



# Livingston Dairy Consulting, Inc.

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

**Vitor Borba #2 Dairy**

16452 11th Avenue Hanford, CA 93230

<input checked="" type="checkbox"/>	Annual Report
<input checked="" type="checkbox"/>	Water Analysis Samples
<input type="checkbox"/>	Manure Manifest
<input type="checkbox"/>	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: Vitor Borba #2 Dairy  
Facility Address: 16452 11th Avenue Hanford, CA 93230  
Original Operation Date:  
Facility APN's: x028 x150 x023 xxxx  
RWQCB Basin Plan Designation: Tulare Lake Basin  
☐ Check if any information has changed

### *Owner(s)*

Owner(s) Name: Adao & Ozzie Fernandes  
Mailing Address: 16452 11th Avenue Hanford, CA 93230  
Home Phone Number:  
Cell Phone Number: 559-707-1783  
☐ Check if any information has changed

### *Operator(s)*

Operator(s) Name: Vitor Borba (Leases DAIRY SITE ONLY)  
Mailing Address: 7721 Flint Avenue Hanford, CA 93230  
Home Phone Number:  
Cell Phone Number: 559-904-2583  
☐ 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:	-	174	685	690	-
Number Under Roof	963	-	-	-	-
Maximum Number	963	174	685	690	
Average Number	963	174	685	690	
Average Live Weight (lbs)	950	975	660	370	

Average Milk Production: 55

Predominant Milk Cow Breed: Jersey-Holstein Cross

Manure Generated:

Total manure excreted by the herd:

Total nitrogen from manure:

Total salt from manure:

	ton/yr
	4,025.92 @40% Moisture
	313,324 lbs
	23,459 lbs
	88,588 lbs
	- lbs

After Ammonia (30% loss applied)

219,327 lbs per reporting period

Process Wastewater Generated:

Process wastewater generated:

Total nitrogen generated:

Total salt (TDS) generated:

	gal
	14,059,800
	93,412 lbs
	37,923 lbs
	172,863 lbs
	1,169,382 lbs









## Winter Crops & Harvest

[illegible]

Detectable L Valley Tech  
Dellavalle

0.10%	0.05%	0.01%	0.05%
0.001%	0.01%	0.01%	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

DellaValle

0.1

0.1

## 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 nutrient imports entered

**No** Dry manure nutrient imports entered

**No** Process wastewater nutrient imports entered

No Process wastewater nutrient imports entered

No Commerical or other nutrient imports entered

[illegible]

Process Water & Manure Analysis

Process Water		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)
Quarters:																
1		520.0	677.0	131.0	1,210.0	1.0	-	-	-	-	-	-	-	-	11	7,040
2		670.0	678.0	121.0	1,210.0	1.0	-	-	-	-	-	-	-	-	13	8,470
3		444.0	453.0	48.9	546.0	1.0	-	34.5	106.0	309.0	0.0	77.7	91.1	9.3	11	7,090
4		474.0	483.0	105.0	567.0	1.0	-	-	-	-	-	-	-	-	-	6,080

Detectable Limits

Valley Tech	2.0	5.0	0.1	0.2		0.01		0.05	0.4	0.10	0.9	3	0.01	0.03	0.10	10
Dellavalle	0.2	0.7	0.02	0.2											0.001	10

Qtr	Sample #:	Sample Date:	lbs / Ac In			
			Inorg N	Org N	P2O5	K2O
1	3-24L44745	3/24/2023	Valley Tech	Valley Tech	Valley Tech	Valley Tech
2	5-11L49515	5/11/2023	Valley Tech	Valley Tech	Valley Tech	Valley Tech
3	8-17L62130	8/17/2023	Valley Tech	Valley Tech	Valley Tech	Valley Tech
4	10-4L67897	10/4/2023	Valley Tech	Valley Tech	Valley Tech	Valley Tech

Description	Sample #:	Date:	As Is/ Dry Weight	Source	Material Type
Manure	5-11M49494	5/11/2023	Dry Weight	Valley Tech	Corral Solids
Manure	10-4M67855	10/4/2023	Dry Weight	Valley Tech	Corral Solids

Dry Manure: (As Rec'd)	TN %	TP %	TK %	Ca	Mg	Na	S	CL	Salt	TFS	Moisture %
Corral	1.20	0.42	1.63	-	-	-	-	-	-	-	29.00
Corral	1.13	0.16	0.57	0.88	0.39	0.64	0.20	0.37	-	82.20	41.50

Detectable Limits

Valley Tech	0.01%	0.02%	0.02%	0.001%	0.001%	0.001%	0.001%	0.000%	0.001%	0.001%	0.001%
Dellavalle	0.01%	0.01%	0.003%	0.001%	0.001%	0.001%	0.001%	0.000%	0.001%	0.001%	0.001%

## Field Name/Number: 1 (Trees)

**Acres:** **74.00**

Dry Weight  
As Received

Field Name/Number: 1 (Trees)Acres: 74

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.1	0.0	0.0	295.8
Nutrients Removed at Harvest	-98.4	-14.7	-108.2	0.0
Nutrient Balance	-98.2	-14.7	-108.2	295.8

Winter Nitrogen Crop App / Use Ratio: **0.07**Summer Nitrogen Crop App / Use Ratio: **#N/A**Field Name/Number: 1 (Trees)Acres: 74**Winter Crop** **Trees, Pistachios**

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		4.79	Ac In /Ac	0.0		
Canal		29.4	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	10/1/20					
W. Harvest	11/1/23	1.8	T/Ac	(98.4)	(33.7)	(129.8)

**Summer Crop** **Trees, Pistachios**

Nutrient Summary :		Applied	N			
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	0		
Canal		-	Ac In /Ac	-		
Atm. Depos.		#N/A		#N/A		
S. Planting	#N/A					
S. Harvest	#N/A	#N/A	T/Ac	#N/A	#N/A	#N/A

**Acres:** **73.00**

**Totals:**

Field Name/Number: 2 (Trees)Acres: 73.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.1	0.0	0.0	295.9
Nutrients Removed at Harvest	-98.4	-6.4	-89.8	0.0
Nutrient Balance	-98.2	-6.4	-89.8	295.9

Winter Nitrogen Crop App / Use Ratio: 0.07

Summer Nitrogen Crop App / Use Ratio: #N/A

Field Name/Number: 2 (Trees)Acres: 73**Winter Crop** **Trees, Pistachios**

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		4.8	Ac In /Ac	0.0		
Canal		29.7	Ac In /Ac	0.1		
Atm. Depos.		Yes		7.0		
W. Planting	10/1/20					
W. Harvest	11/1/23	1.8	T/Ac	(98.4)	(33.7)	(129.8)

**Summer Crop** **Trees, Pistachios**

Nutrient Summary :		Applied	N			
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	-	Ac In /Ac	-	-	-
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		-	Ac In /Ac	-		
Atm. Depos.		#N/A		#N/A		
S. Planting	#N/A					
S. Harvest	#N/A	#N/A	T/Ac	#N/A	#N/A	#N/A

**Acres:** 79.00

**Totals:**

Field Name/Number: 3Acres: 79.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	438.4	54.2	713.4	5125.2
Nutrients Removed at Harvest	-352.3	-35.3	-466.4	0.0
Nutrient Balance	86.0	18.9	247.0	5125.2

Winter Nitrogen Crop App / Use Ratio: 1.24

Summer Nitrogen Crop App / Use Ratio: 1.33

Field Name/Number: 3 Acres: 79

Winter Crop		Wheat, Silage				
Nutrient Summary :		Applied	N			
W. Manure App.		5.1 T/Ac	48.6	97.1	198.4	
W. Comm Fert App.		- lbs/Ac	-			
Process Water	Q1	1.6 Ac In /Ac	173.0	109.2	528.4	
	Q2	- Ac In /Ac	-	-	-	
Well Water		- Ac In /Ac	-			
Canal		18.1 Ac In /Ac	0.1			
Atm. Depos.		Yes	7.0			
W. Planting	10/24/22					
W. Harvest	5/23/23	23.1 T/Ac	(184.0)	(96.5)	(241.0)	

Summer Crop		Corn, Silage				
Nutrient Summary :		Applied	N			
S. Manure App.		5.1 T/Ac	46.0	38.0	69.0	
S. Comm Fert App.		- lbs/Ac	-	-	-	
Process Water	Q2	- Ac In /Ac	-	-	-	
	Q3	1.6 Ac In /Ac	170.6	40.3	235.5	
	Q4	- Ac In /Ac	-	-	-	
Well Water		- Ac In /Ac	(0.0)			
Canal		30.6 Ac In /Ac	0.1			
Atm. Depos.		Yes	7.0			
S. Planting	6/22/23					
S. Harvest	9/25/23	30.2 T/Ac	(168.3)	(89.0)	(433.2)	

## Field Name/Number: 4

**Acres: 79.00**

**Totals:**

Field Name/Number: 4Acres: 79.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	541.5	62.6	969.5	7530.4
Nutrients Removed at Harvest	-433.9	-39.4	-478.1	0.0
Nutrient Balance	107.6	23.2	491.4	7530.4

Winter Nitrogen Crop App / Use Ratio: 1.26

Summer Nitrogen Crop App / Use Ratio: 1.30

Field Name/Number: 4Acres: 79**Winter Crop** **Wheat, Silage**

Nutrient Summary :		Applied	N			
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q1	3.1	Ac In /Ac	280.9	213.0	1,031.0
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-	-	-
Canal		17.0	Ac In /Ac	0.1	-	-
Atm. Depos.		Yes		7.0	-	-
W. Planting	10/10/22					
W. Harvest	5/20/23	22.1	T/Ac	(228.6)	(132.8)	(268.2)

**Summer Crop** **Corn, Silage**

Nutrient Summary :		Applied	N			
S. Manure App.		10.1	T/Ac	91.9	76.0	137.9
S. Comm Fert App.		-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.6	Ac In /Ac	168.5	39.8	232.6
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	(0.0)	-	-
Canal		30.6	Ac In /Ac	0.1	-	-
Atm. Depos.		Yes		7.0	-	-
S. Planting	6/16/23					
S. Harvest	9/26/23	29.5	T/Ac	(205.3)	(74.0)	(422.9)

**Field Name/Number:** 5

**Acres:** 50.00

**Totals:**

Field Name/Number: 5Acres: 50.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	412.8	48.6	698.0	7244.7
Nutrients Removed at Harvest	-342.9	-39.8	-390.3	0.0
Nutrient Balance	69.9	8.8	307.8	7244.7

Winter Nitrogen Crop App / Use Ratio: 1.26

Summer Nitrogen Crop App / Use Ratio: 1.23

Field Name/Number: 5Acres: 50

Winter Crop		Wheat, Silage				
Nutrient Summary :		Applied	N			
W. Manure App.		5.0 T/Ac	48.0	95.9	196.0	
W. Comm Fert App.		- lbs/Ac	-			
Process Water	Q1	1.7 Ac In /Ac	185.0	116.7	565.0	
	Q2	- Ac In /Ac	-	-	-	
Well Water		18.2 Ac In /Ac	0.0			
Canal		- Ac In /Ac	-			
Atm. Depos.		Yes	7.0			
W. Planting	10/26/22					
W. Harvest	5/24/23	22.4 T/Ac	(190.9)	(115.5)	(226.9)	

Summer Crop		Corn, Silage				
Nutrient Summary :		Applied	N			
S. Manure App.		- T/Ac	-	-	-	
S. Comm Fert App.		- lbs/Ac	-	-	-	
Process Water	Q2	- Ac In /Ac	-	-	-	
	Q3	1.7 Ac In /Ac	179.7	42.4	248.1	
	Q4	- Ac In /Ac	-	-	-	
Well Water		37.6 Ac In /Ac	0.1			
Canal		- Ac In /Ac	-			
Atm. Depos.		Yes	7.0			
S. Planting	6/14/23					
S. Harvest	9/26/23	29.6 T/Ac	(152.0)	(93.5)	(337.2)	

**Field Name/Number:** 6

**Acres:** 70.00

**Totals:**

Field Name/Number: 6Acres: 70.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	426.7	52.9	692.3	4970.6
Nutrients Removed at Harvest	-372.3	-41.6	-344.3	0.0
Nutrient Balance	54.4	11.3	348.0	4970.6

Winter Nitrogen Crop App / Use Ratio: 1.20

Summer Nitrogen Crop App / Use Ratio: 1.17

Field Name/Number: 6Acres: 70**Winter Crop Wheat, Silage**

Nutrient Summary :		Applied	N			
W. Manure App.		5.0 T/Ac	48.0	95.9	196.0	
W. Comm Fert App.		- lbs/Ac	-			
Process Water	Q1	1.5 Ac In /Ac	165.5	104.4	505.4	
	Q2	- Ac In /Ac	-	-	-	
Well Water		- Ac In /Ac	-			
Canal		17.9 Ac In /Ac	0.1			
Atm. Depos.		Yes	7.0			
W. Planting	10/27/22					
W. Harvest	5/25/23	21.6 T/Ac	(183.5)	(105.8)	(242.7)	

**Summer Crop Corn, Silage**

Nutrient Summary :		Applied	N			
S. Manure App.		5.0 T/Ac	45.4	37.5	68.1	
S. Comm Fert App.		- lbs/Ac	-	-	-	
Process Water	Q2	- Ac In /Ac	-	-	-	
	Q3	1.6 Ac In /Ac	167.6	39.5	231.3	
	Q4	- Ac In /Ac	-	-	-	
Well Water		- Ac In /Ac	0.0			
Canal		37.0 Ac In /Ac	0.2			
Atm. Depos.		Yes	7.0			
S. Planting	6/23/23					
S. Harvest	10/2/23	28.8 T/Ac	(188.7)	(112.3)	(255.0)	

## 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.

VB (Initial)

## 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?

Yes

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

Yes

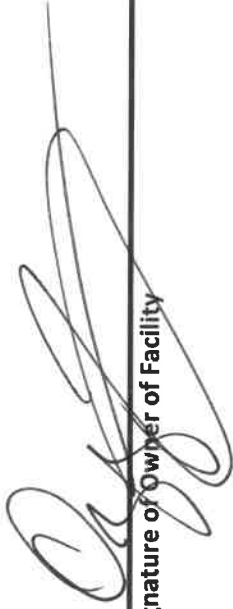
### Written Agreements:

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

No

## 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

Adao & Ozzie Fernandes

Print Name

Vitor Borba (Leases DAIRY SITE ONLY)

Print Name

Date

5-9-24

Date



May 15, 2023

Lab No. : VI 2342522

**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
#1	04/26/2023	04/26/2023	VI 2342522-001	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: JRD

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

 Digitally signed by Kelly A. Dunnahoo, B.S.  
 Title: Laboratory Director  
 Date: 2023-05-17



May 15, 2023

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

Lab No. : VI 2342522-001

Customer No.: 4018505

Sampled On : April 26, 2023 at 08:34

Sampled By : Marlene Ferreira

Received On : April 26, 2023 at 13:18

Matrix : Ag Water

Description : #1

Project : W-6 Vitor Borba #2

### 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	0.7	0.5	mg/L		1		05/10/2023	13:10	sta	EPA 351.2	05/11/2023	11:47	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	04/27/2023	14:00	lfs	SM 4500-NO3 F	04/27/2023	18:15	lfs
Nitrogen, Total as Nitrogen	0.7	0.5	mg/L		1		05/10/2023	13:10	sta	Calc.	05/11/2023	11:47	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	04/27/2023	14:00	lfs	SM 4500-NO3 F	04/27/2023	18:15	lfs
Kjeldahl Nitrogen	0.7	0.5	mg/L		1		05/10/2023	13:10	sta	EPA 351.2	05/11/2023	11:47	lcr
Conductivity	652	1	umhos/cm		1		05/09/2023	18:02	amm	SM 4500-H+B	05/09/2023	21:17	amm
Solids, Total Dissolved (TDS)	440	20	mg/L		1		05/01/2023	09:39	ctl	SM 2540 C	05/02/2023	12:00	ctl

#### DQF Flags Definition:

U Constituent results were non-detect.

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

May 15, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2342522

Customer No. : 4018505

**Quality Control - Wet Chem**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
E. C.	2320B	(SP 2306517-003)	Dup	umhos/cm		0.1%	5	
Solids, Total Dissolved	2540CE	05/01/2023:204649CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	993.7	98.1%	90-110	
Nitrogen, Total Kjeldahl	351.2	05/10/2023:205052STA	(SP 2306529-001)	Dup	mg/L	0.2%	5	
			(SP 2306529-001)	Dup	mg/L	0.8%	5	
			Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	91.9%	73-124	
			MS	mg/L	12.00	86.2%	54-136	
			(CH 2372746-001)	MSD	mg/L	87.8%	54-136	
Nitrate + Nitrite as N	4500NO3F	04/27/2023:204546LFS	MSRPD	mg/L	12.00	1.8%	≤27	
			MS	mg/L	12.00	87.9%	54-136	
			(CH 2372746-002)	MSD	mg/L	84.7%	54-136	
			MSRPD	mg/L	12.00	3.6%	≤27	
			Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	102%	80-120	
Nitrate Nitrogen	4500NO3F	04/27/2023:204546LFS	MS	mg/L	5.609	106%	66-125	
			(CH 2372584-001)	MSD	mg/L	107%	66-125	
			MSRPD	mg/L	5.609	0.5%	≤30.4	
			Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	102%	80-120	
			MS	mg/L	5.609	106%	66-125	
			(CH 2372584-001)	MSD	mg/L	107%	66-125	
			MSRPD	mg/L	5.609	0.5%	≤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.

[illegible]

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 Empresa Drive, Suite D San Luis Obispo, CA 93401 Phone: (805) 783-2940 Fax: (805) 783-2912
			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 # OTC

2. Were samples received in a chilled condition? Temps: 12.4°C / ROT /      /      /     

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 | <input type="radio"/> No | N/A                                  |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <input checked="" type="radio"/> Yes | <input type="radio"/> No |                                      |
| 5. VOAs checked for Headspace?  | <input checked="" type="radio"/> Yes | <input type="radio"/> No | <input checked="" type="radio"/> N/A |
| 6. Were sample custody seals intact?                                  | <input checked="" type="radio"/> Yes | <input type="radio"/> No | <input checked="" type="radio"/> N/A |
| 7. If required, was sample split for pH analysis?                     | <input checked="" type="radio"/> Yes | <input type="radio"/> No | <input checked="" type="radio"/> N/A |
| 8. Were all analyses within holding times at time of receipt?         | <input checked="" type="radio"/> Yes | <input type="radio"/> No |                                      |
| 9. Verify sample date, time and sampler name                          | <input checked="" type="radio"/> Yes | <input type="radio"/> 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): SRO

**Sample Receipt at SP:**

1. Were samples received in a chilled condition? Temps: 3 / 3 / 3 /      /     

Acceptable is above freezing to  $6^{\circ}\text{C}$ . If many packages are received at one time check for tests/H.T.'s/rushes/

2. Shipping tracking numbers:

559261194, 559260321, 559260453

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

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

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

**Discrepancy Documentation:**

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

- |                                  |                           |
|----------------------------------|---------------------------|
| 1. Person Contacted: <u>    </u> | Phone Number: <u>    </u> |
| Initiated By: <u>    </u>        | Date: <u>    </u>         |
| Problem: <u>    </u>             |                           |
| Resolution: <u>    </u>          |                           |
|                                  |                           |
| 2. Person Contacted: <u>    </u> | Phone Number: <u>    </u> |
| Initiated By: <u>    </u>        |                           |
| Problem: <u>    </u>             |                           |
| Resolution: <u>    </u>          |                           |

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

(4018505)  
Livingston Dairy Consulting, Inc.

VI 2342522

mdc 04/26/2023 17:04:25



VI 2342522



Vitor Barba #2



February 28, 2023

Lab No. : VI 2340612

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
Barn 1	02/01/2023	02/01/2023	VI 2340612-001	DW
Barn 2	02/01/2023	02/01/2023	VI 2340612-002	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: 2023-02-28

February 28, 2023

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

Description : Barn 1  
 Project : W-6 Vitor Borba #2

Lab No. : VI 2340612-001  
 Customer No. : 4018505

Sampled On : February 1, 2023 at 06:42  
 Sampled By : Marlene & Kaylin  
 Received On : February 1, 2023 at 14:04  
 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	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:25	lcr
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	02/02/2023	15:00	lfs	SM 4500-NO3 F	02/02/2023	16:49	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:25	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L	10	1	U	02/02/2023	15:00	lfs	SM 4500-NO3 F	02/02/2023	16:49	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:25	lcr
Conductivity	403	1	umhos/cm	1600 <sup>2</sup>	1		02/15/2023	13:59	sta		02/15/2023	13:59	sta
Solids, Total Dissolved (TDS)	240	20	mg/L	1000 <sup>2</sup>	1		02/03/2023	15:36	ctl	SM 2540 C	02/06/2023	12:18	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.

February 28, 2023

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

Description : Barn 2  
Project : W-6 Vitor Borba #2

Lab No. : VI 2340612-002  
Customer No. : 4018505

Sampled On : February 1, 2023 at 06:48  
Sampled By : Marlene & Kaylin  
Received On : February 1, 2023 at 14:04  
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	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:27	lcr
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	02/02/2023	15:00	lfs	SM 4500-NO3 F	02/02/2023	16:52	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:27	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L	10	1	U	02/02/2023	15:00	lfs	SM 4500-NO3 F	02/02/2023	16:52	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	02/14/2023	10:47	sta	EPA 351.2	02/19/2023	21:27	lcr
Conductivity	399	1	umhos/cm	1600 <sup>2</sup>	1		02/15/2023	13:59	sta		02/15/2023	13:59	sta
Solids, Total Dissolved (TDS)	250	20	mg/L	1000 <sup>2</sup>	1		02/03/2023	15:36	ctl	SM 2540 C	02/06/2023	12:12	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.

February 28, 2023  
 Livingston Dairy Consulting, Inc.

Lab No. : VI 2340612  
 Customer No. : 4018505

**Quality Control - Wet Chem**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b> E. C.	2510B	02/15/2023:201667STA (STK2331416-001)	Blank	umhos/cm		ND	<1	
			Dup	umhos/cm		0.9%	5	
		(VI 2340657-002)	Blank	umhos/cm		ND	<1	
			Dup	umhos/cm		1.03%	5	
Solids, Total Dissolved	2540CE	02/03/2023:201214CTL (VI 2340630-003)	Blank	mg/L	990.8	ND	<20	
			LCS	mg/L		99.8 %	90-110	
		(VI 2340630-003)	Dup	mg/L		0.3%	5	
			Dup	mg/L		3.0%	5	
Nitrogen, Total Kjeldahl	351.2	02/14/2023:201629STA (VI 2340618-001)	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	88.1%	73-124	
			MS	mg/L	12.00	62.8%	54-136	
			MSD	mg/L	12.00	58.3%	54-136	
		(VI 2340608-002)	MSRPD	mg/L	12.00	7.6%	≤27	
			MS	mg/L	12.00	47.0%	<Å¼	
			MSD	mg/L	12.00	33.6%	54-136	435
			MSRPD	mg/L	12.00	34.7%	≤27	435
Nitrate + Nitrite as N	4500NO3F	02/02/2023:201191LFS (SP 2301608-001)	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	106%	80-120	
			MS	mg/L	5.609	102%	66-125	
			MSD	mg/L	5.609	102%	66-125	
			MSRPD	mg/L	5.609	0.0%	≤30.4	
Nitrate Nitrogen	4500NO3F	02/02/2023:201191LFS (SP 2301608-001)	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	106%	80-120	
			MS	mg/L	5.609	102%	66-125	
			MSD	mg/L	5.609	102%	66-125	
			MSRPD	mg/L	5.609	0.0%	≤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.

**Special**



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: Norteen Livingston Project Name: W-6 Vitor Bamba #2 Purchase Order Number: Quote Number: VI 20210208-01				Method of Sampling: Composite(C) Grab(G)			
Sampler(s) Madrene & Kaylin				Sampling Fee: _____ Pickup Fee: _____ Time: _____			
Compositor Setup Date: ____/____/____ Time: ____/____/____				Lab Number: VI 2346612 4-18505			
Samp Num	Location Description	Date Sampled	Time Sampled	Type of Sample	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bact Type: Other(O) System(SYS) Source(SR) Waste(W)	Bact Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)
1	Barn 1	2/1	6:42AM	DWP	1		
2	Barn 2	2/1	6:42AM	DWP	1		
3				G	1		
4				G	1		
5				G	1		
6				G	1		
7				G	1		
8				G	1		
9				G	1		
10				G	1		

Relinquished	Date	Time	Relinquished	Date	Time
2/1/23	2:04	204	2/2/23	11:40	140
Received By: [Signature]	Date: 2/1/23	Time: 1404	Received By: [Signature]	Date: 2/2/23	Time: 1140

Remarks:

<b>Corporate Offices &amp; Laboratory</b> 853 Corporation Street Santa Paula, CA 93060 Phone: (805) 392-2000 Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063	<b>Office &amp; Laboratory</b> 2500 Stagecoach Road Stockton, CA 95215 Phone: (209) 942-0182 Fax: (209) 942-0423	<b>Office &amp; Laboratory</b> 563 E. Lindo Chico, CA 95926 Phone: (530) 343-5818 Fax: (530) 343-3807	<b>Office &amp; Laboratory</b> 3442 Empressa Drive, Suite D San Luis Obispo, CA 93401 Phone: (805) 783-2940 Fax: (805) 783-2912	<b>Office &amp; Laboratory</b> 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 # 57C

2. Were samples received in a chilled condition? Temps: 20 / 4.9 /      /      /     

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? Yes No N/A

4. Were samples received intact? (i.e. no broken bottles, leaks etc.) Yes No N/A

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):     

### Sample Receipt at SP:

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

Acceptable is above freezing to  $6^{\circ}\text{C}$ . If many packages are received at one time check for tests/H.T.'s/rushes!

2. Shipping tracking numbers: 558732941 945

933

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? Yes No N/A FGL  
[Exception: Oil & Grease, VOA and CrVI verified in lab]

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): MDX

### 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 2340612

mdc 02/02/2023 12:38:40



VI 2340612

August 18, 2023

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

**Lab No. : VI 2344787**

**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
Cat Well	07/25/2023	07/25/2023	VI 2344787-001	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 : Cat Well  
 Project : W-6 Vitor Borba #2

Lab No. : VI 2344787-001  
 Customer No. : 4018505

Sampled On : July 25, 2023 at 06:00  
 Sampled By : Marlene/Noreen  
 Received On : July 25, 2023 at 08:30  
 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	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	20:09	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	Uh	07/26/2023	13:30	lfs	SM 4500-NO3 F	07/26/2023	14:56	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	Uh	08/12/2023	12:25	sta	Calc.	08/16/2023	20:09	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	Uh	07/26/2023	13:30	lfs	SM 4500-NO3 F	07/26/2023	14:56	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	20:09	lcr
Conductivity	372	1	umhos/cm		1		07/31/2023	14:51	amm	SM 4500-H+B	07/31/2023	19:26	amm
Solids, Total Dissolved (TDS)	240	20	mg/L		1		07/27/2023	14:45	ctl	SM 2540 C	07/28/2023	11:20	ctl

**DQF Flags Definition:**

- U Constituent results were non-detect.
- h 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 2344787

Customer No. : 4018505

**Quality Control - Wet Chem**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
E. C.	2320B	(VI 2344636-006)	Dup	umhos/cm		0%	5	
Solids, Total Dissolved	2540CE	07/27/2023:208315CTL (STK2339993-001) (STK2339993-001)	Blank	mg/L	991.5	ND	<20	
			LCS	mg/L		103%	90-110	
			Dup	mg/L		1.48%	5	
			Dup	mg/L		0.9%	5	
Nitrogen, Total Kjeldahl	351.2	08/12/2023:208945STA (VI 2344879-002) (VI 2344890-001)	Blank	mg/L	12.00	ND	<0.5	
			LCS	mg/L		91.9%	73-124	
			MS	mg/L		90.8%	54-136	
			MSD	mg/L		88.9%	54-136	
			MSRPD	mg/L		2.1%	≤27	
			MS	mg/L		88.8%	54-136	
			MSD	mg/L		94.8%	54-136	
			MSRPD	mg/L		6.6%	≤27	
Nitrate + Nitrite as N	4500NO3F	07/26/2023:208263LFS (CC 2382433-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		104%	80-120	
			MS	mg/L		140%	66-125	435
			MSD	mg/L		163%	66-125	435
			MSRPD	mg/L		6.5%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/26/2023:208263LFS (CC 2382433-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		104%	80-120	
			MS	mg/L		140%	66-125	435
			MSD	mg/L		163%	66-125	435
			MSRPD	mg/L		6.5%	≤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.

Special



TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information	
42086:03/01/2022	
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 Vitor Bona #2 Purchase Order Number: Quote Number: VI 20210208-01 Sampler(s) Martene & Noreen	
Sampling Fee: Pickup Fee: Compositor Setup Date: / / Time: /	
Lab Number: VI 2344787 4-18505	
Samp Num	Location Description
1	Cat Well
2	
3	
4	
5	
6	
7	
8	
9	
10	
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)	Dairy Analysis-W-6-Conductivity, NO3-N, Total N, TDS
8oz(P)-H2SO4	***VI Lab to Split for Total N***
Sampling-W-6 - Total N - Split Bottle	
Relinquished	Date: Time:
Received By:	Date: Time:

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 # OTC
2. Were samples received in a chilled condition? Temps: 17.9°C / 1 / 1  
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): ADH

### Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 5/5 / 1 / 1  
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: 554828656 + 554828645

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? ☒ Yes No N/A FGL  
[Exception: Oil & Grease, VOA and CrVI verified in lab]
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): lll

### 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 2344787

cda 07/25/2023 09:31:38





Vitor Barba #2

October 4, 2023

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

**Lab No. : VI 2346252**  
**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
Heifer Dom	09/14/2023	09/14/2023	VI 2346252-001	DW

**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: 2023-10-05

October 4, 2023

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

Description : Heifer Dom  
Project : W-6 Vitor Borba #2

Lab No. : VI 2346252-001  
Customer No. : 4018505

Sampled On : September 14, 2023 at 07:30  
Sampled By : Marlene Ferreira  
Received On : September 14, 2023 at 13:45  
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	1	0.5	mg/L		1	I	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	23:08	lcr
Nitrate Nitrogen	ND	0.4	mg/L	10	1	U	09/15/2023	12:00	lfs	SM 4500-NO3 F	09/15/2023	14:02	lfs
Nitrogen, Total as Nitrogen	1	0.5	mg/L		1	I	09/28/2023	10:26	sta	Calc.	10/03/2023	23:08	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L	10	1	U	09/15/2023	12:00	lfs	SM 4500-NO3 F	09/15/2023	14:02	lfs
Kjeldahl Nitrogen	1	0.5	mg/L		1	I	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	23:08	lcr
Conductivity	383	1	umhos/cm	1600 <sup>2</sup>	1	I	09/21/2023	11:31	krh	SM 4500-H+B	09/21/2023	16:04	krh
Solids, Total Dissolved (TDS)	280	20	mg/L	1000 <sup>2</sup>	1		09/19/2023	11:20	ctl	SM 2540 C	09/20/2023	11:00	ctl

#### DQF Flags Definition:

- I The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.
- I The RPD for the laboratory duplicate exceeded laboratory 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

October 4, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2346252

Customer No. : 4018505

**Quality Control - Wet Chem**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
E. C.	2320B	(VI 2346257-001)	Dup	umhos/cm		110%	5	440
Solids, Total Dissolved	2540CE	09/19/2023:210493CTL (CC 2383155-001) (CC 2383155-001)	Blank	mg/L	991.5	ND	<20	
			LCS	mg/L		101%	90-110	
			Dup	mg/L		0.4%	5	
			Dup	mg/L		2.89%	5	
Nitrogen, Total Kjeldahl	351.2	09/28/2023:210923STA (SP 2315701-001)	Blank	mg/L	12.00	ND	<0.5	
			LCS	mg/L		91.0%	73-124	
			MS	mg/L		89.3%	90-110	435
			MSD	mg/L		89.7%	90-110	435
			MSRPD	mg/L		0.4%	≤20	
			MS	mg/L		89.9%	90-110	435
			MSD	mg/L		92.8%	90-110	
			MSRPD	mg/L		3.2%	≤20	
Nitrate + Nitrite as N	4500NO3F	09/15/2023:210406LFS (CH 2377865-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		96.1%	80-120	
			MS	mg/L		94.3%	66-125	
			MSD	mg/L		96.9%	66-125	
			MSRPD	mg/L		1.8%	≤30.4	
Nitrate Nitrogen	4500NO3F	09/15/2023:210406LFS (CH 2377865-001)	Blank	mg/L	11.22	ND	<0.4	
			LCS	mg/L		96.1%	80-120	
			MS	mg/L		94.3%	66-125	
			MSD	mg/L		96.9%	66-125	
			MSRPD	mg/L		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.

**Explanation**

- 435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
- 440 : Sample nonhomogeneity 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 Phone: (559)687-1440 Fax: Contact Person: Noreen Livingston Project Name: W-6 Vitor Borboa #2 Purchase Order Number: Quote Number: VI 20210208-01 Sampler(s) Marlene				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) 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									
Sampling Fee: Pickup Fee: Compositor Setup Date: / / Time: /				Lab Number: VI 2346252 4-18505									
Samp Num	Location Description	Date Sampled	Time Sampled										
1	Heifer Dairy	9/14	7:30 AM	DNP									
2				G									
3				G									
4				G									
5				G									
6				G									
7				G									
8				G									
9				G									
10				G									
Remarks:				Relinquished Date: 9/14/23 Time: 13:45 Received By: [Signature] Relinquished Date: 9/14/23 Time: 1730 Received By: GLS Relinquished Date: 9/15/23 Time: 1145 Received By: MK									

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

2. Were samples received in a chilled condition? Temps 2C / 4.7°C /      /      /       
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.

ID# TH407

- |   |            |    |            |
|---|------------|----|------------|
| 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?  | Yes        | No | <u>N/A</u> |
| 6. Were sample custody seals intact?                                  | Yes        | No | <u>N/A</u> |
| 7. If required, was sample split for pH analysis?                     | Yes        | 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): SRO

**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: 560126075

068

- |   |            |    |            |
|---|------------|----|------------|
| 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?                                  | Yes        | 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?<br>[Exception: Oil & Grease, VOA and CrVI verified in lab] | <u>Yes</u> | No | N/A FGL    |
| 4. VOAs checked for Headspace?   | Yes        | No | <u>N/A</u> |
| 5. Have rush or project due dates been checked and accepted?   | Yes        | 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): WZ

**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 contact contacts)

(4018505)  
Livingston Dairy Consulting, Inc.

VI 2346252

mdc 09/14/2023 18:03:44



VI 2346252



# 2023 KINGS RIVER WATERSHED CANAL RESULTS

## LEMOORE WEIR

Constituent	Lab	BPO	RL	Units	Sample Month and Results											
					Physical Parameters/General Chemistry											
					January	February	March	April	May	June	July	August	September	October	November	December
Flow	KRWA			cfs	0	0	0	0	0	45	0	0	0	0	0	0
EC	Field ✓	700		umhos/cm						51.3						
pH	Field	6.5-8.3		pH						7.5						
Dissolved Oxygen	Field	5/7		mg/L						9.44						
Temperature	Field	Δ < 5° C		°C						17.7						
Turbidity	BSK	No adv eff.	0.2	NTU						2.2						
TDS	BSK ✓	450	10	mg/L						2.2						
TSS	BSK	-	10	mg/L						ND						
Hardness (as CaCO3)	BSK	-	2.5	mg/L						14						
TOC	BSK	-	0.3	mg/L						1.8						
E. Coll					Pathogens											
Fecal Coliform	BSK	320		MPN						46						
	BSK	400		MPN/100mL						46						
Nitrate (+ Nitrite) - N					Nutrients											
Total Kjeldahl Nitrogen	BSK ✓	10	0.05	mg/L						0.02						
Ammonia - N	BSK	chart	0.1	mg/L						0.17						
Un-ionized Ammonia	BSK	chart	0.0015	mg/L						ND						
Orthophosphate - P	BSK	-	0.01	mg/L						ND						
Phosphorus	BSK		0.1	mg/L						0.0069						
										0.014						
Toxicity, minnow					Water Column Toxicity											
Toxicity, water flea	PER	> 80%	(96h test)	% survival						100						
Toxicity, algae	PER	> 80%	(48h test)	% survival						100						
Toxicity, algae (control)	PER		(48h test)	cells/mL						4800000						
			(48h test)	cells/mL						2840000						





**Facility Name:** Vitor Borba Dairy #2  
16452 11<sup>th</sup> ave, Hanford  
Kings County



# Livingston Dairy Consulting, Inc.

1635 E. Prosperity Ave. Ste. B

Tulare, CA 93274

559-687-1440

Sunday, April 21, 2024

Re: 2023 NMP

Vitor Borba #2 Dairy (previously Fernandes Dairy)

16452 11th Avenue Hanford, CA 93230

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 **1.10**  
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.

