Livingston Dairy Consulting, Inc.

1635 E. Propserity Ave., Ste B, Tulare
559-687-1440

F&L Barcellos Dairy #2 WDID 5C54NC00217
7585 Ave. 152 Tipton, CA 93272

- [X] Annual Report
- [X] Water Analysis Samples
- [N/A] Manure Manifest
- [X] Facility / Land Map
- [X] CCA Nitrogen Retrofit Report
- [ ]
- [ ]

GEO Tracker Confirmation # **Date:**

Facility Info

Reporting Period: 1/1/2023 to 12/31/2023

Name of the Facility

Dairy Name: F&L Barcellos Dairy #2 WDID 5C54NC00217

Facility Address: 7585 Ave. 152 Tipton, CA 93272

Original Operation Date: 2/3/1954

Facility APN's: x228 x280 x006 xxxx

RWQCB Basin Plan Designation: Tulare Lake Basin

☐ Check if any information has changed

Owner(s)

Owner(s) Name: Frank or Liduina Barcellos

Mailing Address: 14581 Road 80 Tipton, CA 93272

Home Phone Number: 559-752-3227

Cell Phone Number:

☐ Check if any information has changed

Operator(s)

Operator(s) Name: F&L Barcellos Dairy #2

Mailing Address: 14581 Road 80 Tipton, CA 93272

Home Phone Number:

Cell Phone Number: 559-804-5499

☐ Check if any information has changed

Herd Information

	Milk Cows	Dry Cows	Bred Heifers (12-24 mo)	Heifers (3-12 mo)	Calves (0-3 mo)
Open Confinement:	-	-	1,182	754	-
Number Under Roof	-	-	-	-	-
Maximum Number			1,182	754	
Average Number			1,182	754	
Average Live Weight (lbs)			950	630	

Average Milk Production:

Predominant Milk Cow Breed: Holstein

Manure Generated:

Total manure excreted by the herd:	2,861.28 @40% Moisture	*ton/yr*	
Total nitrogen from manure:	206,867	*lbs*	After Ammonia (30% loss applied)
	16,234	*lbs*	
	59,780	*lbs*	144,807 *lbs per reporting period*
Total salt from manure:	-	*lbs*	

Process Wastewater Generated:

Process wastewater generated:	-	*gal*
Total nitrogen generated:	-	*lbs*
	-	*lbs*
	-	*lbs*
Total salt (TDS) generated:	-	*lbs*

List of Land Application Areas

Field Name	APN	APN Acres	Cropable Acres	Total Harvest	Type of Waste Applied
1-103	x228 x280 x006 xxxx	39.23	12	1	P.W. & D.M.
	Total Crop Acres		12.00		

List of Fresh Water Sources

Source Description	Type	Subsurface (Tile) Drainage Sources
Dom 1	Ground Water	No
Dom 2	Ground Water	No
Canal	Surface Water	No

(WINTER) PLANT TISSUE ANALYSIS (Recorded As Received)										
Field	**Crop**	**Moist %**	**N%**	**TP %**	**TK%**	**Salt**	**TFS**	**Sample #:**	**Date:**	**Source**
1-103	W. Fallow	-	-	-	-	-	-			-
Detectable Lim Valley Tech		*0.10%*	*0.05%*	*0.01%*	*0.01%*		*0.05%*			
Dellavalle		*0.001%*	*0.01%*	*0.01%*	*0.003%*		*0.001%*			
Detectable Limits										
Valley Tech		*0.10%*	*0.05%*	*0.01%*	*0.01%*		*0.05%*			
Dellavalle		*0.001%*	*0.01%*	*0.01%*	*0.003%*		*0.001%*			

(SUMMER) PLANT TISSUE ANALYSIS (Recorded As Received)										
Field	**Crop**	**Moist %**	**N%**	**TP %**	**TK%**	**Salt**	**TFS**	**Sample #:**	**Date:**	**Source**
1-103	Corn, Silage	73.90	0.36	0.06	0.45	-	7.09	10-27H70870	10/27/23	Valley Tech

Detectable Limits					
Valley Tech	*0.10%*	*0.05%*	*0.01%*	*0.01%*	*0.05%*
Dellavalle	*0.001%*	*0.01%*	*0.01%*	*0.003%*	*0.001%*

Winter Crops & Harvest

Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg//kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
1-103	W. Fallow				-	-	-	-	-	-	

Detectable L Valley Tech	*0.10%*	*0.05%*	*0.01%*	*0.01%*		*0.05%*	
Dellavalle	*0.001%*	*0.01%*	*0.01%*	*0.003%*		*0.001%*	

Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg//kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
1-103	Corn, Silage	6/15/23	10/19/23	10-27H70870	73.90	0.36	0.06	0.45	-	7.09	Dry Weight

Detectable L Valley Tech *0.10%* *0.05%* *0.01%* *0.01%* *0.05%*

Dellavalle *0.001%* *0.01%* *0.01%* *0.003%* *0.001%*

Well / Canal Analysis

General Minerals

Well Name/Number	NO3-N (mg/L)	EC (umhos/cm)	TDS (mg/L)	NH4-N (mg/L)	TN (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	HCO3 (mg/L)	CO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Lab #:	Date:	LAB
Dom 1	6.30	502	340	-	6.30	-	-	-	-	-	-	-	VI 2340551	1/31/2023	FGL Enviromental
Dom 2	6.40	500	320	-	6.40	-	-	-	-	-	-	-	VI 2340551	1/31/2023	FGL Enviromental
Canal	0.04	28	8	-	-	-	-	-	-	-	-	-	558TRA92	9/13/2023	Other

Detectable Limits												
Dellavalle	*0.01*	*1*	*10*	*0.2*	*NR*	*0.1*	*0.1*	*0.15*	*3*	*0.9*	*0.03*	*0.03*
FGL Enviromental	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Valley Tech	*0.1*	*1*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*	*NR*

Soil Analysis (Winter)

Fields:	0/1ft. NO3-N (mg/kg)	1/2 ft. NO3-N (mg/kg)	0/1 ft. Sol. P (mg/kg)	0/1 ft. K (mg/kg)	0/1 ft. EC (ds/m)	OM %	Lab #	Date	Source
1-103	-	-	-	-	-	-			-

Detectable Limits

Valley Tech	*0.1*	*0.1*				
DellaValle	*0.1*	*0.1*	*1.1*	*0.2*	*0.0015*	*0.0001%*

Soil Analysis (Summer)

Fields:	0/1ft. NO3-N (mg/kg)	1/2 ft. NO3-N (mg/kg)	0/1 ft. Sol. P (mg/kg)	0/1 ft. K (mg/kg)	0/1 ft. EC (ds/m)	OM %	Lab #	Date	Source
1-103	-	-	-	-	-	-			-

Detectable Limits

Valley Tech	*0.1*	*0.1*				
DellaValle	*0.1*	*0.1*	*1.1*	*0.2*	*0.0015*	*0.0001%*

Nutrient Import & Export

Nutrient Export-Did you sell, give away or otherwise remove slurry, process water or dry manure from your property?

X No

___ Yes, Manifest attached (Attachment D)

Total Dry Manure Exported

Nutrient Import

No Dry manure nutient imports entered

No Process wastewater nutrient imports entered

Total Process Water Exported

No Commerical or other nutrient imports entered

Field Name	Type of Manure Applied	As Is / Dry Weight	Source

Process Water & Manure Analysis

Process Water															
Quarters:	NH4N (mg/L)	TKN (mg/L)	TP (mg/L)	TK (mg/L)	NO3N (mg/L)	NH3N (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	CO3 (mg/L)	HCO3 (mg/L)	SO4 (mg/L)	CL (mg/L)	EC (ds/m)	TDS (mg/L)
1	166.0	374.0	53.9	886.0	1.0	-	-	-	-	-	-	-	-	5	3,620
2	162.0	336.0	70.2	1,170.0	1.0	-	-	-	-	-	-	-	-	8	5,060
3	109.0	140.0	40.7	386.0	1.0	-	0.0	44.3	63.0	0.0	17.5	46.4	5.8	4	2,970
4	150.0	185.0	60.0	169.0	1.0	-	-	-	-	-	-	-	-	-	2,160
Detectable Limits															
Valley Tech	2.0	5.0	0.1	0.2										0.10	10
Dellavalle	0.2	0.7	0.02	0.2	0.01		0.05	0.4	0.10	0.9	3	0.01	0.03	0.001	10

				Inorg N	Org N	P2O5	K2O
Qtr	Sample #:	Sample Date:	Source	lbs / Ac In			
1	3-24L44739	3/24/2023	Valley Tech	37.9	47.1	28.0	241.9
2	5-11L49520	5/11/2023	Valley Tech	36.9	39.4	36.5	319.5
3	8-17L62136	8/17/2023	Valley Tech	24.9	7.0	21.1	105.4
4	10-4L67889	10/4/2023	Valley Tech	34.2	7.9	31.2	46.1

Description	Sample #:	Date:	As Is/ Dry Weight	Source	Material Type
Manure	5-11M49467	5/11/2023	Dry Weight	Valley Tech	Corral Solids
Manure	10-4M67873	10/4/2023	Dry Weight	Valley Tech	Corral Solids

Dry Manure: (As Recv'd)	TN %	TP %	TK %	Ca	Mg	Na	S	CL	Salt	TFS	Moisture %
Corral	0.81	0.18	0.90	-	-	-	-	-	-	-	43.60
Corral	1.36	0.39	1.19	1.33	0.56	0.21	0.54	0.64	-	33.20	47.00
Detectable Limits											
Valley Tech	0.01%	0.02%	0.02%								
Dellavalle	0.01%	0.01%	0.003%	0.001%	0.001%	0.001%	0.001%	0.000%		0.001%	0.001%

Nutrient Applications

Field Name/Number: 1-103 **Acres:** 12.00

Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data					Yield	
							N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
6/1/23	S. Manure App.	10.00	-	-	-	-	108.5	77.4	238.5	-	-		-
6/15/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
6/28/23	Dom 1	-	-	-	6.13	-	8.8	-	-	284	-		-
7/9/23	Dom 1	-	-	-	5.14	-	7.3	-	-	238	-		-
7/9/23	Process Water	-	-	-	-	1.43	31.9	13.2	124.9	961	-		-
7/21/23	Dom 1	-	-	-	5.30	-	7.6	-	-	245	-		-
7/21/23	Process Water	-	-	-	-	1.47	33.0	13.6	128.9	992	-		-
8/9/23	Dom 1	-	-	-	6.46	-	9.2	-	-	299	-		-
8/19/23	Dom 1	-	-	-	4.97	-	7.1	-	-	230	-		-
8/19/23	Process Water	-	-	-	-	1.38	30.9	12.7	120.8	930	-		-
9/17/23	Dom 1	-	-	-	6.30	-	9.0	-	-	291	-		-
10/19/23	S. Harvest	-	-	-	-	-	(206.8)	(34.2)	(254.4)	-	7.09		28.50
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		**10.0**		**0**	**34.30**	**4.28**	**47**	**83**	**359**	**4,469**	**7.09**	**0**	**28.50**

Dry Weight
As Received

Field Name/Number: 1-103 **Acres:** 12

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	253.3	116.9	613.1	4468.7
Nutrients Removed at Harvest	-206.8	-34.2	-254.4	0.0
Nutrient Balance	46.5	82.7	358.7	4468.7

Winter Nitrogen Crop App / Use Ratio: #N/A **Summer Nitrogen Crop App / Use Ratio:** 1.26

Field Name/Number: 1-103 **Acres:** 12

Winter Crop	**W. Fallow**					
Nutrient Summary :		**Applied**		**N**		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	#N/A					
W. Harvest	1/1/2000	#N/A	T/Ac	#N/A	#N/A	#N/A

Summer Crop	**Corn, Silage**					
Nutrient Summary :		**Applied**		**N**		
S. Manure App.		10.0	T/Ac	108.5	177.2	286.2
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	4.3	Ac In /Ac	95.8	90.4	449.5
	Q4	-	Ac In /Ac	-	-	-
Well Water		34.3	Ac In /Ac	48.978785		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
S. Planting	6/15/23					
S. Harvest	10/19/23	28.5	T/Ac	(206.8)	(78.4)	(305.3)

Exception Reporting

Manure , Process Water and Other Dairy Waste Discharges:

The following is a summary of all manure and process water discharges from the production area to surface water or to land areas (land application areas or otherwise) when not in accordance with the facility's Nutrient Management Plan.

No, manure or process water discharges occurred during the reporting period

Storm Water Discharges:

The follow is a summary of all storm water discharges from the production area to surface water during the reporting period when not in accordance with the facility's Nutrient Management Plan.

No, storm water discharges occurred durging the reporting period

Land Application Area To Surface Water Discharges:

The following is a summary of all discharges from the land application area surface water that have occurred during the reporting period when not in accordance with the facility's Nutrient

No, land application area to surface water discharges occurred during the reporting period

Nutrient Management Plan (NMP) & Written Agreement Statement

Nutrient Management Plan Statement:

Was the faciltiy NMP updated in the reporting period? Yes

Was the facility's NMP developed and approved by a certified nutrient management specialist? Yes

Written Agreements:

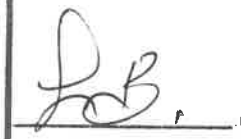
Are there any written agreements with third parties to receive manure or process water that are new or were revised within the repoting period? No

Notes

Without allowance for the significant amount of rainfall during the winter months of 2022/2023, the irrigation logs on each field page of the annual report, reflect canal and/or well used only during that time frame. The facility did not irrigate during the "Significant Storm Events".

It is inaccurate to present "salt" application without acknowledging that there is substantial uptake and utilization of "salts" by crops. If it is possible to calculate "salt" application, it is also possible to calculate "salt" utilization. That calculation should be included in this report. To calculate "salt" utilization is a lengthy process and cannot be done with the constituents required in the Revised General Order sampling requirements.

The signature(s) affixed to this report does not affirmatively refer to those references to "salt" that we know to be incorrect.



(Initial)

Owner and/or Operator Certification

"I certify under penalty of law that all information submitted as part of this document is accurate and true. Certification signatures by a California Registered Professional have been supplied as needed in Part II. I have personally examined and am familiar with the information submitted in Parts I and II of this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Liduina Barcellos

Signature of Owner of Facility

Liduina Barcellos

Signature of Operator of Facility

Frank or Liduina Barcellos

Print Name

F&L Barcellos Dairy #2

Print Name

4-15-24

Date

4-15-24

Date

Livingston Dairy Consulting, Inc.

FIELD ACTIVITY REPORT

Facility Name:
F & L Barcellos Dairy #2
7585 Ave, 152, Tipton
Tulare County

2023

Sample Collection Equipment:
Bottle Container

Sample Container: (Circle one)
Bottle Container: 8 fl oz 16 fl oz 32 fl oz

Sample Collection Location: (Circle one)
Discharge Pipe Spigot/Faucet

Sample Collection Method: (Circle one) *All Samples are labeled with the facility name, date, contents, location and description ** Please see the Sample and Anylsis Plan for more detailed descriptions.

Well: Sample taken at the Discharge Pipe, Spigot or Faucet using a sample container provided by laboratory

Sample Type:

Date	Well Name	Time	PH	Temp	Ammonium
1-31	Dom1	10:25	6.9	63	0
1-31	Dom2	10:29	7.0	65	0

Sample Preservation Method: (Circle one) **Ice Chest Refrigerator Ice Pack**

Livingston Dairy Consulting, Inc.

1635 E. Prosperity Ave. Ste. B
Tulare, CA 93274
559-687-1440

Sunday, April 14, 2024

Re: 2023 NMP
F&L Barcellos Dairy #2 WDID 5C54NC00217
7585 Ave. 152 Tipton, CA 93272

Enclosed is the 2023/2024 Nutrient Budget for your facility to comply with the California Regional Water Quality Control Board General Oder No. R5-2007-0035.

*2023 Whole Farm Nitrogen Balance

The whole farm nitrogen balance for the crop year 2022 was **1.50**
Nitrogen Summary will show the balances for each field and for the whole farm.

*Ranges for the Whole Farm Nitrogen Balance

Factor	Status	Evaluation
> 1.65	Excessive	Too much nitrogen applied
1.4 - 1.65	Slightly High	Nitrogen is satisfactory to slightly high
0.9 - 1.4	Normal	Normal to slightly low
< 0.9	Low	Low nitrogen status, additional nitrogen needed

*Nutrient Management Plan/ Nutrient Budget Certification

This Nutrient Budget was prepared by a Certified Crop Advisor as required by the California Regional Water Quality Control Board.

Butch Brazil
Certified Crop Advisor #35629

This Nutrient Management Plan / Nutrient Budget is based on samples collected and analyzed by a third party laboratory. This Certified Crop Advisor was not involved in oversight of outside laboratory sample collection, transportation, or analyses. Interpretation of the data is based on submitted information. Where data was incomplete, book values and / or historical data was used. The third party laboratory or Certified Crop Advisor was not involved with the agronomic growth of the crops and the Nutrient Budget is based on information provided by the owner.

F&L Barcellos #2

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

February 17, 2023

Lab No. : VI 2340551
Customer No. : 4018505

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Laboratory Report

Introduction: This report package contains a total of 4 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(2 pages)	: Results for each sample submitted.
Quality Control	(1 page)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
DOM #1	01/31/2023	01/31/2023	VI 2340551-001	DW
DOM #2	01/31/2023	01/31/2023	VI 2340551-002	DW

Sampling and Receipt Information:

All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples were received, prepared and analyzed within the method specified holding times. All samples arrived on ice. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the associated Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to established quality control criteria. Any exceptions are noted in the Quality Control Section of this report.

Test Summary

	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 2540 C	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-NO3 F	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

Certification: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above and in the QC Section. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature. This report shall not be reproduced except in full, without the written approval of the laboratory.

KD: JRD

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S. Title: Laboratory Director Date: 2023-02-17

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 17, 2023

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Description : DOM #1
Project : W-6 F & L Barcellos #2

Lab No. : VI 2340551-001
Customer No. : 4018505

Sampled On : January 31, 2023 at 10:25
Sampled By : Marlene / Kaylin
Received On : January 31, 2023 at 14:03
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	Ul	02/10/2023	09:50	sta	EPA 351.2	02/12/2023	19:56	lcr
Nitrate Nitrogen	6.3	0.4	mg/L	10	1		02/01/2023	13:00	lfs	SM 4500-NO3 F	02/01/2023	17:29	lfs
Nitrogen, Total as Nitrogen	6.3	0.5	mg/L		1	l	02/10/2023	09:50	sta	EPA 351.2	02/12/2023	19:56	lcr
Nitrate + Nitrite as N	6.3	0.4	mg/L	10	1		02/01/2023	13:00	lfs	SM 4500-NO3 F	02/01/2023	17:29	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	Ul	02/10/2023	09:50	sta	EPA 351.2	02/12/2023	19:56	lcr
Conductivity	502	1	umhos/cm	1600[2]	1		02/09/2023	14:28	sta		02/09/2023	14:28	sta
Solids, Total Dissolved (TDS)	340	20	mg/L	1000[2]	1		02/02/2023	11:53	ctl	SM 2540 C	02/03/2023	12:35	ctl

DQF Flags Definition:
U Constituent results were non-detect.
I The MS/MSD did not meet QC criteria.

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution
MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 17, 2023

Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Description : DOM #2
Project : W-6 F & L Barcellos #2

Lab No. : VI 2340551-002
Customer No. : 4018505

Sampled On : January 31, 2023 at 10:29
Sampled By : Marlene / Kaylin
Received On : January 31, 2023 at 14:03
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	UI	02/10/2023	09:50	sta	EPA 351.2	02/12/2023	19:58	lcr
Nitrate Nitrogen	6.4	0.4	mg/L	10	1		02/01/2023	13:00	lfs	SM 4500-NO3 F	02/01/2023	17:31	lfs
Nitrogen, Total as Nitrogen	6.4	0.5	mg/L		1	I	02/10/2023	09:50	sta	EPA 351.2	02/12/2023	19:58	lcr
Nitrate + Nitrite as N	6.4	0.4	mg/L	10	1		02/01/2023	13:00	lfs	SM 4500-NO3 F	02/01/2023	17:31	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	02/10/2023	09:50	sta	EPA 351.2	02/12/2023	19:58	lcr
Conductivity	500	1	umhos/cm	1600[2]	1		02/16/2023	14:02	sta		02/16/2023	14:02	sta
Solids, Total Dissolved (TDS)	320	20	mg/L	1000[2]	1		02/02/2023	13:49	ctl	SM 2540 C	02/03/2023	12:30	ctl

DQF Flags Definition:
U Constituent results were non-detect.
I The MS/MSD did not meet QC criteria.

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution
MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

February 17, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2340551
Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2510B	02/09/2023:201372STA	Blank	umhos/cm		ND	<1	
		(VI 2340831-003)	Dup	umhos/cm		1%	5	
	2510B	02/16/2023:201743STA	Blank	umhos/cm		ND	<1	
		(VI 2340545-001)	Dup	umhos/cm		0.7%	5	
Solids, Total Dissolved	2540CE	02/02/2023:201179CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	103 %	90-110	
		(SP 2301488-001)	Dup	mg/L		2.2%	5	
		(SP 2301488-001)	Dup	mg/L		0.4%	5	
			Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	101 %	90-110	
		(VI 2340550-002)	Dup	mg/L		0.4%	5	
		(VI 2340550-002)	Dup	mg/L		0.5%	5	
Nitrogen, Total Kjeldahl	351.2	02/10/2023:201482STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	93.0%	73-124	
			MS	mg/L	12.00	75.3%	54-136	
		(VI 2340549-001)	MSD	mg/L	12.00	79.7%	54-136	
			MSRPD	mg/L	12.00	5.7%	≤27	
			MS	mg/L	12.00	26.9%	<Â¼	
		(VI 2340550-001)	MSD	mg/L	12.00	42.9%	54-136	435
			MSRPD	mg/L	12.00	46.4%	≤27	435
Nitrate + Nitrite as N	4500NO3F	02/01/2023:201107LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	93.1%	80-120	
			MS	mg/L	5.609	91.9%	66-125	
		(VI 2340560-001)	MSD	mg/L	5.609	95.0%	66-125	
			MSRPD	mg/L	5.609	2.6%	≤30.4	
Nitrate Nitrogen	4500NO3F	02/01/2023:201107LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	93.1%	80-120	
			MS	mg/L	5.609	91.9%	66-125	
		(VI 2340560-001)	MSD	mg/L	5.609	95.0%	66-125	
			MSRPD	mg/L	5.609	2.6%	≤30.4	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.

ND : Non-detect - Result was below the DQO listed for the analyte.

Explanation

435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

Special

CHAIN OF CUSTODY
www.fglinc.com

Laboratory Copy (1 of 3)

42086:03/01/2022

TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information

Client: **Livingston Dairy Consulting, Inc.**

Address: Livingston Dairy Consulting, Inc
1635 E. Prosperity Suite B
Tulare, CA 93274

Phone: (559)687-1440 Fax:

Contact Person: Noreen Livingston

Project Name: W-6 F.L. Barcellos #2

Purchase Order Number:

Quote Number: **VI 20210208-01**

Sampler(s) Marlene & Kaylin

Sampling Fee: _____ Pickup Fee: _____

Compositor Setup Date: ___/___/___ Time: ___/___

Lab Number: **VI** 2340551 **4-18505**

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Dairy Analysis-W-6-Conductivity,NO3-N,Total N,TDS 16oz(P)	Sampling-W-6 - Total N - Split Bottle ***VI Lab to Split for Total N*** 8oz(P)-H2SO4								
1	DOM #1	1/31	10:25 AM	G	DW	P			1	1								
2	DOM #2	1/31	10:29 AM	G	DW	P			1	1								
3				G					1	1								
4				G					1	1								
5				G					1	1								
6				G					1	1								
7				G					1	1								
8				G					1	1								
9				G					1	1								
10				G					1	1								

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
	1/31/23	1:33		1/31/23	1463		1/31	
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
	1/31/23	1:33		1/31/23	1463		1/31	

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
Phone: (805) 392-2000
Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
Phone: (209) 942-0182
Fax: (209) 942-0423

Office & Laboratory
563 E. Lindo
Chico, CA 95926
Phone: (530) 343-5818
Fax: (530) 343-3807

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
Phone: (805) 783-2940
Fax: (805) 783-2912

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
Phone: (559) 734-9473
Fax: (559) 734-8435

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC CH VI GTC

1. Number of ice chests/packages received: 1 Shipping tracking # _____
2. Were samples received in a chilled condition? Temps: 2.1 / 4.3 / _____ / _____ / _____
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

3.	Do the number of bottles received agree with the COC?	Yes	No	N/A
4.	Were samples received intact? (i.e. no broken bottles, leaks etc.)	Yes	No	
5.	VOAs checked for Headspace?	Yes	No	N/A
6.	Were sample custody seals intact?	Yes	No	N/A
7.	If required, was sample split for pH analysis?	Yes	No	N/A
8.	Were all analyses within holding times at time of receipt?	Yes	No	
9.	Verify sample date, time and sampler name	Yes	No	

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): MM

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 2c / _____ / _____ / _____ / _____
   Acceptable is above freezing to 6 C. If many packages are received at one time check for tests/H.T.'s/rushes/
2. Shipping tracking numbers: 558722593 590 584

3.	Do the number of bottles received agree with the COC?	Yes	No	N/A
4.	Were samples received intact? (i.e. no broken bottles, leaks etc.)	Yes	No	
5.	Were sample custody seals intact?	Yes	No	N/A

Sign and date the COC, obtain LIMS sample numbers, select methods/tests and print labels.

Sample Verification, Labeling and Distribution:

1.	Were all requested analyses understood and acceptable?	Yes	No		
2.	Did bottle labels correspond with the client's ID's?	Yes	No		
3.	Were all bottles requiring sample preservation properly preserved? [Exception: Oil & Grease, VOA and CrVI verified in lab]	Yes	No	N/A	FGL
4.	VOAs checked for Headspace?	Yes	No	N/A	
5.	Have rush or project due dates been checked and accepted?	Yes	No	N/A	
6.	Were all analyses within holding times at time of receipt?	Yes	No		

Attach labels to the containers and include a copy of the COC for lab delivery.
Sample Receipt, Login and Verification completed by (initials): MDC

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

1. Person Contacted: _____ Phone Number: _____
   Initiated By: _____ Date: _____
   Problem:
   Resolution:

2. Person Contacted: _____ Phone Number:
   Initiated By: _____
   Problem:
   Resolution:

(Please use the back of this sheet for additional co contacts)

(4018505)
Livingston Dairy Consulting, Inc.
VI 2340551
da0 02/01/2023 12:12:16

F & L Barcellos #2

7585 Avenue 152 - Tipton

2020 TO

Domestic/Municipal well

Drainage flow direction from production area