



# Sunset Dairy

## 2023 Annual Report

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|--|---|
| <input checked="" type="checkbox"/> Report Form  | <input checked="" type="checkbox"/> Attachment H                          |
| <input checked="" type="checkbox"/> Attachment A | <input checked="" type="checkbox"/> Attachment I                          |
| <input checked="" type="checkbox"/> Attachment B | <input checked="" type="checkbox"/> Attachment J                          |
| <input checked="" type="checkbox"/> Attachment C | <input checked="" type="checkbox"/> Manure Tracking Manifests             |
| <input checked="" type="checkbox"/> Attachment D | <input checked="" type="checkbox"/> New or Revised Waste Water Agreements |
| <input checked="" type="checkbox"/> Attachment E | <input checked="" type="checkbox"/> Groundwater Monitoring Samples        |
| <input checked="" type="checkbox"/> Attachment F | <input checked="" type="checkbox"/> Monitoring Well Report                |
| <input checked="" type="checkbox"/> Attachment G | <input checked="" type="checkbox"/> Owner/Operator Change Form            |

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Enclosed are the required documents to be submitted to the Regional Water Quality Control Board Central Valley Region in compliance with Order No. R5-2013-0122 Waste Discharge Requirements, General Order for Existing Milk Cow Dairies for July 1, 2024.

(See attached delivery confirmation)

# Annual Report

## Sunset Dairy 2023

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

### Facility Information:

Name of Dairy	Sunset Dairy
Facility Address	29049 Road 68, Visalia CA 93277

### Owner/Operator as of 12/31/2023

Operator Name	David Bakker
Operator Phone	(559) 901-1812
Owner Name	Moo Co.
Owner Phone	(559) 679-6172

1. Beginning and end dates of the annual reporting period: crops harvested January 1, 2023 through December 31, 2023.
2. Maximum and average number and type of animals (see Attachment A).
3. Estimated amount of total manure and process wastewater generated by the facility (see Attachment A).
4. Estimated amount of total manure and process wastewater applied to each land application area (see Attachment B).
5. Quantified ratio of total nitrogen applied to land application areas and total nitrogen removed by crop harvest (see Attachment B).
6. Estimated amount of total manure and process wastewater transferred to other persons by the facility (see Attachment C).
7. Total number of acres and the Assessor Parcel Numbers for all land application areas that were not used for application of manure or process wastewater (see Attachment D).
8. Total number of acres and the Assessor Parcel Numbers for all land application areas that were used for land application of manure and process wastewater (see Attachment D).

### 9. Summary of manure and process wastewater discharges from the production area

Provide a summary of all manure and wastewater 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, that occurred during the annual reporting period, including the date, time, location, approximate volume, a map showing discharge and sample locations, rationale for sample locations, and method of measuring discharge flows:

- No discharges occurred during the reporting period.  
 Yes. \_\_\_\_\_ Number of discharges occurred (see Attachment H).

# Sunset Dairy 2023

## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

### 10. Summary of storm water discharges from the production area

Provide a summary of all storm water discharges from the production area to surface water, that occurred during the annual reporting period, including the date, time, approximate volume, duration, location, a map showing discharge and sample locations, rationale for sample locations, and method of measuring discharge flows:

- No discharges occurred during the reporting period.  
 Yes. \_\_\_\_\_ Number of discharges occurred (see Attachment I).

### 11. Summary of discharges from the land application area

Provide a summary of all discharges from the land application area to surface water, that occurred during the annual reporting period, including the date, time, approximate volume, location, source of discharge (i.e. tailwater, wastewater or blended wastewater), a map showing discharge and sample locations, rationale for sample locations, and method of measuring discharge flows:

- No discharges occurred during the reporting period.  
 Yes. \_\_\_\_\_ Number of discharges occurred (see Attachment J).

### 12. Nutrient Management Plan update

Has the NMP been updated, and if so, was it updated by a Certified Nutrient Management Specialist?

- No.  
 Yes, the new NMP was developed and approved by a Certified Nutrient Management Specialist.

### 13. Manure/Process Wastewater Tracking Manifests

Did you sell, give away, or otherwise remove manure or process wastewater from your property?

- No.  
 Yes, see attached manifests.

### 14. Written Agreements

Any process wastewater transferred to a third party that receives process wastewater from your dairy for its own use must have a written agreement consistent with State requirements. Attach copies of revised and/or new agreements not submitted previously. Do not resubmit agreements submitted previously.

- Not applicable; no written agreements.  
 No changes in agreement(s).  
 Yes, a new or revised agreement is attached.

### 15. Laboratory Analyses for Discharges

If you answered Yes to items #9, 10, or 11 above, attach copies of all laboratory analyses for all discharges (manure, process wastewater or tailwater), surface water (upstream and downstream of a discharge), and storm water, including chain-of-custody forms and laboratory quality assurance/quality control results, as applicable. (Results for Manure and process wastewater, storm water, and/or storm water are provided).

- Not Applicable.  
 Yes, provided with Attachment H, I, or J for #9, 10 and 11, respectively.

### 16. Tabulated Nutrient Analytical Data

Attach tabulated analytical data for samples of manure, process wastewater, irrigation water, soil, and plant tissue. The data shall be tabulated to clearly show sample dates, constituents analyzed, constituent concentrations, and detection limits (see Attachment E).

# Sunset Dairy 2023

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

## 17. Record-Keeping Results

Attach results of the Record-Keeping Requirements for the production and land application areas specified in Record-Keeping Requirements. These include:

- \* Records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction.
- \* Records of the date, time, and estimated volume of any overflow or bypass of the wastewater storage or conveyance structures.
- \* Expected and actual crop yields (see Attachment F).
- \* Identification of crop, acreage, and dates of planting and harvest for each field (see Attachment F).
- \* Dates, locations, and approximate weight and moisture content of manure applied to each field (see Attachment B).
- \* Dates, locations, and volume of process wastewater applied to each field (see Attachment B).
- \* Whether precipitation occurred, or standing water was present at the time of manure and process wastewater applications and for 24 hours prior to and following applications (see Attachment G).
- \* Total amount of nitrogen, phosphorus, and potassium actually applied to each field, including documentation of calculations for the total amount applied (see Attachment B).

## 18. Groundwater Monitoring Section

Groundwater monitoring results are attached.

Monitoring Well results are attached, if applicable.

A. All dischargers must attach groundwater information for supply wells and subsurface (tile) drainage systems including the location of sample collection and all field and laboratory data, including all laboratory analyses (including chain-of-custody forms and laboratory quality assurance/quality control results).

B. Dischargers who have monitoring well systems shall include all laboratory analyses (including chain-of-custody forms and laboratory quality assurance/quality control results) and tabular and graphical summaries of the monitoring data. Data shall be tabulated to clearly show the sample dates, constituents analyzed, constituent concentrations, detection limits, depth to groundwater and groundwater elevations. Graphical summaries of groundwater gradients and flow directions shall also be included. Each groundwater monitoring report shall include a summary data table for all historical and current groundwater elevations and analytical results. The groundwater monitoring results shall be certified by a California registered professional.

## 19. Storm Water Reporting Section

No significant discharges of storm water occurred from the land application areas.

Yes, significant discharge(s) of storm water occurred from land application areas. The following information shall be submitted for those discharges.

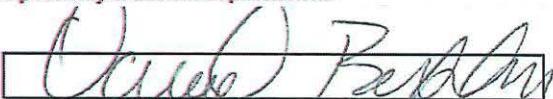
It was not possible to collect any of the required samples or perform visual observations due to adverse climatic conditions.

## 20. Mortality Management Practices

\* Dead cows are picked up and disposed of by rendering service.

Sunset Dairy 2023  
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

*"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."*



Signature of Owner of Facility

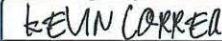
David Bakker

Print Name

6/25/24

Title and Date

DocuSigned by:



KEVIN CORREA

Signature of Owner of Facility

Moo Co.

Print Name

6/26/2024

Title and Date



INNOVATIVE AG SERVICES

**Sunset Dairy 2023**  
**Estimated Manure and Nutrients Generated (Attachment A)**

Animal Type	Maximum No. of Head	Average No. of Head*	Housing Type	Weight	Total Manure Produced (tons/year)	NITROGEN	PHOSPHORUS	POTASSIUM	SALTS
						Net (LB) Available for Land Application			
Hol Milk Cows	563	548	Milk Dry Scrape -	1,400	13,907.63	198,019.80	34,003.40	46,004.60	361,236.12
Hol Dry Cows	79	77	Dry Scrape	1,450	1,123.59	14,052.50	1,967.35	9,274.65	19,830.89
	642	625			15,031.22	212,072.30	35,970.75	55,279.25	381,067.01

\* The Average No. of Head is used to calculate manure and nutrient production

**Estimated Amount of Total Process Wastewater and Nutrients Generated**

Total Gallons of Process Wastewater Generated***	Average TKN Concentration (mg/L)*	Average Total Phosphorus Concentration (mg/L)*	Average Potassium Concentration (mg/L)*	Average Total Dissolved Solids (mg/L)*	Total Nitrogen Generated (lb)**	Total Phosphorus Generated (lb)**	Total Potassium Generated (lb)**	Total Salt Generated (lb)**
5,225,573	332.00	53.48	482.00	3,500.00	14,451.64	2,327.71	20,980.99	152,351.60

\* The average Total Kjeldahl Nitrogen, Total Phosphorus, Total Potassium, and Total Salt concentrations are based on an average of all process wastewater sample results for the year.

\*\* The total pounds of Nitrogen, Phosphorus, Potassium and Total Dissolved Solids generated = Average Concentration (mg/L) X Total Gallons of Wastewater Generated X 8.33 X 0.000001.

\*\*\* The total gallons of process wastewater generated is calculated as the total gallons of process wastewater applied to all land application areas (Attachment B) plus the total gallons of process wastewater transferred offsite (Attachment C).

**Sunset Dairy 2023**  
**Nutrient Applications (Attachment B)**

Field Name: 1

Wheat, 16 Acres Planted on 11/02/2022

Date	Event/Source	Amount Applied/Yield (per Acre)	Units	Lab Sample Data				Manure Applied (Tons)	Wastewater Applied (Gallons)	Nitrogen Applied (Lbs)	Phosphorus Applied (Lbs)	Potassium Applied (Lbs)	Salt Applied (Lbs)	Nitrogen Extracted (Lbs)	
				% Moist.	Nitrogen	Phos.	Potass.								
10/18/2022	Surface Water: Tulare	5.00	Acre Inches		0.00					0	0	0	543		
10/18/2022	Waste Water: Main Lagoon	1.00	Acre Inches		244.00	41.90	339.00	mg/L		434,469	883	152	1,227	16,214	
01/01/2023	Atmospheric Deposit	14.00	Pounds		100.00			%			224				
02/25/2023	Surface Water: Tulare	4.60	Acre Inches		0.00			mg/L			0	0	0	499	
02/25/2023	Waste Water: Main Lagoon	0.55	Acre Inches		257.00	60.00	489.00	mg/L		238,958	512	119	973	6,608	
04/07/2023	Surface Water: Tulare	4.50	Acre Inches		0.00			mg/L			0	0	0	489	
04/07/2023	Waste Water: Main Lagoon	0.50	Acre Inches		385.00	63.90	512.00	mg/L		217,234	697	116	927	3,094	
05/30/2023	Harvest	16.00	Tons	66.00	1.66	0.37	1.35	%						2,890	
<b>Acre Inches Applied:</b>		<b>16.15</b>							<b>Totals:</b>	<b>890,661</b>	<b>2,315</b>	<b>387</b>	<b>3,127</b>	<b>27,448</b>	<b>2,890</b>
<b>Season Nitrogen Ratio:</b>		<b>0.80</b>							<b>Lbs Per Acre:</b>	<b>145</b>	<b>24</b>	<b>195</b>	<b>1,715</b>	<b>181</b>	



## Sunset Dairy 2023

### Nutrient Applications (Attachment B)

Field Name: 1

Corn, 16 Acres Planted on 07/20/2023

Date	Event/Source	Amount Applied/Yield (per Acre)	Units	Lab Sample Data				Manure Applied (Tons)	Wastewater Applied (Gallons)	Nitrogen Applied (Lbs)	Phosphorus Applied (Lbs)	Potassium Applied (Lbs)	Salt Applied (Lbs)	Nitrogen Extracted (Lbs)	
				% Moist.	Nitrogen	Phos.	Potass.								
06/15/2023	Corral Solids: Main Corral	3.00	Tons	5.42	1.77	0.52	1.12	%	48	1,607	477	1,017	0		
08/05/2023	Surface Water: Tulare	5.59	Acre Inches		0.00			mg/L		0	0	0	607		
08/05/2023	Waste Water: Main Lagoon	0.60	Acre Inches		409.00	44.50	505.00	mg/L		260,681	888	97	1,097	11,791	
08/20/2023	Surface Water: Tulare	7.22	Acre Inches		0.00			mg/L		0	0	0	784		
09/04/2023	Surface Water: Tulare	5.90	Acre Inches		0.00			mg/L		0	0	0	641		
09/04/2023	Waste Water: Main Lagoon	0.64	Acre Inches		409.00	44.50	505.00	mg/L		278,060	947	103	1,170	12,577	
09/16/2023	Surface Water: Tulare	7.56	Acre Inches		0.00			mg/L		0	0	0	821		
09/28/2023	Surface Water: Tulare	5.59	Acre Inches		0.00			mg/L		0	0	0	607		
09/28/2023	Waste Water: Main Lagoon	0.60	Acre Inches		277.00	45.50	422.00	mg/L		260,681	601	99	916	7,687	
10/09/2023	Surface Water: Tulare	5.50	Acre Inches		0.00			mg/L		0	0	0	597		
10/19/2023	Harvest	28.60	Tons	70.60	1.45	0.31	1.10	%						3,901	
<b>Acre Inches Applied:</b>		<b>39.20</b>		<b>Totals:</b>					<b>48</b>	<b>799,423</b>	<b>4,044</b>	<b>775</b>	<b>4,200</b>	<b>36,111</b>	<b>3,901</b>
<b>Season Nitrogen Ratio:</b>		<b>1.04</b>		<b>Lbs Per Acre:</b>					<b>253</b>	<b>48</b>	<b>262</b>	<b>2,257</b>	<b>244</b>		



**Sunset Dairy 2023**  
**Nutrient Applications (Attachment B)**

Field Name: 2

Wheat, 35 Acres Planted on 11/02/2022

Date	Event/Source	Amount Applied/Yield (per Acre)	Units	Lab Sample Data				Manure Applied (Tons)	Wastewater Applied (Gallons)	Nitrogen Applied (Lbs)	Phosphorus Applied (Lbs)	Potassium Applied (Lbs)	Salt Applied (Lbs)	Nitrogen Extracted (Lbs)
10/18/2022	Surface Water: Tulare	5.00	Acre Inches	0.00			mg/L			0	0	0	1,188	
10/18/2022	Waste Water: Main Lagoon	1.00	Acre Inches	244.00	41.90	339.00	mg/L	950,400	1,932	332	2,684	35,468		
01/01/2023	Atmospheric Deposit	14.00	Pounds	100.00			%		490					
03/03/2023	Surface Water: Tulare	4.50	Acre Inches	0.00			mg/L			0	0	0	1,069	
03/03/2023	Waste Water: Main Lagoon	0.50	Acre Inches	257.00	60.00	489.00	mg/L	475,200	1,017	238	1,936	13,142		
04/10/2023	Surface Water: Tulare	4.50	Acre Inches	0.00			mg/L			0	0	0	1,069	
04/10/2023	Waste Water: Main Lagoon	0.50	Acre Inches	385.00	63.90	512.00	mg/L	475,200	1,524	253	2,027	6,769		
05/30/2023	Harvest	15.20	Tons	65.60	1.62	0.36	1.51							5,929
<b>Acre Inches Applied:</b>		<b>16.00</b>		<b>Totals:</b>				<b>1,900,801</b>	<b>4,963</b>	<b>822</b>	<b>6,646</b>	<b>58,704</b>	<b>5,929</b>	
<b>Season Nitrogen Ratio:</b>				<b>Lbs Per Acre:</b>						142	24	190	1,677	169



## Sunset Dairy 2023

### Nutrient Applications (Attachment B)

**Field Name:** 2

Corn, 35 Acres Planted on 07/20/2023

Date	Event/Source	Amount Applied/Yield (per Acre)	Units	Lab Sample Data					Manure Applied (Tons)	Wastewater Applied (Gallons)	Nitrogen Applied (Lbs)	Phosphorus Applied (Lbs)	Potassium Applied (Lbs)	Salt Applied (Lbs)	Nitrogen Extracted (Lbs)
				% Moist.	Nitrogen	Phos.	Potass.	Units							
06/15/2023	Corral Solids: Main Corral	3.00	Tons	5.42	1.77	0.52	1.12	%	105		3,515	1,043	2,225	0	
08/01/2023	Surface Water: Tulare	5.25	Acre Inches		0.00			mg/L			0	0	0	1,247	
08/01/2023	Waste Water: Main Lagoon	0.57	Acre Inches		409.00	44.50	505.00	mg/L		541,728	1,846	201	2,279	24,504	
08/16/2023	Surface Water: Tulare	6.29	Acre Inches		0.00			mg/L			0	0	0	1,494	
08/31/2023	Surface Water: Tulare	5.39	Acre Inches		0.00			mg/L			0	0	0	1,280	
08/31/2023	Waste Water: Main Lagoon	0.58	Acre Inches		409.00	44.50	505.00	mg/L		551,232	1,878	204	2,319	24,933	
09/14/2023	Surface Water: Tulare	6.44	Acre Inches		0.00			mg/L			0	0	0	1,530	
09/28/2023	Surface Water: Tulare	5.25	Acre Inches		0.00			mg/L			0	0	0	1,247	
09/28/2023	Waste Water: Main Lagoon	0.57	Acre Inches		277.00	45.50	422.00	mg/L		541,728	1,250	205	1,904	15,975	
10/08/2023	Surface Water: Tulare	5.50	Acre Inches		0.00			mg/L			0	0	0	1,306	
10/19/2023	Harvest	30.40	Tons	69.20	1.39	0.32	1.05	%							9,110
<b>Acre Inches Applied:</b>		<b>35.84</b>		<b>Totals:</b>					<b>105</b>	<b>1,634,689</b>	<b>8,489</b>	<b>1,653</b>	<b>8,727</b>	<b>73,515</b>	<b>9,110</b>
<b>Season Nitrogen Ratio:</b>		<b>0.93</b>		<b>Lbs Per Acre:</b>							<b>243</b>	<b>47</b>	<b>249</b>	<b>2,100</b>	<b>260</b>



**INNOVATIVE AG SERVICES**

**Sunset Dairy 2023**  
**Nutrient Applications (Attachment B)**

***Summary of Nutrient Applications, Removal, and Balance***

	<u>Total N (Lbs)</u>	<u>Total P (Lbs)</u>	<u>Total K (Lbs)</u>	<u>Total Salts (Lbs)</u>	<u>Total Manure Applied</u>	
Solid Manure	5,122.44	1,519.29	3,241.56	0.00	153.00	tons
Process Wastewater	13,974.66	2,118.53	19,457.70	178,761.74	5,225,573.49	gallons
Irrigation Water	0.00					
Fertilizer / Total Imports	0.00					
Atmospheric Deposition	714.00					
<b>Total Nitrogen Applied</b>	<b>19,811.10</b>					
Crop Nitrogen Removal	21,831.05					
<b>Nitrogen Balance</b>	<b>(2,019.95)</b>					
<b>Nitrogen Ratio</b>	<b>0.91</b>					

- Nutrient applications shown in Attachment B are on a crop year basis.
- Lab sample data results for applications are based on the sample taken closest to the application date. Lab sample data results are shown on 100% dry basis for manure applications and harvest events.
- Well Avg: Irrigation source representing the average nutrient values of all irrigation wells sampled for the facility during the reporting year.

\*\* Book Value: No sample data results were available. For manure applications and plant tissue harvests, the calculations were based off book values.



## Sunset Dairy 2023 Nutrient Applications (Attachment B)

### **FIELD NITROGEN RATIO Calculation:**

"Field Nitrogen Ratio" = "Total Nitrogen Applied to Field" / "Total Nitrogen Extracted from Field at Harvest"

### **ATMOSPHERIC DEPOSITION Applied (Lbs) Calculation:**

"Nitrogen Applied (Lbs)" = "14 Lbs (per year) \* "Acres Planted"

### **HARVEST Nitrogen Extraction (Lbs) Calculation:**

"Nitrogen Extracted (Lbs)" = ("Yield" (tons per acre) \* 2000) \* ((100 - "% Moisture") / 100 \* "Lab Sample Data Nitrogen Value" / 100) \* "Acres Planted"

### **IRRIGATION Nitrogen and Salts Applied (Lbs) Calculations:**

"Nitrogen Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ("Lab Sample Data Nitrogen Value" \* 0.000001) \* "Acres Planted"

"Salts Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ("Lab Sample Data TDS Value" \* 0.000001) \* "Acres Planted"

### **PROCESS WASTEWATER Nitrogen, Phosphorus, Potassium and Salts Applied (Lbs) Calculations:**

Nitrogen Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ("Lab Sample Data Nitrogen Value" \* 0.000001) \* "Acres Planted"

Phosphorus Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ("Lab Sample Data Phosphorus Value" \* 0.000001) \* "Acres Planted"

Potassium Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ("Lab Sample Data Potassium Value" \* 0.000001) \* "Acres Planted"

Salt Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ("Lab Sample Data TDS Value" \* 0.000001) \* "Acres Planted"

### **SOLID MANURE (Corral, Separator, or Compost) Nitrogen, Phosphorus, Potassium and Salts Applied (Lbs) Calculations:**

Nitrogen Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ((100 - "% Moisture")/100 \* "Lab Sample Data Nitrogen Value"/100) \* "Acres Planted"

Phosphorus Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ((100 - "% Moisture")/100 \* "Lab Sample Data Phosphorus Value"/100) \* "Acres Planted"

Potassium Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ((100 - "% Moisture")/100 \* "Lab Sample Data Potassium Value"/100) \* "Acres Planted"

Salt Applied (Lbs)" = "Lbs Applied per Acre" (see below) \* ((100 - "% Moisture")/100 \* "Lab Sample Data Ash Value"/100) \* "Acres Planted"

### **"Lbs Applied per Acre" Calculations:**

If "Application Units" = Tons, Then "Lbs Applied per Acre" = "Application Amount" (per Acre) \* 2000

If "Application Units" = Acres Inches, Then "Lbs Applied per Acre" = "Application Amount" (per Acre) \* 8.33 \*27,154.3

If "Application Units" = Acre Feet, Then Lbs Applied per Acre" = "Application Amount" (per Acre) \* 8.33 \* 325,851

If "Application Units" = Gallons, Then "Lbs Applied per Acre" = "Application Amount" (per Acre) \* 8.33

## Sunset Dairy 2023

### Estimated Manure and Process Wastewater/Nutrients Transferred Off-Site (Attachment C)

#### A. ESTIMATED TOTAL MANURE TRANSFERRED OFFSITE

Total Manure Exported (tons)*	Total Nitrogen Exported (lbs)**	Total Phosphorus Exported (lbs)**	Total Potassium Exported (lbs)**	Total Salts Exported (lbs)**
1,940	64,953.76	19,265.95	41,100.68	0.00

\* The Total Manure (tons) should be calculated as the sum of all manure transferred offsite as reported in all the Manure/Process Wastewater Tracking Manifests for the reporting period.

\*\* Total (N, P, K, Salts) (lbs) = Sum of (N, P, K, Salts) for each manure export event based on (Manure(tons) x 2000lb/ton) x ((100-moisture%)/100) x (N, P, K, and Ash) Concentration (%, dry weight) / 100 using the samples closest in date to the export event.

#### B. ESTIMATED TOTAL PROCESS WASTEWATER TRANSFERRED OFFSITE

Total Process Wastewater Exported (gal)*	Total Nitrogen Exported (lbs)**	Total Phosphorus Exported (lbs)**	Total Potassium Exported (lbs)**	Total TDS Exported (lbs)**

\* The Total Manure (gals) should be calculated as the sum of all manure transferred offsite as reported in all the Manure/Process Wastewater Tracking Manifests for the reporting period.

\*\* Total (Nitrogen, Phosphorus, Potassium, TDS) (lbs) = Sum of (Nitrogen, Phosphorus, Potassium, TDS) for each wastewater export event based on (Process Wastewater(gals) x 8.33lb/gal) x (NO<sub>3</sub>-N or TKN, P, K, TDS) x 10-6 using the samples closest in date to the export event.



**Sunset Dairy 2023**  
**Land Application Area Description Technical Report (Attachment D)**

Field Name	Assessor Parcel Number(s)	Acres	Type of Waste Applied
1	x073 x110 x023 xxxx	16	Both
2	x073 x110 x023 xxxx	35	Both
		<b>51</b>	

Production Area APN(s): x073 x110 x023 xxxx



**Sunset Dairy 2023**  
**Lab Results Summary (Attachment E)**

**Process Wastewater**

(mg/l/ppm unless noted otherwise)

Sample Date:	TKN	TP	TK	EC (umhos/cm)	NH4N	NO3N	TDS	pH (units)	General Minerals						
									CA	MG	NA	HCO3	CO3	SO4	CL
02/10/2023	257.00	60.00	489.00	5,000	168.00		3,320.00								
04/20/2023	385.00	63.90	512.00	2,570	288.00	0.26	1,710.00	6.98							
07/12/2023	409.00	44.50	505.00	8,180	401.00		5,430.00								
11/06/2023	277.00	45.50	422.00	5,330	274.00		3,540.00								
<b>Averages:</b>	<b>332.00</b>	<b>53.48</b>	<b>482.00</b>	<b>5,270</b>	<b>282.75</b>	<b>0.26</b>	<b>3,500.00</b>	<b>6.98</b>							

**Manure - Corral Solids**

(Dry Weight Basis)

Sample Date:	TN	TP	TK	Moisture	Ash	CA	MG	NA	S	CL
06/12/2023	1.77	0.52	1.12	5.42						%
11/06/2023	1.83	0.60	1.18	37.50						%
<b>Averages:</b>	<b>1.80</b>	<b>0.56</b>	<b>1.15</b>	<b>21.46</b>						

**Plant Tissue**

(Dry Weight Basis)

Field:	Crop #:	Crop	Sample Date:	TN (lbs/ton)	TP (lbs/ton)	TK (lbs/ton)	Moisture (%)	Ash (%)
1	1	Wheat	05/30/2023	33.20	7.42	27.00	66.00	8.34
1	2	Corn	10/19/2023	29.00	6.14	22.00	70.60	6.37



**Sunset Dairy 2023**  
**Lab Results Summary (Attachment E)**

**Plant Tissue**

(Dry Weight Basis)

Field:	Crop #:	Crop	Sample Date:	TN (lbs/ton)	TP (lbs/ton)	TK (lbs/ton)	Moisture (%)	Ash (%)
2	1	Wheat	05/30/2023	32.40	7.22	30.20	65.60	8.81
2	2	Corn	10/19/2023	27.80	6.32	21.00	69.20	5.69

**Well / Irrigation Water**

(mg/l/ppm unless noted otherwise)

	Sample Date:	NO3N	TP (umhos/cm)	EC (umhos/cm)	NH4N *	TDS	TN	General Minerals									
								CA	MG	NA	HCO3	CO3	SO4	CL			
<b>Domestic</b>																	
DB	08/25/2023	9.30		720		430.00		69.00	2.00	75.00	240.00	0.00	14.50	67.00			
DH	10/09/2023	9.60		765		450.00		72.00	2.00	76.00	250.00	0.00	13.10	57.00			
<b>Averages:</b>				742		440.00		70.50	2.00	75.50	245.00	0.00	13.80	62.00			
<b>Irrigation</b>																	
IW 1								Did not run									
<b>Averages:</b>																	
<b>Surface Water</b>																	
Tulare (General)	06/28/2023	0.00		42		30.00	0.00										
<b>Averages:</b>				42		30.00	0.00										

\* NH4N was non-detectable unless a value is shown



**Sunset Dairy 2023**  
**Planting and Harvest Information (Attachment F)**

Crop #	Crop	Acres Planted	Plant Date	Harvest Date	Estimated Yield (tons)	Tons Harvested	Actual Yield
Field: 1							
	1 Wheat	16	11/02/2022	05/30/2023	14.1	256.0	16.0
	2 Corn	16	07/20/2023	10/19/2023	28.1	457.6	28.6
Field: 2							
	1 Wheat	35	11/02/2022	05/30/2023	14.6	532.0	15.2
	2 Corn	35	07/20/2023	10/19/2023	29.8	1064.0	30.4

## Sunset Dairy 2023

### Weather Data (Attachment G)

Day	January	February	March	April	May	June	July	August	September	October	November	December
1	Light	None	Light	None	None	None	None	None	None	None	None	None
2	Light	None	None	None	None	None	None	None	None	None	None	None
3	None	None	None	None	None	None	None	None	None	None	None	None
4	Light	None	None	None	Light	None	None	None	None	None	None	None
5	Heavy	Light	Light	None	None	None	None	None	None	None	None	None
6	None	None	None	None	None	None	None	None	None	None	None	None
7	None	None	None	None	None	SWP	None	None	None	None	None	None
8	None	None	None	None	None	None	None	None	None	None	None	None
9	SWP	None	Light	None	None	None	None	None	None	None	None	None
10	Light	None	SWP	None	None	None	None	None	None	None	None	None
11	None	None	None	None	None	None	None	None	None	None	None	None
12	None	None	None	None	None	None	None	None	None	None	None	None
13	None	None	None	None	None	None	None	None	None	None	None	None
14	Heavy	None	SWP	None	None	None	None	None	None	None	None	None
15	Light	None	Heavy	None	None	None	None	None	None	None	None	None
16	Heavy	None	None	None	None	None	None	None	None	None	None	None
17	None	None	None	None	None	None	None	None	None	None	None	None
18	None	None	None	None	None	None	None	None	None	None	None	None
19	None	None	Light	None	None	None	None	Light	None	None	None	None
20	None	None	None	None	None	None	None	SWP	None	None	None	None
21	None	None	SWP	None	None	None	None	None	None	None	None	None
22	None	Light	Light	None	None	None	None	None	None	None	None	None
23	None	None	None	None	None	None	None	None	None	Heavy	None	None
24	None	SWP	None	None	None	None	None	None	None	None	None	None
25	None	SWP	None	None	None	None	None	None	None	None	None	None
26	None	None	None	None	None	None	None	None	None	None	None	None
27	None	Light	None	None	None	None	None	None	None	None	None	None
28	None	Heavy	Light	None	None	None	None	None	None	None	None	None
29	Light		Heavy	None	None	None	None	None	None	None	None	None
30	None		Light	None	None	None	None	None	None	None	None	Light
31	None		None		None		None	None		None		None

\*Note: SWP = Standing Water Present



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: <u>David Bakker</u>			
Name of Facility: <u>Sunset</u>			
Facility Address:	29049 Road 68 Visalia, CA, 93277	Number and Street	City Zip Code
Contact Person Name and Phone Number: <u>David Bakker (559) 901-1812</u>			
Manure/ Wastewater Hauler Information:			
Name of Hauling Company/Person: <u>Gutierrez Spreading LLC</u>			
Address of Hauling Company /Person:	<u>3612 Ave 236</u>	Number and Street	City Zip Code
Contact Person:	<u>Jesse Gutierrez</u>	Name	Phone Number <u>(559) 280-3119</u>
Destination Information:			
Composting Facility / Broker / Farmer / Other (identify) <u>compost</u> (please circle one)			
Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):			
<u>Westcoast and gravel</u>	<u>7715 Ave. 296</u>	<u>Visalia</u>	<u>ca 93291</u>
Name	Number and Street	City	Zip Code
Manure/ Wastewater Destination Address or Assessor's Parcel Number:			
<u>Westcoast and gravel</u>	<u>7715 Ave. 296</u>	<u>Visalia</u>	<u>ca 93291</u>
Number and Street	City	Zip Code	Assessor's Parcel Number
GPS coordinates of the manure/ wastewater destination: _____			
Dates Hauled:	<u>6-2-23</u>	<u>11-6-23</u>	
haul <u>1,940 tons</u> of manure <u>Jesse Bakker</u>			

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: 1940 Tons  
Manure Solids Content: 94.6% Corral Solids

Method used to determine amount of manure: Weight every truck  
at 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: David Berlin

Date: 6-25-24

Hauler's Signature: Jay O. St

Date: 10-4-23

916361

September 8, 2023

**Lab No.** : VI 2345661

**Customer No.** : 4018573

**Reference** : 41262

**Innovative Ag Services, LLC**  
1201 Delta View Road  
Suite 5  
Hanford, CA 93230

## 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  | (1 page)  | : Results for each sample submitted.        |
| Quality Control | (2 pages) | : 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
DB	08/25/2023	08/25/2023	VI 2345661-001	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 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	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: KEH

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

Section: Case Narrative

Page 1 of 4

Page 1 of 4

<b>Corporate Offices &amp; Laboratory</b> 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	<b>Office &amp; Laboratory</b> 2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423	<b>Office &amp; Laboratory</b> 563 E. Linda Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807	<b>Office &amp; Laboratory</b> 3442 Empress Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912	<b>Office &amp; Laboratory</b> 9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435
		CA ELAP Certification No. 1563	CA ELAP Certification No. 2670	CA ELAP Certification No. 2775

September 8, 2023

**Innovative Ag Services, LLC**  
1201 Delta View Road  
Suite 5  
Hanford, CA 93230

Description : DB  
Project : 0291 Sunset Dairy

Lab No. : VI 2345661-001  
Customer No.: 4018573  
Reference : 41262  
Sampled On : August 25, 2023 at 09:16  
Sampled By : Frank  
Received On : August 25, 2023 at 15:34  
Matrix : Drinking Water

### Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
Alkalinity (as CaCO <sub>3</sub> )	200	10	mg/L		1		08/30/2023	15:12	amm	SM 4500-H+B	08/31/2023	00:29	amm
Bicarbonate	240	10	mg/L		1		08/30/2023	15:12	amm	SM 4500-H+B	08/31/2023	00:29	amm
Carbonate	ND	10	mg/L		1	U	08/30/2023	15:12	amm	SM 4500-H+B	08/31/2023	00:29	amm
Hydroxide	ND	10	mg/L		1	U	08/30/2023	15:12	amm	SM 4500-H+B	08/31/2023	00:29	amm
Chloride	67	1	mg/L	500 <sup>2</sup>	1		09/01/2023	14:36	ldm	EPA 300.0	09/02/2023	01:05	ldm
Nitrate Nitrogen	9.3	0.4	mg/L	10	1		08/29/2023	12:15	lfs	SM 4500-NO <sub>3</sub> F	08/29/2023	15:42	lfs
Conductivity	720	1	umhos/cm	1600 <sup>2</sup>	1		08/30/2023	15:12	amm	SM 4500-H+B	08/31/2023	00:29	amm
Sulfate Sulfur	14.5	0.17	mg/L		1		09/01/2023	14:36	ldm	EPA 300.0	09/02/2023	01:05	ldm
Solids, Total Dissolved (TDS)	430	20	mg/L	1000 <sup>2</sup>	1		08/30/2023	11:10	ctl	SM 2540 C	08/31/2023	11:20	ctl
Calcium	69	1	mg/L		1		09/01/2023	07:35	ejc	EPA 200.7	09/06/2023	20:40	ac
Magnesium	2	1	mg/L		1		09/01/2023	07:35	ejc	EPA 200.7	09/06/2023	20:40	ac
Potassium	1	1	mg/L		1		09/01/2023	07:35	ejc	EPA 200.7	09/06/2023	20:40	ac
Sodium	75	1	mg/L		1		09/01/2023	07:35	ejc	EPA 200.7	09/06/2023	20:40	ac

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.

September 8, 2023

**Innovative Ag Services, LLC**
Lab No. : VI 2345661  
Customer No. : 4018573
**Quality Control - Metals**

<b>Constituent</b>	<b>Method</b>	<b>Date/ID</b>	<b>Type</b>	<b>Units</b>	<b>Conc.</b>	<b>QC Data</b>	<b>DQO</b>	<b>Note</b>
<b>Metals</b>								
Calcium	200.7	09/01/2023:209819EJC	Blank	mg/L		ND	<1	
		(STK2351603-001)	LCS	mg/L	12.00	96.3%	85-115	
			MS	mg/L	12.00	107%	75-125	
			MSD	mg/L	12.00	109%	75-125	
			MSRPD	mg/L		1.0%	≤20.0	
		(STK2351603-005)	MS	mg/L	12.00	115%	75-125	
			MSD	mg/L	12.00	118%	75-125	
			MSRPD	mg/L		1.5%	≤20.0	
Magnesium	200.7	09/01/2023:209819EJC	Blank	mg/L		ND	<1	
		(STK2351603-001)	LCS	mg/L	12.00	99.9%	85-115	
			MS	mg/L	12.00	115%	75-125	
			MSD	mg/L	12.00	119%	75-125	
			MSRPD	mg/L		0.7%	≤20	
		(STK2351603-005)	MS	mg/L	12.00	147%	<1/4	406
			MSD	mg/L	12.00	148%	<1/4	
			MSRPD	mg/L		0.1%	≤20	
Potassium	200.7	09/01/2023:209819EJC	Blank	mg/L		ND	<1	
		(STK2351603-001)	LCS	mg/L	12.00	91.3%	85-115	
			MS	mg/L	12.00	112%	75-125	
			MSD	mg/L	12.00	115%	75-125	
			MSRPD	mg/L		1.4%	≤20.0	
		(STK2351603-005)	MS	mg/L	12.00	121%	75-125	
			MSD	mg/L	12.00	125%	75-125	
			MSRPD	mg/L		2.1%	≤20.0	
Sodium	200.7	09/01/2023:209819EJC	Blank	mg/L		ND	<1	
		(STK2351603-001)	LCS	mg/L	12.00	92.7%	85-115	
			MS	mg/L	12.00	184%	<1/4	406
			MSD	mg/L	12.00	185%	<1/4	
			MSRPD	mg/L		0.0%	≤20.0	
		(STK2351603-005)	MS	mg/L	12.00	247%	<1/4	406
			MSD	mg/L	12.00	264%	<1/4	
			MSRPD	mg/L		0.8%	≤20.0	

**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.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.

**Explanation**

- 406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.

September 8, 2023

**Innovative Ag Services, LLC**

Lab No. : VI 2345661  
 Customer No. : 4018573

**Quality Control - Wet Chem**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
Alkalinity (as CaCO3)	2320B	08/30/2023:209746AMM	ND	mg/L		0.08%	10	406
Bicarbonate	2320B	(STK2351716-001)	Dup	mg/L		0.07%	10	
E. C.	2320B	(STK2351716-001)	Dup	umhos/cm		0%	5	
Solids, Total Dissolved	2540CE	08/30/2023:209732CTL	Blank LCS (STK2351705-001) (STK2351705-001)	mg/L mg/L Dup Dup	991.5	ND 101% 0.7% 0.9%	<20 90-110 5 5	
Chloride	300.0	09/01/2023:209915LDM	Blank LCS (STK2351807-001) (CH 2377359-008)	mg/L mg/L MS MSRD MS MSD MSRPD	25.00	ND 106 % 67.0 % 71.1 % 1.6% 101 % 101 % 0.2%	<1 90-110 67-117 67-117 ≤7 67-117 67-117 ≤7	
Sulfate Sulfur	300.0	09/01/2023:209915LDM	Blank LCS (STK2351807-001) (CH 2377359-008)	mg/L mg/L MS MSRD MS MSD MSRPD	50.00 100.0 100.0 10.00 100.0 100.0 10.00	ND 108 % 102 % 103 % 0.1% 104 % 104 % 0.2%	<0.5 90-110 18-165 18-165 ≤7 18-165 18-165 ≤7	
Nitrate Nitrogen	4500NO3F	08/29/2023:209702LFS	Blank LCS (CH 2377212-001)	mg/L mg/L MS MSD MSRPD	11.22 5.609 5.609	ND 97.6% 99.1% 99.4% 0.2%	<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.
- 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**

- 406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.



# Laboratory Analysis Work Order

Nº 41262

ID: # 0291

23456001

LABORATORY: FGL

SITE NAME: Sunset Dairy

Billing: IAS

Authorized Copy Release to:

Innovative Ag Services LLC

(559) 587-2800

## ANALYSIS TO BE COMPLETED:

### Irrigation/Ground Water (ELAP Standards)

W1 EC, NO<sub>3</sub>N (Dom)

W2 EC, NO<sub>3</sub>N, TDS, TN (Irr)

W3 NH<sub>4</sub>-N (Ammonium)

W4 EC, NO<sub>3</sub>N, Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl, TDS (Dom, GM)

W5 EC, NO<sub>3</sub>N, TDS, TN, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl (Irr, GM)

W6 NO<sub>3</sub>N, NO<sub>2</sub> (Dom ILRP, Annually)

W7 Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>, Cl + Lab Filtering (GWM)

W8 Other: \_\_\_\_\_

### Plant Tissue

P1 TN, NO<sub>3</sub>N, PO<sub>4</sub>P, K (Mid Season - Wheat)

P2 TN, P, K (Mid-season - Corn)

P3 TN, TP, TK, Ash, %M (At Harvest)

P4 TN, %M

P5 % Moisture

P6 NIR

P7 Other: \_\_\_\_\_

### Process Waste Water (lagoon)

L1 EC, NH<sub>4</sub>N, TKN, TP, TK, TDS (Quarterly)

L2 EC, NO<sub>3</sub>N, NH<sub>4</sub>N, TKN, TP, TK, TDS, pH (Annually)

L3 L1 + Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl (Biennially)

L4 Other: \_\_\_\_\_

### Manure

M1 TN, TP, TK, %M (2/year)

M2 TN, TP, K, %M, Ca, Mg, Na, S, Cl, ash (Biennially)

M3 Other: \_\_\_\_\_

### Soil

S1 SP%, pH, EC, Ca, Mg, Na, K, ESP, LP, B, NO<sub>3</sub>N, PO<sub>4</sub>P, K-AA, Zn, Mn, Fe, Cu, SO<sub>4</sub>S

S2 S1 + CEC, CaCO<sub>3</sub>, OM, C:N, TN

S3 NO<sub>3</sub>N, NH<sub>4</sub>N

S4 Other: \_\_\_\_\_

Sample ID	Description	Analysis	Date/Time	Sampled by	IAS USE ONLY: FIELD TESTS		
					NH <sub>3</sub> N *	pH	Temp
1 DB	Dom	W4	8/25 9:16	Frank	—		
2							
3							
4							
5							
6							
7							
8							

\* Field Test of ammonium nitrogen may only be made by a trained technician. Positive test to be analyzed for ammonium nitrogen by the laboratory.

All samples are to follow the procedures noted in the Sampling & Analysis Plan of the NMP and the RWQCB specifications. Any samples taken outside of these procedures shall provide the procedures on the notes below. Additionally, if any preservatives are used in the collections or processing of samples, please note below.

NOTES:

## CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1st	SC	IAS		8/25/23 2:00
2nd	ASB	FGL	8/25/23 1525	
3rd	ASB	FGL		8/25/23 1534
4th	ADH		8/25/23 1534	

LABORATORY USE ONLY

Logged In By: GJ

Total Samples: 2173

Laboratory #: 611 Sheet 23

November 1, 2023

**Lab No.** : VI 2346837  
**Customer No.** : 4018573  
**Reference** : 41506

**Innovative Ag Services, LLC**  
 1201 Delta View Road  
 Suite 5  
 Hanford, CA 93230

### 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  | (1 page)  | : Results for each sample submitted.        |
| Quality Control | (2 pages) | : 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
DH	10/09/2023	10/09/2023	VI 2346837-001	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 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	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)

**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: 2023-11-01

November 1, 2023

**Innovative Ag Services, LLC**  
1201 Delta View Road  
Suite 5  
Hanford, CA 93230

Description : DH  
Project : 0291 Sunset Dairy

Lab No. : VI 2346837-001  
Customer No.: 4018573  
Reference : 41506  
Sampled On : October 9, 2023 at 09:30  
Sampled By : Frank  
Received On : October 9, 2023 at 16:10  
Matrix : Drinking Water

### Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
							Date	Time	Who	Method	Date	Time	Who
<b>Dairy Analysis</b>													
Alkalinity (as CaCO <sub>3</sub> )	210	10	mg/L		1		10/11/2023	18:16	amm	SM 4500-H+B	10/12/2023	04:14	amm
Bicarbonate	250	10	mg/L		1		10/11/2023	18:16	amm	SM 4500-H+B	10/12/2023	04:14	amm
Carbonate	ND	10	mg/L		1	U	10/11/2023	18:16	amm	SM 4500-H+B	10/12/2023	04:14	amm
Hydroxide	ND	10	mg/L		1	U	10/11/2023	18:16	amm	SM 4500-H+B	10/12/2023	04:14	amm
Chloride	57	1	mg/L	500 <sup>2</sup>	1		10/10/2023	10:54	ldm	EPA 300.0	10/10/2023	18:11	ldm
Nitrate Nitrogen	9.6	0.1	mg/L	10	1		10/10/2023	10:54	ldm	EPA 300.0	10/10/2023	18:11	ldm
Conductivity	765	1	umhos/cm	1600 <sup>2</sup>	1		10/11/2023	18:16	amm	SM 4500-H+B	10/12/2023	04:14	amm
Sulfate Sulfur	13.1	0.17	mg/L		1		10/10/2023	10:54	ldm	EPA 300.0	10/10/2023	18:11	ldm
Solids, Total Dissolved (TDS)	450	20	mg/L	1000 <sup>2</sup>	1		10/12/2023	10:50	ctl	SM 2540 C	10/13/2023	10:00	ctl
Calcium	72	1	mg/L		1		10/18/2023	07:45	ejc	EPA 200.7	10/19/2023	11:26	ac
Magnesium	2	1	mg/L		1		10/18/2023	07:45	ejc	EPA 200.7	10/19/2023	11:26	ac
Potassium	2	1	mg/L		1		10/18/2023	07:45	ejc	EPA 200.7	10/19/2023	11:26	ac
Sodium	76	1	mg/L		1		10/18/2023	07:45	ejc	EPA 200.7	10/19/2023	11:26	ac

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.

November 1, 2023

**Innovative Ag Services, LLC**

Lab No. : VI 2346837

Customer No. : 4018573

**Quality Control - Metals**

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Metals</b>								
Calcium	200.7	10/18/2023:211755EJC	Blank	mg/L		ND	<1	
		(SP 2317486-001)	LCS	mg/L	12.00	102%	85-115	
			MS	mg/L	12.00	103%	75-125	
			MSD	mg/L	12.00	95.9%	75-125	
			MSRPD	mg/L		3.0%	≤20.0	
		(SP 2317488-001)	MS	mg/L	12.00	133%	<1/4	406
			MSD	mg/L	12.00	106%	75-125	
			MSRPD	mg/L		1.1%	≤20.0	
Magnesium	200.7	10/18/2023:211755EJC	Blank	mg/L		ND	<1	
		(SP 2317486-001)	LCS	mg/L	12.00	101%	85-115	
			MS	mg/L	12.00	112%	75-125	
			MSD	mg/L	12.00	107%	75-125	
			MSRPD	mg/L		3.5%	≤20	
		(SP 2317488-001)	MS	mg/L	12.00	533%	<1/4	406
			MSD	mg/L	12.00	-156%	<1/4	
			MSRPD	mg/L		6.6%	≤20	
Potassium	200.7	10/18/2023:211755EJC	Blank	mg/L		ND	<1	
		(SP 2317486-001)	LCS	mg/L	12.00	107%	85-115	
			MS	mg/L	12.00	103%	75-125	
			MSD	mg/L	12.00	98.8%	75-125	
			MSRPD	mg/L		3.5%	≤20.0	
		(SP 2317488-001)	MS	mg/L	12.00	138%	<1/4	406
			MSD	mg/L	12.00	-21.2%	<1/4	
			MSRPD	mg/L		4.2%	≤20.0	
Sodium	200.7	10/18/2023:211755EJC	Blank	mg/L		ND	<1	
		(SP 2317486-001)	LCS	mg/L	12.00	104%	85-115	
			MS	mg/L	12.00	197%	<1/4	406
			MSD	mg/L	12.00	177%	<1/4	
			MSRPD	mg/L		2.7%	≤20.0	
		(SP 2317488-001)	MS	mg/L	12.00	1730%	<1/4	406
			MSD	mg/L	12.00	4470%	<1/4	
			MSRPD	mg/L		2.8%	≤20.0	

**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.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.

**Explanation**

- 406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.

November 1, 2023  
**Innovative Ag Services, LLC**

Lab No. : VI 2346837  
 Customer No. : 4018573

### Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
<b>Wet Chem</b>								
Alkalinity (as CaCO <sub>3</sub> )	2320B	10/11/2023:211482AMM	ND	mg/L		0%	10	406
Bicarbonate	2320B	(SP 2317153-001)	Dup	mg/L		0%	10	
E. C.	2320B	(SP 2317153-001)	Dup	umhos/cm		0.2%	5	
Solids, Total Dissolved	2540CE	10/12/2023:211502CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	103%	90-110	
		(SP 2317036-001)	Dup	mg/L		0.03%	5	
		(SP 2317036-001)	Dup	mg/L		1.33%	5	
Chloride	300.0	10/10/2023:211460LDM	Blank	mg/L		ND	<1	
		(CH 2378627-001)	LCS	mg/L	25.00	99.9%	90-110	
			MS	mg/L	50.00	99.0%	67-117	
			MSD	mg/L	50.00	99.4%	67-117	
			MSRPD	mg/L		0.4%	≤7	
		(CH 2378627-002)	MS	mg/L	50.00	100%	67-117	
			MSD	mg/L	50.00	100%	67-117	
			MSRPD	mg/L		0.1%	≤7	
Nitrate Nitrogen	300.0	10/10/2023:211460LDM	Blank	mg/L		ND	<0.4	
		(CH 2378627-001)	LCS	mg/L	20.00	98.9%	90-110	
			MS	mg/L	40.00	99.4%	86-112	
			MSD	mg/L	40.00	99.7%	86-112	
			MSRPD	mg/L		0.3%	≤7	
		(CH 2378627-002)	MS	mg/L	40.00	101%	86-112	
			MSD	mg/L	40.00	101%	86-112	
			MSRPD	mg/L		0.1%	≤7	
Sulfate Sulfur	300.0	10/10/2023:211460LDM	Blank	mg/L		ND	<0.5	
		(CH 2378627-001)	LCS	mg/L	50.00	100%	90-110	
			MS	mg/L	100.0	99.5%	18-165	
			MSD	mg/L	100.0	100%	18-165	
			MSRPD	mg/L		0.7%	≤7	
		(CH 2378627-002)	MS	mg/L	100.0	101%	18-165	
			MSD	mg/L	100.0	101%	18-165	
			MSRPD	mg/L		0.1%	≤7	

#### Definition

- Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
- Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.
- LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
- MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
- MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
- ND : Non-detect - Result was below the DQO listed for the analyte.

#### Explanation

- 406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.



# Laboratory Analysis Work Order

Nº 41506

ID: # 0291

2346837

SITE NAME: Sunset Dairy

Billing: IAS

LABORATORY: FCL

Authorized Copy Release to:

Innovative Ag Services LLC

(559) 587-2800

## ANALYSIS TO BE COMPLETED:

### Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO<sub>3</sub>N (Dom)
  - W2 EC, NO<sub>3</sub>N, TDS, TN (Irr)
  - W3 NH<sub>4</sub>-N (Ammonium)
  - W4 EC, NO<sub>3</sub>N, Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl, TDS (Dom, GM)
  - W5 EC, NO<sub>3</sub>N, TDS, TN, Ca, Mg, Na, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>S, Cl (Irr, GM)
  - W6 NO<sub>3</sub>N, NO<sub>2</sub> (Dom ILRP, Annually)
  - W7 Ca, Mg, Na, K, HCO<sub>3</sub>, CO<sub>3</sub>, SO<sub>4</sub>, Cl + Lab Filtering (GWM)
  - W8 Other: \_\_\_\_\_
- Set 16.5°C 10/9/23*

### Plant Tissue

- P1 TN, NO<sub>3</sub>N, PO<sub>4</sub>P, K (Mid Season - Wheat)
- P2 TN, P, K (Mid-season - Corn)
- P3 TN, TP, TK, Ash, %M (At Harvest)
- P4 TN, %M
- P5 % Moisture
- P6 NIR
- P7 Other: \_\_\_\_\_

Sample ID	Description	Analysis	Date/Time	Sampled by	IAS USE ONLY: FIELD TESTS		
					NH <sub>3</sub> N *	pH	Temp
1	DH	W4	10/9 9:30	Frank	—		
2							
3							
4							
5							
6							
7							
8							

\* Field Test of ammonium nitrogen may only be made by a trained technician. Positive test to be analyzed for ammonium nitrogen by the laboratory.

All samples are to follow the procedures noted in the Sampling & Analysis Plan of the NMP and the RWQCB specifications. Any samples taken outside of these procedures shall provide the procedures on the notes below. Additionally, if any preservatives are used in the collections or processing of samples, please note below.

NOTES:

### CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1 <sup>st</sup>	<u>SC</u>	<u>IAS</u>		<u>10/9/23 3:00</u>
2 <sup>nd</sup>	<u>ED</u>	<u>FCL</u>	<u>10/9/23 15:55</u>	
3 <sup>rd</sup>	<u>ZB</u>	<u>FCL</u>		<u>10/9/23 16:10</u>
4 <sup>th</sup>	<u>DT</u>		<u>10/9/23 16:10</u>	

LABORATORY USE ONLY  
Logged In By: ED

Total Samples: 101 Laboratory #: 61010103

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