Quality Certification Services

Quality Assurance Program
Sample Unknowns

Jere High
USA
Lab Manager & Technology Services
Lancaster Dairy Herd Improvement Association
WWW.LANCASTERDHIA.COM

President
North American Lab Managers Association
WWW.NALMA.ORG

Council for Dairy Cattle Breeding

↓

National Dairy Herd Improvement Association

↕

Quality Certification Services

United States of America

- Area: 9,629,091 km^2
- Laboratories: 43
- Dairy Processing Centers: 4
- Cows Enrolled: 4,200,000+
- 47% of all cows in the USA

Laboratory Locations

Laboratory Certification and Audits of Sample Unknowns

Initial Certification Audits

- Before achieving initial certification, laboratories must demonstrate acceptable machine performance by surpassing Sample Unknowns tolerances at least one time. Once that has been accomplished, the laboratory must submit to an on-site audit and demonstrate compliance with all aspects of this manual and with the *Code of Ethics* and *Uniform Data Collection Procedures*.

On-site Audits

- Once certification has been established, laboratories will be subject to a biannual, on-site audit in order to renew their certification. During the on-site audit, laboratories must allow the auditor to observe the routine analysis of samples. Laboratories failing to demonstrate routine compliance throughout the two-year period will become subject to annual, on-site audits until consistent performance has been restored.

Monthly Audits of the Sample Unknowns

- Although the on-site audits are required for biannual laboratory certification, Sample Unknowns must be submitted and found within acceptable limits on a monthly basis for ongoing certification to continue. This requirement must be met for each laboratory machine used for the generation of sample results used in the *GEP*.

Auditing of Infrared and SCC Instruments for Sample Unknowns

Calibration Check Procedure

- On a monthly basis, the laboratory must purchase duplicate sets of 12 samples from a supplier designated by the auditor. The samples must be analyzed and the following data submitted to a predetermined site by midnight EST on the second Friday of each month.

Acceptable Readings for Calibration Checks IR

- The mean difference must not exceed 0.05% and the standard deviation of differences must not exceed 0.06% in three of the previous four trials.
- The rolling mean difference over six trials may not exceed .02%
- ** Changes being done in 2007 for tighter tolerances **

Acceptable Readings for Electronic SCC

- The mean percent difference must not exceed 10%. And the SD must not exceed 10% in three of the previous four trials.
- The rolling mean difference over six trials may not exceed 5%

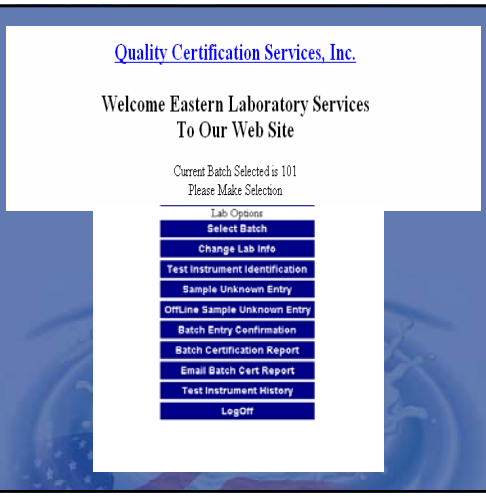
"Unknown Samples" shipped on ice

Eastern Laboratory Services Ltd

Water Bath

Lancaster DHIA Lab

"Unknown Sample" Web site



Protein

Sample Number	Lab Ref	Lab Inst	Lab Diff	Avg	Instr Rep1	Instr Rep2	Prec Stats Range	Prec Stats SD	Prec Stats Reps	Accuracy Stats IR Mean	Accuracy Stats Diff
1	3.030	3.033	0.003		3.04	3.04	0.000	0.000		3.040	0.010
2	3.183	3.169	-0.014		3.14	3.16	0.020	0.014		3.150	-0.033
3	3.080	3.057	-0.023		3.06	3.06	0.000	0.000		3.060	-0.020
4	3.047	3.036	-0.011		3.02	3.03	0.010	0.007		3.025	-0.022
5	3.127	3.114	-0.013		3.12	3.13	0.010	0.007		3.125	-0.002
6	3.210	3.206	-0.004		3.19	3.21	0.020	0.014		3.200	-0.010
7	2.993	2.999	0.006		2.98	3.00	0.020	0.014		2.990	-0.003
8	3.490	3.464	-0.026		3.45	3.46	0.010	0.007		3.455	-0.035
9	3.340	3.322	-0.018		3.31	3.32	0.010	0.007		3.315	-0.025
10	3.350	3.349	-0.001		3.35	3.35	0.000	0.000		3.350	0.000
11	3.070	3.053	-0.017		3.04	3.05	0.010	0.007		3.045	-0.025
12	3.033	3.028	-0.005		3.03	3.03	0.000	0.000		3.030	-0.003
			MD -0.010					SDA 0.006			MD -0.014
			SDD 0.010								SDD 0.015

LANDHIA
B2500 B

Machine History

Month	FAT Results MD	FAT Results SDD	FAT Results RMD	PRO Results MD	PRO Results SDD	PRO Results RMD
Dec	-0.034	0.015	-0.034	-0.030	0.013	-0.030
Jan	0.024	0.036	-0.005	0.013	0.021	-0.009
Feb	-0.051	0.051	-0.020	-0.017	0.014	-0.011


Thank you
&
Questions?