

Alcohol Analysis QC Summary

Report Date	6/2/2015
Reviewer	Brett Kirkland

BK

Run Summary Data		Ethanol				n-Propanol			
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area	Conc.
6/2/2015	A	Vol's Mix	041513dkr	1.397	15261.97	0.0399	1.998	269595.36	0.0399
6/2/2015	A	Blank			0.00	0.0000	2.022	266540.03	0.0000
6/2/2015	A	CER 025	FN081212-01	1.398	9661.46	0.0255	1.998	267016.33	0.0255
6/2/2015	A	CER 100	FN050312-01	1.397	38880.26	0.1009	1.998	267418.63	0.1009
6/2/2015	A	CER 200	FN032712-01	1.397	78717.56	0.2018	1.998	270007.53	0.2018
6/2/2015	A	CER 400	FN012712-01	1.397	156658.63	0.4001	1.998	268064.02	0.4001
6/2/2015	A	Cerilliant 50	FN010912-01	1.397	19702.09	0.0499	1.998	272311.68	0.0499
6/2/2015	A	2166	201505A	1.397	95265.42	0.2443	1.998	267203.45	0.2443
6/2/2015	A	2167	201505A	1.397	95372.66	0.2443	1.998	267444.76	0.2443
6/2/2015	A	2168	201505A	1.397	95071.34	0.2442	1.998	266707.51	0.2442
6/2/2015	A	2169	201505A	1.397	95458.69	0.2434	1.998	268661.65	0.2434
6/2/2015	A	2171	201505A	1.397	95275.62	0.2432	1.998	268361.09	0.2432
6/2/2015	A	2170	201505A	1.397	94917.89	0.2423	1.998	268429.87	0.2423
6/2/2015	A	2178	201505A	1.397	95637.55	0.2430	1.998	269610.10	0.2430
6/2/2015	A	2179	201505A	1.397	95524.56	0.2427	1.998	269710.49	0.2427
6/2/2015	A	2180	201505A	1.423	96091.82	0.2434	2.022	270430.00	0.2434
6/2/2015	A	2181	201505A	1.397	94869.05	0.2429	1.998	267592.09	0.2429
6/2/2015	A	Cerilliant 100	FN050312-01	1.398	38863.34	0.1000	1.998	266949.80	0.1000
6/2/2015	A	2166	201505A	1.397	96188.97	0.2435	1.998	270680.94	0.2435
6/2/2015	A	2167	201505A	1.397	95403.48	0.2429	1.998	269133.43	0.2429
6/2/2015	A	2168	201505A	1.398	95500.99	0.2426	1.999	269685.65	0.2426
6/2/2015	A	2169	201505A	1.425	95865.59	0.2427	2.024	270623.00	0.2427
6/2/2015	A	2171	201505A	1.397	95683.07	0.2437	1.998	269033.65	0.2437
6/2/2015	A	2170	201505A	1.424	95273.50	0.2438	2.023	267747.43	0.2438
6/2/2015	A	2178	201505A	1.398	96018.14	0.2422	1.999	271651.64	0.2422
6/2/2015	A	2179	201505A	1.397	94860.36	0.2431	1.999	267316.99	0.2431
6/2/2015	A	2180	201505A	1.397	97190.03	0.2422	1.998	274983.38	0.2422
6/2/2015	A	2181	201505A	1.422	97235.04	0.2412	2.021	276156.54	0.2412
6/2/2015	A	Cerilliant 300	FN09061305	1.422	120861.90	0.2977	2.021	278072.53	0.2977

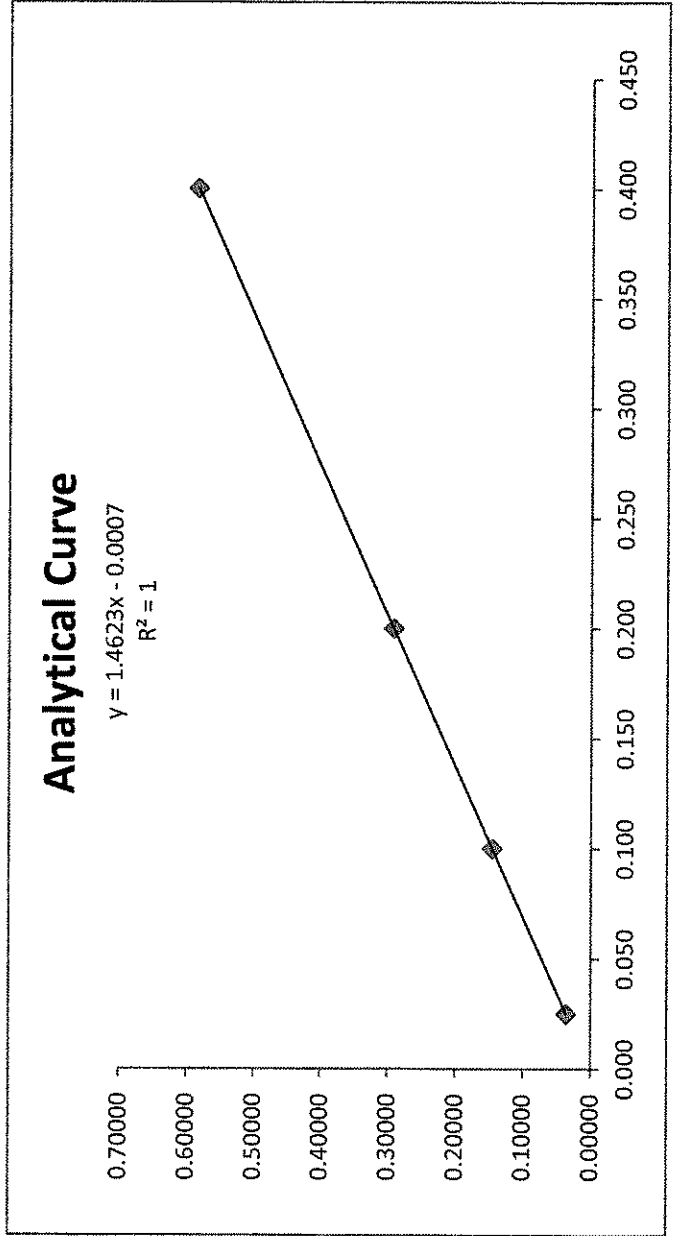
%CV = 1.05%

ALCOHOL ANALYSIS QC SUMMARY

Report Date	6/2/2015
Reviewer	Brett Kirkland

RUN SUMMARY DATA				Ethanol			n-Propanol	
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
6/2/2015	A	CER 025	FN081712-01	1.398	9661.46	0.0255	1.998	267016.33
6/2/2015	A	CER 100	FN050312-01	1.397	38880.26	0.1009	1.998	267418.63
6/2/2015	A	CER 200	FN032712-01	1.397	78717.56	0.2018	1.998	270007.53
6/2/2015	A	CER 400	FN012712-01	1.397	156658.63	0.4001	1.998	268064.02

Summary	Standard	g/dL	Ratio	Calc.	Diff
	Blank	0.000	0.00000	0.00000	0.00000
Slope	1.4623	0.025	0.03618	0.02519	0.00019
Intercept	-0.0007	0.100	0.14539	0.09988	-0.00012
Standard Error	0.000319115	0.200	0.29154	0.19982	-0.00018
R-Squared	1.00000	0.400	0.58441	0.40011	0.00011



Source:	Alcohol Countermeasure Systems, Inc.
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Lot	201505A
Level	0.200 g/210L
Manufacture Date	5/12/2015
Expiration Date	5/12/2017

Bottle	Result (g/100mL)
2166	0.2443
	0.2435
2167	0.2443
	0.2429
2168	0.2442
	0.2426
2169	0.2434
	0.2427
2171	0.2432
	0.2437
2170	0.2423
	0.2438
2178	0.2430
	0.2422
2179	0.2427
	0.2431
2180	0.2434
	0.2422
2181	0.2429
	0.2412

Mean	0.2431
Std. Dev.	0.0008
Min	0.2412
Max	0.2443

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	2166
9	2167
10	2168
11	2169
12	2171
13	2170
14	2178
15	2179
16	2180
17	2181
18	Cerilliant 100
19	2166
20	2167
21	2168
22	2169
23	2171
24	2170
25	2178
26	2179
27	2180
28	2181
29	Cerilliant 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
Cerilliant 100*	FN050312-01	05/2017
Cerilliant 300	FN09061305	10/2018

*separate ampule

Reference Solution

Level Tested:	0.200
Lot #:	201505A
Manufacture Date:	5/12/2015
Expiration Date	5/12/2017

Operator: RSK

Date: 6/2/15