

Alcohol Analysis QC Summary

Report Date	8/28/2015
Reviewer	Brett Kirkland

AK

Run Summary Data			Ethanol			n-Propanol		
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
8/28/2015	A	Vols Mix	041513dkr	1.422	12953.33	0.0392	2.020	218508.86
8/28/2015	A	Blank		0.000	0.00	0.0000	1.998	217237.01
8/28/2015	A	CER 025	FN081712-01	1.398	8306.88	0.0250	1.998	218148.39
8/28/2015	A	CER 100	FN050312-01	1.397	33131.58	0.1002	1.998	217837.27
8/28/2015	A	CER 200	FN032712-01	1.397	65657.78	0.1993	1.998	216737.34
8/28/2015	A	CER 400	FN012712-01	1.423	132032.92	0.4000	2.022	217893.54
8/28/2015	A	Cerilliant 50	FN010912-01	1.397	16727.54	0.0499	1.998	220489.28
8/28/2015	A	2361	201507A	1.397	20306.47	0.0614	1.998	217601.94
8/28/2015	A	2362	201507A	1.397	20016.24	0.0611	1.998	215657.47
8/28/2015	A	2357	201507A	1.424	20338.08	0.0610	2.023	219415.12
8/28/2015	A	2363	201507A	1.397	20166.40	0.0609	1.998	217755.29
8/28/2015	A	2222	201507A	1.399	17739.93	0.0610	1.999	191216.14
8/28/2015	A	2229	201507A	1.398	20132.48	0.0609	1.998	217366.39
8/28/2015	A	2225	201507A	1.398	19789.30	0.0605	1.998	215114.65
8/28/2015	A	2228	201507A	1.423	20452.80	0.0616	2.022	218546.83
8/28/2015	A	2221	201507A	1.423	19996.68	0.0605	2.022	217357.01
8/28/2015	A	2227	201507A	1.398	20282.39	0.0610	1.998	218767.21
8/28/2015	A	Fluka 100	SZBE029XV 33961	1.397	32321.80	0.0982	1.998	216939.11
8/28/2015	A	2361	201507A	1.423	20396.85	0.0609	2.022	220229.11
8/28/2015	A	2362	201507A	1.398	20449.92	0.0612	1.998	219715.17
8/28/2015	A	2357	201507A	1.423	20320.45	0.0613	2.022	218114.42
8/28/2015	A	2363	201507A	1.423	20531.42	0.0612	2.022	220826.32
8/28/2015	A	2222	201507A	1.423	20276.14	0.0612	2.022	217966.04
8/28/2015	A	2229	201507A	1.398	20141.84	0.0606	1.998	218818.00
8/28/2015	A	2225	201507A	1.398	20232.32	0.0612	1.999	217503.01
8/28/2015	A	2228	201507A	1.398	20161.27	0.0609	1.998	217645.10
8/28/2015	A	2221	201507A	1.397	20747.61	0.0608	1.998	224376.15
8/28/2015	A	2227	201507A	1.423	20329.51	0.0608	2.021	220109.02
8/28/2015	A	Fluka 300	SZBE029XV 33963	1.422	99432.25	0.2941	2.021	223132.39

%CV= 2.50%

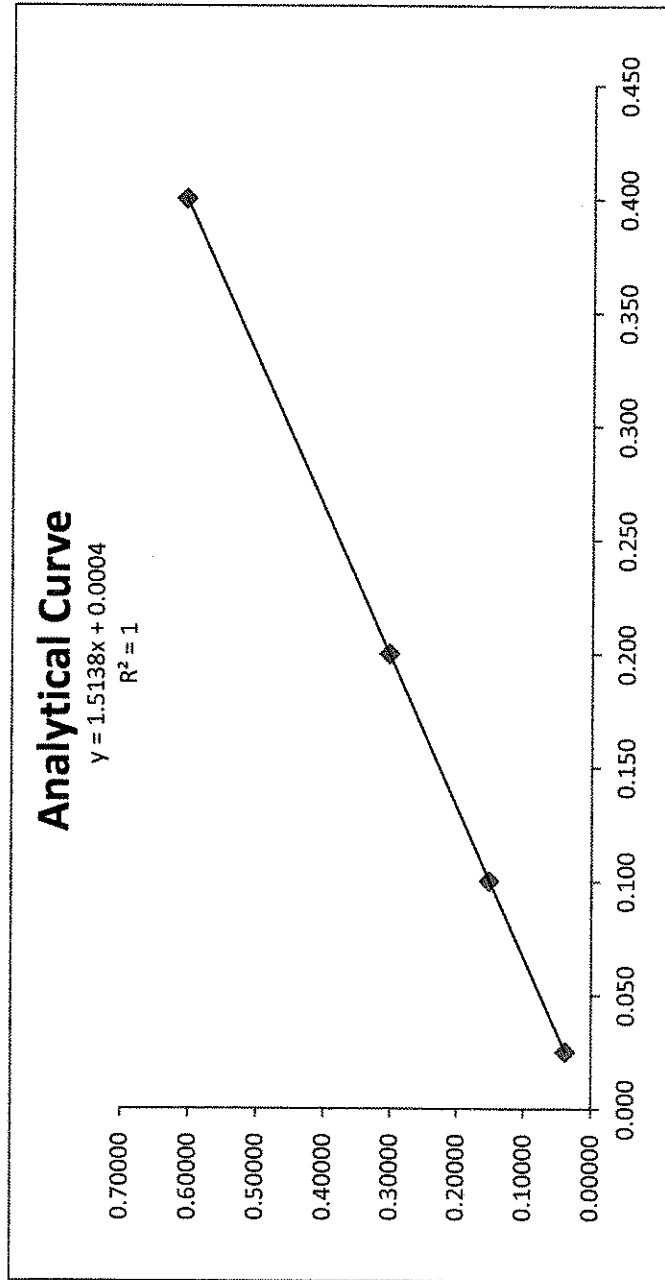
ALCOHOL ANALYSIS QC SUMMARY

Report Date	8/28/2015
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BK

RUN SUMMARY DATA				Ethanol			n-Propanol		
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Summary	Standard	g/dL	Ratio	Calc.	Diff
	Blank	0.000	0.00000	0.00000	0.00000
Slope	1.5138	0.025	0.03808	0.02490	-0.00010
Intercept	0.0004	0.100	0.15209	0.10022	0.00022
Standard Error	0.00030	0.200	0.30294	0.19986	-0.00014
R-Squared	1.0000	0.400	0.60595	0.40002	0.00002



Source: Alcohol Countermeasure Systems, Inc.

BK

Lot	201507A
Level	0.05 g/210L
Manufacture Date	7/14/2015
Expiration Date	7/14/2017

Bottle	Result (g/100mL)
2361	0.0614
	0.0609
2362	0.0611
	0.0612
2357	0.0610
	0.0613
2363	0.0609
	0.0612
2222	0.0610
	0.0612
2229	0.0609
	0.0606
2225	0.0605
	0.0612
2228	0.0616
	0.0609
2221	0.0605
	0.0608
2227	0.0610
	0.0608

Mean	0.0610
Std. Dev.	0.0003
Min	0.0605
Max	0.0616

Loadlist-Alcohol Reference Solution Verification

Location	Sample
1	Volatiles Mix
2	Blank
3	Cerilliant 025
4	Cerilliant 100
5	Cerilliant 200
6	Cerilliant 400
7	Cerilliant 50
8	2361
9	2362
10	2357
11	2363
12	2222
13	2229
14	2225
15	2228
16	2221
17	2227
18	Fluka 100
19	2361
20	2362
21	2357
22	2363
23	2222
24	2229
25	2225
26	2228
27	2221
28	2227
29	Fluka 300
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	

Instrument Parameters			
Sample Temp	60	C	✓
Needle Temp	70	C	✓
Transfer Temp	80	C	✓
Thermostat time	15	min	✓
Pressurization time	2.0	min	✓
Withdraw time	0.1	min	✓
Injection Time	0.03	min	✓
Cycle Time	4.5	min	✓
inlet temp	90	C	✓
Carrier pressure	15	psi	✓
Column oven temp	55	C	✓
Run Time	5.0	min	-
FID Temp	200	C	-
Hydrogen Flow	45	mL/min	-
Air Flow	450	mL/min	✓
Helium Flow	15	mL/min	✓

Reagents, Calibrators and Controls

Materials	Lot	Exp. Date
Internal Standard	bhk52715	na
Volatiles Mixture	041513dkr	na
Cerilliant 025	FN081712-01	08/2017
Cerilliant 100	FN050312-01	05/2017
Cerilliant 200	FN032712-01	03/2017
Cerilliant 400	FN012712-01	01/2017
Cerilliant 50	FN010912-01	01/2017
Fluka 100	SZBE029XV 33961	1/29/2019
Fluka 300	SZBE029XV 33963	1/29/2019

Reference Solution

Level Tested:	0.05 g/210L
Lot #:	201507A
Manufacture Date:	7/14/2015
Expiration Date	7/14/2017

Operator: TSK

Date: 8/28/15