Livingston Dairy Consulting, Inc.

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

Tulare High School Farm WDID 5C54NC00269
591 W. Bardsley Tulare, CA 93274

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

GEO Tracker Confirmation # **Date:**

Facility Info

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

Name of the Facility

Dairy Name: Tulare High School Farm WDID 5C54NC00269

Facility Address: 591 W. Bardsley Tulare, CA 93274

Original Operation Date: 9/9/1942

Facility APN's: x174 x020 x008 xxxx

RWQCB Basin Plan Designation: Tulare Lake Basin

☐ Check if any information has changed

Owner(s)

Owner(s) Name: Tulare Union High School District

Mailing Address: 426 Blackstone Tulare, CA 93274

Home Phone Number: 559-686-2021

Cell Phone Number:

☐ Check if any information has changed

Operator(s)

Operator(s) Name: Tulare High School Farm

Mailing Address: 591 W. Bardsley Tulare, CA 93274

Home Phone Number: 559-687-7390

Cell Phone Number:

☐ Check if any information has changed

Herd Information

	Milk Cows	Dry Cows	Bred Helfers (12-24 mo)	Helfers (3-12 mo)	Calves (0-3 mo)
Open Confinement:	-	-	34	-	-
Number Under Roof	-	-	-	-	-
Maximum Number			34		
Average Number			34		
Average Live Weight (lbs)					

Average Milk Production:

Predominant Milk Cow Breed: Holstein

Manure Generated:

Total manure excreted by the herd:	129.75	@40% Moisture	*ton/yr*
Total nitrogen from manure:	6,663		*lbs*
	548		*lbs*
	2,553		*lbs*
Total salt from manure:	-		*lbs*

After Ammonia (30% loss applied)

4,664 *lbs per reporting period*

Process Wastewater Generated:

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

List of Land Application Areas

Field Name	APN	APN Acres	Cropable Acres	Total Harvest	Type of Waste Applied
Pasture (1-101)	x174 x020 x008 xxxx	80	5	0	N/A
1 (1-102)	x174 x020 x008 xxxx		23	2	P.W. & D.M.
2 (1-103)	x174 x020 x008 xxxx		19	1	P.W. & D.M.
3 (1-104)	x174 x280 x003 xxxx, x174 x290 x002 xxxx	18	17	2	P.W. & D.M.
Total Crop Acres			64.00		

List of Fresh Water Sources

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

(WINTER) PLANT TISSUE ANALYSIS (Recorded As Received)										
Field	**Crop**	**Moist %**	**N%**	**TP %**	**TK%**	**Salt**	**TFS**	**Sample #:**	**Date:**	**Source**
Pasture (1-101)	W. Fallow	-	-	-	-	-	-	Fallow		-
1 (1-102)	Wheat, Silage	52.20	0.69	0.13	1.04	-	10.00	6-8H53067	06/08/23	Valley Tech
2 (1-103)	Wheat, Silage	53.70	0.65	0.13	1.11	-	11.00	6-8H53067	06/08/23	Valley Tech
3 (1-104)	Wheat, Silage	52.00	0.67	0.12	1.04	-	10.40	6-8H53067	06/08/23	Valley Tech

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

(SUMMER) PLANT TISSUE ANALYSIS (Recorded As Received)										
Field	**Crop**	**Moist %**	**N%**	**TP %**	**TK%**	**Salt**	**TFS**	**Sample #:**	**Date:**	**Source**
Pasture (1-101)	S. Fallow	-	-	-	-	-	-	Fallow		-
1 (1-102)	Corn, Silage	61.60	0.48	0.12	0.45	-	4.88	10-11H68936	10/11/23	Valley Tech
2 (1-103)	S. Fallow	-	-	-	-	-	-	Fallow		-
3 (1-104)	Corn, Silage	59.50	0.51	0.12	0.51	-	6.28	10-11H68936	10/11/23	Valley Tech

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

Winter Crops & Harvest

Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg//kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
Pasture (1-101)	W. Fallow			Fallow	-	-	-	-	-	-	
1 (1-102)	Wheat, Silage	11/17/22	6/4/23	6-8H53067	52.20	0.69	0.13	1.04	-	10.00	Dry Weight
2 (1-103)	Wheat, Silage	11/17/22	6/4/23	6-8H53067	53.70	0.65	0.13	1.11	-	11.00	Dry Weight
3 (1-104)	Wheat, Silage	11/17/22	6/4/23	6-8H53067	52.00	0.67	0.12	1.04	-	10.40	Dry Weight

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

Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg//kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
Pasture (1-101)	S. Fallow			Fallow	-	-	-	-	-	-	
1 (1-102)	Corn, Silage	6/17/23	10/5/23	10-11H68936	61.60	0.48	0.12	0.45	-	4.88	Dry Weight
2 (1-103)	S. Fallow			Fallow	-	-	-	-	-	-	
3 (1-104)	Corn, Silage	6/17/23	10/5/23	10-11H68936	59.50	0.51	0.12	0.51	-	6.28	Dry Weight

Detectable L Valley Tech
Dellavalle

0.10%	*0.05%*	*0.01%*	*0.01%*		*0.05%*
0.001%	*0.01%*	*0.01%*	*0.003%*		*0.001%*

Well / Canal Analysis

General Minerals

Well Name/Number	NO3-N (mg/L)	EC (umhos/cm)	TDS (mg/L)	NH4-N (mg/L)	TN (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	HCO3 (mg/L)	CO3 (mg/L)	SO4 (mg/L)	Cl (mg/L)	Lab #:	Date:	LAB
Dom	0.40	205	130	-	0.01	-	-	-	-	-	-	-	VI 2340557	1/31/2023	FGL Enviromental
1	6.10	326	200	-	10.50	-	-	-	-	-	-	-	VI 2346476	9/26/2023	FGL Enviromental
Canal	0.01	36	30	-	-	-	-	-	-	-	-	-	VI 2344454	7/11/2023	FGL Enviromental

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

-

Soil Analysis (Winter)

Fields:	0/1ft. NO3-N (mg/kg)	1/2 ft. NO3-N (mg/kg)	0/1 ft. Sol. P (mg/kg)	0/1 ft. K (mg/kg)	0/1 ft. EC (ds/m)	OM %	Lab #	Date	Source
Pasture (1-101)	-	-	-	-	-	-			-
1 (1-102)	-	-	-	-	-	-			-
2 (1-103)	-	-	-	-	-	-			-
3 (1-104)	-	-	-	-	-	-			-

Detectable Limits

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

Soil Analysis (Summer)

Fields:	0/1ft. NO3-N (mg/kg)	1/2 ft. NO3-N (mg/kg)	0/1 ft. Sol. P (mg/kg)	0/1 ft. K (mg/kg)	0/1 ft. EC (ds/m)	OM %	Lab #	Date	Source
Pasture (1-101)	-	-	-	-	-	-			-
1 (1-102)	-	-	-	-	-	-			-
2 (1-103)	-	-	-	-	-	-			-
3 (1-104)	-	-	-	-	-	-			-

Detectable Limits

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

Nutrient Import & Export

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

X No

___ Yes, Manifest attached (Attachment D)

Total Dry Manure Exported

Nutrient Import

No Dry manure nutient imports entered

No Process wastewater nutrient imports entered

Total Process Water Exported

No Commerical or other nutrient imports entered

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

Process Water & Manure Analysis

Process Water															
Quarters:	NH4N (mg/L)	TKN (mg/L)	TP (mg/L)	TK (mg/L)	NO3N (mg/L)	NH3N (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	CO3 (mg/L)	HCO3 (mg/L)	SO4 (mg/L)	CL (mg/L)	EC (ds/m)	TDS (mg/L)
1	22.5	324.0	22.5	386.0	1.0	-	-	-	-	-	-	-	-	2	1,350
2	57.0	388.0	60.0	484.0	1.0	-	-	-	-	-	-	-	-	3	2,030
3	88.5	167.0	18.5	109.0	1.0	-	0.0	21.9	62.9	0.0	9.4	53.8	2.2	2	1,180
4	5.2	131.0	0.0	0.0	1.0	-	-	-	-	-	-	-	-	-	325
Detectable Limits															
Valley Tech	2.0	5.0	0.1	0.2										0.10	10
Dellavalle	0.2	0.7	0.02	0.2	0.01		0.05	0.4	0.10	0.9	3	0.01	0.03	0.001	10

				Inorg N	Org N	P2O5	K2O
Qtr	Sample #:	Sample Date:	Source	lbs / Ac In			
1	3-24L44731	3/24/2023	Valley Tech	5.3	68.3	11.7	105.4
2	5-11L49514	5/11/2023	Valley Tech	13.1	75.0	31.2	132.2
3	8-17L62143	8/17/2023	Valley Tech	20.3	17.8	9.6	29.8
4	10-3L67882	10/16/2023	Valley Tech	1.4	28.5	0.0	0.0

Description	Sample #:	Date:	As Is/ Dry Weight	Source	Material Type
Manure	5-11M49477	5/11/2023	Dry Weight	Valley Tech	Corral Solids
Manure	10-3M67866	10/13/2023	Dry Weight	Valley Tech	Corral Solids

Dry Manure: (As Recv'd)	TN %	TP %	TK %	Ca	Mg	Na	S	CL	Salt	TFS	Moisture %
Corral	0.76	0.24	0.56	-	-	-	-	-	-	-	57.90
Corral	0.78	0.19	1.41	1.67	0.47	0.64	0.53	1.44	-	65.80	48.10
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: Pasture (1-101) **Acres:** 5.00

							Lab Sample Data					Yield	
Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
	-	-	-	-	-	-	-	-	-	-	-		-
	W. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	S. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		0	0.00	0.00	-	-	-	-	0.00	0	0.00

Dry Weight
As Received

Field Name/Number: Pasture (1-101) **Acres:** 5

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	0.0	0.0	0.0	0.0
Nutrients Removed at Harvest	0.0	0.0	0.0	0.0
Nutrient Balance	0.0	0.0	0.0	0.0

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

Field Name/Number: Pasture (1-101) **Acres:** 5

Winter Crop **W. Fallow**

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

Summer Crop **S. Fallow**

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.		Yes		7.0		
S. Planting	#N/A					
S. Harvest	-	#N/A	T/Ac	#N/A	#N/A	#N/A

Nutrient Applications

Field Name/Number: 1 (1-102) **Acres:** 23.00

Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data					Yield	
							N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
4/11/23	W. Comm Fert App.	-	-	90	-	-	90.0	-	-	-	-		-
11/17/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
2/13/23	1.00	-	-	-	6.45	-	8.9	-	-	176	-		-
2/13/23	Process Water	-	-	-	-	0.40	20.8	2.1	35.3	123	-		-
3/9/23	1.00	-	-	-	6.22	-	8.6	-	-	169	-		-
3/9/23	Process Water	-	-	-	-	0.39	20.1	2.0	34.0	119	-		-
4/11/23	1.00	-	-	-	6.61	-	9.1	-	-	180	-		-
5/7/23	1.00	-	-	-	6.53	-	9.0	-	-	178	-		-
6/4/23	W. Harvest	-	-	-	-	-	(262.0)	(50.6)	(393.9)	-	-		18.90
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
8/9/23	S. Comm Fert App.	-	-	110	-	-	110.0	-	-	-	-		-
6/17/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
6/30/23	1.00	-	-	-	6.69	-	9.2	-	-	182	-		-
7/13/23	1.00	-	-	-	6.38	-	8.8	-	-	174	-		-
7/13/23	Process Water	-	-	-	-	0.40	10.6	1.7	9.8	107	-		-
7/29/23	1.00	-	-	-	6.15	-	8.5	-	-	167	-		-
7/29/23	Process Water	-	-	-	-	0.38	10.2	1.6	9.5	103	-		-
8/9/23	1.00	-	-	-	6.84	-	9.5	-	-	186	-		-
8/20/23	1.00	-	-	-	6.30	-	8.7	-	-	171	-		-
8/20/23	Process Water	-	-	-	-	0.39	10.5	1.7	9.7	105	-		-
9/6/23	1.00	-	-	-	6.92	-	9.6	-	-	188	-		-
10/5/23	S. Harvest	-	-	-	-	-	(267.1)	(63.6)	(248.0)	-	-		27.60
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		200	65.09	1.97	(167)	(105)	(543)	2,328	0.00	0	46.50

Field Name/Number: 1 (1-102) **Acres:** 23.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	362.2	3.9	81.7	2328.4
Nutrients Removed at Harvest	-529.1	-49.8	-532.8	0.0
Nutrient Balance	-166.8	-45.9	-451.1	2328.4

Winter Nitrogen Crop App / Use Ratio: 1.01 **Summer Nitrogen Crop App / Use Ratio:** 1.17

Field Name/Number: 1 (1-102) **Acres:** 23

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		90.0	lbs/Ac	90.0		
Process Water	Q1	0.8	Ac In /Ac	40.9	9.3	83.2
	Q2	-	Ac In /Ac	-	-	-
Well Water		25.8	Ac In /Ac	125.7		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/17/22					
W. Harvest	6/4/23	18.9	T/Ac	(262.0)	(115.9)	(472.7)

Summer Crop **Corn, Silage**

Nutrient Summary :		Applied		N		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		110.0	lbs/Ac	110.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.2	Ac In /Ac	31.4	11.3	34.9
	Q4	-	Ac In /Ac	-	-	-
Well Water		39.3	Ac In /Ac	164.3		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
S. Planting	6/17/23					
S. Harvest	10/5/23	27.6	T/Ac	(267.1)	(145.6)	(297.6)

Nutrient Applications

Field Name/Number: 2 (1-103) **Acres:** 19.00

Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data					Yield	
							N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
4/13/23	W. Comm Fert App.	-	-	80	-	-	80.0	-	-	-	-		-
11/17/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
2/15/23	1.00	-	-	-	6.88	-	9.5	-	-	187	-		-
2/15/23	Process Water	-	-	-	-	0.43	22.2	2.2	37.6	132	-		-
3/11/23	1.00	-	-	-	6.70	-	9.3	-	-	182	-		-
3/11/23	Process Water	-	-	-	-	0.42	21.6	2.1	36.6	128	-		-
4/13/23	1.00	-	-	-	6.05	-	8.4	-	-	165	-		-
5/9/23	1.00	-	-	-	6.33	-	8.7	-	-	172	-		-
6/4/23	W. Harvest	-	-	-	-	-	(237.2)	(45.8)	(405.0)	-	-		18.30
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	S. Fallow	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		80	25.95	0.85	(78)	(41)	(331)	966	0.00	0	18.30

Field Name/Number: 2 (1-103) **Acres:** 19.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	159.7	1.9	61.7	966.0
Nutrients Removed at Harvest	-237.2	-20.0	-336.2	0.0
Nutrient Balance	-77.6	-18.1	-274.5	966.0

Winter Nitrogen Crop App / Use Ratio: 1.04 **Summer Nitrogen Crop App / Use Ratio:** #N/A

Field Name/Number: 2 (1-103) **Acres:** 19

Winter Crop **Wheat, Silage**

Nutrient Summary :		Applied		N		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		80.0	lbs/Ac	80.0		
Process Water	Q1	0.8	Ac In /Ac	43.8	9.9	89.1
	Q2	-	Ac In /Ac	-	-	-
Well Water		26.0	Ac In /Ac	115.9		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/17/22					
W. Harvest	6/4/23	18.3	T/Ac	(237.2)	(104.8)	(486.0)

Summer Crop **S. Fallow**

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.		Yes		7.0		
S. Planting	#N/A					
S. Harvest	-	#N/A	T/Ac	#N/A	#N/A	#N/A

Nutrient Applications

Field Name/Number: 3 (1-104) **Acres:** 17.00

Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data					Yield	
							N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
4/14/23	W. Comm Fert App.	-	-	80	-	-	80.0	-	-	-	-		-
11/17/22	W. Planting	-	-	-	-	-	-	-	-	-	-		-
2/17/23	1.00	-	-	-	6.65	-	9.2	-	-	181	-		-
2/17/23	Process Water	-	-	-	-	0.42	21.4	2.1	36.4	127	-		-
3/13/23	1.00	-	-	-	6.45	-	8.9	-	-	175	-		-
3/13/23	Process Water	-	-	-	-	0.40	20.8	2.1	35.3	123	-		-
4/14/23	1.00	-	-	-	6.24	-	8.6	-	-	170	-		-
5/10/23	1.00	-	-	-	6.34	-	8.8	-	-	173	-		-
6/4/23	W. Harvest	-	-	-	-	-	(237.5)	(42.7)	(370.8)	-	-		17.80
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
8/12/23	S. Comm Fert App.	-	-	110	-	-	110.0	-	-	-	-		-
6/17/23	S. Planting	-	-	-	-	-	-	-	-	-	-		-
7/2/23	1.00	-	-	-	6.86	-	9.5	-	-	187	-		-
7/15/23	1.00	-	-	-	6.55	-	9.1	-	-	178	-		-
7/15/23	Process Water	-	-	-	-	0.41	10.9	1.7	10.1	110	-		-
7/31/23	1.00	-	-	-	6.76	-	9.3	-	-	184	-		-
7/31/23	Process Water	-	-	-	-	0.42	11.3	1.8	10.4	113	-		-
8/12/23	1.00	-	-	-	6.13	-	8.5	-	-	167	-		-
8/22/23	1.00	-	-	-	6.34	-	8.8	-	-	173	-		-
8/22/23	Process Water	-	-	-	-	0.40	10.6	1.7	9.8	106	-		-
9/8/23	1.00	-	-	-	6.03	-	8.3	-	-	164	-		-
10/5/23	S. Harvest	-	-	-	-	-	(276.7)	(65.4)	(272.4)	-	-		26.90
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
	-	-	-	-	-	-	-	-	-	-	-		-
Totals:		0.0		190	64.35	2.05	(160)	(99)	(541)	2,330	0.00	0	44.70

Field Name/Number: 3 (1-104) **Acres:** 17.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	353.9	4.1	84.7	2330.3
Nutrients Removed at Harvest	-514.2	-47.2	-533.9	0.0
Nutrient Balance	-160.3	-43.1	-449.2	2330.3

Winter Nitrogen Crop App / Use Ratio: 1.03 **Summer Nitrogen Crop App / Use Ratio:** 1.13

Field Name/Number: 3 (1-104) **Acres:** 17

Winter Crop **Wheat, Silage**

Nutrient Summary :		**Applied**		**N**		
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		80.0	lbs/Ac	80.0		
Process Water	Q1	0.8	Ac In /Ac	42.2	9.6	86.0
	Q2	-	Ac In /Ac	-	-	-
Well Water		25.7	Ac In /Ac	115.5		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/17/22					
W. Harvest	6/4/23	17.8	T/Ac	(237.5)	(97.8)	(445.0)

Summer Crop **Corn, Silage**

Nutrient Summary :		**Applied**		**N**		
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		110.0	lbs/Ac	110.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	1.2	Ac In /Ac	32.7	11.8	36.4
	Q4	-	Ac In /Ac	-	-	-
Well Water		38.7	Ac In /Ac	163.5		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
S. Planting	6/17/23					
S. Harvest	10/5/23	26.9	T/Ac	(276.7)	(149.7)	(326.8)

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)

Exception Reporting

Manure , Process Water and Other Dairy Waste Discharges:

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

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

Storm Water Discharges:

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

No, storm water discharges occurred durging the reporting period

Land Application Area To Surface Water Discharges:

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

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

Nutrient Management Plan (NMP) & Written Agreement Statement

Nutrient Management Plan Statement:

Was the faciltiy NMP updated in the reporting period? 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 repoting 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.*

for TUHSD

Signature of Owner of Facility

for TUHSD

Signature of Operator of Facility

Tulare Union High School District

Print Name

Tulare High School Farm

Print Name

5/1/24

Date

5/1/24

Date

Livingston Dairy Consulting, Inc.

FIELD ACTIVITY REPORT

Facility Name: Tulare High School Farm
591 West Bardsley, Tulare
Tulare County

2023

Sample Collection Equipment:
Bottle Container

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

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

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

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

Sample Type:

Date	Well Name	Time	PH	Temp	Ammonium
1/24	Dom	8:20	6.5	63	Ø
9/26	Well #1	10:23	7	67	Ø

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

Tulare High School

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

February 17, 2023

Lab No. : **VI 2340557**
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 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
Dom	01/31/2023	01/31/2023	VI 2340557-001	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

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

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

KD: JRD

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

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

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

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

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

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

February 17, 2023

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

Description : Dom
Project : W-6 Tulare High School

Lab No. : VI 2340557-001
Customer No. : 4018505

Sampled On : January 31, 2023 at 08:20
Sampled By : Marlene / Kaylin
Received On : January 31, 2023 at 14:03
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	02/14/2023	10:47	sta	EPA 351.2	02/15/2023	17:15	lcr
Nitrate Nitrogen	0.4	0.4	mg/L	10	1		02/01/2023	13:00	lfs	SM 4500-NO3 F	02/01/2023	15:32	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	U	02/14/2023	10:47	sta	EPA 351.2	02/15/2023	17:15	lcr
Nitrate + Nitrite as N	0.4	0.4	mg/L	10	1		02/01/2023	13:00	lfs	SM 4500-NO3 F	02/01/2023	15:32	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	02/14/2023	10:47	sta	EPA 351.2	02/15/2023	17:15	lcr
Conductivity	205	1	umhos/cm	1600[2]	1		02/09/2023	14:28	sta		02/09/2023	14:28	sta
Solids, Total Dissolved (TDS)	130	20	mg/L	1000[2]	1		02/02/2023	11:53	ctl	SM 2540 C	02/03/2023	12:38	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.

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

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

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

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

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

February 17, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2340557
Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2510B	02/09/2023:201372STA	Blank	umhos/cm		ND	<1	
		(STK2331345-001)	Dup	umhos/cm		0.6%	5	
Solids, Total Dissolved	2540CE	02/02/2023:201179CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	990.8	103 %	90-110	
		(SP 2301488-001)	Dup	mg/L		2.2%	5	
		(SP 2301488-001)	Dup	mg/L		0.4%	5	
Nitrogen, Total Kjeldahl	351.2	02/14/2023:201629STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	94.3%	73-124	
			MS	mg/L	12.00	99.4%	54-136	
		(SP 2301580-001)	MSD	mg/L	12.00	95.8%	54-136	
			MSRPD	mg/L	12.00	3.7%	≤27	
			MS	mg/L	12.00	97.9%	54-136	
		(CH 2370584-001)	MSD	mg/L	12.00	94.8%	54-136	
			MSRPD	mg/L	12.00	3.1%	≤27	
Nitrate + Nitrite as N	4500NO3F	02/01/2023:201107LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	93.8%	80-120	
			MS	mg/L	5.609	90.4%	66-125	
		(VI 2340568-001)	MSD	mg/L	5.609	90.2%	66-125	
			MSRPD	mg/L	5.609	0.1%	≤30.4	
Nitrate Nitrogen	4500NO3F	02/01/2023:201107LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	93.8%	80-120	
			MS	mg/L	5.609	90.4%	66-125	
		(VI 2340568-001)	MSD	mg/L	5.609	90.2%	66-125	
			MSRPD	mg/L	5.609	0.1%	≤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 analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.

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

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

Page 3 of 3

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

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

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

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

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

FGL AGRICULTURAL Analytical Chemists

Special

CHAIN OF CUSTODY

www.fglinc.com

Laboratory Copy (1 of 3)

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** Tulare High School

Purchase Order Number:

Quote Number: **VI 20210208-01**

Sampler(s) Marlene & Kaylin

Sampling Fee: _____ Pickup Fee: _____

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

Lab Number: **VI** 2340557 **4-18505**

42086:03/01/2022

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

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	**SEE REVERSE SIDE** 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								
1	DOM	1/31	8:20AM	G	DW	P			1	1								
2				G					1	1								
3				G					1	1								
4				G					1	1								
5				G					1	1								
6				G					1	1								
7				G					1	1								
8				G					1	1								
9				G					1	1								
10				G					1	1								

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
Mark Fein	1/31/23	1:33	[signature]	1/31/23	1403	[signature]	1/31/23	1745
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
[signature]	1/31/23	1:33	[signature]	1/31/23	1403	[signature]	1/31/23	1745

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: Ctl / 4.3 / ____ / ____ / ____
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

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

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

Sample Receipt at SP:

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

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

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

Sample Verification, Labeling and Distribution:

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

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

Discrepancy Documentation:

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

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

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

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

(4018505)
Livingston Dairy Consulting, Inc.
VI 2340557
iv 02/01/2023 09:28:08
VI 2340557

Tulare High School

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

October 12, 2023

Lab No. : **VI 2346476**
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 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
Well #1	09/26/2023	09/26/2023	VI 2346476-001	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: 2023-10-12

Page 1 of 3

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 12, 2023

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

Description : Well #1
Project : W-6 Tulare High School

Lab No. : VI 2346476-001
Customer No. : 4018505

Sampled On : September 26, 2023 at 10:23
Sampled By : Marlene Ferreira
Received On : September 26, 2023 at 15:40
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	4.4	0.5	mg/L		1		10/06/2023	09:12	sta	EPA 351.2	10/10/2023	16:00	lcr
Nitrate Nitrogen	6.1	0.4	mg/L		1		09/27/2023	12:30	lfs	SM 4500-NO3 F	09/27/2023	13:58	lfs
Nitrogen, Total as Nitrogen	10.5	0.5	mg/L		1		10/06/2023	09:12	sta	Calc.	10/10/2023	16:00	lcr
Nitrate + Nitrite as N	6.1	0.4	mg/L		1		09/27/2023	12:30	lfs	SM 4500-NO3 F	09/27/2023	13:58	lfs
Kjeldahl Nitrogen	4.4	0.5	mg/L		1		10/06/2023	09:12	sta	EPA 351.2	10/10/2023	16:00	lcr
Conductivity	326	1	umhos/cm		1		10/05/2023	04:20	krh	SM 4500-H+B	10/05/2023	19:08	krh
Solids, Total Dissolved (TDS)	200	20	mg/L		1		09/28/2023	10:00	ctl	SM 2540 C	09/29/2023	15:00	ctl

DQF Flags Definition:

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

Page 2 of 3

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 12, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2346476
Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2346585-002)	Dup	umhos/cm		0.1%	5	
Solids, Total Dissolved	2540CE	09/28/2023:210921CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	101%	90-110	
		(SP 2316295-001)	Dup	mg/L		0.3%	5	
		(SP 2316295-001)	Dup	mg/L		1.87%	5	
Nitrogen, Total Kjeldahl	351.2	10/06/2023:211241STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	91.2%	73-124	
			MS	mg/L	12.00	91.9%	90-110	
		(CH 2378308-007)	MSD	mg/L	12.00	91.7%	90-110	
			MSRPD	mg/L		0.1%	≤20	
			MS	mg/L	12.00	92.6%	90-110	
		(CH 2378308-008)	MSD	mg/L	12.00	92.3%	90-110	
			MSRPD	mg/L		0.4%	≤20	
Nitrate + Nitrite as N	4500NO3F	09/27/2023:210858LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	99.0%	80-120	
			MS	mg/L	5.609	95.3%	66-125	
		(STK2353327-001)	MSD	mg/L	5.609	99.2%	66-125	
			MSRPD	mg/L		2.1%	≤30.4	
Nitrate Nitrogen	4500NO3F	09/27/2023:210858LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	99.0%	80-120	
			MS	mg/L	5.609	95.3%	66-125	
		(STK2353327-001)	MSD	mg/L	5.609	99.2%	66-125	
			MSRPD	mg/L		2.1%	≤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 analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
ND : Non-detect - Result was below the DQO listed for the analyte.

Page 3 of 3

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

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

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

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

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

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

Special

CHAIN OF CUSTODY
www.fglinc.com

Laboratory Copy (1 of 3)

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 Tulare High School

Purchase Order Number:

Quote Number: VI 20210208-01

Sampler(s) Marlene

Sampling Fee: _____ Pickup Fee: _____

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

Lab Number: VI 2346476 4-18505

42086:03/01/2022

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

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	Type of Sample **SEE REVERSE SIDE**	Potable(P) Non-Potable(NP) Ag Water(AgW)	Bacti Type: Other(O) System(SYS) Source(SR) Waste(W)	Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)	Dairy Analysis-W-6-Conductivity,NO3-N,Total N,TDS 16oz(P)	Sampling-W-6 - Total N - Split Bottle	***VI Lab to Split for Total N*** 8oz(P)-H2SO4
1	Well #1	9/26	10:23AM	G	AgW	NP			1	1	
2				G					1	1	
3				G					1	1	
4				G					1	1	
5				G					1	1	
6				G					1	1	
7				G					1	1	
8				G					1	1	
9				G					1	1	
10				G					1	1	

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
	9/26/23	15:40		9/26/23	1	GLS	9/27/23	1145
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
	9/26/23	1540		9/26/23	1		9/27/23	1145

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: 10.1 / 2.3.5 / ____ / ____ / ____
   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): AW DH 17407

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 6.1 / 6.1 / ____ / ____ / ____
   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: 5100111467 + 5100190443

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

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

Sample Verification, Labeling and Distribution:

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

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

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 addi contacts)

(4018505)
Livingston Dairy Consulting, Inc.
VI 2346476
cda 09/26/2023 19:05:38

here

October 4, 2023

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

Lewis Creek

Description : Canal East
Project : W-6 Livingston

Lab No. : VI 2346257-002
Customer No. : 4018505

Sampled On : September 14, 2023 at 06:25
Sampled By : Marlene Ferreira
Received On : September 14, 2023 at 13:45
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	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:48	lcr
Nitrate Nitrogen	ND	0.4	mg/L		1	U	09/15/2023	12:00	lfs	SM 4500-NO3 F	09/15/2023	13:54	lfs
Nitrogen, Total as Nitrogen	ND	0.5	mg/L		1	UI	09/28/2023	10:26	sta	Calc.	10/03/2023	22:48	lcr
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	09/15/2023	12:00	lfs	SM 4500-NO3 F	09/15/2023	13:54	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	UI	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:48	lcr
Conductivity	59	1	umhos/cm		1	I	09/21/2023	11:31	krh	SM 4500-H+B	09/21/2023	16:45	krh
Solids, Total Dissolved (TDS)	40	20	mg/L		1		09/19/2023	11:20	ctl	SM 2540 C	09/20/2023	11:00	ctl

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

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

Lewis creek

Page 3 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. 281(

FGL ENVIRONMENTAL AGRICULTURAL
Analytical Chemists

Special

CHAIN OF CUSTODY

www.fglinc.com

Laboratory Copy (1 of 3)

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 Livingston

Purchase Order Number:

Quote Number: VI 20210208-01

Sampler(s): Marlene

Sampling Fee: _____ Pickup Fee: _____

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

Lab Number: VI 2346257 4-18505

42086:03/01/2022

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

Samp Num	Location Description	Date Sampled	Time Sampled	Method of Sampling: Composite(C) Grab(G)	**SEE REVERSE SIDE** 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		
1	~~Canal North~~	9/14	6:20am	G	~~DW~~	~~NP~~			1	1		*	St John's
2	Canal East	9/14	6:25am	G	DW	NP			1	1			Lewis CREEK
3				G					1	1			
4				G					1	1			
5				G					1	1			
6				G					1	1			
7				G					1	1			
8				G					1	1			
9				G					1	1			
10				G					1	1			

Remarks:

Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:
RQ	9/14	1346	SRO	9/14/23	1730	GLS	9/15/23	1145
Received By:	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**	**Received By:**	**Date:**	**Time:**
SRO	9/14/23	1346	GLS	9/14/23	1730	MC	/	/

R01
4.7°C
ID#TH407

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

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

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

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