

Trusted
Dairy Laboratory Services
for more than 50 Years

DQCI Dairy Quality Control Products and Services

Milk Producers / Co-ops / Handlers Catalog

NCIMS Certified
Payment Testing Services
Analytical Chemistry
Microbiological Analyses
Instrument Calibration/Validation Standards

Micro Lab Services Farm / Veterinary/ Lab

Mastitis Cultures
Microbiological Analyses
Mastitis Specialty Media Plates- Ready to Use

DQCI Services: Dairy Quality Control
(A Division of Diversified Laboratory Testing LLC)

Phone: 763-785-0484 Fax: 763-785-0584 e-mail: info@dqci.com Website: www.dqci.com

DQCI Services

Dairy Quality Control Products and Services Catalog

Our History

DQCI Services began in 1936, as the Dairy Quality Control Committee providing dairy laboratory testing services to a variety of Dairy Co-Ops and Producers primarily in the states of Minnesota, and Wisconsin. Since that time DQCI has continued to grow, broadening both its geographic service areas, as well as the variety of services and products offered to the Dairy Industry.

Today DQCI Services is a privately owned independent full service dairy testing laboratory conducting a wide variety of quality tests and chemical analyses.

DQCI specializes in making available various standards (calibration/quality control sets) for infrared and near infrared equipment, somatic cell counters, and other milk testing equipment. DQCI has a broad customer base throughout the U.S.A. and Canada, as well as in other international markets such as Mexico, Puerto Rico, Costa Rica, Taiwan and other countries around the world. DQCI does provide custom calibration standards for products not represented by our routinely manufactured items by special request.

In addition, DQCI also provides payment and official quality testing for thousands of dairy producers in the upper Midwest, as well as many other services including microbiology analyses that help producers and milk handlers optimize the output and quality of product.

DQCI Services is involved with many industry groups and organizations and is a member of the International Association for Food Protection (IAFP), Upper Midwest Dairy Industry Association (UMDIA), International Association of Food Industry Suppliers (IAFIS), and the Institute of Food Technology (IFT).

DQCI is a certified laboratory under the National Conference of Interstate Milk Shippers and currently provides official results to six states in the upper Midwest.

Our reputation is based upon the quality and consistency of our work. We have disciplined ourselves to consistently provide accuracy in our analyses -- providing our customers with confidence in accurately testing products in their own laboratories and plants. We take our responsibility seriously.

Customer satisfaction is indeed our goal but also our livelihood.

2006 Catalog

Note: DQCI Services is a completely independent dairy laboratory, and is not affiliated with nor directly influenced by any other dairy related organization or company interests

DQCI Services: Dairy Quality Control

(A Division of Diversified Laboratory Testing LLC)

Phone: 763-785-0484 Fax: 763-785-0584 e-mail: info@dqci.com Website: www.dqci.com

DQCI Services
Dairy Quality Control Products and Services Catalog

Milk Producers / Co-ops / Handlers
Micro Lab Services - Farm / Veterinary

Table Of Contents

MILK PRODUCERS / CO-OPS HANDLERS SERVICES	Page
Producer Monthly Test Package	1
Fat, Protein, Lactose Determination (FT120)	1
Milk Urea Nitrogen (MUN)	1
Cryoscope - Freezing Point	1
Bulk Tank Survey	1
Bulk Tank Composite Analysis	1
Electronic Somatic Cell Count	1
Direct Micro Count (DMC)	1
Direct Microscopic Somatic Count	1
4-Bact Analysis Microbiology Test	1
ESCC - Sheep Milk	1
Goat - Green Stain DMSCC	1
Mastitis Culture Analysis	1
Sensitivity Test - Antibiotic	1
Johnes Culture Test	2
Bedding Culture	2
Bulk Pens/Group Culture Survey	2
Bactoscan Analysis	2
Standard Plate Count (SPC)	2
Coagulase Test	2
Plate Loop Count (PLC)	2
Pre-Inc Plate Loop Count (PI)	2
Sediment Test – Milk	2
Coliform Colony Forming Unit (CFU) Test	2
Coliform - Well Water Test	2
Gram Stain	2
Mycoplasma Culture Analysis	2
Yeast and Mold Plate Analysis	2
Inhibitor - Delvo antibiotic residue detection	2
Inhibitor - Charm Antibiotic Residue Test	2
IDEXX Snap Antibiotic residue detection	3
Antibiotic Identification (HPLC per Family)	3
Phosphatase Test (Charm)	3
ESCC, Fat, Protein, Lactose	3
INSTRUMENT CALIBRATION / VALIDATION STANDARDS	
Raw Milk Component Calibration-Validation Standards (<u>1-12 in duplicate</u>)	3
Raw Milk Component Calibration-Validation Standards (<u>1-12 in triplicate</u>)	3
Raw Milk Component Calibration-Validation Standards (<u>1-12 singles</u>)	3
"A" , "B" Check Samples	3
ESCC (Electronic Somatic Cell Count) Calibration Standards (<u>4 in duplicate</u>)	4
ESCC (Electronic Somatic Cell Count) Calibration Standards (<u>4 in triplicate</u>)	4
ESCC (Electronic Somatic Cell Count) Calibration Standards (<u>4 singles</u>)	4
ESCC "Low", "Low Med", "Med High", "High" daily check sample	4

DQCI Services
Dairy Quality Control Products and Services Catalog

Milk Producers / Co-ops / Handlers

INSTRUMENT CALIBRATION / VALIDATION STANDARDS	Page
Urea (MUN) Calibration-Validation Standards: Set of 30 samples in duplicate (Note: The Complete List Of Callibration Validation Standards is located in the "Dairy Foods Processor Plant/Lab Catalog")	4

Milk Producers / Co-ops / Handlers
Micro Lab Services - Farm / Veterinary

Table Of Contents

MICROBIOLOGY MEDIA PLATES READY TO USE	Page
Mastitis SSGN Quad Plate	5
Strep ID Tri Plate	5
Mycoplasma Plate	5
Milk Strep/Staph Bi Plate II	5
Milk General Bi Plate I	5
Sensitivity Agar Plate	5
Sensitivity (fastidious) Agar Plate with blood	5
MacConkey Agar Plate	5
Strep Media Plate (TKT-FC)	5
Staph Media Plate (KLMB)	5
Staph Media Quad Plate (KLMB)	5
Blood Agar Plate	5

DQCI Services
Dairy Quality Control Products and Services Catalog

Producer / Co-Op / Milk Handler Services

Item ID	Item Description
440100	Producer Monthly Test Package: Package includes: 1. One Official bacteria count, antibiotic inhibitor, Electronic Somatic Cell Count, and cryoscope freeze point (if desired), in a report sent to State, plant, and field reps 2. Daily (each pick up) payment testing. Samples run on Foss or Bentley for component analysis, and records sent to Co-Op or Company 3. Monthly, or semi-monthly field rep reports 4. Sample pick up service (some freight extra) 5. Supplies: Bar Codes, Red Tags, Sample Bags as well as Shipment Coolers furnished
442480	Fat, Protein, Lactose Determination (FT120): Instrument analyses (Fourier transform IR) of milk sample including component determination of Fat, Protein and Lactose. (Instrument is previously calibrated to reference chemistries.)
442482	Fat, Protein, Lactose Determination (FT120) (700+ samples/order): Same analyses as Item ID # 442480, with volume discount.
447600	Milk Urea Nitrogen (MUN): Determination of measure of milk urea nitrogen in a milk sample
447700	Milk Urea Nitrogen (MUN, 2 or more samples per order): Determination of measure of milk urea nitrogen in a milk sample
442500	Cryoscope - Freezing Point: Test of milk sample to determine the freeze point of the sample, determining whether the water content on the milk is within the expected range
441980	Bulk Tank Survey: Identification and enumeration of Mastitis and Environmental bacteria in non-pooled milk sample.
441900	Bulk Tank Composite Analysis: Identification and enumeration of Mastitis and Environmental bacteria in pooled milk (from 2 or more tanks; or 2 or more days)
441930	Bulk Tank Composite Analysis (11-24 tests per order): Same as Item ID 441900 with volume discount
441950	Bulk Tank Composite Analysis (25 plus tests per order) Same as Item ID 441900 with higher volume discount
444000	ESCC, Fat, Protein, Lactose: Instrumented analysis of the milk components providing per cent fat, protein and lactose, as well as flow cytometry analysis of somatic cell counts in the sample.
442440	Electronic Somatic Cell Count: ESCC on a Raw Milk sample
442450	Herd Electronic Somatic Cell Count (180+ samples): ESCC volume discount on Raw Milk samples
442300	Direct Micro Count (DMC): Direct microscopic count examination of stained preparation of milk, or certain other dairy products, to identify and enumerate the number of bacterial clumps present
442420	Direct Microscopic Somatic Count (DMSCC): Direct microscopic count of somatic cells per milliliter in a milk sample utilizing "Standard Methods for the Examination of Dairy Products" 17th edition.
441000	4-Bact Analysis Microbiology Test: Raw milk quality testing that includes microbiological assays where the same sample is plated for Coliform, Aerobic plate count, PI (pre-incubated) count and LPC (Lab Pasteurized count)
442460	ESCC - Sheep Milk: Electronic somatic cell count on Raw Sheep Milk
442421	Goat - Green Stain DMSCC: Direct microscopic examination of Raw Goat Milk using differential pyronin-y methyl green stain. Goat somatic cells will be a different color than epithelial cells. Only somatic cells are counted. NCIMS confirmatory test for Raw Goat Milk somatic cells.
442820	Mastitis Culture Analysis (cow, sheep, goat) (<25): Examination of mingled whole cow or individual quarter samples for presence of contagious and environmental bacteria.
442830	Mastitis Culture Analysis (cow, sheep, goat) (>24): Same as Item ID # 442820 discounted for multiple samples greater than 24 samples/order
443440	Sensitivity Test (1) – Test for sensitivity/resistance to antibiotics used in treatment of mastitis infections using the Kirby Bauer (agar diffusion) method.
443450	Sensitivity Test (2+) Same as above for more than one isolate.

DQCI Services
Dairy Quality Control Products and Services Catalog

Producer / Co-Op / Milk Handler Services

Item ID	Item Description
442600	Johnes Culture Test: Fecal culture testing for Johnes
442810	Bedding Culture – Analysis of bedding materials for presence of environmental microorganism contaminants.
441800	Bulk Pens/Group Culture Survey – Bacterial identification and enumeration of organisms present in co-mingled cow samples from individual pens or groups.
443900	Bactoscan Analysis: an NCIMS approved alternate test for SPC (Standard Plate Count) on Raw Milk. Bacterial cells in a sample are lysed, liberated DNA is stained, and passed through light. The signal from the DNA is converted to an estimate of Bacteria and CFU's in the original sample
443500	Standard Plate Count (SPC): Aerobic plate count of total colony forming units of bacteria per milliliter or gram of raw, processed liquid and dry dairy products utilizing “Standard Methods for the Examination of Dairy Products” 17th edition
442000	Coagulase Test: Confirmation assay of colonies from staph agar growth for presence of coagulase enzyme which is indicative of the presence of pathogenic staphylococcus organisms.
442700	Lab Pasteurized Count (LPC): Raw milk in test tubes heated to 62.8C +/- 0.5C, survivors counted by standard plate count method utilizing “Standard Methods for the Examination of Dairy Products” 17th edition
443100	Plate Loop Count (PLC): An alternative method to estimate the aerobic plate count of a raw milk sample. Determination of colony forming units per ml. in raw milk, utilizing “Standard Methods for the Examination of Dairy Products” 17th edition
443200	Pre-Inc Plate Loop Count (PI): Raw milk sample undergoes preliminary incubation at 21 degrees Celsius for 18 hours before analysis to stimulate the growth of psychrotrophic organisms and subsequently a Plate Loop Count (PLC). Is performed utilizing “Standard Methods for the Examination of Dairy Products” 17th edition
443400	Sediment Test – Milk: Quantitative determination of amount of insoluble extraneous material in a representative sample of milk, utilizing “Standard Methods for the Examination of Dairy Products” 17th edition and CFR 58.2728
442100	Coliform Colony Forming Unit (CFU) Test: Agar plate method employing a media (VRB) optimizing the growth of coliform organisms
332200	Coliform Confirm Test-(B.G.Broth): Gas fermentation of BG Broth (2% brilliant green bile broth), confirms the presence of coliforms in dairy products, utilizing colonies from VRB agar plate ID 442100
442200	Coliform - Well Water Test: NCIMS approved procedures for farm wells, farm chiller, or glycol chiller samples. Source waters (wells) are presence / absence methods. Chiller and glycol water supplies are done by MPN
221931	Gram Stain: Differential stain of a bacterial colony, classifying bacteria as gram positive or gram negative
442860	Mycoplasma Culture Analysis: Cultivation and selective isolation of mycoplasma
443800	Yeast and Mold Plate Analysis: Determination of yeast and mold cell forming colonies in a dairy sample under specified conditions utilizing “Standard Methods for the Examination of Dairy Products” 17th edition
441200	Inhibitor – Delvo antibiotic residue detection: Growth inhibition assay for the detection of inhibitory substances in Raw Bovine milk and Pasteurized white milk
441700	Antibiotic Confirmatory (Dup): Delvo antibiotic residue detection: Same as test # 441200 Delvo antibiotic residue detection. Growth inhibition assay for the detection of inhibitory substances in Raw Bovine milk and Pasteurized white milk however, it is conducted in duplicate with a set time and temperature, and positive and negative controls.
441500	Inhibitor - Charm Antibiotic Residue Test: Radioactive labeled receptor assay analysis of milk and other dairy products to detect the residues of various antibiotics which may be found in milk. Test may be performed for one or more drug families. Each family is a different assay The tests may also be used for analysis of feed, grain, urine and serum.

Note: Special Custom combination testing packages available upon request

DQCI Services
Dairy Quality Control Products and Services Catalog

Producer / Co-Op / Milk Handler Services

441300	IDEXX Snap Antibiotic residue detection: Elisa test for Raw Bovine milk and Pasteurized white milk to detect the presence of Beta Lactam Residues in these products
441100	Antibiotic Identification (HPLC per Family): Antibiotic residue identification
443300	Phosphatase Test (Charm): Determination if phosphatase enzyme has been deactivated by proper pasteurization processing. Charm phosphatase test is recognized as official (NCIMS) test for milk, cream, and other Grade A dairy products.
444000	ESCC, Fat, Protein, Lactose: Instrumented analysis of the milk components providing per cent fat, protein and lactose, as well as flow cytometry analysis of somatic cell counts in the sample.

Instrument Calibration - Validation Standards

Item ID	Item Description
110000	Raw Milk Component Calibration-Validation Standards (1-12 in duplicate) Standards for calibrating-validating instruments testing raw milk products. Standard Development Protocol: Raw milk samples are sourced from individual herds that have approximate butterfat range of 2.8% to 5.8% and a protein range of at least 0.6%. Bronopol is added as a preservative. Samples have an expiration date of 21 days from date of manufacture. Laboratory analyses are performed by AOAC procedures. Sample 1 through 6 and 7 through 12 can be used for daily check samples.
110002	Raw Milk Component Calibration-Validation Standards - Additional Sets (1-12 in duplicate sets) (Sets shipped to the same location on the same date.) These are the same calibration-validation standard sets as Product # 110000, but ordered as additional sets
113000	Raw Milk Calibration-Validation Standards (1-12 in triplicate): These are the same calibration-validation standards as Product # 110000, however they are 12 levels in triplicate.
113001	Raw Milk Calibration-Validation Standards (1-12 singles as Additional Sets): (Sets shipped to the same location on the same date.) These are the same calibration-validation standard as Product # 110000, however 12 levels are singles, and ordered as additional sets
110004	Single Item Standard: One level of milk or cream at specified fat and or solids. Customer pays for analysis requested and may obtain multiple vials or a large single container
110005	"A" Check Sample: One sample (single vial) of Item ID # 110000 representing a relatively low fat level. May be used as a monitor of the stability of the instrument calibration. Generally available to customers purchasing Item ID # 110000 or 113000. Order is by "each".
110006	"B" Check Sample: One sample (single vial) of Item ID # 110000, representing a relatively high fat level. May be used as a monitor of the stability of the instrument calibration. Generally available to customers purchasing Item ID # 110000 or 113000. Order is by "each".
110007	"A" CHECK SAMPLE >50: Discounted volume order of 1100005
110008	"B" CHECK SAMPLE >50: Discounted volume order of 1100006

Note: Special Custom combination testing packages available upon request

DQCI Services
Dairy Quality Control Products and Services Catalog

Instrument Calibration - Validation Standards

Item ID	Item Description
110010	<p>ESCC (Electronic Somatic Cell Count) Calibration-Validation Standards (4 in duplicate) for calibrating electronic cell count instruments. Standard Development Protocol: Raw milk samples from individual sources are used to prepare samples with the following levels of somatic cell counts:</p> <p>LOW: <200,000 LOW MEDIUM: 300,000 - 500,000 MEDIUM HIGH: 600,000 - 800,000 HIGH: 900,000 - 1,200,000</p> <p>Ranges conform to levels required for NCIMS certified laboratories monitoring and reporting somatic cell counts. Bronopol is added as a preservative. Shelf life is 2 weeks from the date of manufacture. Direct Microscopic Somatic Cell counts (field wide single strip method, SMEPD, 17th edition). DQCI is an FDA certified somatic cell provider and NCIMS laboratories may use the published somatic cell values to calibrate or validate their electronic somatic cell count instrument.</p>
110012	<p>ESCC (Electronic Somatic Cell Count) Calibration-Validation Standards - Additional Sets (4 in duplicate). (Sets shipped to the same location on the same date.) These are the same as Product # 110010, but ordered as additional sets. (Note: Hourly check samples available upon request)</p>
114003	<p>ESCC (Electronic Somatic Cell Count) Calibration-Validation Standards Set of 4 in triplicate: These are the same calibration-validation standard as Product # 110010, however are 4 levels in triplicate.</p>
114005	<p>ESCC (Electronic Somatic Cell Count) Calibration-Validation Standards Set of 4 singles: These are the same calibration-validation standard as Product # 110010, however are 4 levels of one each, but ordered as additional sets.</p>
110013	<p>ESCC 'Low' daily check sample: “Low” count sample from Item ID 110010. May be ordered by “each” in addition to an item ID # 110010 or 114003 qualifying order</p>
110014	<p>ESCC 'Low-Med' daily check sample: “Low Medium” count sample from Item ID 110010. May be ordered by “each” in addition to an item ID # 110010 or 114003 qualifying order</p>
110015	<p>ESCC 'Med-High' daily check sample: “Medium High” count sample from Item ID 110010. May be ordered by “each” in addition to an item ID # 110010 or 114003 qualifying order</p>
110016	<p>ESCC 'High' daily check sample: “High” count sample from Item ID 110010. May be ordered by “each” in addition to an item ID # 110010 qualifying order</p>
110017	<p>ESCC Daily Check 'Med-High' >50 : Volume discounted price on Item ID # 110015</p>
110090	<p>Urea (MUN) Calibration-Validation Standards: Set of 30 samples in duplicate for calibration or validation of instruments measuring MUN in milk samples. All samples are raw milk. MUN samples typically have a range of 6-20 mg. /DL. Analysis to determine MUN values is done enzymatically (ChemSpec). To ensure range of values, urea may be added to some samples in the set. Samples expire 14 days after date of manufacture.</p>
<p>For a Complete List of Instrument Calibration / Validation Standards</p> <p>Please see the “Dairy Foods Processor Plant/Lab” Catalog</p>	

DQCI Services
Dairy Quality Control Products and Services Catalog

Producer / Veterinary / Lab Microbiology Media Plates Ready To Use
 (Each media plate Item sold in 10 plates per sleeve multiples)

Item ID	Item Description
222200	MASTITIS SSGN QUAD PLATE -Staph, Strep, Gram Negative all in one. Section 1 Non-selective blood agar capable of growing most bacteria. It is used as a growth control. Section 2 Is specific for Gram negatives such as coliforms, E. coli, and Klebsiella. Section 3 Is specific for Streptococcus Section 4 Is specific for Staphylococcus
223000	Strep ID Tri Plate - For differentiation and presumptive identification of streptococci species (Enterococcus faecalis, Streptococcus bovis, Streptococcus agalactia, Streptococcus dysgalactia, Streptococcus uberis)
222900	Mycoplasma Plate - For cultivation and selective isolation of mycoplasma
222100	Milk Strep/Staph Bi Plate II- <u>Staphylococcus</u> media for isolation of Staph organisms including Staph aureus. <u>Streptococcus</u> media for isolation of Strep organisms including Strep agalactia
222000	Milk General Bi Plate I - Non selective Blood Agar for Total Count and Hemolytic Reactions / selective gram negative agar
222400	Sensitivity Agar Plate - Agar media for sensitivity testing using the Kirby Bauer method
222500	Sensitivity (fastidious) Agar Plate with blood - Agar media with 5% blood added for growth of the more fastidious bacteria
222600	MacConkey Agar Plate: For isolation and differentiation of gram negative bacilli.
222700	Strep Media Plate (TKT-FC): meets National Mastitis Council recommendations
222800	Staph Media Plate (KLMB): meets National Mastitis Council recommendations
222810	Staph Agar Quad Plate (KLMB): Cultures 4 samples at a time (1udder by quadrant or 4 cows), meets National Mastitis Council recommendations
222300	Blood Agar Plate: Tryptic soy agar with 5% sheep blood.

DQCI Services
Dairy Quality Control Products and Services Catalog

Page 6

DQCI Services
General Terms and Conditions

Pricing

DQCI reserves the right to adjust pricing based on market and competitive conditions. Prices listed do not include charges for freight, shipping, handling, or refrigerated containers.

Confidentiality: All results and confidential client information are held in strict confidence. Written permission is required for information to be released to a third party, except for information required to be released to legal or regulatory authorities. No references to the services, the analyses, the results, DQCI Services, or Diversified Laboratory Testing LLC in any form of advertising, news release, or other public announcement may be made without prior written consent of DQCI Services and/or Diversified Laboratory Testing LLC.

The prices and conditions of this Price List and all of its contents are confidential and proprietary to DQCI Services and Diversified Laboratory Testing LLC. The information contained in this Price List may be shared only among employees of the “Customer”.

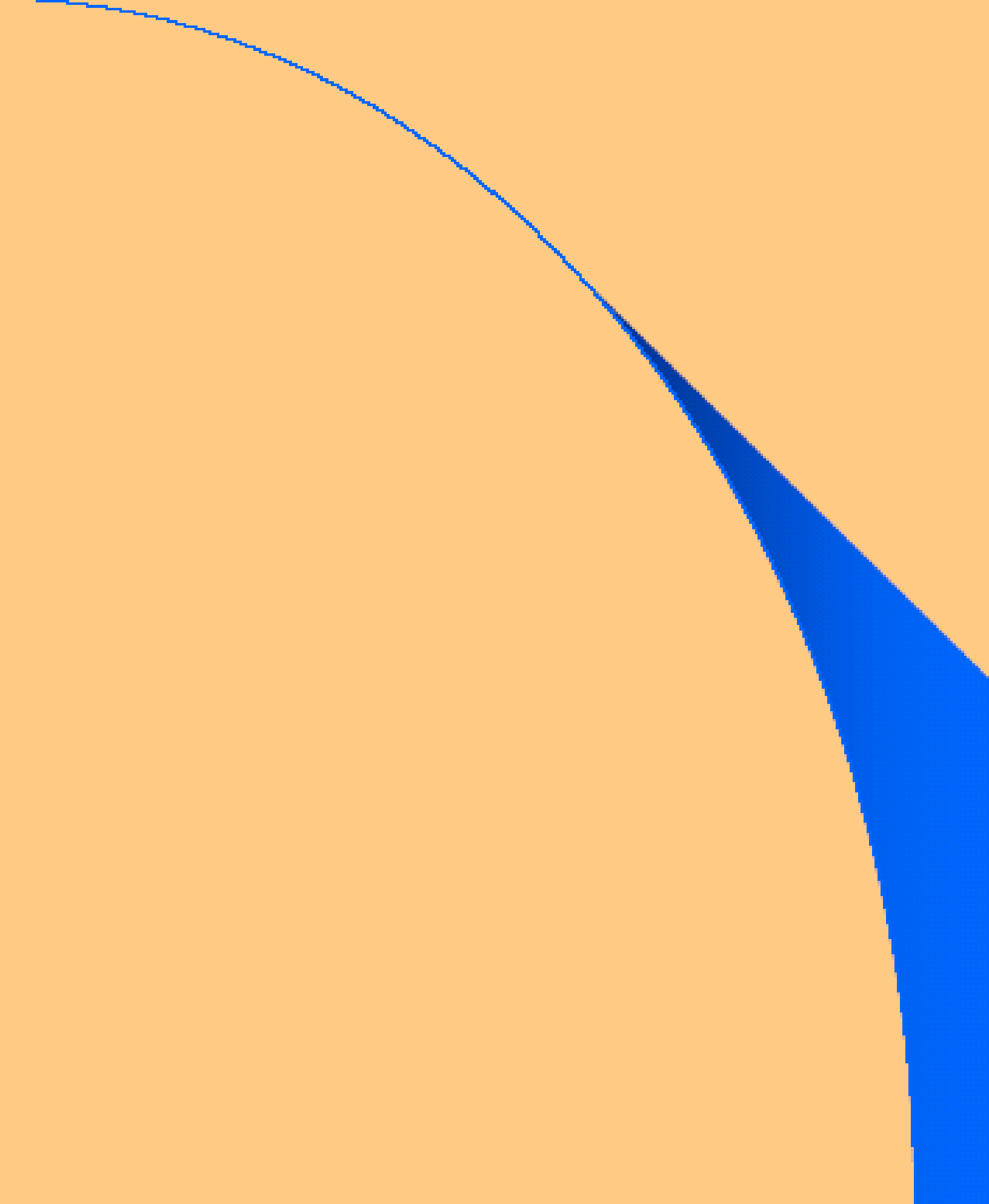
Payment Terms: Terms are net 10 days from the invoice date.

Billing: All fees are charged and billed directly to the “Customer” location ordering the products and services, unless other arrangements have been made or a third party has signed a statement of payment responsibility.

Reports: Reports may not be reproduced, except in full, without written approval of DQCI Services. DQCI Services and/or Diversified Laboratory Testing LLC may retain electronic and/or paper copies of all reports and quality control/quality assurance information.

Warranty and Limits of Liability: DQCI Services performs all work from written or published methods in accordance with the DQCI Services Quality Assurance Policy. Warranty is limited to the accuracy of analyses of samples as received. No other representation or warranty, express or implied, is made or intended with respect to any matter whatsoever, including without limitation, the condition, merchantability, or fitness for a particular purpose of any products, services, analyses, or results.

Liability of DQCI Services and Diversified Laboratory Testing LLC from all causes of action in the aggregate shall be limited to the fees paid by the client for the services. The client agrees to indemnify and defend DQCI Services and Diversified Laboratory Testing LLC from all claims, liabilities, and expenses relating to the client’s use of the services, analyses, and results. Placement of an order for analytical services constitutes the client’s acceptance of the terms and conditions contained herein. The foregoing shall supersede any provision to the contrary stated in any purchase order or other order for work submitted by the client.



DQCI Services: Dairy Quality Control

(A Division of Diversified Laboratory Testing LLC)

Phone: 763-785-0484

Fax: 763-785-0584

e-mail: info@dqci.com

Website: www.dqci.com