



Livingston Dairy Consulting, Inc.

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

Jer-Z Boyz Ranch #1 WDID 5D545115001

11001 Ave. 112 Pixley, CA 93256

- Annual Report
- Water Analysis Samples
- Manure Manifest
- NFA Facility / Land Map
- 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: Jer-Z Boyz Ranch #1 WDID 5D545115001

Facility Address: 11001 Ave. 112 Pixley, CA 93256

Original Operation Date: 10/1/1989

Facility APN's: x293 x140 x031 xxxx, x293 x140 x034 xxxx

RWQCB Basin Plan Designation:

Check if any information has changed

Owner(s)

Owner(s) Name: Gary DeGraaf

Mailing Address: 11001 Ave. 112 Pixley, CA 93256

Home Phone Number:

Cell Phone Number: 559-804-4914

Check if any information has changed

Operator(s)

Operator(s) Name: Jer-Z Boyz Ranch #1

Mailing Address: 11001 Ave. 112 Pixley, CA 93256

Home Phone Number:

Cell Phone Number: 559-804-4914

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:	4,074	633	1,409	1,742	1,730
Number Under Roof	-	-	-	-	-
Maximum Number	4,074	633	1,409	1,742	1,730
Average Number	4,074	633	1,409	1,742	1,730
Average Live Weight (lbs)	950	975	660	370	

Average Milk Production: 65 **Predominant Milk Cow Breed:** Jersey

Manure Generated:

Total manure excreted by the herd:	13,661.45	@40% Moisture	ton/yr
Total nitrogen from manure:	669,685	lbs	
	72,370	lbs	
	281,203	lbs	
Total salt from manure:	-	lbs	

Process Wastewater Generated:

Process wastewater generated:	59,480,400	gal
Total nitrogen generated:	288,754	lbs
	89,485	lbs
	184,618	lbs
Total salt (TDS) generated:	1,211,074	lbs

After Ammonia (30% loss applied)

468,779 lbs per reporting period

List of Land Application Areas

List of Fresh Water Sources

Subsurface (Tile) Drainage Sources		
Source Description	Type	No
Barn	Ground Water	No
Dom	Ground Water	No
1	Ground Water	No
2	Ground Water	No
3	Ground Water	No
4	Ground Water	No
5	Ground Water	No
6	Ground Water	No
7	Ground Water	No
Canal		Surface Water
No		

(WINTER) PLANT TISSUE ANALYSIS (Recorded As Received)

(WINTER)		PLANT TISSUE ANALYSIS (Recorded As Received)								
Field	Crop	Moist %	N%	TP %	TK%	Salt	TFS	Sample #:	Date:	Source
1-101	Wheat, Silage	60.80	0.66	0.11	0.82	-	8.75	6-6H52638	06/06/23	Valley Tech
1-102	Wheat, Silage	63.80	0.68	0.10	0.80	-	8.82	6-6H52638	06/06/23	Valley Tech
2-201	Wheat, Silage	67.50	0.55	0.14	0.55	-	9.91	6-6H52638	06/06/23	Valley Tech
2-202	Wheat, Silage	61.80	0.58	0.14	0.65	-	8.11	6-6H52638	06/06/23	Valley Tech
2-204	W. Fallow	-	-	-	-	-	-	Pasture	-	-
3-301	Wheat, Silage	69.40	0.50	0.13	0.78	-	9.92	6-6H52638	06/06/23	Valley Tech
3-302	Wheat, Silage	66.90	0.51	0.11	0.47	-	9.35	6-6H52638	06/06/23	Valley Tech
4-401	Wheat, Silage	63.40	0.63	0.14	0.60	-	9.86	6-6H52638	06/06/23	Valley Tech
4-402	Wheat, Silage	62.60	0.65	0.13	0.58	-	9.67	6-6H52638	06/06/23	Valley Tech
4-403	Wheat, Silage	60.80	0.47	0.11	0.51	-	7.39	6-6H52638	06/06/23	Valley Tech
4-404	Wheat, Silage	63.10	0.55	0.11	0.40	-	7.70	6-6H52638	06/06/23	Valley Tech

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Detectable Limits

Valley Tech

Dellavalle

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(SUMMER) PLANT TISSUE ANALYSIS (Recorded As Received)

PLANT TISSUE ANALYSIS (Recorded As Received)											
		Crop	Moist %	N%	TP %	TK%	Salt	TFS	Sample #:	Date:	Source
1-101		Corn, Silage	65.70	0.42	0.09	0.52	-	6.03	11-14H72966	11/14/23	Valley Tech
1-102		Corn, Silage	57.50	0.57	0.11	0.54	-	5.84	10-11H68938	10/11/23	Valley Tech
2-201		Corn, Silage	66.40	0.39	0.08	0.50	-	5.89	11-14H72966	11/14/23	Valley Tech
2-202		Corn, Silage	63.60	0.48	0.09	0.48	-	5.13	11-14H72966	11/14/23	Valley Tech
2-204		S. Fallow	-	-	-	-	-	-	Pasture	-	-
3-301		Corn, Silage	68.40	0.40	0.09	0.40	-	5.41	11-14H72966	11/14/23	Valley Tech
3-302		Corn, Silage	61.80	0.48	0.09	0.45	-	5.21	10-11H68938	10/11/23	Valley Tech
4-401		Corn, Silage	61.50	0.54	0.08	0.46	-	4.15	10-11H68938	10/11/23	Valley Tech
4-402		Corn, Silage	61.90	0.46	0.07	0.46	-	5.34	10-11H68938	10/11/23	Valley Tech
4-403		Corn, Silage	61.40	0.51	0.08	0.44	-	5.01	10-11H68938	10/11/23	Valley Tech
4-404		Corn, Silage	61.60	0.47	0.08	0.45	-	4.86	10-11H68938	10/11/23	Valley Tech

Detectable Limits
Valley Tech
Dellavalle

Winter Crops & Harvest

Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
1-101	Wheat, Silage	11/5/22	5/15/23	6-6H52638	60.80	0.66	0.11	0.82	-	8.75	Dry Weight
1-102	Wheat, Silage	11/15/22	5/18/23	6-6H52638	63.80	0.68	0.10	0.80	-	8.82	Dry Weight
2-201	Wheat, Silage	11/18/22	5/15/23	6-6H52638	67.50	0.55	0.14	0.55	-	9.91	Dry Weight
2-202	Wheat, Silage	11/15/22	5/18/23	6-6H52638	61.80	0.58	0.14	0.65	-	8.11	Dry Weight
2-204	W. Fallow			Pasture	-	-	-	-	-	-	-
3-301	Wheat, Silage	11/19/22	5/18/23	6-6H52638	69.40	0.50	0.13	0.78	-	9.92	Dry Weight
3-302	Wheat, Silage	11/16/22	5/20/23	6-6H52638	66.90	0.51	0.11	0.47	-	9.35	Dry Weight
4-401	Wheat, Silage	11/28/22	5/15/23	6-6H52638	63.40	0.63	0.14	0.60	-	9.86	Dry Weight
4-402	Wheat, Silage	11/20/22	5/20/23	6-6H52638	62.60	0.65	0.13	0.58	-	9.67	Dry Weight
4-403	Wheat, Silage	11/26/22	5/22/23	6-6H52638	60.80	0.47	0.11	0.51	-	7.39	Dry Weight
4-404	Wheat, Silage	11/25/22	5/25/23	6-6H52638	63.10	0.55	0.11	0.40	-	7.70	Dry Weight

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Field:	Crop	Plant Date	Harvest Date	Lab #	Moisture %	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS	Reporting Basis
1-101	Corn, Silage	7/14/23	11/5/23	11-14H72966	65.70	0.42	0.09	0.52	-	6.03	Dry Weight
1-102	Corn, Silage	6/8/23	10/15/23	10-11H68938	57.50	0.57	0.11	0.54	-	5.84	Dry Weight
2-201	Corn, Silage	6/9/23	10/15/23	11-14H72966	66.40	0.39	0.08	0.50	-	5.89	Dry Weight
2-202	Corn, Silage	6/10/23	10/18/23	11-14H72966	63.60	0.48	0.09	0.48	-	5.13	Dry Weight
2-204	S. Fallow			Pasture	-	-	-	-	-	-	
3-301	Corn, Silage	6/2/23	10/16/23	11-14H72966	68.40	0.40	0.09	0.40	-	5.41	Dry Weight
3-302	Corn, Silage	6/5/23	9/20/23	10-11H68938	61.80	0.48	0.09	0.45	-	5.21	Dry Weight
4-401	Corn, Silage	5/20/23	10/22/23	10-11H68938	61.50	0.54	0.08	0.46	-	4.15	Dry Weight
4-402	Corn, Silage	6/5/23	10/10/23	10-11H68938	61.90	0.46	0.07	0.46	-	5.34	Dry Weight
4-403	Corn, Silage	6/20/23	10/16/23	10-11H68938	61.40	0.51	0.08	0.44	-	5.01	Dry Weight
4-404	Corn, Silage	6/18/23	11/1/23	10-11H68938	61.60	0.47	0.08	0.45	-	4.86	Dry Weight

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Well / Canal Analysis

Soil Analysis (Winter)

Detectable Limits
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Soil Analysis (Summer)

Detectable Limits
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Nutrient Import & Export

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

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Nutrient Import

No Dry manure nutrient imports entered

No Process wastewater nutrient imports entered
 Yes Commerical or other nutrient imports entered

Total Dry Manure Exported 11,285

Total Process Water Exported

Process Water & Manure Analysis

Process Water	
	NH4N (mg/L)
Quarters:	
1	131.0
2	171.0
3	38.9
4	73.8

Detectable limits
Valley Tech
Bellaville

Qtr	Sample #:	Sample Date:	Source	Inorg N	Org N	P205	K20
1	3-9144122	3/9/2023	Valley Tech	29.9	219.6	76.3	140.1
2	5-12149731	5/12/2023	Valley Tech	39.0	30.6	27.6	83.6
3	8-15161718	8/15/2023	Valley Tech	9.0	23.6	4.4	19.9
4	10-3167677	10/3/2023	Valley Tech	17.0	11.6	9.3	0.0

Description	Sample #:	Date:	As Is / Dry Weight
Manure	5-19M49745	5/19/2023	Dry Weight
Manure	10-3M67638	10/3/2023	Dry Weight

Dry Manure: (As Rec'd)	TN %	TP %	TK %	Ca	Mg	Na	S	Cl	TFS	Moisture %
Corral	0.48	0.17	0.57	-	-	-	-	-	-	43.10
Corral	0.99	0.36	1.48	1.68	0.51	0.44	0.48	1.20	-	47.20

Detectable Limits
Valley Tech
Detectable

Nutrient Applications

Field Name/Number:

1-101

Acres:

96.00

Field Name/Number:		Acre:		Yield								
Date	Event / Source	Dry Manure Applied (tons/ac)	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data					Expected Yield (tons/ac)	Actual Yield (tons/ac)
		Moist. %		N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS	%			
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
11/5/22	W. Planting	-	-	-	-	-	-	-	-	-	-	
1/11/23	1.00	-	-	5.06	-	4.8	-	-	117	-	-	
1/11/23	Process Water	-	-	-	1.52	265.4	50.6	176.6	930	-	-	
2/10/23	1.00	-	-	6.67	-	6.4	-	-	154	-	-	
3/15/23	1.00	-	-	6.47	-	6.2	-	-	150	-	-	
4/21/23	1.00	-	-	6.54	-	6.2	-	-	151	-	-	
5/15/23	W. Harvest	-	-	-	-	(290.5)	(49.9)	(361.0)	-	8.75	21.93	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
6/20/23	S. Manure App.	11.46	-	-	-	91.0	82.3	340.0	-	-	-	
7/1/23	Canal	-	-	6.35	-	0.1	-	-	7	-	-	
7/14/23	S. Planting	-	-	-	-	-	-	-	-	-	-	
7/23/23	Canal	-	-	6.19	-	0.1	-	-	6	-	-	
8/12/23	Canal	-	-	5.33	-	0.1	-	-	6	-	-	
8/12/23	Process Water	-	-	-	1.33	30.4	2.5	22.0	203	-	-	
9/2/23	Canal	-	-	5.39	-	0.1	-	-	6	-	-	
9/2/23	Process Water	-	-	-	1.35	30.8	2.6	22.2	205	-	-	
9/30/23	Canal	-	-	5.27	-	0.1	-	-	6	-	-	
9/30/23	Process Water	-	-	-	1.32	26.4	5.4	0.0	341	-	-	
10/20/23	Canal	-	-	6.24	-	0.1	-	-	7	-	-	
11/5/23	S. Harvest	-	-	-	-	(174.5)	(35.8)	(216.0)	-	6.03	20.85	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	
Totals:		11.5	0	59.51	5.52	3	58	(16)	2,287	14.78	0	42.78

Dry Weight
As Received

Field Name/Number: 1-101 Acres: 96

Nutrients Applied	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	467.9	143.3	560.9	2286.6
Nutrients Removed at Harvest	-465.1	-85.6	-577.0	0.0
Nutrient Balance	2.8	57.7	-16.1	2286.6

Winter Nitrogen Crop App / Use Ratio: 1.02 Summer Nitrogen Crop App / Use Ratio: 1.07

Field Name/Number: 1-101 Acres: 96

Winter Crop	Wheat, Silage		N		
Nutrient Summary :	Applied				
W. Manure App.	-	T/Ac	-	-	-
W. Comm Fert App.	-	lbs/Ac	-	-	-
Process Water	Q1	1.5	Ac In /Ac	265.4	115.9
	Q2	-	Ac In /Ac	-	-
Well Water		24.74	Ac In /Ac	23.6	
Canal		-	Ac In /Ac	-	
Atm. Depos.	Yes			7.0	
W. Planting	11/5/22				
W. Harvest	5/15/23	21.9	T/Ac	(290.5)	(114.2)
					(433.2)

Summer Crop	Corn, Silage		N		
Nutrient Summary :	Applied				
S. Manure App.	11.5	T/Ac	91.0	188.4	408.0
S. Comm Fert App.	-	lbs/Ac	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-
	Q3	4.0	Ac In /Ac	87.6	23.9
	Q4	-	Ac In /Ac	-	-
Well Water		-	Ac In /Ac	-4.33E-14	
Canal		34.8	Ac In /Ac	0.3	
Atm. Depos.	Yes			7.0	
S. Planting	7/14/23				
S. Harvest	11/5/23	20.9	T/Ac	(174.5)	(81.9)
					(259.2)

Nutrient Applications

Field Name/Number:

1-102

Acres:

98.00

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)	TPS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/15/22	W. Planting	-	-	-	-	-	-	-	-	-	-	-	-
1/5/23	1.00 Process Water	1.00	-	-	-	5.19	-	4.9	-	-	120	-	-
1/5/23	Process Water	-	-	-	-	-	1.56	271.8	51.8	180.9	952	-	-
2/12/23	1.00	1.00	-	-	-	6.13	-	5.8	-	-	142	-	-
3/27/23	1.00	1.00	-	-	-	6.22	-	5.9	-	-	144	-	-
4/26/23	1.00	1.00	-	-	-	6.11	-	5.8	-	-	141	-	-
5/18/23	W. Harvest	-	-	-	-	-	(276.5)	(42.4)	(323.3)	-	8.75	20.20	
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/20/23	S. Manure App.	10.20	-	-	-	-	81.0	73.3	302.8	-	-	-	-
5/25/23	2.00	2.00	-	-	-	6.08	-	7.6	-	-	182	-	-
6/8/23	S. Planting	-	-	-	-	-	-	-	-	-	-	-	-
6/15/23	2.00	2.00	-	-	-	5.14	-	6.4	-	-	154	-	-
6/15/23	Process Water	-	-	-	-	-	1.62	79.1	19.5	112.6	924	-	-
7/15/23	2.00	2.00	-	-	-	5.01	-	6.2	-	-	150	-	-
7/15/23	Process Water	-	-	-	-	-	1.58	36.2	3.0	26.2	241	-	-
8/20/23	2.00	2.00	-	-	-	5.12	-	6.4	-	-	153	-	-
8/20/23	Process Water	-	-	-	-	-	1.62	36.9	3.1	26.7	246	-	-
9/10/23	2.00	2.00	-	-	-	5.23	-	6.5	-	-	156	-	-
9/10/23	Process Water	-	-	-	-	-	1.65	37.7	3.1	27.3	251	-	-
10/15/23	S. Harvest	-	-	-	-	-	(249.8)	(46.3)	(233.1)	-	6.03	21.77	
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals:		10.2		0	50.23	8.03	72	65	120	3,956	14.78	0	41.97

Field Name/Number: 1-102 Acres: 98.00

Nutrients Applied	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	598.4	67.2	561.5	3955.9
Nutrients Removed at Harvest	-526.2	-38.7	-461.9	0.0
Nutrient Balance	72.1	28.5	99.6	3955.9

Winter Nitrogen Crop App / Use Ratio: 1.09 Summer Nitrogen Crop App / Use Ratio: 1.25

Field Name/Number: 1-102 Acres: 98

Winter Crop Nutrient Summary :	Wheat, Silage		N
	Applied		
W. Manure App.	-	T/Ac	-
W. Comm Fert App.	-	lbs/Ac	-
Process Water	Q1	1.6 Ac In /Ac	271.8 118.7 217.1
	Q2	- Ac In /Ac	- - -
Well Water		23.6 Ac In /Ac	22.5
Canal		- Ac In /Ac	-
Atm. Depos.	Yes		7.0
W. Planting	11/15/22		
W. Harvest	5/18/23	20.2 T/Ac	(276.5) (97.1) (387.9)

Summer Crop Nutrient Summary :	Corn, Silage		N
	Applied		
S. Manure App.	10.2	T/Ac	81.0 167.8 363.4
S. Comm Fert App.	-	lbs/Ac	- - -
Process Water	Q2	1.6 Ac In /Ac	79.1 44.7 135.1
	Q3	4.9 Ac In /Ac	110.8 21.1 96.2
	Q4	- Ac In /Ac	- - -
Well Water		26.6 Ac In /Ac	33.1
Canal		- Ac In /Ac	-
Atm. Depos.	Yes		7.0
S. Planting	6/8/23		
S. Harvest	10/15/23	21.8 T/Ac	(249.8) (105.9) (279.7)

Nutrient Applications

Field Name/Number:		2-201						Acres:		37.00			
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)
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1/23	W. Comm Fert App.	-	-	80	-	-	80.0	-	-	-	-	-	-
11/18/22	W. Planting	-	-	-	-	-	-	-	-	-	-	-	-
1/3/23	2.00	-	-	-	6.24	-	7.8	-	-	187	-	-	-
3/1/23	2.00	-	-	-	6.52	-	8.1	-	-	195	-	-	-
4/15/23	2.00	-	-	-	6.41	-	8.0	-	-	192	-	-	-
5/15/23	W. Harvest	-	-	-	-	-	(208.4)	(53.0)	(209.7)	-	8.75	-	18.97
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
6/15/23	S. Comm Fert App.	-	-	80	-	-	80.0	-	-	-	-	-	-
5/28/23	Canal	-	-	-	6.52	-	0.1	-	-	7	-	-	-
6/9/23	S. Planting	-	-	-	-	-	-	-	-	-	-	-	-
6/15/23	Canal	-	-	-	6.38	-	0.1	-	-	7	-	-	-
7/12/23	Canal	-	-	-	5.23	-	0.1	-	-	5	-	-	-
7/12/23	Process Water	-	-	-	-	1.31	29.9	2.5	21.6	199	-	-	-
8/14/23	Canal	-	-	-	5.37	-	0.1	-	-	6	-	-	-
8/14/23	Process Water	-	-	-	-	1.34	30.7	2.6	22.2	204	-	-	-
9/20/23	Canal	-	-	-	6.59	-	0.1	-	-	7	-	-	-
10/15/23	S. Harvest	-	-	-	-	-	(188.5)	(37.1)	(238.4)	-	6.03	-	23.97
Totals:		0.0		160	49.27	2.65	(152)	(85)	(404)	1,009	14.78	0	42.95

Field Name/Number: 2-201Acres: 37.00

Nutrients Applied	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	244.8	2.2	36.4	1008.7
Nutrients Removed at Harvest	-396.9	-39.3	-371.9	0.0
Nutrient Balance	-152.1	-37.1	-335.6	1008.7

Winter Nitrogen Crop App / Use Ratio: 0.92Summer Nitrogen Crop App / Use Ratio: 1.21Field Name/Number: 2-201Acres: 37**Winter Crop Wheat, Silage**

Nutrient Summary :		Applied	N			
W. Manure App.		-	T/Ac	-	-	-
W. Comm Fert App.		80.0	Ibs/Ac	80.0		
Process Water	Q1	-	Ac In /Ac	-	-	-
	Q2	-	Ac In /Ac	-	-	-
Well Water		19.2	Ac In /Ac	103.9		
Canal		-	Ac In /Ac	-		
Atm. Depos.		Yes		7.0		
W. Planting	11/18/22					
W. Harvest	5/15/23	19.0	T/Ac	(208.4)	(121.4)	(251.6)

Summer Crop Corn, Silage

Nutrient Summary :		Applied	N			
S. Manure App.		-	T/Ac	-	-	-
S. Comm Fert App.		80.0	Ibs/Ac	80.0	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	2.7	Ac In /Ac	60.6	11.6	52.6
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	80.0		
Canal		30.1	Ac In /Ac	0.3		
Atm. Depos.		Yes		7.0		
S. Planting	6/9/23					
S. Harvest	10/15/23	24.0	T/Ac	(188.5)	(84.9)	(286.1)

Nutrient Applications

Field Name/Number:

2-202

Acres:

79.00

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)
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/15/22	W. Planting	-	-	-	-	-	-	-	-	-	-	-	-
2/1/23	Canal	-	-	-	5.20	-	0.1	-	-	5	-	-	-
2/1/23	Process Water	-	-	-	-	1.30	227.2	43.3	151.2	796	-	-	-
3/5/23	Canal	-	-	-	-	6.21	-	0.1	-	-	6	-	-
4/1/23	Canal	-	-	-	-	6.07	-	0.1	-	-	6	-	-
5/2/23	Canal	-	-	-	-	6.31	-	0.1	-	-	7	-	-
5/18/23	W. Harvest	-	-	-	-	-	(207.0)	(50.1)	(230.0)	-	8.75	-	17.71
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/20/23	S. Manure App.	13.92	-	-	-	-	110.6	100.0	413.2	-	-	-	-
5/28/23	Canal	-	-	-	-	6.14	-	0.1	-	-	6	-	-
6/10/23	S. Planting	-	-	-	-	-	-	-	-	-	-	-	-
7/2/23	Canal	-	-	-	-	5.34	-	0.1	-	-	6	-	-
7/2/23	Process Water	-	-	-	-	-	1.33	65.0	2.5	22.0	203	-	-
8/8/23	Canal	-	-	-	-	5.50	-	0.1	-	-	6	-	-
8/8/23	Process Water	-	-	-	-	-	1.38	31.4	2.6	22.7	209	-	-
8/26/23	Canal	-	-	-	-	6.17	-	0.1	-	-	6	-	-
9/22/23	Canal	-	-	-	-	5.40	-	0.1	-	-	6	-	-
9/22/23	Process Water	-	-	-	-	-	1.35	30.9	2.6	22.3	205	-	-
10/18/23	S. Harvest	-	-	-	-	-	(218.5)	(43.4)	(220.2)	-	6.03	-	22.91
Totals:		13.9		0	52.35	5.36	40	58	181	1,468	14.78	0	40.62

Field Name/Number: 2-202Acres: 79.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	465.6	65.9	524.2	1468.5
Nutrients Removed at Harvest	-425.5	-40.8	-373.7	0.0
Nutrient Balance	40.1	25.1	150.5	1468.5

Winter Nitrogen Crop App / Use Ratio: 1.13Summer Nitrogen Crop App / Use Ratio: 1.12Field Name/Number: 2-202Acres: 79

WInter Crop Nutrient Summary :	Wheat, Silage		N
	Applied		
W. Manure App.	-	T/Ac	-
W. Comm Fert App.	-	lbs/Ac	-
Process Water	Q1	1.3 Ac In /Ac	227.2
	Q2	- Ac In /Ac	-
Well Water	-	Ac In /Ac	-
Canal	23.8	Ac In /Ac	0.2
Atm. Depos.	Yes		7.0
W. Planting	11/15/22		
W. Harvest	5/18/23	17.7 T/Ac	(207.0) (114.6) (276.0)

Summer Crop Nutrient Summary :	Corn, Silage		N
	Applied		
S. Manure App.	13.9	T/Ac	110.6
S. Comm Fert App.	-	lbs/Ac	-
Process Water	Q2	- Ac In /Ac	-
	Q3	4.1 Ac In /Ac	127.3
	Q4	- Ac In /Ac	-
Well Water	-	Ac In /Ac	(0.0)
Canal	28.6	Ac In /Ac	0.3
Atm. Depos.	Yes		7.0
S. Planting	6/10/23		
S. Harvest	10/18/23	22.9 T/Ac	(218.5) (99.3) (264.2)

Nutrient Applications

Field Name/Number:

2-204

Acres:

5.00

Field Name/Number: 2-204Acres: 5.00

	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: 2-204 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
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:		3-301								Acres:		111.00	
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)	N (lbs/Ac)	Lab Sample Data				Yield	
								Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (Lbs/Ac)	TFS	%	Expected Yield (tons/ac)
-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/19/22	W. Planting	-	-	-	-	-	-	-	-	-	-	-	-
1/31/23	Canal	-	-	-	5.25	-	0.1	-	-	5	-	-	-
1/31/23	Process Water	-	-	-	-	1.31	229.5	43.8	152.8	804	-	-	-
3/2/23	Canal	-	-	-	6.09	-	0.1	-	-	6	-	-	-
4/6/23	Canal	-	-	-	6.23	-	0.1	-	-	7	-	-	-
5/8/23	Canal	-	-	-	6.19	-	0.1	-	-	6	-	-	-
5/18/23	W. Harvest	-	-	-	-	-	(241.3)	(65.5)	(378.4)	-	8.75	-	24.34
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/6/23	S. Comm Fert App.	-	-	100	-	-	100.0	-	-	-	-	-	-
6/2/23	S. Planting	-	-	-	-	-	-	-	-	-	-	-	-
6/12/23	Canal	-	-	-	6.35	-	0.1	-	-	7	-	-	-
7/5/23	Canal	-	-	-	6.28	-	0.1	-	-	7	-	-	-
7/20/23	Canal	-	-	-	5.30	-	0.1	-	-	6	-	-	-
7/20/23	Process Water	-	-	-	-	1.33	30.3	2.5	21.9	202	-	-	-
8/18/23	Canal	-	-	-	5.35	-	0.1	-	-	6	-	-	-
8/18/23	Process Water	-	-	-	-	1.34	30.6	2.5	22.1	203	-	-	-
9/14/23	Canal	-	-	-	5.28	-	0.1	-	-	6	-	-	-
9/14/23	Process Water	-	-	-	-	1.32	30.2	2.5	21.8	201	-	-	-
10/16/23	S. Harvest	-	-	-	-	-	(250.0)	(52.7)	(250.0)	-	6.03	-	30.90
Totals:		0.0		100	52.33	5.30	(70)	(67)	(410)	1,465	14.78	0	55.24

Field Name/Number: 3-301Acres: 111.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	421.1	22.4	181.4	1464.7
Nutrients Removed at Harvest	-491.3	-51.6	-521.6	0.0
Nutrient Balance	-70.3	-29.2	-340.2	1464.7

Winter Nitrogen Crop App / Use Ratio: 0.98Summer Nitrogen Crop App / Use Ratio: 1.19Field Name/Number: 3-301Acres: 111

Winter Crop Nutrient Summary :	Wheat, Silage		N			
	Applied					
W. Manure App.	-	T/Ac	-	-	-	-
W. Comm Fert App.	-	lbs/Ac	-			
Process Water	Q1	1.3	Ac In /Ac	229.5	100.2	183.3
	Q2	-	Ac In /Ac	-	-	-
Well Water	-	Ac In /Ac	-			
Canal	23.8	Ac In /Ac	0.2			
Atm. Depos.	Yes		7.0			
W. Planting	11/19/22					
W. Harvest	5/18/23	24.3	T/Ac	(241.3)	(150.1)	(454.1)

Summer Crop Nutrient Summary :	Corn, Silage		N			
	Applied					
S. Manure App.	-	T/Ac	-	-	-	-
S. Comm Fert App.	100.0	lbs/Ac	100.0	-	-	-
Process Water	Q2	-	Ac In /Ac	-	-	-
	Q3	4.0	Ac In /Ac	91.0	17.4	79.0
	Q4	-	Ac In /Ac	-	-	-
Well Water	-	Ac In /Ac	100.0			
Canal	28.6	Ac In /Ac	0.3			
Atm. Depos.	Yes		7.0			
S. Planting	6/2/23					
S. Harvest	10/16/23	30.9	T/Ac	(250.0)	(120.8)	(300.0)

Nutrient Applications

Field Name/Number:		3-302						Acres:		45.00			
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)					
-	-	-	-	-	-	-	-	-	-	-	-	-	
3/4/23	W. Comm Fert App.	-	-	80	-	-	80.0	-	-	-	-	-	
11/16/22	W. Planting	-	-	-	-	-	-	-	-	-	-	-	
1/18/23	2.00	-	-	-	6.06	-	7.6	-	-	181	-	-	
3/4/23	2.00	-	-	-	6.30	-	7.8	-	-	188	-	-	
4/15/23	2.00	-	-	-	6.11	-	7.6	-	-	183	-	-	
5/6/23	2.00	-	-	-	6.20	-	7.7	-	-	186	-	-	
5/20/23	W. Harvest	-	-	-	-	-	(200.7)	(41.7)	(185.1)	-	8.75	19.69	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
6/1/23	S. Manure App.	10.00	-	-	-	-	79.4	71.8	296.7	-	-	-	
6/5/23	S. Planting	-	-	-	-	-	-	-	-	-	-	-	
6/15/23	2.00	-	-	-	5.13	-	6.4	-	-	154	-	-	
6/15/23	Process Water	-	-	-	-	1.62	78.9	19.5	112.4	922	-	-	
7/2/23	2.00	-	-	-	5.22	-	6.5	-	-	156	-	-	
7/2/23	Process Water	-	-	-	-	1.65	37.7	3.1	27.3	251	-	-	
7/18/23	2.00	-	-	-	5.08	-	6.3	-	-	152	-	-	
7/18/23	Process Water	-	-	-	-	1.61	36.7	3.1	26.5	244	-	-	
8/20/23	2.00	-	-	-	5.18	-	6.5	-	-	155	-	-	
8/20/23	Process Water	-	-	-	-	1.64	37.4	3.1	27.0	249	-	-	
9/6/23	2.00	-	-	-	5.27	-	6.6	-	-	158	-	-	
9/6/23	Process Water	-	-	-	-	1.66	33.3	3.2	27.5	253	-	-	
9/20/23	S. Harvest	-	-	-	-	-	(268.5)	(51.1)	(251.4)	-	6.03	27.89	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	
Totals:		10.0		80	50.56	8.18	(23)	11	81	3,432	14.78	0	47.58

Field Name/Number: 3-302Acres: 45.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	446.4	45.3	429.5	3432.2
Nutrients Removed at Harvest	-469.2	-40.5	-362.3	0.0
Nutrient Balance	-22.8	4.8	67.2	3432.2

Winter Nitrogen Crop App / Use Ratio: 0.99Summer Nitrogen Crop App / Use Ratio: 1.28Field Name/Number: 3-302Acres: 45

Winter Crop Nutrient Summary :	Wheat, Silage		N
	Applied		
W. Manure App.	-	T/Ac	-
W. Comm Fert App.	80.0	Ibs/Ac	80.0
Process Water	Q1	- Ac In /Ac	-
	Q2	- Ac In /Ac	-
Well Water	24.7	Ac In /Ac	110.8
Canal	-	Ac In /Ac	-
Atm. Depos.	Yes		7.0
W. Planting	11/16/22		
W. Harvest	5/20/23	19.7 T/Ac	(200.7) (95.5) (222.1)

Summer Crop Nutrient Summary :	Corn, Silage		N
	Applied		
S. Manure App.	10.0	T/Ac	79.4
S. Comm Fert App.	-	Ibs/Ac	-
Process Water	Q2	1.6 Ac In /Ac	78.9
	Q3	6.6 Ac In /Ac	145.0
	Q4	- Ac In /Ac	28.6
Well Water	25.9	Ac In /Ac	134.9
Canal	-	Ac In /Ac	130.0
Atm. Depos.	Yes		-
S. Planting	6/5/23		
S. Harvest	9/20/23	27.9 T/Ac	(268.5) (117.1) (301.7)

Nutrient Applications

Field Name/Number:		4-401								Acres:		50.00	
Date	Event / Source	Dry Manure Applied (tons/ac)	Moist. %	Chern 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)
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/28/22	W. Planting	-	-	-	-	-	-	-	-	-	-	-	-
1/20/23	Canal	-	-	-	5.30	-	0.1	-	-	6	-	-	-
1/20/23	Process Water	-	-	-	-	1.33	231.6	44.2	154.2	811	-	-	-
2/17/23	Canal	-	-	-	6.36	-	0.1	-	-	7	-	-	-
3/28/23	Canal	-	-	-	6.52	-	0.1	-	-	7	-	-	-
4/26/23	Canal	-	-	-	6.26	-	0.1	-	-	7	-	-	-
5/15/23	W. Harvest	-	-	-	-	-	(232.8)	(51.7)	(223.3)	-	8.75	-	18.60
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/18/23	S. Manure App.	14.00	-	-	-	-	111.2	100.5	415.4	-	-	-	-
5/20/23	S. Planting	-	-	-	-	-	-	-	-	-	-	-	-
6/20/23	Canal	-	-	-	5.57	-	0.1	-	-	6	-	-	-
6/20/23	Process Water	-	-	-	-	1.39	67.8	16.8	96.5	792	-	-	-
7/21/23	Canal	-	-	-	5.36	-	0.1	-	-	6	-	-	-
7/21/23	Process Water	-	-	-	-	1.34	30.6	2.5	22.1	204	-	-	-
8/4/23	Canal	-	-	-	6.47	-	0.1	-	-	7	-	-	-
8/20/23	Canal	-	-	-	5.46	-	0.1	-	-	6	-	-	-
8/20/23	Process Water	-	-	-	-	1.37	31.2	2.6	22.6	208	-	-	-
9/28/23	Canal	-	-	-	5.25	-	0.1	-	-	5	-	-	-
9/28/23	Process Water	-	-	-	-	1.31	30.0	5.3	0.0	339	-	-	-
10/22/23	S. Harvest	-	-	-	-	-	(251.6)	(35.9)	(215.7)	-	6.03	-	23.34
Totals:		14.0		0	52.55	6.74	18	84	272	2,409	14.78	0	41.94

Field Name/Number: 4-401 Acres: 50.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	502.9	75.0	590.1	2408.9
Nutrients Removed at Harvest	-484.4	-38.3	-364.4	0.0
Nutrient Balance	18.5	36.8	225.7	2408.9

Winter Nitrogen Crop App / Use Ratio: 1.03 Summer Nitrogen Crop App / Use Ratio: 1.11

Field Name/Number: 4-401 Acres: 50

Winter Crop Nutrient Summary :	Wheat, Silage		N			
	Applied					
W. Manure App.	-	T/Ac	-			
W. Comm Fert App.	-	Ibs/Ac	-			
Process Water	Q1	1.3	Ac In /Ac	231.6	101.2	185.0
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		24.4	Ac In /Ac	0.2		
Atm. Depos.	Yes			7.0		
W. Planting	11/28/22					
W. Harvest	5/15/23	18.6	T/Ac	(232.8)	(118.5)	(267.9)

Summer Crop Nutrient Summary :	Corn, Silage		N			
	Applied					
S. Manure App.	14.0	T/Ac	111.2			
S. Comm Fert App.	-	Ibs/Ac	-			
Process Water	Q2	1.4	Ac In /Ac	67.8	38.4	115.9
	Q3	4.0	Ac In /Ac	91.8	24.0	53.6
	Q4	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	0.0		
Canal		28.1	Ac In /Ac	0.3		
Atm. Depos.	Yes			7.0		
S. Planting	5/20/23					
S. Harvest	10/22/23	23.3	T/Ac	(251.6)	(82.3)	(258.8)

Nutrient Applications

Field Name/Number:

4-402

Acres:

60,00

Field Name/Number: 4-402 Acres: 60.00

Nutrients Applied	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	462.0	49.4	414.7	2160.2
Nutrients Removed at Harvest	-408.2	-32.3	-319.9	0.0
Nutrient Balance	53.8	17.1	94.8	2160.2

Winter Nitrogen Crop App / Use Ratio: 1.09 Summer Nitrogen Crop App / Use Ratio: 1.24

Field Name/Number: 4-402 Acres: 60

Winter Crop	Crop	Applied	N			
W. Manure App.		- T/Ac	-	-	-	-
W. Comm Fert App.		- lbs/Ac	-	-	-	-
Process Water	Q1	1.3 Ac In /Ac	222.0	96.9	177.3	
	Q2	- Ac In /Ac	-	-	-	-
Well Water		- Ac In /Ac	-	-	-	-
Canal		23.9 Ac In /Ac	0.2			
Atm. Depos.		Yes	7.0			
W. Planting	11/20/22					
W. Harvest	5/20/23	16.0 T/Ac	(209.9)	(98.9)	(224.5)	

Summer Crop	Crop	Applied	N			
S. Manure App.		6.7 T/Ac	52.9	109.6	237.4	
S. Comm Fert App.		- lbs/Ac	-	-	-	-
Process Water	Q2	1.3 Ac In /Ac	62.4	35.3	106.7	
	Q3	3.9 Ac In /Ac	124.1	17.2	78.2	
	Q4	- Ac In /Ac	-	-	-	-
Well Water		- Ac In /Ac	(0.0)			
Canal		27.3 Ac In /Ac	0.3			
Atm. Depos.		Yes	7.0			
S. Planting	6/5/23					
S. Harvest	10/10/23	21.3 T/Ac	(198.3)	(70.7)	(238.0)	

Nutrient Applications

Field Name/Number:

4-403

Acres:

21.00

Field Name/Number		4-150		AFCPS		2100						
Date	Event / Source	Dry Manure Applied (tons/ac)	Chem Fert total lbs	Fresh Water Applied (ac-in/ac)	Lagoon Water Applied (ac-in/ac)	Lab Sample Data				Yield		
		Moist. %		N (lbs/Ac)	Total P (lbs/Ac)	Total K (lbs/Ac)	Salt (lbs/Ac)	TFS %	Expected Yield (tons/ac)	Actual Yield (tons/ac)		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
11/26/23	W. Planting	-	-	-	-	-	-	-	-	-		
1/15/23	Canal	-	-	6.31	-	0.1	-	-	7	-		
2/20/23	Canal	-	-	6.19	-	0.1	-	-	5	-		
4/20/23	Canal	-	-	5.05	-	0.1	-	-	5	-		
4/20/23	Process Water	-	-	-	1.26	220.6	15.2	87.6	718	-		
5/8/23	Canal	-	-	6.44	-	0.1	-	-	7	-		
5/22/23	W. Harvest	-	-	-	-	(168.8)	(41.1)	(185.8)	-	8.75	18.10	
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
7/2/23	S. Comm Fert App.	-	100	-	-	100.0	-	-	-	-		
6/12/23	Canal	-	-	6.82	-	0.1	-	-	7	-		
6/20/23	S. Planting	-	-	-	-	-	-	-	-	-		
7/2/23	Canal	-	-	6.56	-	0.1	-	-	7	-		
7/20/23	Canal	-	-	5.43	-	0.1	-	-	6	-		
7/20/23	Process Water	-	-	-	1.36	31.0	2.6	22.4	206	-		
8/18/23	Canal	-	-	5.30	-	0.1	-	-	6	-		
8/18/23	Process Water	-	-	-	1.33	30.3	2.5	21.9	202	-		
9/16/23	Canal	-	-	5.18	-	0.1	-	-	5	-		
9/16/23	Process Water	-	-	-	1.29	29.6	2.5	21.4	197	-		
10/16/23	S. Harvest	-	-	-	-	(274.8)	(45.5)	(237.6)	-	6.03	26.76	
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	-	-	-	-	-	-	-		
Totals:		0.0	100	53.27	5.24	(32)	(64)	(270)	1,379	14.78	0	44.86

Field Name/Number: 4-403 Acres: 21.00

Nutrients Applied	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	412.0	9.9	127.2	1379.1
Nutrients Removed at Harvest	-443.6	-37.8	-351.5	0.0
Nutrient Balance	-31.6	-27.9	-224.2	1379.1

Winter Nitrogen Crop App / Use Ratio: 1.35 Summer Nitrogen Crop App / Use Ratio: 1.09

Field Name/Number: 4-403 Acres: 21

Winter Crop	Wheat, Silage		N
Nutrient Summary :	Applied		
W. Manure App.	-	T/Ac	-
W. Comm Fert App.	-	lbs/Ac	-
Process Water	Q1	- Ac In /Ac	-
	Q2	1.3 Ac In /Ac	220.6 34.8 105.1
Well Water	-	Ac In /Ac	-
Canal	24.0	Ac In /Ac	-
Atm. Depos.	Yes		7.0
W. Planting	11/26/23		
W. Harvest	5/22/23	18.1 T/Ac	(168.8) (94.2) (223.0)

Summer Crop	Corn, Silage		N
Nutrient Summary :	Applied		
S. Manure App.	-	T/Ac	-
S. Comm Fert App.	100.0	lbs/Ac	100.0 - -
Process Water	Q2	- Ac In /Ac	-
	Q3	4.0 Ac In /Ac	90.9 17.3 78.9
	Q4	- Ac In /Ac	-
Well Water	-	Ac In /Ac	100.0
Canal	29.3	Ac In /Ac	0.3
Atm. Depos.	Yes		7.0
S. Planting	6/20/23		
S. Harvest	10/16/23	26.8 T/Ac	(274.8) (104.1) (285.1)

Nutrient Applications

Field Name/Number:

4-404

Acres:

21.00

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)
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/25/23	W. Planting	-	-	-	-	-	-	-	-	-	-	-	-
1/23/23	Canal	-	-	-	5.55	-	0.1	-	-	-	6	-	-
1/23/23	Process Water	-	-	-	-	1.39	242.6	46.3	161.5	850	-	-	-
2/27/23	Canal	-	-	-	6.44	-	0.1	-	-	-	7	-	-
4/5/23	Canal	-	-	-	6.19	-	0.1	-	-	-	6	-	-
5/18/23	Canal	-	-	-	6.69	-	0.1	-	-	-	7	-	-
5/25/23	W. Harvest	-	-	-	-	-	(210.5)	(42.4)	(154.0)	-	8.75	-	19.14
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/2/23	S. Comm Fert App.	-	-	80	-	-	80.0	-	-	-	-	-	-
6/5/23	Canal	-	-	-	6.31	-	0.1	-	-	-	7	-	-
6/18/23	S. Planting	-	-	-	-	-	-	-	-	-	-	-	-
7/2/23	Canal	-	-	-	6.06	-	0.1	-	-	-	6	-	-
8/5/23	Canal	-	-	-	5.43	-	0.1	-	-	-	6	-	-
8/5/23	Process Water	-	-	-	-	1.36	31.0	2.6	22.4	206	-	-	-
9/4/23	Canal	-	-	-	5.05	-	0.1	-	-	-	5	-	-
9/4/23	Process Water	-	-	-	-	1.26	28.8	2.4	20.9	192	-	-	-
9/29/23	Canal	-	-	-	5.30	-	0.1	-	-	-	6	-	-
9/29/23	Process Water	-	-	-	-	1.33	30.3	5.4	0.0	343	-	-	-
10/25/23	Canal	-	-	-	5.18	-	0.1	-	-	-	5	-	-
10/25/23	Process Water	-	-	-	-	1.29	25.9	5.3	0.0	334	-	-	-
11/1/23	S. Harvest	-	-	-	-	-	(232.5)	(40.0)	(221.0)	-	6.03	-	24.81
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
Totals:		0.0		80	58.20	6.63	(4)	(20)	(170)	1,986	14.78	0	43.95

Field Name/Number: 4-404Acres: 21.00

	Total N (lbs/ac)	Total P (lbs/ac)	Total K Lbs/ac)	Total Salts (lbs/ac)
Nutrients Applied	439.2	27.0	170.0	1986.4
Nutrients Removed at Harvest	-443.0	-36.0	-311.3	0.0
Nutrient Balance	-3.7	-8.9	-141.3	1986.4

Winter Nitrogen Crop App / Use Ratio: 1.19Summer Nitrogen Crop App / Use Ratio: 1.22Field Name/Number: 4-404 Acres: 21

Winter Crop Nutrient Summary :	Wheat, Silage		N			
	Applied					
W. Manure App.	-	T/Ac	-			
W. Comm Fert App.	-	lbs/Ac	-			
Process Water	Q1	1.4	Ac In /Ac	242.6	106.0	193.8
	Q2	-	Ac In /Ac	-	-	-
Well Water		-	Ac In /Ac	-		
Canal		24.9	Ac In /Ac	-		
Atm. Depos.	Yes			7.0		
W. Planting	11/25/23					
W. Harvest	5/25/23	19.1	T/Ac	(210.5)	(97.1)	(184.8)

Summer Crop Nutrient Summary :	Corn, Silage		N			
	Applied					
S. Manure App.	-	T/Ac	-			
S. Comm Fert App.	80.0	lbs/Ac	80.0			
Process Water	Q2	-	Ac In /Ac			
	Q3	3.9	Ac In /Ac	90.2	23.7	52.0
	Q4	1.3	Ac In /Ac	25.9	12.0	0.0
Well Water		-	Ac In /Ac	80.0		
Canal		33.3	Ac In /Ac	0.3		
Atm. Depos.	Yes			7.0		
S. Planting	6/18/23					
S. Harvest	11/1/23	24.8	T/Ac	(232.5)	(91.6)	(265.2)

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 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 _____

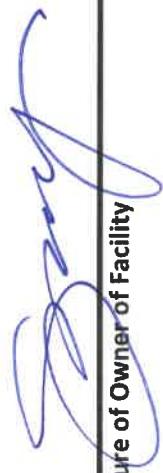
Written Agreements:

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.

A handwritten signature in blue ink, appearing to read "Gary DeGraaf".

Signature of Owner of Facility

Gary DeGraaf
Print Name

Signature of Operator of Facility

Jer-Z Boyz Ranch #1
Print Name

A handwritten signature in blue ink, appearing to read "Jer-Z Boyz Ranch #1".

5/21/24
Date

March 9, 2023

Lab No. : VI 2340872
 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
Barn	02/10/2023	02/10/2023	VI 2340872-001	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-NO3 F	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: JRD

Approved By **Kelly A. Dunnahoo, B.S.** 
 Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2023-03-09

Section: Case Narrative

Page 1 of 3

Page 1 of 3

Corporate Offices & Laboratory
 853 Corporation Street
 Santa Paula, CA 93060
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 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. Lido Avenue
 Chico, CA 95926
 TEL: (530)343-5818
 FAX: (530)343-3807
 CA ELAP Certification No. 2670

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 3442 Empresa Drive, Suite D
 San Luis Obispo, CA 93401
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 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

March 9, 2023

Lab No. : VI 2340872-001

Customer No.: 4018505

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

Sampled On : February 10, 2023 at 08:23

Sampled By : KC / MF

Received On : February 10, 2023 at 10:39

Matrix : Drinking Water

Description : Barn
 Project : W-6 Jer-Z-Boyz

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U	02/24/2023	11:30	sta	EPA 351.2	03/01/2023	18:08	lcr
Nitrate Nitrogen	5.1	0.4	mg/L	10	1		02/22/2023	11:45	lfs	SM 4500-NO3 F	02/22/2023	12:50	lfs
Nitrogen, Total as Nitrogen	5.1	0.5	mg/L		1		02/24/2023	11:30	sta	EPA 351.2	03/01/2023	18:08	lcr
Nitrate + Nitrite as N	5.1	0.4	mg/L	10	1		02/22/2023	11:45	lfs	SM 4500-NO3 F	02/22/2023	12:50	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	02/24/2023	11:30	sta	EPA 351.2	03/01/2023	18:08	lcr
Conductivity	312	1	umhos/cm	1600 ²	1		02/21/2023	14:01	sta		02/21/2023	14:01	sta
Solids, Total Dissolved (TDS)	180	20	mg/L	1000 ²	1		02/14/2023	12:50	ctl	SM 2540 C	02/15/2023	12:49	ctl

DQF Flags Definition:

U Constituent results were non-detect.

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

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

March 9, 2023

Livingston Dairy Consulting, Inc.
Lab No. : VI 2340872
Customer No. : 4018505
Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2510B	02/21/2023:201893STA (VI 2340883-001)	Blank Dup	umhos/cm umhos/cm		ND 0.7%	<1 5	
Solids, Total Dissolved	2540CE	02/14/2023:201630CTL (VI 2340882-003) (VI 2340882-003)	Blank LCS Dup Dup	mg/L mg/L mg/L mg/L	990.8	98.4 % 1.4% 4.5%	<20 90-110 5 5	
Nitrogen, Total Kjeldahl	351.2	02/24/2023:202049STA (VI 2340880-001)	Blank LCS MS MSD MSRPD MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L mg/L mg/L mg/L	12.00 12.00 12.00 12.00 12.00 12.00 12.00 12.00	ND 91.2% 84.9% 83.6% 1.5% 88.2% 89.0% 0.8%	<0.5 73-124 54-136 54-136 ≤27 54-136 54-136 ≤27	
Nitrate + Nitrite as N	4500NO3F	02/22/2023:201947LFS (SP 2302530-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609 5.609 5.609	ND 98.3% 97.3% 99.4% 1.8%	<0.4 80-120 66-125 66-125 ≤30.4	
Nitrate Nitrogen	4500NO3F	02/22/2023:201947LFS (SP 2302530-001)	Blank LCS MS MSD MSRPD	mg/L mg/L mg/L mg/L mg/L	11.22 5.609 5.609 5.609 5.609	ND 98.3% 97.3% 99.4% 1.8%	<0.4 80-120 66-125 66-125 ≤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.



Special

CHAIN OF CUSTODY
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Analytical Chemists

Laboratory Copy (1 of 3)

Client: Livingston Dairy Consulting, Inc.		42086:03/01/2022		TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information	
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 Jer-Z-Boy					
Purchase Order Number:					
Quote Number: VI 20210208-01					
Sampler(s)	MF/kc				
Sampling Fee: _____	Pickup Fee: _____				
Compositor Setup Date: _____ / _____ / _____	Time: _____ / _____				
Lab Number: VI 2340872	4-18505				
Samp Num	Location Description	Date Sampled	Time Sampled	Type of Sample	Method of Sampling: Composite(C) Grab(G) Portable(P) Non-Portable(NP) Age Water(AgW) Batch Type: Other(O) System(SYS) Source(SR) Waste(W) Batch Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Daily Analysis-W-6-Conductivity, NO ₃ -N, Total N, TDS 16oz(P)-H2SO4 ***VI Lab to Split for Total N*** 8oz(P)-H2SO4 Sampling-W-6 - Total N - Split Bottle
1	Barn	2/23/23	8:23	G	DWP
2	(Barn)			G	
3				G	
4				G	
5				G	
6				G	
7				G	
8				G	
9				G	
10				G	
Remarks:	Relinquished By: MBC Date: 2-10-23 Time: 10:39				
Received By:	Time:	Received By:	Time:	Received By:	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
9415 W. Goshen Avenue
Visalia, CA 93291
Phone: (559) 734-9473
Fax: (559) 734-8435

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

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC

CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # OTC
2. Were samples received in a chilled condition? Temps: 6.0°C / 20.1°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.
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 N/A
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): MBC

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 2°C / -1°C / -1°C / -1°C
Acceptable is above freezing to 6°C. If many packages are received at one time check for tests/H.T.'s/rushes/
2. Shipping tracking numbers: 558796176 154
195
3. Do the number of bottles received agree with the COC? 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): 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: _____ (4018505)
Problem:
Resolution:

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

Livingston Dairy Consulting, Inc.
VI 2340872

iv 02/13/2023 10:05:37



UI 2340872

August 3, 2023

Lab No. : VI 2344455
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
2	07/11/2023	07/11/2023	VI 2344455-001	AGW
3	07/11/2023	07/11/2023	VI 2344455-002	AGW

Sampling and Receipt Information:

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

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

Test Summary

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

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

KD: EHB

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

Digitally signed by Kelly A. Dunnahoo, B.S.

Title: Laboratory Director
Date: 2023-08-03

Section: Case Narrative

Page 1 of 4

Page 1 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. Goschen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810
--	--	--	--	---

August 3, 2023

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

Description : 2
 Project : W-6 Jer-Z-Boyz

Lab No. : VI 2344455-001

Customer No.: 4018505

Sampled On : July 11, 2023 at 08:01
 Sampled By : Bruce / Noreen
 Received On : July 11, 2023 at 11:38
 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	ND	0.5	mg/L		1	U	07/28/2023	08:46	sta	EPA 351.2	07/31/2023	19:26	lcr
Nitrate Nitrogen	5.5	0.4	mg/L		1		07/12/2023	13:00	lfs	SM 4500-NO3 F	07/12/2023	15:19	lfs
Nitrogen, Total as Nitrogen	5.5	0.5	mg/L		1		07/28/2023	08:46	sta	Calc.	07/31/2023	19:26	lcr
Nitrate + Nitrite as N	5.5	0.4	mg/L		1		07/12/2023	13:00	lfs	SM 4500-NO3 F	07/12/2023	15:19	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/28/2023	08:46	sta	EPA 351.2	07/31/2023	19:26	lcr
Conductivity	291	1	umhos/cm		1		07/18/2023	14:57	amm	SM 4500-H+B	07/18/2023	17:25	amm
Solids, Total Dissolved (TDS)	220	20	mg/L		1		07/14/2023	10:00	ctl	SM 2540 C	07/17/2023	11:10	ctl

DQF Flags Definition:

U Constituent results were non-detect.

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

August 3, 2023

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

Description : 3
Project : W-6 Jer-Z-Boyz

Lab No. : VI 2344455-002

Customer No.: 4018505

Sampled On : July 11, 2023 at 08:15
Sampled By : Bruce / Noreen
Received On : July 11, 2023 at 11:38
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	ND	0.5	mg/L		1	U	07/28/2023	08:46	sta	EPA 351.2	07/31/2023	19:29	lcr
Nitrate Nitrogen	8.0	0.4	mg/L		1		07/12/2023	13:00	lfs	SM 4500-NO3 F	07/12/2023	15:32	lfs
Nitrogen, Total as Nitrogen	8.0	0.5	mg/L		1		07/28/2023	08:46	sta	Calc.	07/31/2023	19:29	lcr
Nitrate + Nitrite as N	8.0	0.4	mg/L		1		07/12/2023	13:00	lfs	SM 4500-NO3 F	07/12/2023	15:32	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U	07/28/2023	08:46	sta	EPA 351.2	07/31/2023	19:29	lcr
Conductivity	354	1	umhos/cm		1		07/18/2023	14:57	amm	SM 4500-H+B	07/18/2023	16:14	amm
Solids, Total Dissolved (TDS)	230	20	mg/L		1		07/13/2023	09:40	ctl	SM 2540 C	07/14/2023	11:00	ctl

DQF Flags Definition:

U Constituent results were non-detect.

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

August 3, 2023

Livingston Dairy Consulting, Inc.

Lab No. : VI 2344455

Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2344461-007)	Dup	umhos/cm		0.6%	5	
		(VI 2344444-001)	Dup	umhos/cm		0.6%	5	
Solids, Total Dissolved	2540CE	07/13/2023:207664CTL	Blank	mg/L		ND	<20	
		(VI 2344526-001)	LCS	mg/L	993.7	102%	90-110	
		(VI 2344526-001)	Dup	mg/L		4.00%	5	
	2540CE	07/14/2023:207703CTL	Dup	mg/L		3.93%	5	
		(SP 2311840-005)	Blank	mg/L		ND	<20	
		(SP 2311840-005)	LCS	mg/L	993.7	99.0%	90-110	
Nitrogen, Total Kjeldahl	351.2	07/28/2023:208341STA	MSD	mg/L	12.00	1.59%	5	
		(SP 2311944-003)	MS	mg/L	12.00	2.13%	5	
		(SP 2311944-003)	MSRPD	mg/L		ND	<0.5	
		(SP 2311944-003)	MS	mg/L	12.00	94.9%	73-124	
		(SP 2311944-003)	MS	mg/L	12.00	94.6%	54-136	
		(SP 2311944-003)	MSRPD	mg/L		94.6%	54-136	
		(SP 2311944-004)	MS	mg/L	12.00	0.0%	≤27	
		(SP 2311944-004)	MS	mg/L	12.00	93.8%	54-136	
		(SP 2311944-004)	MSRPD	mg/L		92.6%	54-136	
Nitrate + Nitrite as N	4500NO3F	07/12/2023:207621LFS	MSRPD	mg/L		1.2%	≤27	
		(SP 2311816-001)	Blank	mg/L		ND	<0.4	
		(SP 2311816-001)	LCS	mg/L	11.22	101%	80-120	
		(SP 2311816-001)	MS	mg/L	5.609	96.6%	66-125	
		(SP 2311816-001)	MSD	mg/L	5.609	96.5%	66-125	
		(SP 2311816-001)	MSRPD	mg/L		0.0%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/12/2023:207621LFS	MS	mg/L	11.22	ND	<0.4	
		(SP 2311816-001)	MS	mg/L	5.609	101%	80-120	
		(SP 2311816-001)	MSD	mg/L	5.609	96.6%	66-125	
		(SP 2311816-001)	MSRPD	mg/L		96.5%	66-125	
		(SP 2311816-001)	MSRPD	mg/L		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.

Special

CHAIN OF CUSTODY
www.fglninc.com

Environmental
Analytical Chemists

Laboratory Copy (1 of 2)

				TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information	
Client: Livingston Dairy Consulting, Inc.				42086:04/01/2023	
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 <u>DEK-H-Boy 2</u>					
Purchase Order Number:					
Quote Number: VI 20210208-01					
Sampler(s)		<i>Bruce / Bruce</i>			
Sampling Fee: _____		Pickup Fee: _____			
Compositor Setup Date: _____ / _____ / _____		Time: _____ / _____			
Lab Number: VI 2344455 4-18505					
Samp Num	Location Description	Date Sampled	Time Sampled	Type of Sample	Method of Sampling: *Composite(C) Grab(G) Portable(P) Non-Portable(NP) Age Water(AgW) Batch Type: Other(O) System(SYS) Source(SR) Waste(W) Batch Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Specific(SPL)
1	3	7/1/23	8:29 AM	G	AgW
2	3	7/1/23	8:15 AM	G	AgW
3				G	
4				G	
5				G	
6				G	
7				G	
8				G	
9				G	
10				G	
Remarks:		<i>ADH</i>			
Relinquished		Date: 7/1/23 Time: 11:38 AM		Relinquished Date: 7/1/23 Time: 11:38 AM	
Received By: <i>ADH</i>		Date: 7/1/23 Time: 11:38 AM		Received By: <i>ADH</i> Date: 7/1/23 Time: 11:38 AM	
Office & Laboratory		2500 Stagecoach Road Stockton, CA 95215 Phone: (209) 942-0182 Fax: (209) 942-0423		Office & Laboratory 3442 Empresa Drive, Suite D San Luis Obispo, CA 93401 Phone: (805) 783-2940 Fax: (805) 783-2912	
Corporate Offices & Laboratory		853 Corporation Street Santa Paula, CA 93060 Phone: (805) 392-2000 Fax: (805) 392-1722 / Ag Fax: (805) 392-2063		Office & Laboratory 9415 W. Goshen Avenue Visalia, CA 93291 Phone: (559) 734-9471 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: 61, 74, / / /
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 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 N/A
9. Verify sample date, time and sampler name Yes No N/A

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, 6, 4, 4, /
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: 950745305, 950745133, 950745140, 950745137
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. 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 N/A

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

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

Discrepancy Documentation:

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

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

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

(4018505)
Livingston Dairy Consulting, Inc.
VI 234445

iv 07/12/2023 09:05:01



VI 234445

here

August 18, 2023

Lab No. : VI 2344884
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 6 pages divided into 3 sections:

- | | | |
|-----------------|-----------|---|
| Case Narrative | (1 page) | : An overview of the work performed at FGL. |
| Sample Results | (4 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
#4	07/27/2023	07/27/2023	VI 2344884-001	AGW
#5	07/27/2023	07/27/2023	VI 2344884-002	AGW
#7	07/27/2023	07/27/2023	VI 2344884-003	AGW
#1	07/27/2023	07/27/2023	VI 2344884-004	AGW

Sampling and Receipt Information:

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

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

Test Summary

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

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

KD: EHB

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

Digitally signed by Kelly A. Dunnahoo, B.S.

 Title: Laboratory Director
 Date: 2023-08-18

Section: Case Narrative

Page 1 of 6

Page 1 of 6

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
--	--	--	--	--

August 18, 2023

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

Description : #4
Project : W-6 Jer-Z Boyz

Lab No. : VI 2344884-001

Customer No. : 4018505

Sampled On : July 27, 2023 at 06:27

Sampled By : Marlene/Noreen

Received On : July 27, 2023 at 09:18

Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:15	lcr
Nitrate Nitrogen	3.8	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:27	lfs
Nitrogen, Total as Nitrogen	3.8	0.5	mg/L		1	I	08/12/2023	12:25	sta	Calc.	08/16/2023	21:15	lcr
Nitrate + Nitrite as N	3.8	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:27	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:15	lcr
Conductivity	320	1	umhos/cm		1		07/31/2023	21:43	amm	SM 4500-H+B	08/01/2023	01:50	amm
Solids, Total Dissolved (TDS)	180	20	mg/L		1		07/31/2023	11:30	ctl	SM 2540 C	08/02/2023	11:30	ctl

DQF Flags Definition:

U Constituent results were non-detect.

I The MS/MSD did not meet QC criteria.

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

August 18, 2023

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

Description : #5
Project : W-6 Jer-Z Boyz

Lab No. : VI 2344884-002

Customer No. : 4018505

Sampled On : July 27, 2023 at 06:35

Sampled By : Marlene/Noreen

Received On : July 27, 2023 at 09:18

Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:17	lcr
Nitrate Nitrogen	3.3	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:29	lfs
Nitrogen, Total as Nitrogen	3.3	0.5	mg/L		1	I	08/12/2023	12:25	sta	Calc.	08/16/2023	21:17	lcr
Nitrate + Nitrite as N	3.3	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:29	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:17	lcr
Conductivity	271	1	umhos/cm		1		07/31/2023	21:43	amm	SM 4500-H+B	08/01/2023	02:22	amm
Solids, Total Dissolved (TDS)	160	20	mg/L		1		07/31/2023	11:30	ctl	SM 2540 C	08/02/2023	11:30	ctl

DQF Flags Definition:

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

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

August 18, 2023

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

Lab No. : VI 2344884-003

Customer No.: 4018505

Sampled On : July 27, 2023 at 06:43

Sampled By : Marlene/Noreen

Received On : July 27, 2023 at 09:18

Matrix : Ag Water

Description : #7
 Project : W-6 Jer-Z Boyz

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	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:19	lcr
Nitrate Nitrogen	1.5	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:32	lfs
Nitrogen, Total as Nitrogen	1.5	0.5	mg/L		1	1	08/12/2023	12:25	sta	Calc.	08/16/2023	21:19	lcr
Nitrate + Nitrite as N	1.5	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:32	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:19	lcr
Conductivity	220	1	umhos/cm		1		07/31/2023	21:43	amm	SM 4500-H+B	08/01/2023	01:44	amm
Solids, Total Dissolved (TDS)	140	20	mg/L		1		07/31/2023	11:30	ctl	SM 2540 C	08/02/2023	11:30	ctl

DQF Flags Definition:

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

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

August 18, 2023

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

Description : #1
 Project : W-6 Jer-Z Boyz

Lab No. : VI 2344884-004

Customer No. : 4018505

Sampled On : July 27, 2023 at 06:50

Sampled By : Marlene/Noreen

Received On : July 27, 2023 at 09:18

Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
Dairy Analysis													
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:21	lcr
Nitrate Nitrogen	4.2	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:34	lfs
Nitrogen, Total as Nitrogen	4.2	0.5	mg/L		1	1	08/12/2023	12:25	sta	Calc.	08/16/2023	21:21	lcr
Nitrate + Nitrite as N	4.2	0.4	mg/L		1		07/28/2023	12:30	lfs	SM 4500-NO3 F	07/28/2023	14:34	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	U1	08/12/2023	12:25	sta	EPA 351.2	08/16/2023	21:21	lcr
Conductivity	269	1	umhos/cm		1		07/31/2023	21:43	amm	SM 4500-H+B	08/01/2023	02:04	amm
Solids, Total Dissolved (TDS)	170	20	mg/L		1		07/31/2023	11:30	ctl	SM 2540 C	08/02/2023	11:30	ctl

DQF Flags Definition:

U Constituent results were non-detect.

1 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 2344884

Customer No. : 4018505

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(CC 2382398-001)	Dup	umhos/cm		0.2%	5	
Solids, Total Dissolved	2540CE	07/31/2023:208416CTL	Blank	mg/L	991.5	ND	<20	
		(SP 2312860-001)	LCS	mg/L		100%	90-110	
		(SP 2312860-001)	Dup	mg/L		1.70%	5	
		(SP 2312860-001)	Dup	mg/L		2.72%	5	
Nitrogen, Total Kjeldahl	351.2	08/12/2023:208945STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	90.7%	73-124	
			MS	mg/L	12.00	87.7%	54-136	
		(STK2339763-002)	MSD	mg/L	12.00	88.5%	54-136	
			MSRPD	mg/L		0.8%	≤27	
			MS	mg/L	12.00	64.2%	54-136	
		(VI 2344850-001)	MSD	mg/L	12.00	22.3%	54-136	435
			MSRPD	mg/L		96.1%	≤27	435
Nitrate + Nitrite as N	4500NO3F	07/28/2023:208385LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.0%	80-120	
			MS	mg/L	5.609	98.3%	66-125	
		(SP 2312904-001)	MSD	mg/L	5.609	97.7%	66-125	
			MSRPD	mg/L		0.5%	≤30.4	
Nitrate Nitrogen	4500NO3F	07/28/2023:208385LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	98.0%	80-120	
			MS	mg/L	5.609	98.3%	66-125	
		(SP 2312904-001)	MSD	mg/L	5.609	97.7%	66-125	
			MSRPD	mg/L		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 analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.

Explanation

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

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: 101 15.4 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.
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 N/A
9. Verify sample date, time and sampler name Yes No N/A

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: 2 1 4 1 3 12
Acceptable is above freezing to 6° C. If many packages are received at one time check for tests/H.T.'s/rushes/
2. Shipping tracking numbers: 559845351 785 194 1443 455
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. 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 N/A

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

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

Discrepancy Documentation:

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

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

(4018505)
Livingston Dairy Consulting, Inc.
VI 2344884

cda 07/27/2023 15:46:42



UT 2344884

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

2344884



Livingston Dairy Consulting, Inc.

FIELD ACTIVITY REPORT

Facility Name:

Jer-Z-Boyz Ranch #1
11001 Avenue 112, Pixley
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 Analysis Plan for more detailed descriptions.

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

Sample Type:

Sample Preservation Method: (Circle one)

Ice Chest

Refrigerator

Ice Pack

Livingston Dairy Consulting, Inc.

1635 E. Prosperity Ave. Ste. B

Tulare, CA 93274

559-687-1440

Sunday, April 21, 2024

Re: 2023 NMP

**Jer-Z Boyz Ranch #1 WDID 5D545115001
11001 Ave. 112 Pixley, CA 93256**

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 **0.59**

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.

ATTACHMENT D
ORDER R5-2017-0000

**MANURE/ WASTEWATER TRACKING MANIFEST
FOR
CONFINED BOVINE FEEDING OPERATIONS**

Instructions:

- 1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
 - 2) If there are multiple destinations, **complete a separate form for each destination**.
 - 3) The operator must obtain the signature of the hauler upon completion of each manure-hauling event.
 - 4) The operator shall submit copies of manure/ wastewater tracking manifest(s) with the Annual Report for Confined Bovine Feeding Operations.
 - 5) Manifests cannot be used when transferring manure or wastewater to cropland owned or controlled by the owner or operator of the Confined Bovine Feeding Operation as a substitute for preparing and implementing a Nutrient Management Plan for the cropland.
 - 6) Manifests are not needed to document the use of manure for bedding at the operation where the manure was generated.

Operator Information:

Name of Operator: Ver-Z Bayz Ranch #1

Name of Facility:

Jer-7 Boys Ranch #1

Facility Address: 11001 Ave H2 Pixley CA 93256
Number and Street City Zip Code

Contact Person Name and Phone Number: Daniel DeGraaf 804-4914
Name Phone Number

Manure/ Wastewater Hauler Information:

Name of Hauling Company/Person: JIA Compost INC.

Address of Hauling Company /Person: 2909 Bell Blvd Tulare 93274
Number and Street City Zip Code

Contact Person: Angel Gonzalez (559)3586923
Name Phone Number

Destination Information:

Composting Facility / Broker / Farmer / Other (identify) Compost (please circle one)

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Stone

Name **Number and Street** **City** **Zip Code** **Phone Number**

Manure/ Wastewater Destination Address or Assessor's Parcel Number:

11005 W Stanford Pixley 93256
Number and Street City Zip Code Assessor's Parcel Number

GPS coordinates of the manure/ wastewater destination:

Dates Hauled: 5/29/23 - 11/28/23

Attachment D – Manure/Wastewater Tracking Manifest
Waste Discharge Requirements General Order R5-2017-0000
For Confined Bovine Feeding Operations

D-2

Amount Hauled:

Enter the amount of manure hauled in tons, the manure solids content, and the method used to calculate the amount:

Manure: 2,929 Tons

Manure Solids Content: _____

Method used to determine amount of manure: Scale

Enter the amount of wastewater hauled in gallons and the method used to determine the amount.

Wastewater: _____ Gallons

Method used to determine volume of wastewater: _____

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification E.2 of Waste Discharge Requirements General Order R5-2017-0000) with any party that receives wastewater from the Operator for its own use? (please check one)

Yes No

Certification:

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations.

Operator's Signature: _____ Date: _____

Hauler's Signature: Angel Gonzalez Date: 6/20/24

ATTACHMENT D
ORDER R5-2017-0000

**MANURE/ WASTEWATER TRACKING MANIFEST
FOR
CONFINED BOVINE FEEDING OPERATIONS**

Instructions:

- 1) Complete one manifest for each hauling event, for each destination. A hauling event may last for several days, as long as the manure is being hauled to the same destination.
- 2) If there are multiple destinations, complete a separate form for each destination.
- 3) The operator must obtain the signature of the hauler upon completion of each manure-hauling event.
- 4) The operator shall submit copies of manure/ wastewater tracking manifest(s) with the Annual Report for Confined Bovine Feeding Operations.
- 5) Manifests cannot be used when transferring manure or wastewater to cropland owned or controlled by the owner or operator of the Confined Bovine Feeding Operation as a substitute for preparing and implementing a Nutrient Management Plan for the cropland.
- 6) Manifests are not needed to document the use of manure for bedding at the operation where the manure was generated.

Operator Information:

Name of Operator: Jer-Z Boyz Ranch #1

Name of Facility: Jer-Z Boyz Ranch #1

Facility Address: 11001 Ave 112 Pixley CA 93256
Number and Street City Zip Code

Contact Person Name and Phone Number: Daniel DeGraaf 804-4914
Name Phone Number

Manure/ Wastewater Hauler Information:

Name of Hauling Company/Person: J&A Compost INC

Address of Hauling Company /Person: 2909 Bell Port Tulare 93274
Number and Street City Zip Code

Contact Person: Angel Gonzalez (559) 358-6923
Name Phone Number

Destination Information:

Composting Facility / Broker / Farmer / Other (identify) Compost (please circle one)

Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):

Same
Name Number and Street City Zip Code Phone Number

Manure/ Wastewater Destination Address or Assessor's Parcel Number:

11005 W Stayford Pixley 93256
Number and Street City Zip Code Assessor's Parcel Number

GPS coordinates of the manure/ wastewater destination: _____

Dates Hauled: 4/15/23 ~ 11/15/23

Attachment D – Manure/Wastewater Tracking Manifest
Waste Discharge Requirements General Order R5-2017-0000
For Confined Bovine Feeding Operations

D-2

Amount Hauled:

Enter the amount of manure hauled in tons, the manure solids content, and the method used to calculate the amount:

Manure: 8,356 Tons

Manure Solids Content: _____

Method used to determine amount of manure: Scale

Enter the amount of wastewater hauled in gallons and the method used to determine the amount.

Wastewater: _____ Gallons

Method used to determine volume of wastewater: _____

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification E.2 of Waste Discharge Requirements General Order R5-2017-0000) with any party that receives wastewater from the Operator for its own use? (please check one)

Yes No

Certification:

I declare under the penalty of law that I personally examined and am familiar with the information submitted in this document, 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 a fine and imprisonment for knowing violations.

Operator's Signature: _____ Date: _____

Hauler's Signature: Angel Gonzalez Date: 6/20/24

