



Livingston Dairy Consulting, Inc.

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

Legacy Holsteins **WDID 5D545091001**
13510 Road 72 Tipton, CA 93272

<input checked="" type="checkbox"/>	Annual Report
<input checked="" type="checkbox"/>	Water Analysis Samples
<input type="checkbox"/> N/A	Manure Manifest
<input type="checkbox"/> N/A	Facility / Land Map
<input checked="" type="checkbox"/>	CCA Nitrogen Retrofit Report
<input type="checkbox"/>	
<input type="checkbox"/>	

GEO Tracker Confirmation #

Date:

Facility Info

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

Name of the Facility

Dairy Name: Legacy Holsteins WDID 5D545091001
Facility Address: 13510 Road 72 Tipton, CA 93272
Original Operation Date: 5/15/1994
Facility APN's: x263 x060 x006 xxxx
RWQCB Basin Plan Designation: Tulare Lake Basin
☐ Check if any information has changed

Owner(s)

Owner(s) Name: Sousa & Sousa II
Mailing Address: P.O. Box 669 Tipton, CA 93272
Home Phone Number:
Cell Phone Number: 559-280-8795
☐ Check if any information has changed

Operator(s)

Operator(s) Name: Fernandes Brothers
Mailing Address: P.O. Box 1149 Tipton, CA 93272
Home Phone Number:
Cell Phone Number: 559-308-6241
☐ 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:	-	166	102	-	-
Number Under Roof	1,193	-	-	-	-
Maximum Number	1,193	166	102		
Average Number	1,193	166	102		
Average Live Weight (lbs)	1,400	1,450	950		

Average Milk Production: 62
Predominant Milk Cow Breed: Holstein

Manure Generated:

Total manure excreted by the herd:	2,628.80	@40% Moisture	ton/yr
Total nitrogen from manure:	185,823		lbs
	20,333		lbs
	71,178		lbs
Total salt from manure:	-		lbs
			130,076 lbs per reporting period

Process Wastewater Generated:

Process wastewater generated:	17,417,800	gal
Total nitrogen generated:	111,782	lbs
	28,449	lbs
	144,322	lbs
Total salt (TDS) generated:	1,099,133	lbs

List of Fresh Water Sources

[illegible]

(WINTER) PLANT TISSUE ANALYSIS (Recorded As Received)										
Field	Crop	Moist %	N%	TP %	TK%	Salt	TFS	Sample #:	Date:	Source
F-1	Wheat, Silage	65.50	0.47	0.12	0.68	-	9.07	5-12H49725	05/12/23	Valley Tech
F-2	Wheat, Silage	67.10	0.50	0.13	0.55	-	9.47	5-12H49725	05/12/23	Valley Tech
LH1/LH3	Wheat, Silage	69.70	0.52	0.12	0.66	-	11.10	5-12H49725	05/12/23	Valley Tech
LH2	Wheat, Silage	69.00	0.53	0.12	0.63	-	9.86	5-12H49725	05/12/23	Valley Tech

Winter Crops & Harvest

[illegible]

Valley Tech	0.10%	0.05%	0.01%	0.01%	0.05%
Dellavalle	0.001%	0.01%	0.01%	0.003%	0.001%

General Minerals

Detectable Limits

FGL Environmental

Soil Analysis (Winter)

[illegible]

Detectable Limits

Valley Tech

DellaValle

0.1

0.1

1.1

0.2

0.0015

0.0001%

Soil Analysis (Summer)

[illegible]

Detectable Limits

Valley Tech 0.1

DellaValle 0.1

0.1

0.1

1.1

0.2

0.0015

0.0001%

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		440.0	702.0	81.7	770.0	1.0	-	-	-	-	-	-	-	-	9	5,750
2		568.0	609.0	67.3	824.0	1.0	-	-	-	-	-	-	-	-	10	6,460
3		527.0	536.0	57.7	452.0	1.0	-	0.0	105.0	161.0	0.0	61.7	73.2	6.2	9	5,720
4		359.0	366.0	39.1	335.0	1.0	-	-	-	-	-	-	-	-	-	3,830

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

Qtr	Sample #:	Sample Date:	Source	lbs / Ac In			
1	3-9L44120	3/9/2023	Valley Tech	100.0	59.4	42.4	210.2
2	5-12L49728	5/12/2023	Valley Tech	129.0	9.3	35.0	225.0
3	8-15L61721	8/15/2023	Valley Tech	119.7	2.0	30.0	123.4
4	10-3L67679	10/3/2023	Valley Tech	81.6	1.6	20.3	91.5

Description	Sample #:	Date:	As Is/ Dry Weight	Source	Material Type
Manure	5-12M49743	5/12/2023	Dry Weight	Valley Tech	Corral Solids
Manure	10-3M67647	10/3/2023	Dry Weight	Valley Tech	Corral Solids

Dry Manure: (As Recv'd)	TN %	TP %	TK %	Ca	Mg	Na	S	CL	Salt	TFS	Moisture %
Corral	0.87	0.32	0.99	-	-	-	-	-	-	-	41.10
Corral	1.25	0.46	1.72	1.49	0.39	0.53	0.32	1.85	-	42.40	31.00

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: **F-1**

Acres: **150.00**

[illegible]

Dry Weight
As Received

Field Name/Number: F-1Acres: 150

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	493.7	119.3	802.6	6086.6
Nutrients Removed at Harvest	-398.8	-83.9	-522.6	0.0
Nutrient Balance	94.9	35.4	280.0	6086.6

Winter Nitrogen Crop App / Use Ratio: **1.21**Summer Nitrogen Crop App / Use Ratio: **1.34**Field Name/Number: F-1 Acres: 150**Winter Crop Wheat, Silage**

Nutrient Summary :		Applied	N			
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q1	2.2	Ac In /Ac	248.5	94.5	466.6
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-	-	-
Canal		16.9	Ac In /Ac	0.0	-	-
Atm. Depos.		Yes		7.0	-	-
W. Planting	11/4/22					
W. Harvest	5/9/23	22.3	T/Ac	(210.8)	(123.3)	(365.6)

Summer Crop Corn, Silage

Nutrient Summary :		Applied	N			
S. Manure App.		5.3	T/Ac	53.3	111.2	219.9
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	2.3	Ac In /Ac	191.7	67.4	276.6
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	2.079E-14	-	-
Canal		35.8	Ac In /Ac	0.1	-	-
Atm. Depos.		Yes		7.0	-	-
S. Planting	6/30/23					
S. Harvest	10/31/23	29.8	T/Ac	(187.9)	(68.7)	(261.5)

Nutrient Applications

Field Name/Number:

F-2

Acres:

30.00

		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	
Date	Event / Source						N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS	%	Expected Yield (tons/ac)	Actual Yield (tons/ac)
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/4/22	W. Planting			-	-	-	-	-	-	-	-	-	-	-
1/8/23	Canal	-	-	-	5.39	-	0.0	-	-	27	-	-	-	-
1/8/23	Process Water	-	-	-	-	1.12	125.3	20.8	196.0	1,464	-	-	-	-
2/5/23	Canal	-	-	-	5.13	-	0.0	-	-	26	-	-	-	-
2/5/23	Process Water	-	-	-	-	1.07	119.1	19.8	186.4	1,392	-	-	-	-
4/12/23	Canal	-	-	-	6.63	-	0.0	-	-	33	-	-	-	-
5/9/23	W. Harvest	-	-	-	-	-	{207.0}	{54.5}	{228.8}	-	9.07	-	-	20.70
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/30/23	S. Manure App.	5.00	-	-	-	-	50.0	45.5	171.8	-	-	-	-	-
6/11/23	Canal	-	-	-	6.36	-	0.0	-	-	32	-	-	-	-
6/30/23	S. Planting			-	-	-	-	-	-	-	-	-	-	-
7/11/23	Canal	-	-	-	6.19	-	0.0	-	-	31	-	-	-	-
8/3/23	Canal	-	-	-	5.21	-	0.0	-	-	26	-	-	-	-
8/3/23	Process Water	-	-	-	-	1.09	92.6	14.2	111.3	1,409	-	-	-	-
8/22/23	Canal	-	-	-	5.57	-	0.0	-	-	28	-	-	-	-
8/22/23	Process Water	-	-	-	-	1.16	98.8	15.2	118.8	1,504	-	-	-	-
9/14/23	Canal	-	-	-	6.54	-	0.0	-	-	33	-	-	-	-
10/1/23	Canal	-	-	-	6.27	-	0.0	-	-	32	-	-	-	-
10/31/23	S. Harvest	-	-	-	-	-	{186.1}	{25.5}	{204.1}	-	5.87	-	-	27.90
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals:		5.0		0	53.29	4.44	93	35	351	6,037	14.94		0	48.60

Field Name/Number: F-2Acres: 30.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	485.9	50.4	651.1	6036.9
Nutrients Removed at Harvest	-393.2	-34.9	-359.4	0.0
Nutrient Balance	92.7	15.5	291.7	6036.9

Winter Nitrogen Crop App / Use Ratio: 1.21

Summer Nitrogen Crop App / Use Ratio: 1.33

Field Name/Number: F-2 Acres: 30**Winter Crop** **Wheat, Silage**

Nutrient Summary :		Applied	N			
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q1	2.2	Ac In /Ac	244.4	92.9	458.9
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-	-	-
Canal		17.1	Ac In /Ac	0.0	-	-
Atm. Depos.		Yes		7.0	-	-
W. Planting	11/4/22					
W. Harvest	5/9/23	20.7	T/Ac	(207.0)	(124.8)	(274.6)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied	N			
S. Manure App.		5.0	T/Ac	50.0	104.3	206.2
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	2.2	Ac In /Ac	191.4	67.3	276.2
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	(0.0)	-	-
Canal		36.1	Ac In /Ac	0.1	-	-
Atm. Depos.		Yes		7.0	-	-
S. Planting	6/30/23					
S. Harvest	10/31/23	27.9	T/Ac	(186.1)	(58.4)	(245.0)

Nutrient Applications

Field Name/Number:

LH1/LH3

Acres:

120.00

[illegible]

Field Name/Number: LH1/LH3Acres: 120.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	600.2	91.1	952.1	6995.7
Nutrients Removed at Harvest	-511.1	-38.8	-545.5	0.0
Nutrient Balance	89.1	52.4	406.7	6995.7

Winter Nitrogen Crop App / Use Ratio: 1.29

Summer Nitrogen Crop App / Use Ratio: 1.15

Field Name/Number: LH1/LH3 Acres: 120**Winter Crop** **Wheat, Silage**

Nutrient Summary :		Applied	N			
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q1	2.2	Ac In /Ac	249.0	94.7	467.6
	Q2	-	Ac In /Ac	-	-	-
Well Water		17.1	Ac In /Ac	0.0		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/5/22					
W. Harvest	5/11/23	19.2	T/Ac	(199.0)	(101.3)	(304.5)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied	N			
S. Manure App.		15.0	T/Ac	149.9	312.9	618.5
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	2.4	Ac In /Ac	201.2	70.7	290.3
	Q4	-	Ac In /Ac	-	-	-
Well Water		30.3	Ac In /Ac	0.1		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
S. Planting	6/19/23					
S. Harvest	9/13/23	29.8	T/Ac	(312.1)	(102.1)	(484.0)

Nutrient Applications

Field Name/Number: LH2

Acres: **120.00**

[illegible]

Field Name/Number: LH2Acres: 120.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	467.2	66.2	631.7	5381.3
Nutrients Removed at Harvest	-421.5	-34.5	-311.0	0.0
Nutrient Balance	45.7	31.7	320.7	5381.3

Winter Nitrogen Crop App / Use Ratio: 1.02

Summer Nitrogen Crop App / Use Ratio: 1.24

Field Name/Number: LH2 Acres: 120**Winter Crop** **Wheat, Silage**

Nutrient Summary :		Applied	N			
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q1	1.2	Ac In /Ac	132.0	50.2	247.8
	Q2	-	Ac In /Ac	-	-	-
Well Water		25.3	Ac In /Ac	46.9		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	10/31/22					
W. Harvest	5/11/23	17.3	T/Ac	(182.8)	(93.6)	(260.6)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied	N			
S. Manure App.		12.5	T/Ac	124.9	260.7	515.4
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.2	Ac In /Ac	103.9	36.5	150.0
	Q4	-	Ac In /Ac	-	-	-
Well Water		32.0	Ac In /Ac	59.4		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
S. Planting	5/29/23					
S. Harvest	9/13/23	26.7	T/Ac	(238.7)	(87.3)	(189.0)

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 during 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 facility NMP updated in the reporting period?

No

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

No

Written Agreements:

Are there any written agreements with third parties to receive manure or process water that are new or were revised within the reporting 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.*



Signature of Owner of Facility



Signature of Operator of Facility

Sousa & Sousa II

Print Name

Fernandes Brothers

Print Name

4-15-24

Date

4/12/24

Date

**Facility Name**

Legacy Holsteins
13510 Road 72, 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:

Sample Preservation Method:

(Circle one)

Ice Chest

Refrigerator

Ice Pack



March 9, 2023

Lab No. : VI 2340869

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
North	02/10/2023	02/10/2023	VI 2340869-001	DW
South	02/10/2023	02/10/2023	VI 2340869-002	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-H+B	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: 2023-03-09

March 9, 2023

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

Description : North
 Project : W-6 Legacy Holsteins

Lab No. : VI 2340869-001
 Customer No. : 4018505

Sampled On : February 10, 2023 at 09:25
 Sampled By : KC / MF
 Received On : February 10, 2023 at 10:39
 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	U	02/23/2023	09:54	sta	EPA 351.2	02/26/2023	21:59	lcr
Nitrate Nitrogen	6.1	0.4	mg/L	10	1		02/14/2023	11:00	lfs	SM 4500-NO3 F	02/14/2023	13:03	lfs
Nitrogen, Total as Nitrogen	6.2	0.5	mg/L		1		02/23/2023	09:54	sta	EPA 351.2	02/26/2023	21:59	lcr
Nitrate + Nitrite as N	6.2	0.4	mg/L	10	1		02/14/2023	11:00	lfs	SM 4500-NO3 F	02/14/2023	13:03	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	02/23/2023	09:54	sta	EPA 351.2	02/26/2023	21:59	lcr
Conductivity	401	1	umhos/cm	1600 ²	1		02/21/2023	14:01	sta		02/21/2023	14:01	sta
Solids, Total Dissolved (TDS)	260	20	mg/L	1000 ²	1		02/14/2023	15:27	ctl	SM 2540 C	02/15/2023	12:27	ctl

DQF Flags Definition:

U Constituent results were non-detected.

ND=Non-Detected, RL=Reporting Level, Dil.=Dilution

MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

March 9, 2023

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

Description : South
 Project : W-6 Legacy Holsteins

Lab No. : VI 2340869-002

Customer No. : 4018505

Sampled On : February 10, 2023 at 09:36

Sampled By : KC / MF

Received On : February 10, 2023 at 10:39

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	U	02/23/2023	09:54	sta	EPA 351.2	02/26/2023	22:01	lcr
Nitrate Nitrogen	7.0	0.4	mg/L	10	1		02/22/2023	11:45	lfs	SM 4500-NO3 F	02/22/2023	12:37	lfs
Nitrogen, Total as Nitrogen	7.0	0.5	mg/L		1		02/23/2023	09:54	sta	EPA 351.2	02/26/2023	22:01	lcr
Nitrate + Nitrite as N	7.0	0.4	mg/L	10	1		02/22/2023	11:45	lfs	SM 4500-NO3 F	02/22/2023	12:37	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	02/23/2023	09:54	sta	EPA 351.2	02/26/2023	22:01	lcr
Conductivity	414	1	umhos/cm	1600 ²	1		03/01/2023	17:08	amm	SM 4500-H+B	03/01/2023	20:52	sta
Solids, Total Dissolved (TDS)	260	20	mg/L	1000 ²	1		02/15/2023	11:45	ctl	SM 2540 C	02/16/2023	12:29	ctl

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level, Dil.=Dilution

MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

March 9, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2340869

Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2341105-003)	Dup	umhos/cm		0.3%	5	
	2510B	02/21/2023:201893STA	Blank	umhos/cm		ND	<1	
Solids, Total Dissolved		(VI 2340883-001)	Dup	umhos/cm		0.7%	5	
	2540CE	02/14/2023:201630CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	101 %	90-110	
		(STK2331874-006)	Dup	mg/L		1.4%	5	
		(STK2331874-006)	Dup	mg/L		0.1%	5	
	2540CE	02/15/2023:201693CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	102 %	90-110	
		(VI 2340896-001)	Dup	mg/L		0.4%	5	
Nitrogen, Total Kjeldahl		(VI 2340896-001)	Dup	mg/L		0.7%	5	
	351.2	02/23/2023:201997STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	96.9%	73-124	
			MS	mg/L	12.00	91.7%	54-136	
		(STK2331941-001)	MSD	mg/L	12.00	82.6%	54-136	
			MSRPD	mg/L	12.00	10.3%	≤27	
			MS	mg/L	12.00	86.7%	54-136	
		(SP 2302092-008)	MSD	mg/L	12.00	95.3%	54-136	
Nitrate + Nitrite as N			MSRPD	mg/L	12.00	9.5%	≤27	
	4500NO3F	02/14/2023:201644LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	99.0%	80-120	
			MS	mg/L	5.609	97.6%	66-125	
		(SP 2302192-001)	MSD	mg/L	5.609	98.3%	66-125	
			MSRPD	mg/L	5.609	0.5%	≤30.4	
	4500NO3F	02/22/2023:201947LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.3%	80-120	
Nitrate Nitrogen			MS	mg/L	5.609	97.3%	66-125	
		(SP 2302530-001)	MSD	mg/L	5.609	99.4%	66-125	
			MSRPD	mg/L	5.609	1.8%	≤30.4	
	4500NO3F	02/14/2023:201644LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	99.0%	80-120	
			MS	mg/L	5.609	97.6%	66-125	
		(SP 2302192-001)	MSD	mg/L	5.609	98.3%	66-125	
			MSRPD	mg/L	5.609	0.5%	≤30.4	
	4500NO3F	02/22/2023:201947LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.3%	80-120	
			MS	mg/L	5.609	97.3%	66-125	
		(SP 2302530-001)	MSD	mg/L	5.609	99.4%	66-125	
			MSRPD	mg/L	5.609	1.8%	≤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 analyte. 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.

Section: Quality Control

Page 4 of 4

Page 4 of 4

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



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 Legacy Holsteins Purchase Order Number: Quote Number: VI 20210208-01		42086-03/01/2022 TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information	
Sampler(s) Kc/mf		Method of Sampling: Composite(C) Grab(G) Type of Sample 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)	
Daily 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			
Lab Number: VI 23408109 4-18505	Method of Sampling: Composite(C) Grab(G) Type of Sample 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)	Relinquished Date: 2/10/23 Time: 10:34 Received By: MML	Relinquished Date: 2/11/23 Time: 12:10 Received By: CLS
Remarks:	Relinquished Date: 2/10/23 Time: 10:34 Received By: MML	Relinquished Date: 2/10/23 Time: 10:34 Received By: MML	Relinquished Date: 2/11/23 Time: 12:10 Received By: CLS
Sample Num 1 North 2 South 3 4 5 6 7 8 9 10	Date Sampled 2/10/23 2/10/23	Time Sampled 9:25 9:36	Time 9:25 9:36

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 Empressa 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
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Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC

CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # OTC

2. Were samples received in a chilled condition? Temps: 6.09/7.01 / / /

Surface water SWTR bact samples: A sample that has a temperature upon receipt of $>10^{\circ}\text{C}$, 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? | <input checked="" type="checkbox"/> Yes | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <input checked="" type="checkbox"/> 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? | <input checked="" type="checkbox"/> Yes | No | |
| 9. Verify sample date, time and sampler name | <input checked="" type="checkbox"/> 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: 558796176 154
195

- | | | | |
|---|---|----|-----|
| 3. Do the number of bottles received agree with the COC? | <input checked="" type="checkbox"/> Yes | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <input checked="" type="checkbox"/> 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? | <input checked="" type="checkbox"/> Yes | No | |
| 2. Did bottle labels correspond with the client's ID's? | <input checked="" type="checkbox"/> Yes | No | |
| 3. Were all bottles requiring sample preservation properly preserved?
<small>[Exception: Oil & Grease, VOA and CrVI verified in lab]</small> | <input checked="" type="checkbox"/> 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? | <input checked="" type="checkbox"/> 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): MD

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 contacts)

(4018505)
Livingston Dairy Consulting, Inc.

VI 2340869

iv 02/13/2023 10:01:48



July 28, 2023

Lab No. : VI 2344104

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

Customer No. : 4018505

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
Well #2	07/06/2023	07/06/2023	VI 2344104-001	AGW
DOM	07/06/2023	07/06/2023	VI 2344104-002	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

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-H+B	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: EHB

Approved By **Kelly A. Dunnahoo, B.S.**


 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2023-07-31

July 28, 2023

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

Description : Well #2
 Project : W-6 Legacy Holsteins

Lab No. : VI 2344104-001
 Customer No. : 4018505

Sampled On : July 6, 2023 at 09:11
 Sampled By : Marlene Ferreira
 Received On : July 6, 2023 at 10:55
 Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis				
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who	
	Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	07/20/2023	11:04	sta	EPA 351.2	07/24/2023	22:06	lcr
	Nitrate Nitrogen	ND	0.4	mg/L		1	U	07/07/2023	16:00	lfs	SM 4500-NO3 F	07/07/2023	18:31	lfs
	Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	07/20/2023	11:04	sta	Calc.	07/24/2023	22:06	lcr
	Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	07/07/2023	16:00	lfs	SM 4500-NO3 F	07/07/2023	18:31	lfs
	Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/20/2023	11:04	sta	EPA 351.2	07/24/2023	22:06	lcr
	Conductivity	198	1	umhos/cm		1		07/12/2023	14:47	amm	SM 4500-H+B	07/12/2023	19:28	amm
	Solids, Total Dissolved (TDS)	140	20	mg/L		1		07/11/2023	10:45	ctl	SM 2540 C	07/12/2023	12:00	ctl

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level, Dil.=Dilution

July 28, 2023

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

Lab No. : VI 2344104-002
Customer No. : 4018505

Sampled On : July 6, 2023 at 09:18
Sampled By : Marlene Ferreira
Received On : July 6, 2023 at 10:55
Matrix : Drinking Water

Description : DOM
Project : W-6 Legacy Holsteins

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	U	07/20/2023	11:04	sta	EPA 351.2	07/24/2023	22:08	lcr
Nitrate Nitrogen	18.6	0.4	mg/L	10	1		07/07/2023	16:00	lfs	SM 4500-NO3 F	07/07/2023	18:34	lfs
Nitrogen, Total as Nitrogen	18.6	0.5	mg/L		1		07/20/2023	11:04	sta	Calc.	07/24/2023	22:08	lcr
Nitrate + Nitrite as N	18.6	0.4	mg/L	10	1		07/07/2023	16:00	lfs	SM 4500-NO3 F	07/07/2023	18:34	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/20/2023	11:04	sta	EPA 351.2	07/24/2023	22:08	lcr
Conductivity	877	1	umhos/cm	1600 ²	1		07/12/2023	14:47	amm	SM 4500-H+B	07/12/2023	17:10	amm
Solids, Total Dissolved (TDS)	580	20	mg/L	1000 ²	1		07/10/2023	15:00	ctl	SM 2540 C	07/11/2023	11:00	ctl

DQF Flags Definition:

U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level, Dil.=Dilution

MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

July 28, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2344104

Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2344100-003)	Dup	umhos/cm		0.3%	5	
		(VI 2344170-001)	Dup	umhos/cm		0.2%	5	
Solids, Total Dissolved	2540CE	07/10/2023:207515CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	993.7	98.0%	90-110	
			Dup	mg/L		0.8%	5	
	2540CE	07/11/2023:207527CTL	Dup	mg/L		0.8%	5	
			Blank	mg/L		ND	<20	
			LCS	mg/L	993.7	100%	90-110	
Nitrogen, Total Kjeldahl	351.2	07/20/2023:207947STA	Dup	mg/L		1.23%	5	
			Dup	mg/L		0.5%	5	
			Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	101%	73-124	
			MS	mg/L	12.00	88.3%	54-136	
			(SP 2311517-001)	MSD	mg/L	91.9%	54-136	
			MSRPD	mg/L		3.8%	≤27	
			MS	mg/L	12.00	90.2%	54-136	
			(SP 2311518-001)	MSD	mg/L	92.0%	54-136	
			MSRPD	mg/L		1.9%	≤27	
Nitrate + Nitrite as N	4500NO3F	07/07/2023:207444LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	93.9%	80-120	
			MS	mg/L	5.609	84.3%	66-125	
			(VI 2344132-002)	MSD	mg/L	90.6%	66-125	
			MSRPD	mg/L		4.1%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/07/2023:207444LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	93.9%	80-120	
			MS	mg/L	5.609	84.3%	66-125	
			(VI 2344132-002)	MSD	mg/L	90.6%	66-125	
			MSRPD	mg/L		4.1%	≤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 analyte. 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.

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** Legacy Holdings
Purchase Order Number:

Purchase Order Number:

Quote Number: VI 20210208-01

Sampler(s)	Marlene
1	1
2	1
3	1
4	1
5	1
6	1
7	1
8	1
9	1
10	1
11	1
12	1
13	1
14	1
15	1
16	1
17	1
18	1
19	1
20	1
21	1
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72	1
73	1
74	1
75	1
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77	1
78	1
79	1
80	1
81	1
82	1
83	1
84	1
85	1
86	1
87	1
88	1
89	1
90	1
91	1
92	1
93	1
94	1
95	1
96	1
97	1
98	1
99	1
100	1

Sampling Fee: _____ Pickup Fee: _____
Compositor Setup Date: ____/____/____ Time: ____/____

Lab Number: VI 2344104 4-18505

Samp Num	Location Description	Date Sampled	Time Sampled
1	Well # 2	7/6	9:11 AM
2	DOM	7/6	9:18 AM
3			
4			
5			
6			
7			
8			
9			
10			

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:
Paula F...	7/6/23	1055	Dwyer	7/6/23	1055
Received By:	Date:	Time:	Received By:	Date:	Time:
Dwyer	7/6/23	1055	SRO	7-6-23	1055

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

1. Number of ice chests/packages received: 1 Shipping tracking # ETC

2. Were samples received in a chilled condition? Temps: 20 / 8.6 / / /
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? | <u>Yes</u> | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <u>Yes</u> | No | |
| 5. VOAs checked for Headspace? | <u>Yes</u> | No | <u>N/A</u> |
| 6. Were sample custody seals intact? | <u>Yes</u> | No | <u>N/A</u> |
| 7. If required, was sample split for pH analysis? | <u>Yes</u> | No | <u>N/A</u> |
| 8. Were all analyses within holding times at time of receipt? | <u>Yes</u> | No | |
| 9. Verify sample date, time and sampler name | <u>Yes</u> | 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): SPC

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 30 / / / /

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:

559719161 181
165 174

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

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

Attach labels to the containers and include a copy of the COC for lab delivery.

Sample Receipt, Login and Verification completed by (initials): 17C

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 cc contacts)

Phone Number:
(4018505)
Livingston Dairy Consulting, Inc.

VI 2344104

iv 07/07/2023 10:15:46



UI 2344104

August 18, 2023

Lab No. : VI 2344887

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

Customer No. : 4018505

Laboratory Report

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

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: 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
#3	07/27/2023	07/27/2023	VI 2344887-001	AGW

Sampling and Receipt Information:

The Sample was received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. The Sample was 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

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-H+B	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: EHB

Approved By **Kelly A. Dunnahoo, B.S.**

 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2023-08-18

August 18, 2023

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

Description : #3
 Project : W-6 Legacy Holsteins

Lab No. : VI 2344887-001

Customer No. : 4018505

Sampled On : July 27, 2023 at 07:25

Sampled By : Marlene/Noreen

Received On : July 27, 2023 at 09:18

Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	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	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:29	lcr
Nitrate Nitrogen	8.2	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	15:19	lfs
Nitrogen, Total as Nitrogen	8.2	0.5	mg/L		1	l	08/12/2023	12:25	sta	Calc.	08/16/2023	21:29	lcr
Nitrate + Nitrite as N	8.2	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	15:19	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:29	lcr
Conductivity	475	1	umhos/cm		1		07/31/2023	21:43	amm	SM 4500-H+B	08/01/2023	02:25	amm
Solids, Total Dissolved (TDS)	290	20	mg/L		1		07/31/2023	11:30	ctl	SM 2540 C	08/02/2023	11:30	ctl

DQF Flags Definition:

- U Constituent results were non-detect.
- l The MS/MSD did not meet QC criteria.

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution

August 18, 2023
 Livingston Dairy Consulting, Inc.

Lab No. : VI 2344887
 Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(CC 2382398-001)	Dup	umhos/cm		0.2%	5	
Solids, Total Dissolved	2540CE	07/31/2023:208416CTL (SP 2312860-001) (SP 2312860-001)	Blank	mg/L	991.5	ND	<20	
			LCS	mg/L		100%	90-110	
			Dup	mg/L		1.70%	5	
			Dup	mg/L		2.72%	5	
Nitrogen, Total Kjeldahl	351.2	08/12/2023:208945STA (STK2339763-002) (VI 2344850-001)	Blank	mg/L	12.00	ND	<0.5	
			LCS	mg/L		90.7%	73-124	
			MS	mg/L		87.7%	54-136	
			MSD	mg/L		88.5%	54-136	
			MSRPD	mg/L		0.8%	≤27	
			MS	mg/L		64.2%	54-136	
			MSD	mg/L		22.3%	54-136	435
			MSRPD	mg/L		96.1%	≤27	435
Nitrate + Nitrite as N	4500NO3F	07/28/2023:208385LFS (VI 2344894-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		98.1%	80-120	
			MS	mg/L		98.1%	66-125	
			MSD	mg/L		99.3%	66-125	
			MSRPD	mg/L		1.1%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/28/2023:208385LFS (VI 2344894-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		98.1%	80-120	
			MS	mg/L		98.1%	66-125	
			MSD	mg/L		99.3%	66-125	
			MSRPD	mg/L		1.1%	≤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 analyte. 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.

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				42086:03/01/2022										
Phone: (559)687-1440 Fax: Contact Person: Noreen Livingston Project Name: W-6 Legacy Holsteins Purchase Order Number: Quote Number: VI 20210208-01				42086:03/01/2022										
Sampler(s) Martene & Noreen				42086:03/01/2022										
Sampling Fee: Pickup Fee: Compositor Setup Date: / / Time: /				42086:03/01/2022										
Lab Number: VI 2344887 4-18505				42086:03/01/2022										
Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample	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)	Daily 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	#3	7/27	7:25 AM	G	AgW						1	1	1	
2				G							1	1	1	
3				G							1	1	1	
4				G							1	1	1	
5				G							1	1	1	
6				G							1	1	1	
7				G							1	1	1	
8				G							1	1	1	
9				G							1	1	1	
10				G							1	1	1	

Relinquished		Date:		Time:		Relinquished		Date:		Time:	
Received By: Martene Feio		7/27/23		9:10		Received By: GUS		7/28/23		12:04	
Received By: ADH		7/27/23		9:10		Received By: CDA		7/28/23		12:04	

Corporate Offices & Laboratory		Office & Laboratory		Office & Laboratory		Office & Laboratory	
853 Corporation Street Santa Paula, CA 93060 Phone: (805) 392-2000 Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063		2500 Stagecoach Road Stockton, CA 95215 Phone: (209) 942-0182 Fax: (209) 942-0423		563 E. Lindo Chico, CA 95926 Phone: (530) 343-5818 Fax: (530) 343-3807		3442 Empressa Drive, Suite D San Luis Obispo, CA 93401 Phone: (805) 783-2940 Fax: (805) 783-2912	
901 GIL		ADH		ADH		ADH	

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC

CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # 0TR
2. Were samples received in a chilled condition? Temps: 801/54°C / 1 / 1
- Surface water SWTR bact samples: A sample that has a temperature upon receipt of $>10^{\circ}\text{C}$, 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? | <input checked="" type="radio"/> Yes | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <input checked="" type="radio"/> Yes | No | |
| 5. VOAs checked for Headspace? | Yes | No | <input checked="" type="radio"/> N/A |
| 6. Were sample custody seals intact? | Yes | No | <input checked="" type="radio"/> N/A |
| 7. If required, was sample split for pH analysis? | Yes | No | <input checked="" type="radio"/> N/A |
| 8. Were all analyses within holding times at time of receipt? | <input checked="" type="radio"/> Yes | No | |
| 9. Verify sample date, time and sampler name | <input checked="" type="radio"/> 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): ACH

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 21 / 41 / 1 / 3 / 12
- 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:

559845351 / 86 / 94 / 443 / 455

- | | | | |
|---|--------------------------------------|----|--------------------------------------|
| 3. Do the number of bottles received agree with the COC? | <input checked="" type="radio"/> Yes | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <input checked="" type="radio"/> Yes | No | |
| 5. Were sample custody seals intact? | Yes | No | <input checked="" type="radio"/> 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? | <input checked="" type="radio"/> Yes | No | |
| 2. Did bottle labels correspond with the client's ID's? | <input checked="" type="radio"/> Yes | No | |
| 3. Were all bottles requiring sample preservation properly preserved? | <input checked="" type="radio"/> Yes | No | N/A FGL |
| [Exception: Oil & Grease, VOA and CrVI verified in lab] | | | |
| 4. VOAs checked for Headspace? | Yes | No | <input checked="" type="radio"/> N/A |
| 5. Have rush or project due dates been checked and accepted? | Yes | No | <input checked="" type="radio"/> N/A |
| 6. Were all analyses within holding times at time of receipt? | <input checked="" type="radio"/> 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): CDA

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: _____
Initiated By: _____
Problem: _____
Resolution: _____

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

(4018505)
Livingston Dairy Consulting, Inc.
VI 2344887
cda 07/27/2023 15:46:09
07 2344887

2023 Canal Results

558TRA144 - Tule River at Road 144

Constituent	Field/Lab	WQTL	MDL	PQL	Units	Oct-22	Nov-22	Dec-22	1/17/23	2/13/23	March-23	4/17/23	5/15/23	6/19/23	7/18/23
Flow	Field				cfs	0	0	0	220	280	Due to Record Flood Conditions, No Surface Water Analysis in March 2023				
EC	BSK	700			umhos/cm				151.2	115.3					
pH	BSK	6.5-8.3			pH				7.59	6.5					
Temperature	BSK				Celsius				10	11.3					
Dissolved Oxygen	BSK	Min. 7.0			mg/L				10.87	12.7					
TDS	BSK	450	4.4	10	mg/L				30	50					
Turbidity	BSK			0.1	NTU				56	15					
Nitrate + Nitrite as N	BSK				mg/L				1.3	0.24					
Orthophosphate-P	BSK	10	0.028	0.2	mg/L				1.9	0.019					
Ammonia-N	BSK	1.5	0.05	0.5	mg/L				ND	ND					
Unionized Ammonia	BSK				mg/L				ND	ND					
TKN	BSK		0.267	0.5	mg/L				0.17	0.43					
Phosphorus	BSK		8.1	50	ug/L				1.8	0.044					
Arsenic	BSK	10	0.041	0.2	ug/L				2.2	1.7					
Boron	BSK	700	4.5	10	ug/L				30	23					
Cadmium	BSK	5	0.025	0.2	ug/L				ND	ND					
Copper	BSK	1300	0.36	0.5	ug/L				3.3	5					
Lead	BSK	15	0.034	0.2	ug/L				1.4	0.63					
Nickel	BSK	100	0.2	0.5	ug/L				1.5	0.79					
Selenium	BSK	50	0.29	1	ug/L				1.1	0.33					
Zinc	BSK		0.68	20	ug/L				7.1	3.9					
Molybdenum	BSK	10	0.15	0.5	ug/L				1.5	1.2					
Hardness	BSK		1	1	mg/L				58	22					
TSS	BSK		na	10	mg/L				30	32					
TOC	BSK		0.085	0.5	mg/L				3.1	3.2					
E. coli	BSK	235		1.1	MPN				130	4.5					
Fecal Coliform	BSK	400		1.1	MPN				130	4.5					
Toxicity, minnow	ABC				96h				100	100					
Toxicity, water flea	ABC				48h				100	100					
Toxicity, algae	ABC				48h				100	100					
2,4-D Acids & Salts	BSK														

Livingston Dairy Consulting, Inc.

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

Sunday, April 21, 2024

Re: 2023 NMP

Legacy Holsteins WDID 5D545091001
13510 Road 72 Tipton, CA 93272

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

*2023 Whole Farm Nitrogen Balance

The whole farm nitrogen balance for the crop year 2022 was **1.16**
Nitrogen Summary will show the balances for each field and for the whole farm.

*Ranges for the Whole Farm Nitrogen Balance

<u>Factor</u>	<u>Status</u>	<u>Evaluation</u>
> 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.

