

To: Andrei Arofikin
Millisecond Technology Corporation

I am sending you the results of the study performed at Purdue University during the week of January 26th, 2015. The objective of the work was to examine the effect the MST process on the composition of milk was not altered by the MST process. To determine this the following protocol was carried out. Three hundred gallons of raw milk were obtained the morning of the testing from the Purdue University Dairy and stored in cleaned and sanitized 55-gallon drums. The milk was stored at 4°C before use. Two runs were conducted to determine if the composition of the milk was affected by the MST process. Both runs were conducted in a sterile system to ensure no contamination would occur. Before running through the MST, the raw milk was homogenized and pasteurized at 77°C before being cooled to approximately 7° – 10° C and returned to cleaned and sanitized 55-gallon drums. The system was then cleaned before the pasteurized milk was run through the MST under the specified conditions for each run. Samples were taken at the pre-MST sampling port before the milk has gone through the MST chamber, and the post-MST sampling port immediately after the milk has been processed through the MST chamber. Sampling was conducted at three timepoints, at the beginning, the middle, and at the end of each run. Run 1 was conducted with an unheated MST chamber, whereas Run 2 was conducted with a heated MST chamber.

The samples were shipped on ice overnight to an independent, third party food analysis laboratory where the composition of the milk samples was then determined. Results of the chemical analysis by a third party laboratory showed no significant difference between the composition of the milk pre- and post-MST and are shown in Table 1. We conclude from these results

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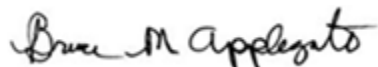
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that the MST process itself, with or without a heated chamber, does not significantly affect the composition of the milk. Attached to this correspondence is the raw analysis from the third party laboratory.

Run 1 (MST, no heated chamber) 60°C inlet and 60°C outlet					
	Pre-MST	Std Dev	Post-MST	Std Dev	T-Test(p>.05)
Ash	0.683333	0.026458	0.64	0.034641	0.678366
Carbohydrates	4.716667	0.106927	4.52	0.069282	0.30362
Fat	3.596667	0.06	3.64	0.034641	0.272393
Total Proteins	3.2	0.030551	3.17	0.034641	0.33425
Total Solids	12.19667	0.020817	11.97667	0.109697	0.250975

Run 2 (MST, heated chamber) 60°C inlet and 71°C outlet					
	Pre-MST	Std Dev	Post-MST	Std Dev	T-Test(p>.05)
Ash	0.683333	0.005774	0.69	0	0.5
Carbohydrates	4.5	0.052915	4.57	0.07	0.625666
Fat	3.746667	0.051316	3.76	0.02	0.125666
Total Proteins	3.07	0.026458	3.053333	0.025166	0.605137
Total Solids	11.99333	0.028868	12.01667	0.015275	1

Sincerely,



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