanol	Column 1:	40.91390	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.51328	1.0000	g/100cc

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-2 **Analysis Date(s): 29 Oct 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.0806	0.0768	0.0038	0.0787	0.0786
(g/100cc)	0.0806	0.0767	0.0039	0.0786	

Analysis Method

Refer to Volatiles Analytical Method 1.0

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%**

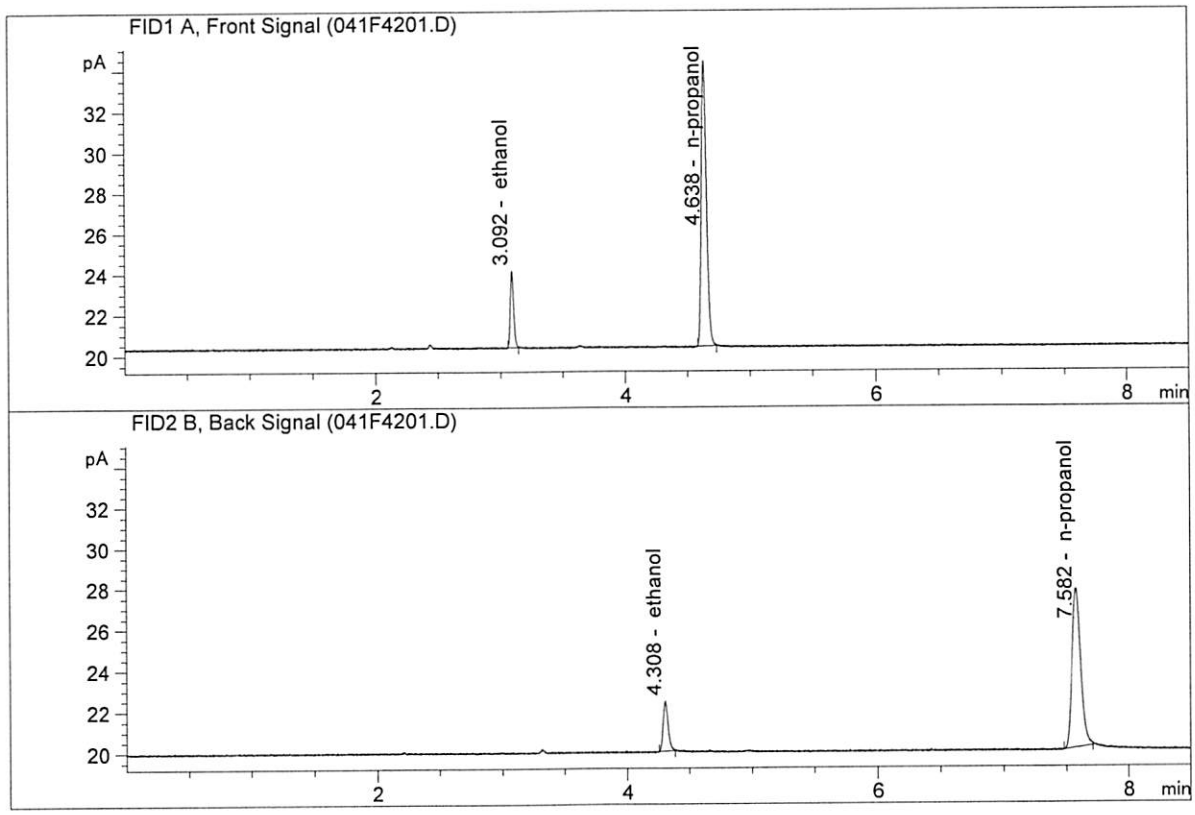
Overall Mean (g/100cc)	Low	High	5% of Mean
0.078	**0.074**	**0.082**	**0.004**

Reported Result
0.078

Calibration and control data are stored centrally. **Analyst:** NB **Page 2**

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-2-A
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

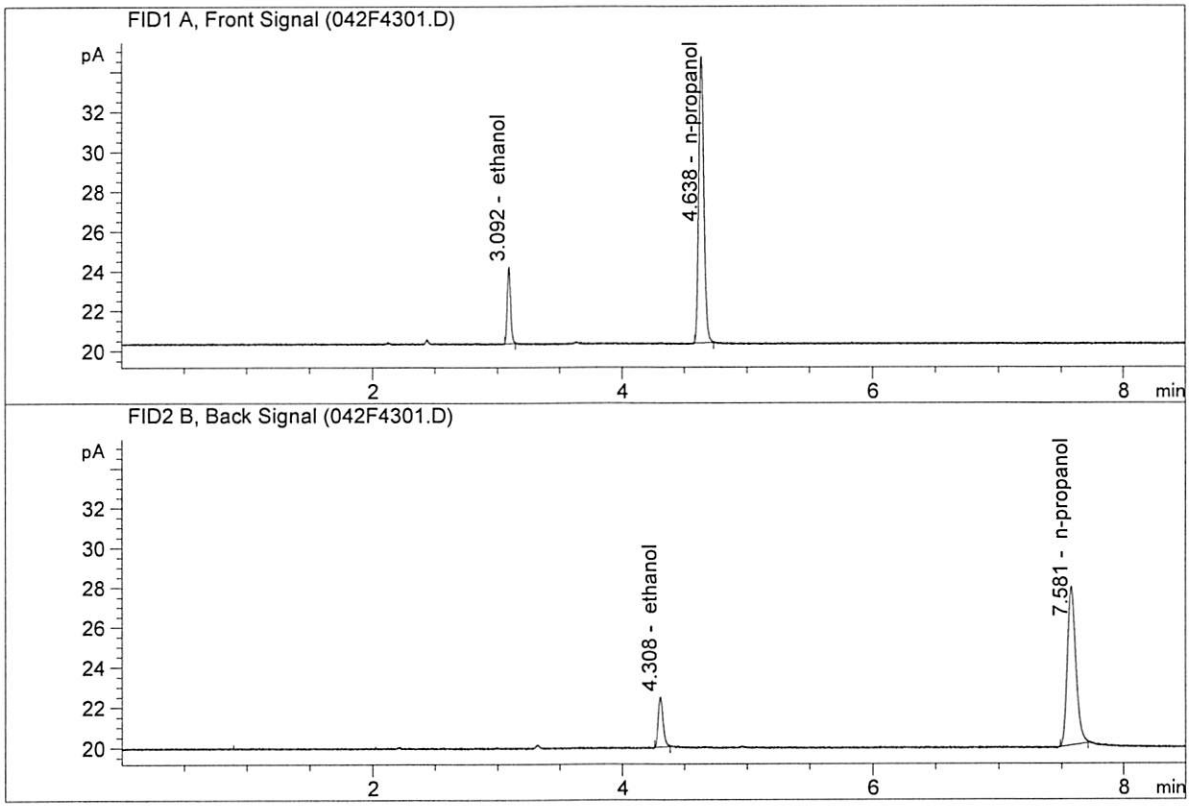


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	6.99721	0.0806	g/100cc
2.	Ethanol	Column 2:	6.65958	0.0768	g/100cc
3.	n-Propanol	Column 1:	40.10421	1.0000	g/100cc
4.	n-Propanol	Column 2:	37.87610	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : QC1-2-B
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	7.18475	0.0806	g/100cc
2.	Ethanol	Column 2:	6.82734	0.0767	g/100cc
3.	n-Propanol	Column 1:	41.19630	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.84464	1.0000	g/100cc

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.08 FN011712-02 **Analysis Date(s): 29 Oct 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.0800	0.0762	0.0038	0.0781	0.0782
(g/100cc)	0.0802	0.0766	0.0036	0.0784	

Analysis Method

Refer to Volatiles Analytical Method 1.0

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%

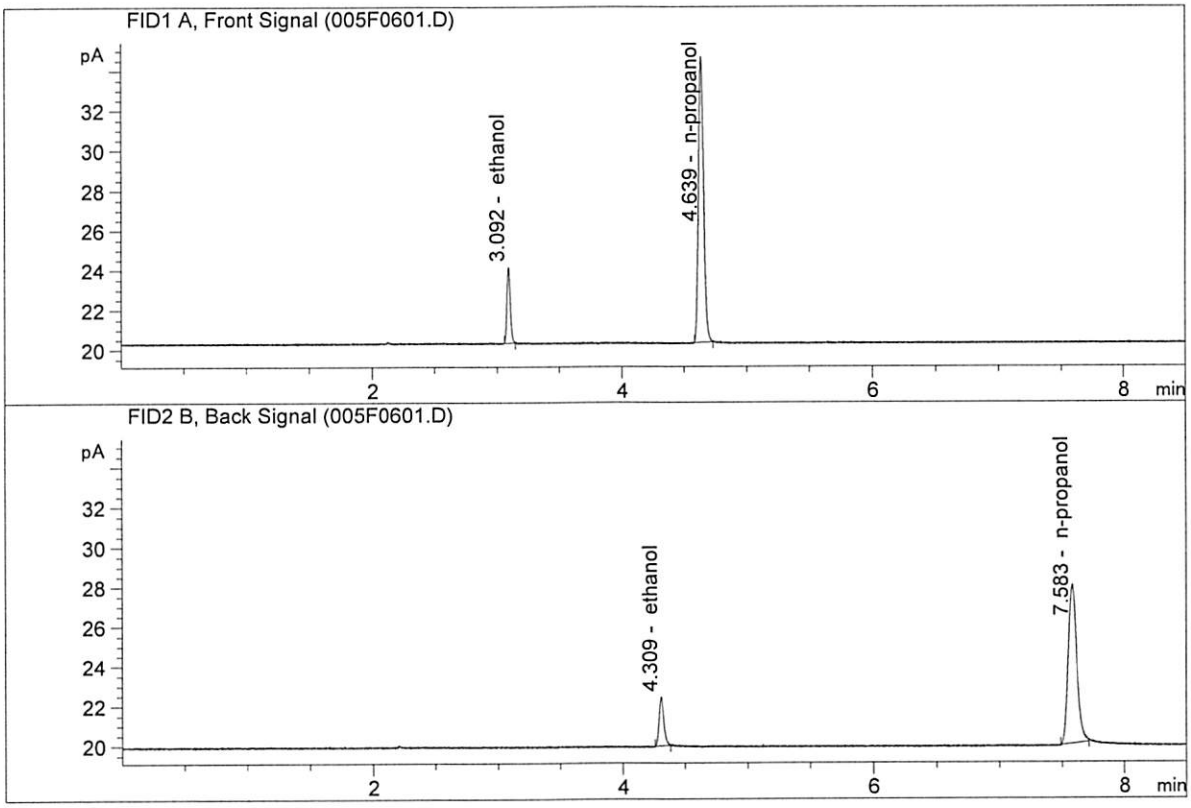
Overall Mean (g/100cc)	Low	High	5% of Mean
0.078	**0.074**	**0.082**	**0.004**

Reported Result
0.078

Calibration and control data are stored centrally. **Analyst:** NB **Page 2**

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN011712-02-A
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

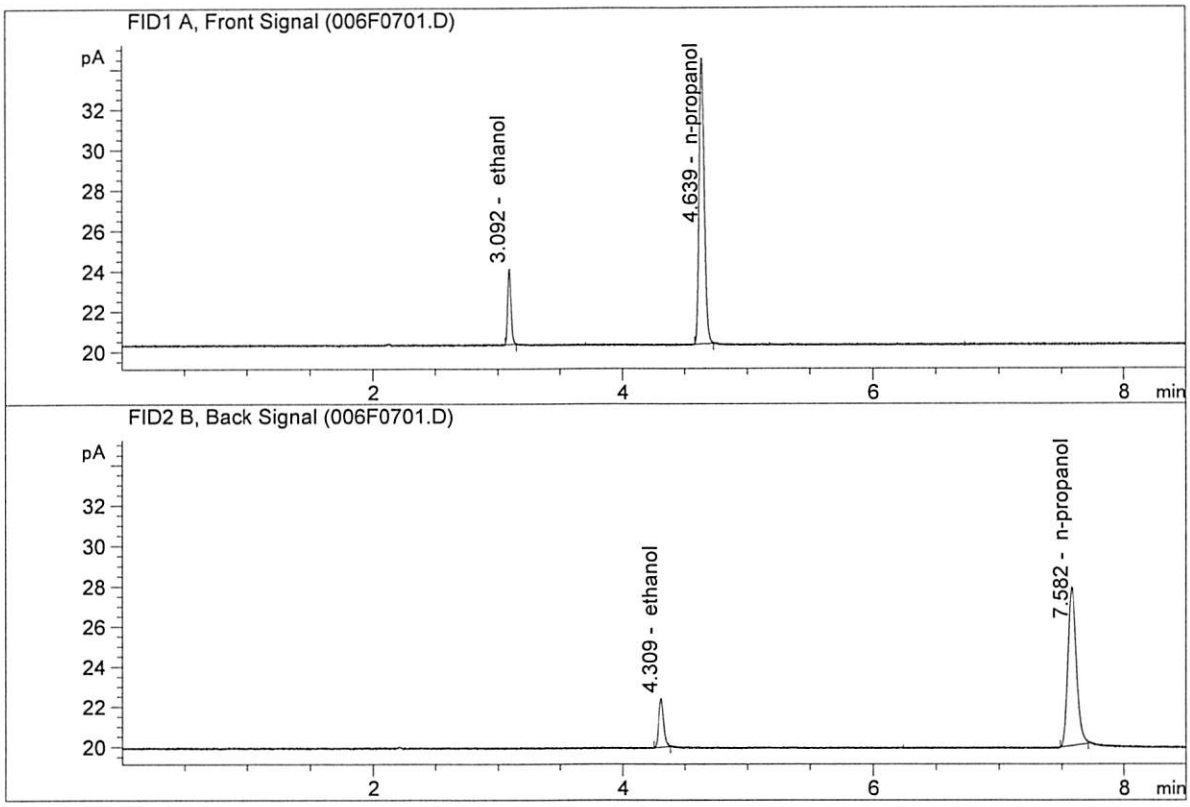


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	7.13709	0.0800	g/100cc
2.	Ethanol	Column 2:	6.81625	0.0762	g/100cc
3.	n-Propanol	Column 1:	41.22147	1.0000	g/100cc
4.	n-Propanol	Column 2:	39.03637	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN011712-02-B
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	7.06276	0.0802	g/100cc
2.	Ethanol	Column 2:	6.76163	0.0766	g/100cc
3.	n-Propanol	Column 1:	40.69683	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.51519	1.0000	g/100cc

NB

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-1 **Analysis Date(s): 29 Oct 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.2069	0.2042	0.0027	0.2055	0.2053
(g/100cc)	0.2069	0.2032	0.0037	0.2050	

Analysis Method

Refer to Volatiles Analytical Method 1.0

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%**

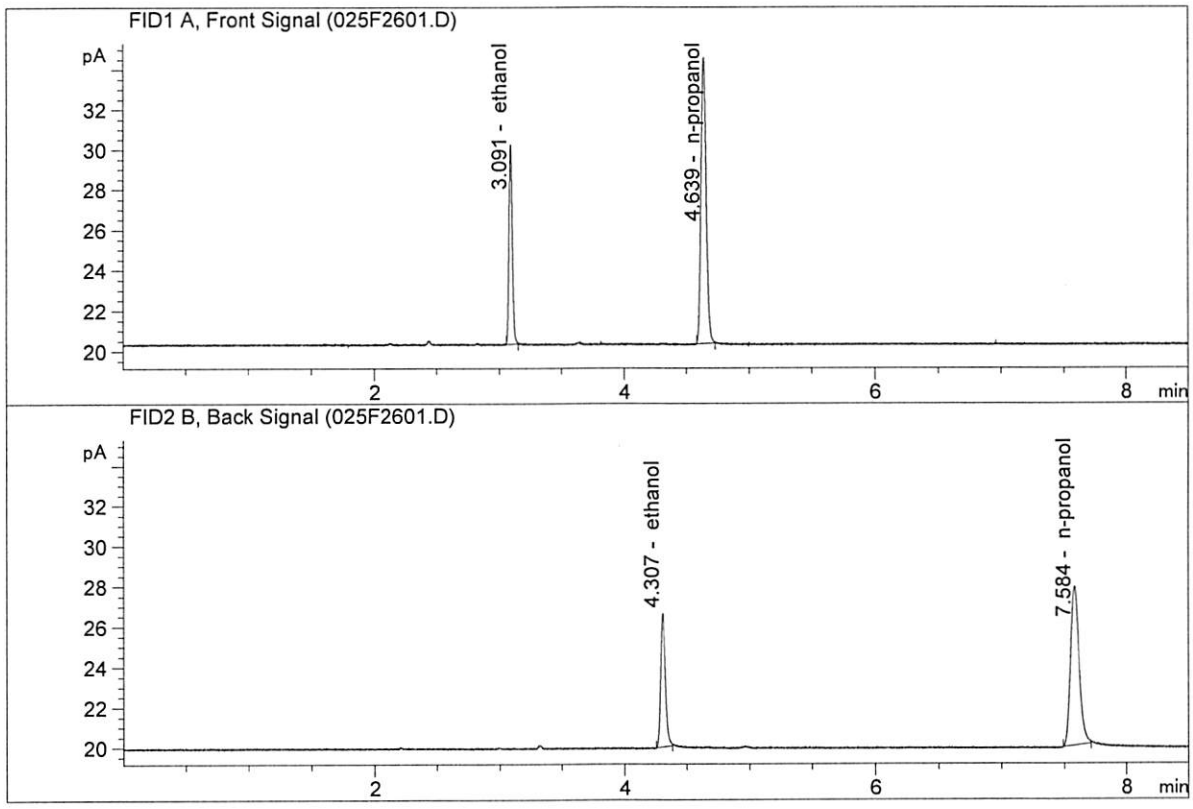
Overall Mean (g/100cc)	Low	High	5% of Mean
0.205	**0.194**	**0.216**	**0.011**

Reported Result
0.205

Calibration and control data are stored centrally. **Analyst:** NB **Page 2**

ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-1-A
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

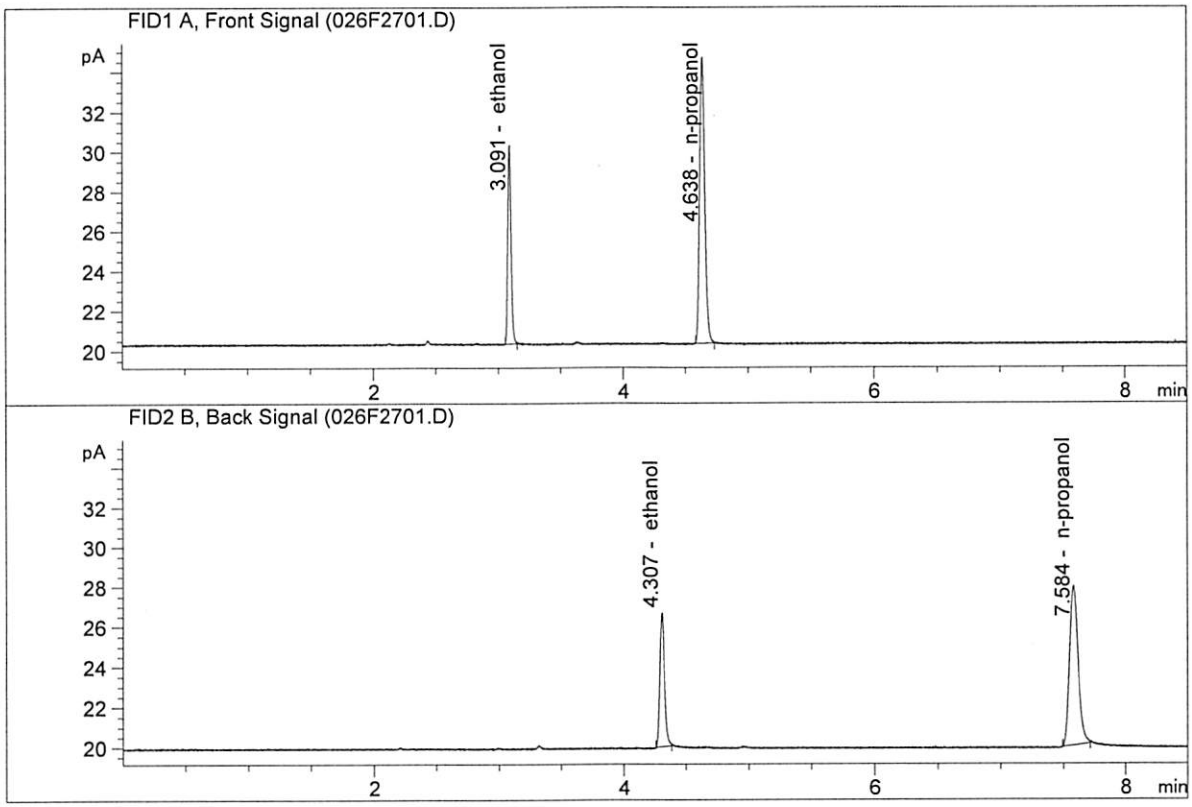


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	18.27393	0.2069	g/100cc
2.	Ethanol	Column 2:	18.02498	0.2042	g/100cc
3.	n-Propanol	Column 1:	40.82804	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.54680	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : QC2-1-B
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

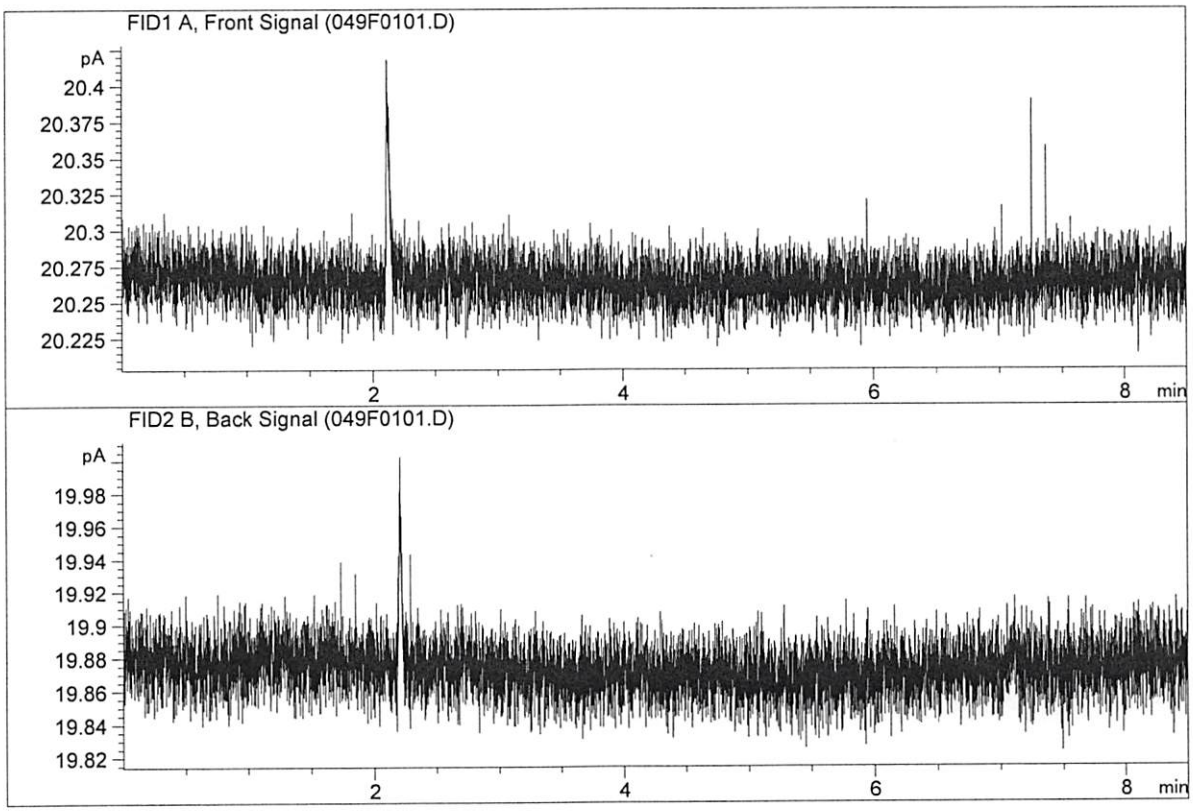


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	18.42181	0.2069	g/100cc
2.	Ethanol	Column 2:	18.02274	0.2032	g/100cc
3.	n-Propanol	Column 1:	41.15689	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.72475	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : water beginning
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

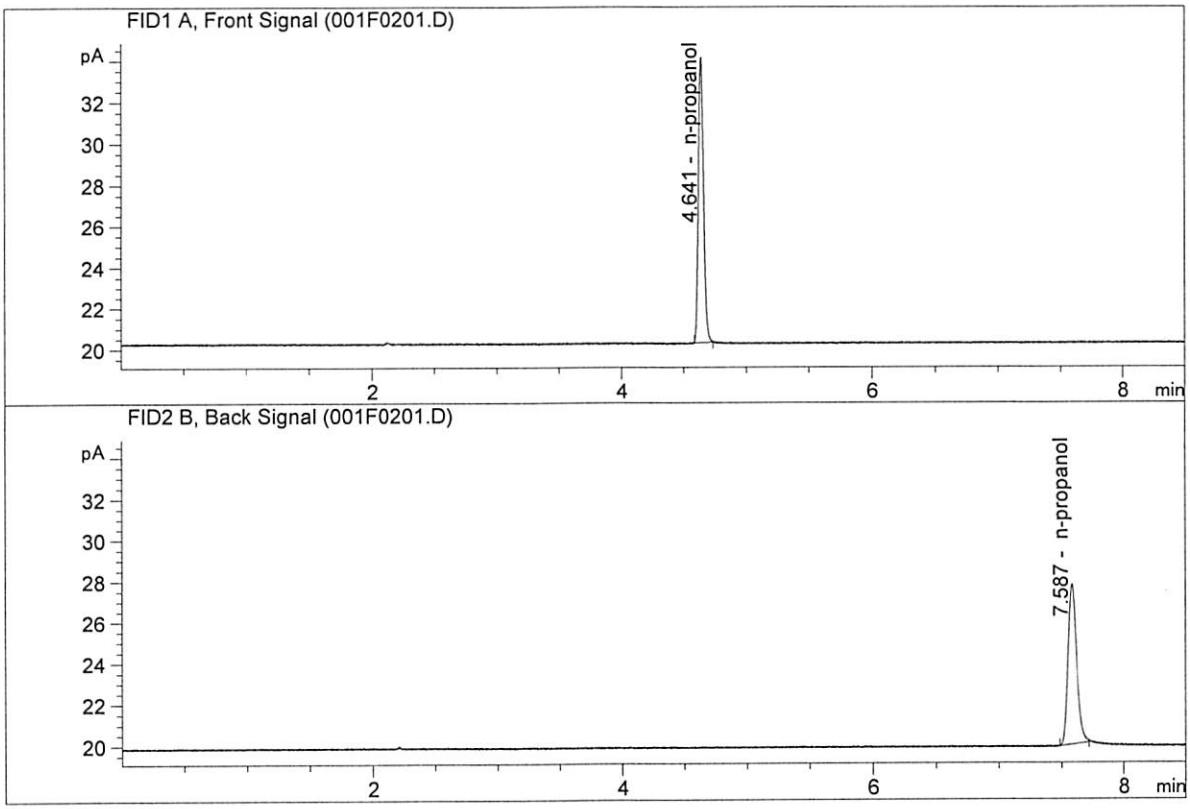


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	0.00000	0.0000	g/100cc
2.	Ethanol	Column 2:	0.00000	0.0000	g/100cc
3.	n-Propanol	Column 1:	0.00000	0.0000	g/100cc
4.	n-Propanol	Column 2:	0.00000	0.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK 1
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

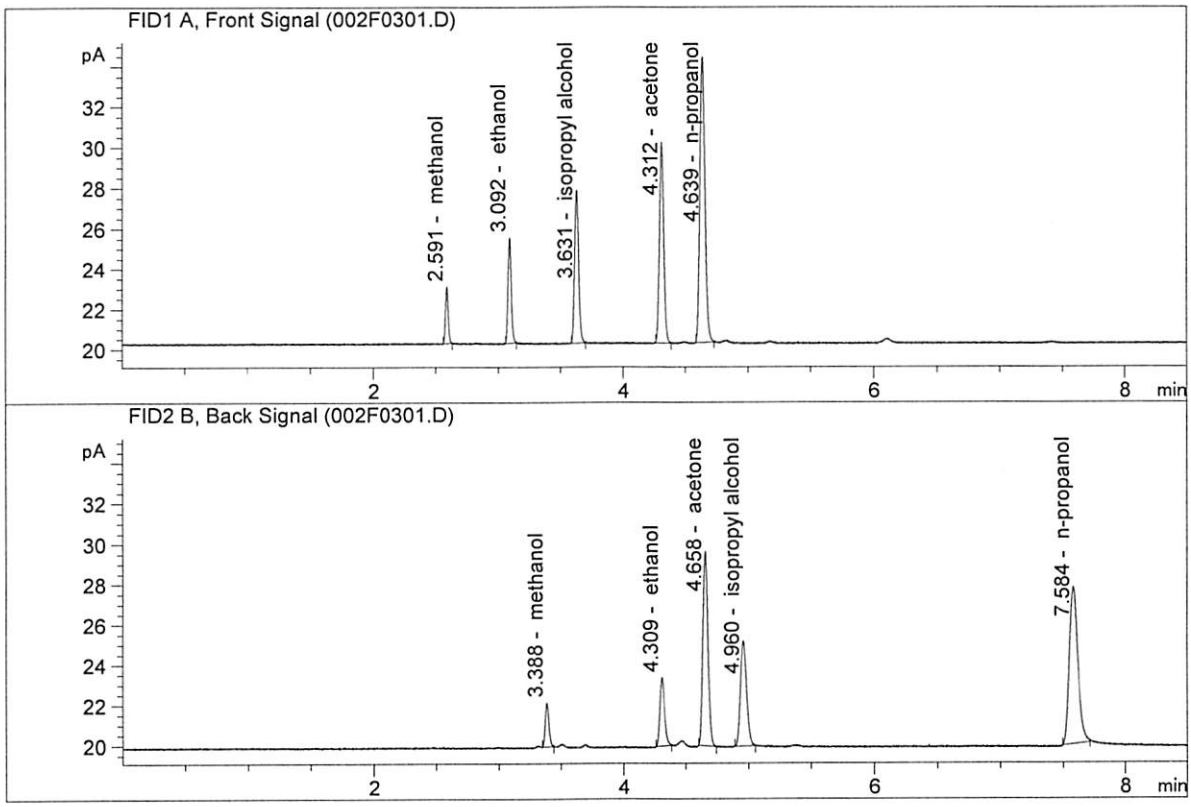


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	0.00000	0.0000	g/100cc
2.	Ethanol	Column 2:	0.00000	0.0000	g/100cc
3.	n-Propanol	Column 1:	39.95266	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.24271	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : MIX VOL FN012111-01
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

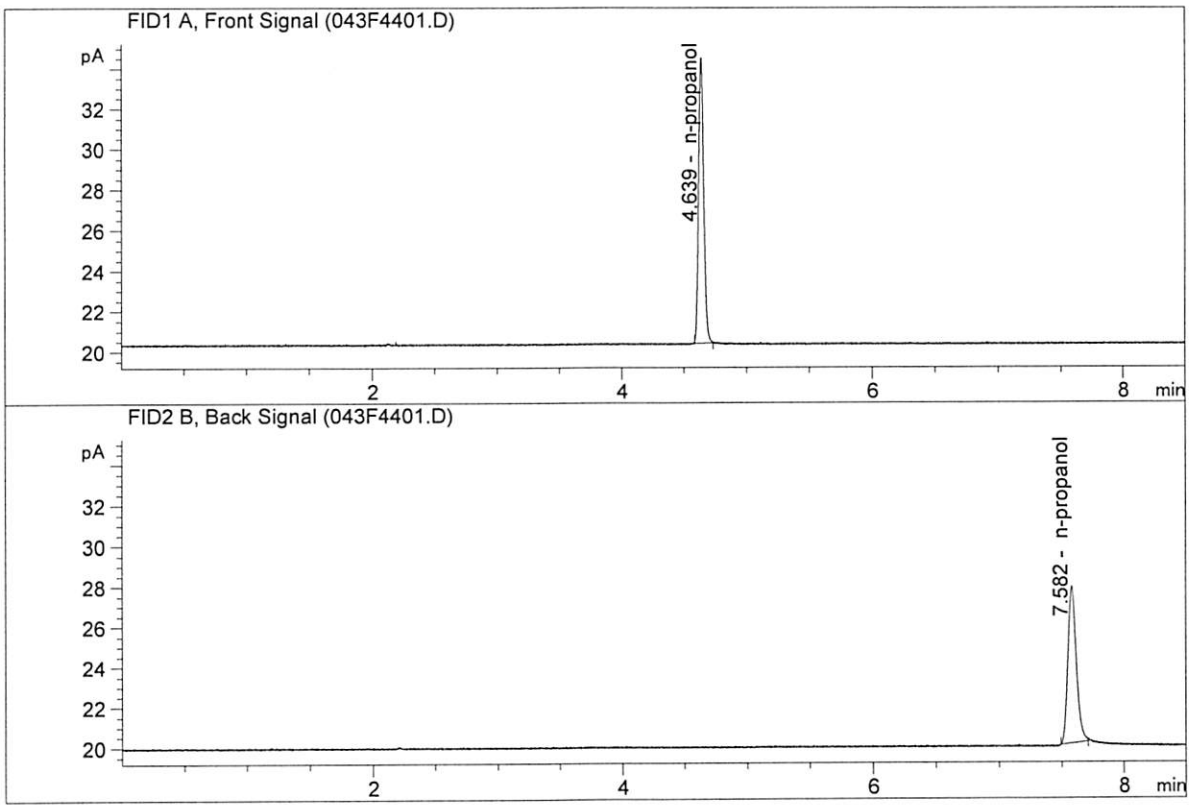


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	9.55602	0.1102	g/100cc
2.	Ethanol	Column 2:	9.15794	0.1053	g/100cc
3.	n-Propanol	Column 1:	40.06635	1.0000	g/100cc
4.	n-Propanol	Column 2:	37.95705	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : INTERNAL STD BLK
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

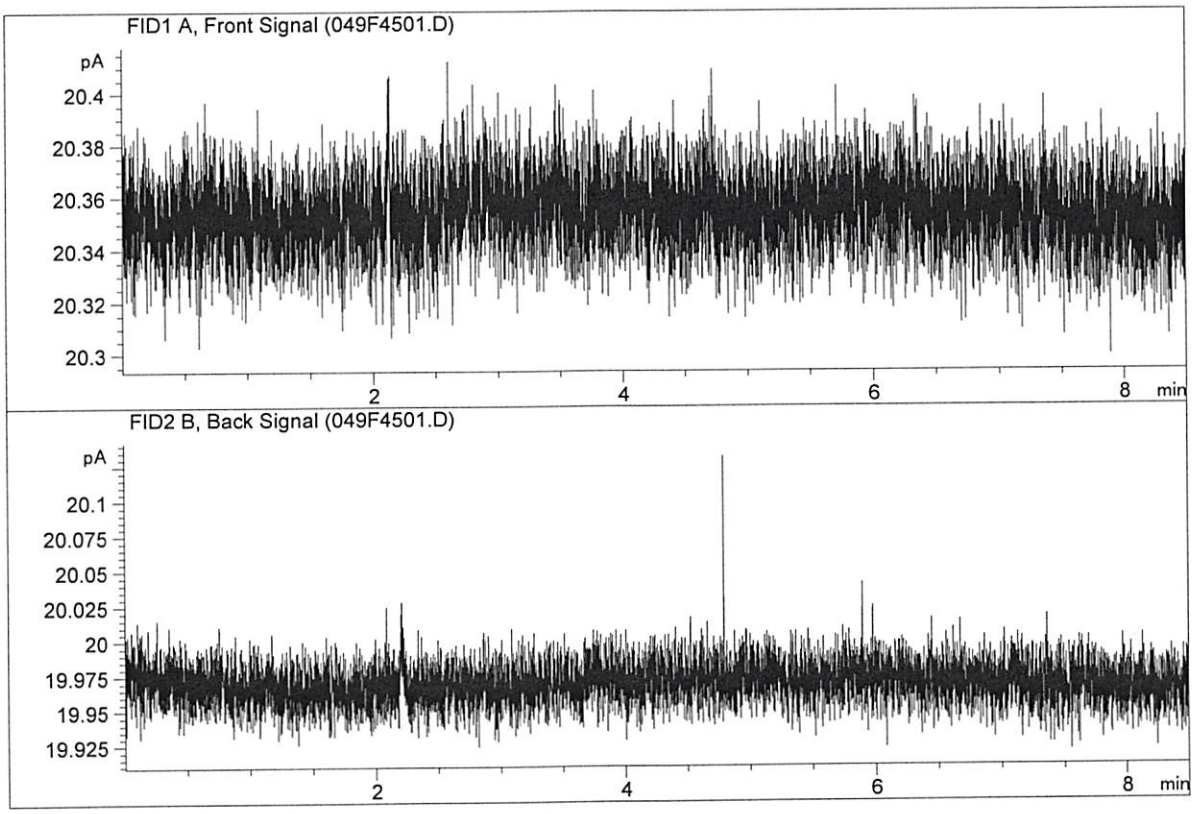


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	0.00000	0.0000	g/100cc
2.	Ethanol	Column 2:	0.00000	0.0000	g/100cc
3.	n-Propanol	Column 1:	40.60573	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.09678	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : water end
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

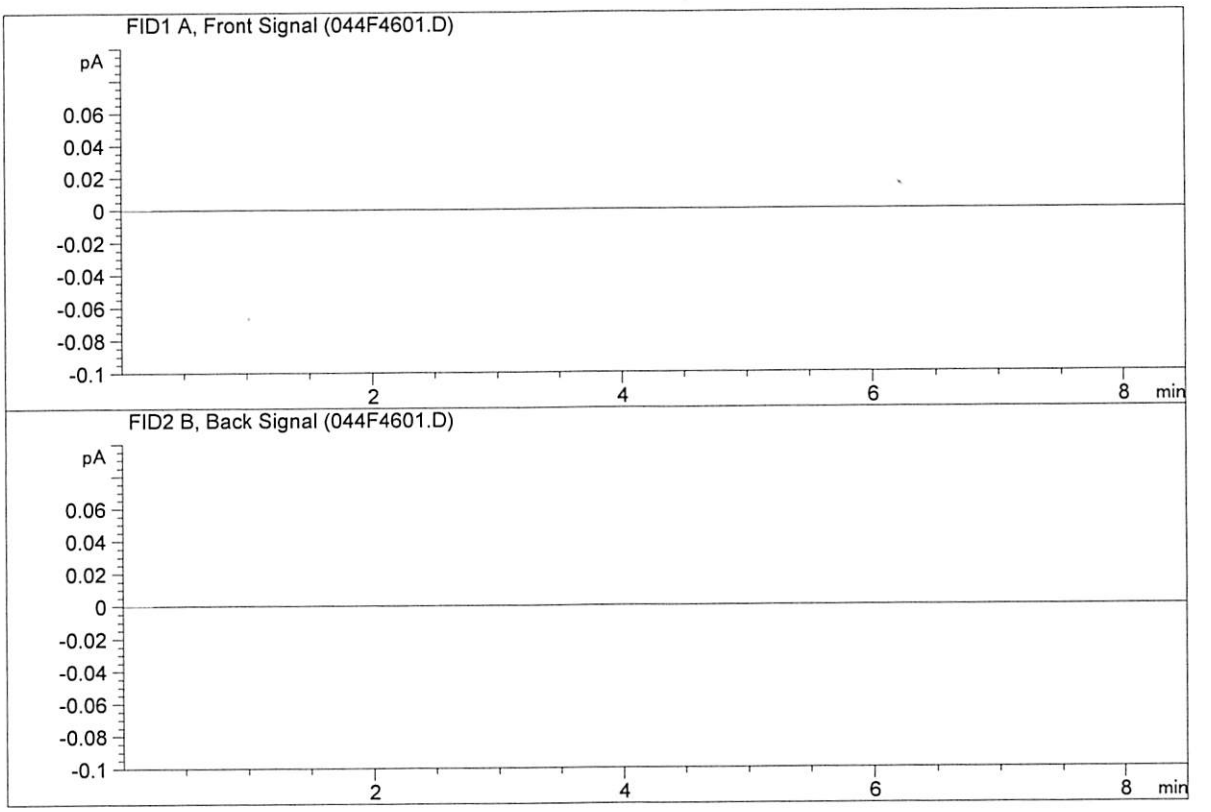


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	0.00000	0.0000	g/100cc
2.	Ethanol	Column 2:	0.00000	0.0000	g/100cc
3.	n-Propanol	Column 1:	0.00000	0.0000	g/100cc
4.	n-Propanol	Column 2:	0.00000	0.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : EMPTY
Laboratory : Meridian
Injection Date : Oct 29, 2015
Method : SHUTDOWN.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:	0.00000	0.0000	g/100cc
4.	n-Propanol	Column 2:	0.00000	0.0000	g/100cc

NB

Sample Summary

Sequence table: C:\Chem32\1\Data\10-29-15_SAMPLES\10-29-15_SAMPLES 2015-10-29 11-16-54\10-29-15_SAMPLES.S
Data directory path: C:\Chem32\1\Data\10-29-15_SAMPLES\10-29-15_SAMPLES 2015-10-29 11-16-54\
Logbook: C:\Chem32\1\Data\10-29-15_SAMPLES\10-29-15_SAMPLES 2015-10-29 11-16-54\10-29-15_SAMPLES.LOG
Sequence start: 10/29/2015 11:31:41 AM
Sequence Operator: SYSTEM
Operator: SYSTEM

Method file name: C:\Chem32\1\Data\10-29-15_SAMPLES\10-29-15_SAMPLES 2015-10-29 11-16-54\ALCOHOL.M

Run #	Location	Inj #	Sample Name	Sample Amt [g/100cc]	Multip.* Dilution	File name	Cal # Cmp
1	49	1	water beginning	-	1.0000	049F0101.D	0
2	1	1	INTERNAL STD BLK	-	1.0000	001F0201.D	2
3	2	1	MIX VOL FN012111	-	1.0000	002F0301.D	10
4	3	1	QC1-1-A	-	1.0000	003F0401.D	4
5	4	1	QC1-1-B	-	1.0000	004F0501.D	4
6	5	1	0.08 FN011712-02	-	1.0000	005F0601.D	4
7	6	1	0.08 FN011712-02	-	1.0000	006F0701.D	4
8	7	1	M2015-3861-1-A	-	1.0000	007F0801.D	4
9	8	1	M2015-3861-1-B	-	1.0000	008F0901.D	4
10	9	1	M2015-3867-1-A	-	1.0000	009F1001.D	4
11	10	1	M2015-3867-1-B	-	1.0000	010F1101.D	4
12	11	1	M2015-3873-1-A	-	1.0000	011F1201.D	4
13	12	1	M2015-3873-1-B	-	1.0000	012F1301.D	4
14	13	1	M2015-3874-1-A	-	1.0000	013F1401.D	4
15	14	1	M2015-3874-1-B	-	1.0000	014F1501.D	4
16	15	1	M2015-3875-1-A	-	1.0000	015F1601.D	2
17	16	1	M2015-3875-1-B	-	1.0000	016F1701.D	2
18	17	1	M2015-3876-1-A	-	1.0000	017F1801.D	4
19	18	1	M2015-3876-1-B	-	1.0000	018F1901.D	4
20	19	1	M2015-3877-1-A	-	1.0000	019F2001.D	4
21	20	1	M2015-3877-1-B	-	1.0000	020F2101.D	4
22	21	1	M2015-3878-1-A	-	1.0000	021F2201.D	4
23	22	1	M2015-3878-1-B	-	1.0000	022F2301.D	4
24	23	1	M2015-3896-1-A	-	1.0000	023F2401.D	4
25	24	1	M2015-3896-1-B	-	1.0000	024F2501.D	4
26	25	1	QC2-1-A	-	1.0000	025F2601.D	4
27	26	1	QC2-1-B	-	1.0000	026F2701.D	4
28	27	1	M2015-3905-1-A	-	1.0000	027F2801.D	4
29	28	1	M2015-3905-1-B	-	1.0000	028F2901.D	4
30	29	1	M2015-3910-1-A	-	1.0000	029F3001.D	4
31	30	1	M2015-3910-1-B	-	1.0000	030F3101.D	4
32	31	1	M2015-3914-1-A	-	1.0000	031F3201.D	4
33	32	1	M2015-3914-1-B	-	1.0000	032F3301.D	4
34	33	1	M2015-3915-1-A	-	1.0000	033F3401.D	2
35	34	1	M2015-3915-1-B	-	1.0000	034F3501.D	2
36	35	1	M2015-3948-1-A	-	1.0000	035F3601.D	4
37	36	1	M2015-3948-1-B	-	1.0000	036F3701.D	4
38	37	1	M2015-3949-1-A	-	1.0000	037F3801.D	4
39	38	1	M2015-3949-1-B	-	1.0000	038F3901.D	4
40	39	1	M2015-3956-1-A	-	1.0000	039F4001.D	4
41	40	1	M2015-3956-1-B	-	1.0000	040F4101.D	4
42	41	1	QC1-2-A	-	1.0000	041F4201.D	4
43	42	1	QC1-2-B	-	1.0000	042F4301.D	4

NB

Sequence File C:\Chem32\...5_SAMPLES\10-29-15_SAMPLES 2015-10-29 11-16-54\10-29-15_SAMPLES.S

Run #	Location	Inj #	Sample Name	Sample Amt [g/100cc]	Multip.* Dilution	File name	Cal # Cmp
44	43	1	INTERNAL STD BLK	-	1.0000	043F4401.D	2
45	49	1	water end	-	1.0000	049F4501.D	0

Method file name: C:\Chem32\1\Data\10-29-15_SAMPLES\10-29-15_SAMPLES 2015-10-29 11-16-54 \SHUTDOWN.M

Run #	Location	Inj #	Sample Name	Sample Amt [g/100cc]	Multip.* Dilution	File name	Cal # Cmp
46	44	1	EMPTY	-	1.0000	044F4601.D	0

NB