

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY: Peterson Dairy

Physical address of dairy:

30999 Peterson RD

Number and Street

Mcfarland

City

Kern

County

93250

Zip Code

Street and nearest cross street (if no address): _____

Date facility was originally placed in operation: 04/01/1999

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X060-X011-XX06-XXXX X060-X011-XX07-XXXX X060-X011-XX08-XXXX

B. OPERATORS

De Boer, Pete

Operator name: De Boer, Pete

Telephone no.: (661) 979-7428

Landline

Cellular

30999 Peterson RD

McFarland

CA

93250

Mailing Address Number and Street

City

State

Zip Code

This operator is responsible for paying permit fees.

C. OWNERS

De Boer, Pete

Legal owner name: De Boer, Pete

Telephone no.: (661) 979-7428

Landline

Cellular

30999 Peterson RD

McFarland

CA

93250

Mailing Address Number and Street

City

State

Zip Code

This owner is responsible for paying permit fees.

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	778	73	173	203	0	0
Number under roof	0	0	0	0	0	0
Maximum number	798	82	186	212	0	0
Average number	778	73	173	203	0	0
Avg live weight (lbs)	1,400	1,450	1,000	750		

Predominant milk cow breed: Holstein

Average milk production: 75 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 25,246.58 tons per reporting period

Total nitrogen from manure: 315,899.67 lbs per reporting period

After ammonia losses (30% loss applied): 221,129.77 lbs per reporting period

Total phosphorus from manure: 53,067.83 lbs per reporting period

Total potassium from manure: 151,549.91 lbs per reporting period

Total salt from manure: 383,107.65 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 9,809,599 gallons

Total nitrogen generated: 22,447.69 lbs

$$\begin{array}{r} 9,809,599 \text{ gallons applied} \\ + 0 \text{ gallons exported} \\ - 0 \text{ gallons imported} \\ = 9,809,599 \text{ gallons generated} \end{array}$$

Total phosphorus generated: 4,897.97 lbs

Total potassium generated: 35,445.67 lbs

Total salt generated: 217,128.40 lbs

D. FRESH WATER SOURCES

Source Description	Type
Dairy Domestic	Ground water
House Domestic	Ground water
SSJMUD	Surface water

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E. SUBSURFACE (TILE) DRAINAGE SOURCES*No subsurface (tile) drainage sources entered.***F. NUTRIENT IMPORTS***No dry manure nutrient imports entered.**No process wastewater nutrient imports entered.**No commercial or other nutrient imports entered.***G. NUTRIENT EXPORTS**

Date	Material type	Quantity	Reporting basis	Moisture (%)	Density (lbs/cu ft)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
11/12/2023	Corral solids	5,290.00 ton	Dry-weight	3.2		15,100.00	4,300.00	10,100.00		0.00
12/14/2023	Corral solids	2,800.00 ton	Dry-weight	3.2		15,100.00	4,300.00	10,100.00		0.00

No liquid nutrient exports entered.

Material type	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Dry manure	236,499.82	67,347.63	158,188.62	0.00
Process wastewater	0.00	0.00	0.00	0.00
Total exports for all materials	236,499.82	67,347.63	158,188.62	0.00

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APPLICATION AREA**A. LIST OF LAND APPLICATION AREAS**

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
PD1	43	43	2	process wastewater	X060-X011-XX09-XXXX
Totals for areas that were used for application	43	43	2		
Totals for areas that were not used for application					
Land application area totals	43	43	2		

B. CROPS AND HARVESTS

PD1

Field name: PD1

11/10/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 43 Plant date: 11/10/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/10/2023	929.00 ton	Dry-weight		70.3	13,600.00	3,800.00	16,100.00		9.65

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	1,499.40
Total actual harvest content	21.60	174.53	48.77	206.61	1,238.40

06/28/2023: Corn, silage

Crop: Corn, silage Acres planted: 43 Plant date: 06/28/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/15/2023	1,225.00 ton	Dry-weight		67.5	14,100.00	2,800.00	17,400.00		6.73

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	1,500.00
Total actual harvest content	28.49	261.10	51.85	322.20	1,246.22

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NUTRIENT BUDGET**A. LAND APPLICATIONS**

PD1 - 11/10/2022: Wheat, silage, soft dough

Field name: PD1

Crop: Wheat, silage, soft dough

Plant date: 11/10/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following
10/22/2022	Surface (irrigation)	No precipitation	No precipitation		No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
Lagoon	Process wastewater	86.42	15.29	107.09	1,147.79
SSJMUD	Surface water	0.60	0.00	0.00	129.65
Application event totals		87.01	15.29	107.09	1,277.44
01/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Amount
Lagoon	Process wastewater	70.00	23.05	139.57	723.22
SSJMUD	Surface water	0.65	0.00	0.00	141.51
Application event totals		70.65	23.05	139.57	864.73
03/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Amount
Lagoon	Process wastewater	68.95	15.76	118.47	380.30
SSJMUD	Surface water	0.68	0.00	0.00	147.11
Application event totals		69.63	15.76	118.47	527.41

PD1 - 06/28/2023: Corn, silage

Field name: PD1

Crop: Corn, silage

Plant date: 06/28/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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PD1 - 06/28/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
06/18/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	102.55	23.44	176.20	565.63	2,096,800.00 gal
SSJMUD	Surface water	0.71	0.00	0.00	154.15	6,109,898.00 gal
Application event totals		103.26	23.44	176.20	719.77	
07/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
SSJMUD	Surface water	0.78	0.00	0.00	169.20	6,706,680.00 gal
Application event totals		0.78	0.00	0.00	169.20	
07/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	98.33	18.42	143.34	1,130.83	1,948,800.00 gal
SSJMUD	Surface water	0.74	0.00	0.00	161.23	6,390,655.00 gal
Application event totals		99.08	18.42	143.34	1,292.06	
08/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
SSJMUD	Surface water	0.75	0.00	0.00	162.27	6,432,056.00 gal
Application event totals		0.75	0.00	0.00	162.27	
08/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	No precipitation
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	95.80	17.94	139.65	1,101.73	1,898,660.00 gal
SSJMUD	Surface water	0.74	0.00	0.00	160.09	6,345,320.00 gal
Application event totals		96.54	17.94	139.65	1,261.82	

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PD1 - 06/28/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/04/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
SSJMUD	Surface water	0.79	0.00	0.00	171.72	6,806,540.00 gal
Application event totals		0.79	0.00	0.00	171.72	
09/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
SSJMUD	Surface water	0.75	0.00	0.00	161.55	6,403,500.00 gal
Application event totals		0.75	0.00	0.00	161.55	

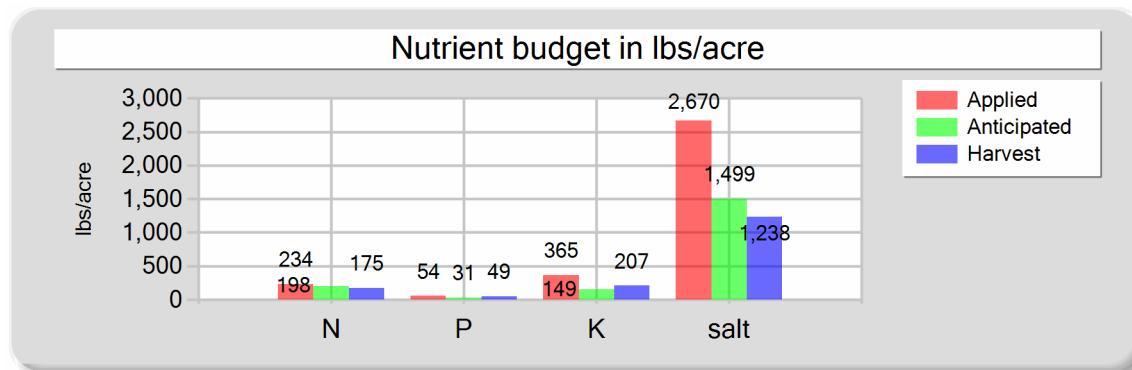
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B. NUTRIENT BUDGET

PD1 - 11/10/2022: Wheat, silage, soft dough

Field name: PD1 Crop: Wheat, silage, soft dough Plant date: 11/10/2022



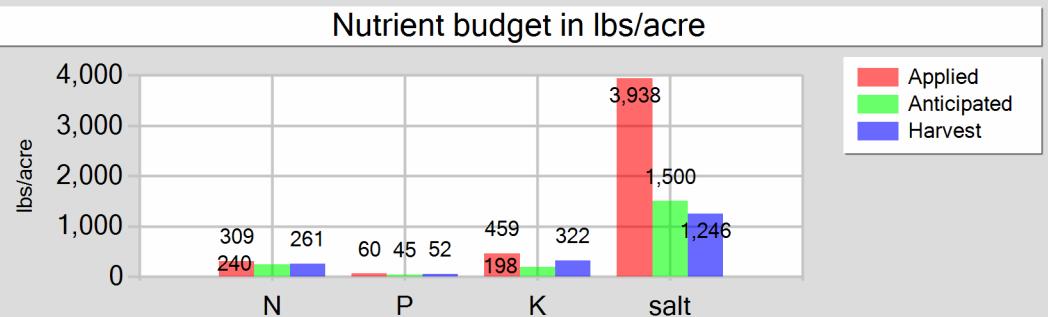
	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	16,578,870.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	610.54 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	14.20 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	225.36	54.10	365.13	2,251.31	Process wastewater applied
Fresh water	1.93	0.00	0.00	418.27	3,865,339.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	142.35 acre-inches
Total nutrients applied	234.29	54.10	365.13	2,669.58	3.31 inches/acre
Anticipated crop nutrient removal	198.00	30.60	149.40	1,499.40	Total harvests for the crop
Actual crop nutrient removal	174.53	48.77	206.61	1,238.40	1 harvests
Nutrient balance	59.76	5.34	158.52	1,431.18	
Applied to removed ratio	1.34	1.11	1.77	2.16	

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PD1 - 06/28/2023: Corn, silage

Field name: PD1 Crop: Corn, silage Plant date: 06/28/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	296.68	59.80	459.19	2,798.19
Fresh water	5.26	0.00	0.00	1,140.22
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	308.94	59.80	459.19	3,938.41
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	261.10	51.85	322.20	1,246.22
Nutrient balance	47.85	7.95	136.99	2,692.18
Applied to removed ratio	1.18	1.15	1.43	3.16

Fresh water applied
45,194,649.00 gallons
1,664.37 acre-inches
38.71 inches/acre

Process wastewater applied
5,944,260.00 gallons
218.91 acre-inches
5.09 inches/acre

Total harvests for the crop
1 harvests

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NUTRIENT ANALYSES**A. MANURE ANALYSES****Manure**

Sample and source description: Manure

Sample date: 05/01/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 11.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	19,500.00	5,900.00	21,200.00							
DL	100.00	200.00	200.00							

Manure

Sample and source description: Manure

Sample date: 10/11/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 3.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	4,300.00	10,100.00							
DL	100.00	200.00	200.00							

B. PROCESS WASTEWATER ANALYSES**Lagoon**

Sample and source description: Lagoon

Sample date: 11/18/2022 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.50

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	326.00	227.00			57.70	404.00								6,530.00	4,330
DL	10.00	2.00			0.20	0.50								100.00	10

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Lagoon

Sample and source description: Lagoon

Sample date: 02/21/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.00

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	329.00	176.00		2.00	109.00	660.00								5,150.00	3,420
DL	10.00	2.00		2.00	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 05/01/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.20

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	250.00	202.00		2.00	57.60	433.00								2,090.00	1,390
DL	10.00	2.00		2.00	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 08/02/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.40

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	258.00	233.00		2.00	48.70	379.00								4,510.00	2,990
DL	10.00	2.00		2.00	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 11/10/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.60

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	340.00	336.00			31.20	474.00								4,970.00	3,300
DL	10.00	2.00			0.20	0.50								100.00	10

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C. FRESH WATER ANALYSES**Dairy Domestic****Dairy Domestic**Sample description: Dairy DomesticSample date: 11/30/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value			14.00	77.00	3.00	70.00	40.00	0.00	33.10	150.00	883.00	760
DL			0.10	1.00	1.00	1.00	10.00	10.00	0.17	3.00	1.00	20

SSJMUD**SSJMUD**Sample description: SSJMUDSample date: 07/18/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.60		0.00								204.00	130
DL	0.50		0.40								1.00	20

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

PD1 - 11/10/2022: Wheat, silage, soft dough

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PD1 - 11/10/2022: Wheat, silage, soft dough

WheatSample and source description: WheatSample date: 05/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 70.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,600.00	3,800.00	16,100.00		9.65
DL	500.00	200.00	200.00		0.05

PD1 - 06/28/2023: Corn, silage

corn sampleSample and source description: corn sampleSample date: 10/15/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 67.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,100.00	2,800.00	17,400.00		6.73
DL	100.00	200.00	200.00		0.05

F. SUBSURFACE (TILE) DRAINAGE ANALYSES*No subsurface (tile) drainage analyses entered.*

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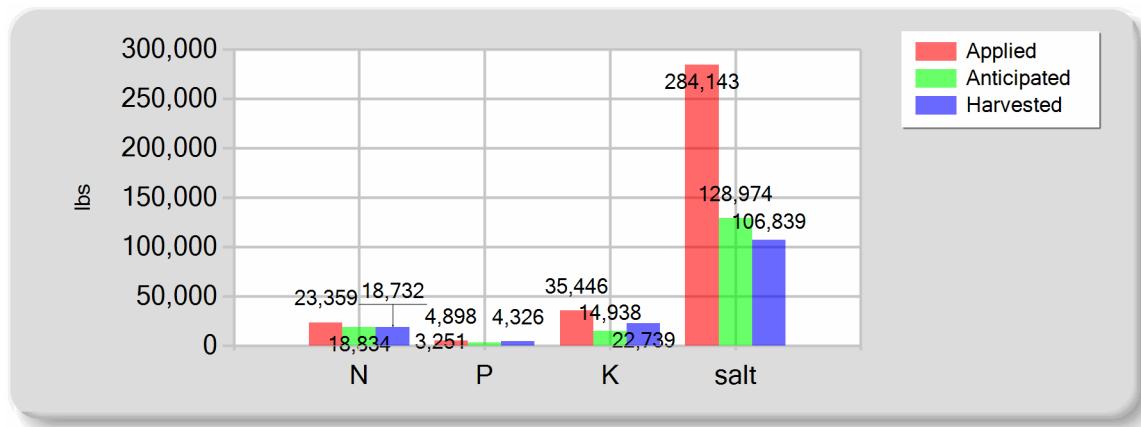
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NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

A. SUMMARY OF NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	22,447.69	4,897.97	35,445.67	217,128.40
Fresh water	309.30	0.00	0.00	67,015.00
Atmospheric deposition	602.00	0.00	0.00	0.00
Total nutrients applied	23,358.99	4,897.97	35,445.67	284,143.40
Anticipated crop nutrient removal	18,834.00	3,250.80	14,938.20	128,974.20
Actual crop nutrient removal	18,731.96	4,326.44	22,739.15	106,838.83
Nutrient balance	4,627.03	571.53	12,706.52	177,304.57
Applied to removed ratio	1.25	1.13	1.56	2.66

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

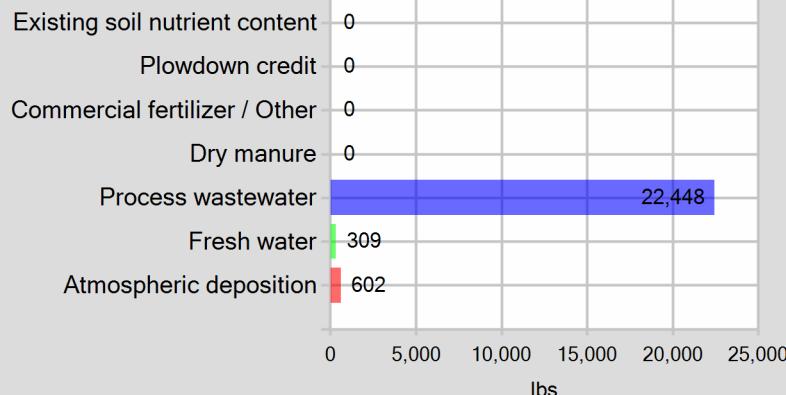


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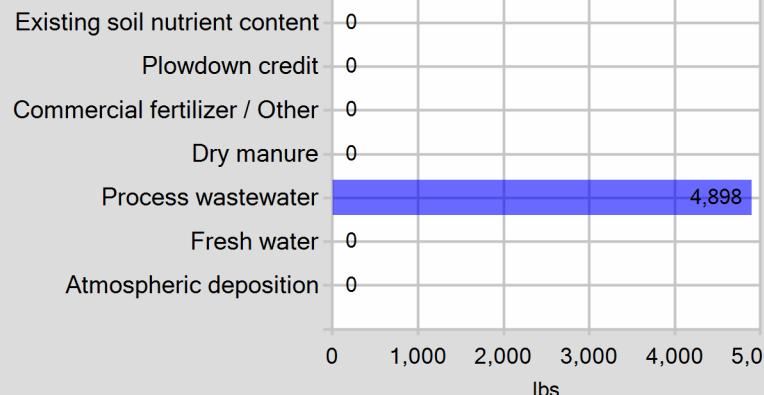
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C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

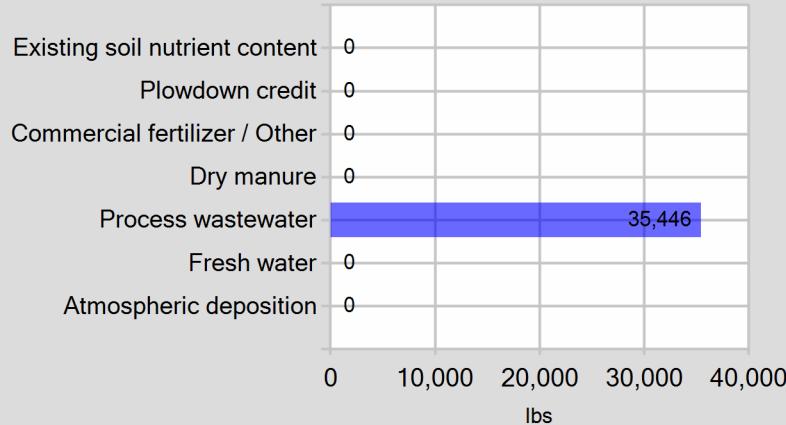
Pounds of nitrogen applied



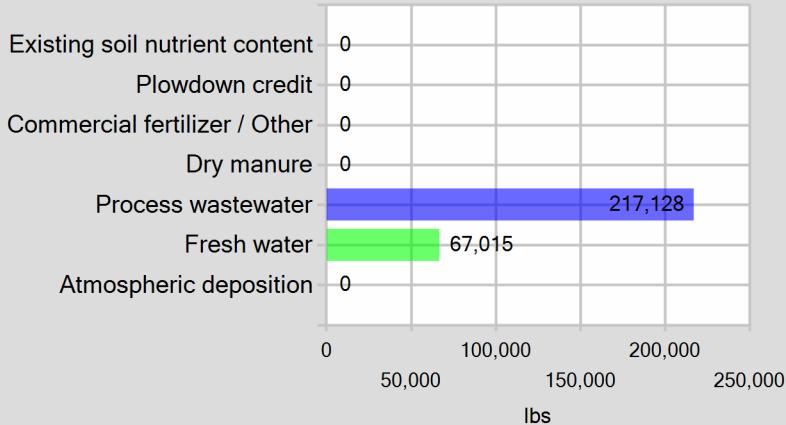
Pounds of phosphorus applied



Pounds of potassium applied



Pounds of salt applied



Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

EXCEPTION REPORTING

A. MANURE, PROCESS WASTEWATER, AND OTHER DAIRY WASTE DISCHARGES

The following is a summary of all manure and process 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.

No manure or process wastewater discharges occurred during the reporting period.

B. STORM WATER DISCHARGES

The following 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 stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

Was the facility's NMP updated in the reporting period? Yes _____

Was the facility's NMP developed by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order? Yes _____

Was the facility's NMP approved by a certified nutrient management planner (specialist) as specified in Attachment C of the General Order? Yes _____

B. EXPORT AGREEMENT STATEMENT

Are there any written agreements with third parties to receive manure or process wastewater that are new or were revised within the reporting period? No _____

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

ADDITIONAL NOTES

A. NOTES

House Domestic was out of service in 2023.

Annual Report - General Order No. R5-2007-0035
Reporting period 01/01/2023 to 12/31/2023.

CERTIFICATION

A. OWNER AND/OR OPERATOR CERTIFICATION

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

Pete De Boer

PRINT OR TYPE NAME

6-24-28

DATE


SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

DATE

Annual Report - General Order No. R5-2007-0035

Reporting period 01/01/2023 to 12/31/2023.

ATTACHMENTS

A. REQUIRED ATTACHMENTS

The following lists the required documents that should be attached to the Annual Report when submitted .

Annual Dairy Facility Assessment

Provide an Annual Dairy Facility Assessment (an update to the Preliminary Dairy Facility Assessment in Attachment A) for each reporting period. On the PDFA Final page, click on the ADFA Report button to generate an ADFA report after updating information as needed.

Manure/Process Wastewater Tracking Manifests

Provide copies of all manure/process wastewater tracking manifests for the reporting period, signed by both the owner/operator and the hauler.

Corrective Actions Documents

Provide records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements of the General Order. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction.

Groundwater Monitoring

Dischargers that monitor supply wells or subsurface (tile) drainage systems, or that have monitoring well systems must submit monitoring results as directed in the General Order, Groundwater Reporting Section starting on page MRP-13.

Storm Water Monitoring

Dischargers that are required to monitor storm water more frequently than required in the General Order must submit monitoring results as directed in the General Order, Storm Water Reporting Section on page MRP-14.

August 11, 2023

Sentry Ag Services
Attn: Monique Baldivez
P.O. Box 7750
Visalia, CA 93290

Lab No. : VI 2344660
Customer No. : 4019696
Reference : 3057

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
Semi Tropic ID	07/18/2023	07/18/2023	VI 2344660-001	AGW

Sampling and Receipt Information:

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

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

Test Summary

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

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

KD: EHB

Approved By **Kelly A. Dunnahoo, B.S.**  Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-08-14

Section: Case Narrative

Page 1 of 3

Page 1 of 3

Corporate Offices & Laboratory	Office & Laboratory	Office & Laboratory	Office & Laboratory	Office & 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	2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563	563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670	3442 Empressa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775	9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810

August 11, 2023

Sentry Ag Services
 Attn: Monique Baldivez
 P.O. Box 7750
 Visalia, CA 93290

Description : Semi Tropic ID
 Project : Semi Tropic ID

Lab No. : VI 2344660-001
 Customer No. : 4019696
 Reference : 3057
 Sampled On : July 18, 2023 at 08:30
 Sampled By : Klay
 Received On : July 18, 2023 at 15:17
 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	0.6	0.5	mg/L		1		08/08/2023	08:55	sta	EPA 351.2	08/10/2023	17:40	lcr	
Nitrate Nitrogen	ND	0.4	mg/L		1	U	07/19/2023	12:15	lfs	SM 4500-NO3 F	07/19/2023	15:06	lfs	
Nitrogen, Total as Nitrogen	0.6	0.5	mg/L		1		08/08/2023	08:55	sta	Calc.	08/10/2023	17:40	lcr	
Nitrate + Nitrite as N	ND	0.4	mg/L		1	U	07/19/2023	12:15	lfs	SM 4500-NO3 F	07/19/2023	15:06	lfs	
Kjeldahl Nitrogen	0.6	0.5	mg/L		1		08/08/2023	08:55	sta	EPA 351.2	08/10/2023	17:40	lcr	
Conductivity	204	1	umhos/cm		1		07/31/2023	17:05	amm	SM 4500-H+B	07/31/2023	20:34	amm	
Solids, Total Dissolved (TDS)	130	20	mg/L		1		07/21/2023	09:30	ctl	SM 2540 C	07/24/2023	11:00	ctl	

DQF Flags Definition:

U Constituent results were non-detect.

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

August 11, 2023

Sentry Ag Service

Lab No. : VI 2344660
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	(VI 2344710-008)	Dup	umhos/cm		0.3%	5	
Solids, Total Dissolved	2540CE	07/21/2023:207986CTL (SP 2312256-003) (SP 2312256-003)	Blank LCS Dup Dup	mg/L mg/L mg/L mg/L	991.5	ND 101% 0.2% 3.10%	<20 90-110 5 5	
Nitrogen, Total Kjeldahl	351.2	08/08/2023:208707STA (VI 2344654-002) (VI 2344644-003)	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	ND 91.3% 85.5% 85.3% 0.3% 82.8% 82.5% 0.3%	<0.5 73-124 54-136 54-136 ≤27 54-136 54-136 ≤27	
Nitrate + Nitrite as N	4500NO3F	07/19/2023:207926LFS (STK2339515-001)	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 97.8% 91.9% 94.5% 1.2%	<0.4 80-120 66-125 66-125 ≤30.4	
Nitrate Nitrogen	4500NO3F	07/19/2023:207926LFS (STK2339515-001)	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 97.8% 91.9% 94.5% 1.2%	<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.
- 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.



23441660

Laboratory Analysis Work Order

3057

SITE NAME: Semi Tropic IDBilling: Sentry Ag Services, LLC

P.O. Box 7750, Visalia, CA 93290

LABORATORY: VT

FGL 4-19696

Authorized Copy Release to:

labs@sentryservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO₃N (Dom)
- W2 EC, NO₃N, TDS, TN (Irr)
- W3 NH₄-N (Ammonium)
- W4 EC, NO₃N, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl, TDS (Dom, GM)
- W5 EC, NO₃N, TDS, TN, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl (Irr, GM)
- W6 NO₃N, NO₂ (Dom ILRP, Annually)
- W7 Ca, Mg, Na, K, HCO₃, CO₃, SO₄, Cl + Lab Filtering (GWM)
- W8 Other: _____

Plant Tissue

- P1 TN, NO₃N, PO₄P, 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, NH₄N, TKN, TP, TK, TDS (Quarterly)
- L2 EC, NO₃N, NH₄N, TKN, TP, TK, TDS, pH (Annually)
- L3 Ca, Mg, Na, HCO₃, CO₃, SO₄S, 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, NO₃N, PO₄P, K-AA, Zn, Mn, Fe, Cu, SO₄S
- S2 S1 + CEC, CaCO₃, OM, C:N, TN
- S3 NO₃N, NH₄N
- S4 Other: _____

Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
					NH ₃ N *	pH	Temp
1	Semi Tropic ID	Canal H2O	W1	7/18/23 8:30	Klay	-	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

* 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 st	Klay	SAS		7/18/23 15:17
2 nd	SRO	FGL	7/18/23 15:17	
3 rd	SRO	FGL		7/18/23 17:30
4 th		GLS	7/18/23 17:30	

LABORATORY USE ONLY

Logged In By: _____

Total Samples: _____

Laboratory No.: _____

R01
5.3°CGLS
MC
11007/19/23
1100

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: 20° / 5.3°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? | <input checked="" type="radio"/> Yes | No | N/A |
| 4. Were samples received intact? (i.e. no broken bottles, leaks etc.) | <input checked="" type="radio"/> Yes | No | |
| 5. VOAs checked for Headspace? | Yes | No | (N/A) |
| 6. Were sample custody seals intact? | Yes | No | (N/A) |
| 7. If required, was sample split for pH analysis? | Yes | No | (N/A) |
| 8. Were all analyses within holding times at time of receipt? | <input checked="" type="radio"/> Yes | No | |
| 9. Verify sample date, time and sampler name | <input checked="" type="radio"/> Yes | No | |

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.

Sample Receipt Review completed by (initials): SRO

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 3°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: 559787246
6815

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

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

Sample Verification, Labeling and Distribution:

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

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

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

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: _____ | (4019696) |
| Problem: _____ | Sentry Ag Service |
| Resolution: _____ | VI 2344660 |

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

iv 07/19/2023 08:11:16



U1 2344668

December 13, 2023

Sentry Ag Services
Attn: Monique Baldivez
P.O. Box 7750
Visalia, CA 93290

Lab No. : VI 2348030
Customer No. : 4019696
Reference : 3440

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
Dairy Domestic	11/30/2023	11/30/2023	VI 2348030-001	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: 2023-12-14

Section: Case Narrative

Page 1 of 4

Page 1 of 4

Corporate Offices & Laboratory	Office & Laboratory	Office & Laboratory	Office & Laboratory	Office & 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	2500 Stagecoach Road Stockton, CA 95215 TEL: (209)942-0182 FAX: (209)942-0423 CA ELAP Certification No. 1563	563 E. Lindo Avenue Chico, CA 95926 TEL: (530)343-5818 FAX: (530)343-3807 CA ELAP Certification No. 2670	3442 Empressa Drive, Suite D San Luis Obispo, CA 93401 TEL: (805)783-2940 FAX: (805)783-2912 CA ELAP Certification No. 2775	9415 W. Goshen Avenue Visalia, CA 93291 TEL: (559)734-9473 FAX: (559)734-8435 CA ELAP Certification No. 2810

December 13, 2023

Sentry Ag Services

Attn: Monique Baldivez
P.O. Box 7750
Visalia, CA 93290

Description : Dairy Domestic
Project : Peterson

Lab No. : VI 2348030-001
Customer No. : 4019696
Reference : 3440
Sampled On : November 30, 2023 at 10:05
Sampled By : Klay
Received On : November 30, 2023 at 13:40
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	
Dairy Analysis														
Alkalinity (as CaCO ₃)	30	10	mg/L		1		12/04/2023	18:05	amm	SM 4500-H+B	12/04/2023	19:45	amm	
Bicarbonate	40	10	mg/L		1		12/04/2023	18:05	amm	SM 4500-H+B	12/04/2023	19:45	amm	
Carbonate	ND	10	mg/L		1	U	12/04/2023	18:05	amm	SM 4500-H+B	12/04/2023	19:45	amm	
Hydroxide	ND	10	mg/L		1	U	12/04/2023	18:05	amm	SM 4500-H+B	12/04/2023	19:45	amm	
Chloride	150	3*	mg/L	500 ²	3		12/01/2023	15:38	ldm	EPA 300.0	12/02/2023	21:27	ldm	
Nitrate Nitrogen	14	0.1	mg/L	10	1		12/01/2023	15:38	ldm	EPA 300.0	12/02/2023	08:59	ldm	
Conductivity	883	1	umhos/cm	1600 ²	1		12/04/2023	18:05	amm	SM 4500-H+B	12/04/2023	19:45	amm	
Sulfate Sulfur	33.1	0.17	mg/L		1		12/01/2023	15:38	ldm	EPA 300.0	12/02/2023	08:59	ldm	
Solids, Total Dissolved (TDS)	760	20	mg/L	1000 ²	1		12/04/2023	10:45	ctl	SM 2540 C	12/05/2023	11:00	ctl	
Calcium	77	1	mg/L		1		12/02/2023	08:13	ejc	EPA 200.7	12/05/2023	15:42	ac	
Magnesium	3	1	mg/L		1	1	12/02/2023	08:13	ejc	EPA 200.7	12/05/2023	15:42	ac	
Potassium	2	1	mg/L		1		12/02/2023	08:13	ejc	EPA 200.7	12/05/2023	15:42	ac	
Sodium	70	1	mg/L		1		12/02/2023	08:13	ejc	EPA 200.7	12/05/2023	15:42	ac	

DQF Flags Definition:

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

ND=Non-Detected, RL=Reporting Level * RL adjusted for dilution, Dil.=Dilution

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

December 13, 2023
Sentry Ag Service

Lab No. : VI 2348030
Customer No. : 4019696

Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Calcium	200.7	12/02/2023:213621EJC	Blank	mg/L		ND	<1	
		(SP 2319783-001)	LCS	mg/L	12.00	90.1%	85-115	
			MS	mg/L	12.00	80.7%	75-125	
			MSD	mg/L	12.00	57.1%	<1/4	
			MSRPD	mg/L		2.5%	≤20.0	
		(CH 2379819-006)	MS	mg/L	12.00	90.6%	75-125	
			MSD	mg/L	12.00	27.0%	<1/4	
			MSRPD	mg/L		7.8%	≤20.0	
Magnesium	200.7	12/02/2023:213621EJC	Blank	mg/L		ND	<1	
		(SP 2319783-001)	LCS	mg/L	12.00	93.9%	85-115	
			MS	mg/L	12.00	89.8%	75-125	
			MSD	mg/L	12.00	89.0%	75-125	
			MSRPD	mg/L		0.3%	≤20	
		(CH 2379819-006)	MS	mg/L	12.00	91.4%	75-125	
			MSD	mg/L	12.00	57.8%	75-125	435
			MSRPD	mg/L		7.8%	≤20	
Potassium	200.7	12/02/2023:213621EJC	Blank	mg/L		ND	<1	
		(SP 2319783-001)	LCS	mg/L	12.00	89.9%	85-115	
			MS	mg/L	12.00	93.5%	75-125	
			MSD	mg/L	12.00	98.4%	75-125	
			MSRPD	mg/L		4.4%	≤20.0	
		(CH 2379819-006)	MS	mg/L	12.00	98.3%	75-125	
			MSD	mg/L	12.00	92.5%	75-125	
			MSRPD	mg/L		5.8%	≤20.0	
Sodium	200.7	12/02/2023:213621EJC	Blank	mg/L		ND	<1	
		(SP 2319783-001)	LCS	mg/L	12.00	90.0%	85-115	
			MS	mg/L	12.00	85.7%	75-125	
			MSD	mg/L	12.00	77.5%	75-125	
			MSRPD	mg/L		1.8%	≤20.0	
		(CH 2379819-006)	MS	mg/L	12.00	84.0%	75-125	
			MSD	mg/L	12.00	28.6%	<1/4	
			MSRPD	mg/L		7.5%	≤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 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.

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Alkalinity (as CaCO3)	2320B	12/04/2023:213680AMM	ND	mg/L		2.68%	10	435
Bicarbonate	2320B	(CH 2390156-001)	Dup	mg/L		2.58%	10	
E. C.	2320B	(CH 2390156-001)	Dup	umhos/cm		0.1%	5	
Solids, Total Dissolved	2540CE	12/04/2023:213647CTL	Blank	mg/L	991.5	ND	<20	
		(SP 2319811-001)	LCS	mg/L		100%	90-110	
		(SP 2319811-001)	Dup	mg/L		0.5%	5	
		(SP 2319811-001)	Dup	mg/L		3.84%	5	
Chloride	300.0	12/01/2023:213672LDM	Blank	mg/L		ND	<1	
		(CH 2390124-001)	LCS	mg/L	25.00	99.0%	90-110	
		(CH 2390124-001)	MS	mg/L	50.00	101%	67-117	
		(CH 2390124-001)	MSD	mg/L	50.00	101%	67-117	
		(CH 2390120-001)	MSRPD	mg/L		0.2%	≤7	
		(CH 2390120-001)	MS	mg/L	50.00	99.8%	67-117	
		(CH 2390120-001)	MSD	mg/L	50.00	99.9%	67-117	
		(CH 2390120-001)	MSRPD	mg/L		0.1%	≤7	
Nitrate Nitrogen	300.0	12/01/2023:213672LDM	Blank	mg/L		ND	<0.4	
		(CH 2390124-001)	LCS	mg/L	20.00	97.2%	90-110	
		(CH 2390124-001)	MS	mg/L	40.00	102%	86-112	
		(CH 2390124-001)	MSD	mg/L	40.00	101%	86-112	
		(CH 2390120-001)	MSRPD	mg/L		0.3%	≤7	
		(CH 2390120-001)	MS	mg/L	40.00	99.2%	86-112	
		(CH 2390120-001)	MSD	mg/L	40.00	99.3%	86-112	
		(CH 2390120-001)	MSRPD	mg/L		0.1%	≤7	
Sulfate Sulfur	300.0	12/01/2023:213672LDM	Blank	mg/L		ND	<0.5	
		(CH 2390124-001)	LCS	mg/L	50.00	101%	90-110	
		(CH 2390124-001)	MS	mg/L	100.0	104%	18-165	
		(CH 2390124-001)	MSD	mg/L	100.0	103%	18-165	
		(CH 2390120-001)	MSRPD	mg/L		0.2%	≤7	
		(CH 2390120-001)	MS	mg/L	100.0	102%	18-165	
		(CH 2390120-001)	MSD	mg/L	100.0	102%	18-165	
		(CH 2390120-001)	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

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



Laboratory Analysis Work Order

2348030

3440

SITE NAME: Peterson

Billing: Sentry Ag Services, LLC
P.O. Box 7750, Visalia, CA 93290

LABORATORY: VT

FGL 4-19696

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO₃N (Dom)
 W2 EC, NO₃N, TDS, TN (Irr)
 W3 NH₄-N (Ammonium)
 W4 EC, NO₃N, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl, TDS (Dom, GM)
 W5 EC, NO₃N, TDS, TN, Ca, Mg, Na, HCO₃, CO₃, SO₄S, Cl (Irr, GM)
 W6 NO₃N, NO₂ (Dom ILRP, Annually)
 W7 Ca, Mg, Na, K, HCO₃, CO₃, SO₄, Cl + Lab Filtering (GWM)
 W8 Other: _____
- Q01 60 10/23/23 Klay*

Plant Tissue

- P1 TN, NO₃N, PO₄P, 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, NH₄N, TKN, TP, TK, TDS (Quarterly)
 L2 EC, NO₃N, NH₄N, TKN, TP, TK, TDS, pH (Annually)
 L3 Ca, Mg, Na, HCO₃, CO₃, SO₄S, 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, NO₃N, PO₄P, K-AA, Zn, Mn, Fe, Cu, SO₄S
 S2 S1 + CEC, CaCO₃, OM, C:N, TN
 S3 NO₃N, NH₄N
 S4 Other: _____

Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS		
					NH ₃ N *	pH	Temp
1	Dairy Domestic	Dom. Well	W4	11/30/23 10:05	Klay	-	
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

* 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 st	Klay	SAS	11/30/23 10:05	11/30/23 13:40
2 nd	PCG	FGL	11/30/23 13:40	
3 rd	ZS	G	11/30/23 17:00	11/30/23 17:00
4 th	GD		11/30/23 17:00	

LABORATORY USE ONLY

Logged In By: _____

Total Samples: _____

Laboratory No.: _____

G1S
CDA12/1/23
143

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: CC CH STK VI

1. Number of ice chests/packages received: 1 Shipping tracking #(s): OTL

2. Temp IR Gun ID #: 4167

3. Were samples received on ice? Yes No Temps: 5.4/1 / / /

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

4. Do the number of bottles received agree with the COC?

Yes No N/A

5. Were samples received intact? (i.e. no broken bottles, leaks etc.)

Yes No

6. VOAs checked for Headspace?

Yes No N/A

7. Were all analyses within holding times at time of receipt?

Yes No

8. 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): OTL

Sample Receipt at SP:

1. Number of ice chests/packages received: 2 Shipping tracking #(s): 560553707 / 15

2. Temp IR Gun ID #: 263

3. Were samples received on ice? Yes No Temps: 2 / 3 / / /

Acceptable is above freezing to 6°C. If many packages are received at one time check for tests/H.T.'s/rushes/

4. Do the number of bottles received agree with the COC?

Yes No N/A

5. Were samples received intact? (i.e. no broken bottles, leaks etc.)

Yes No

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): 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: _____ Phone Number: _____

Initiated By: _____ Date: _____

Problem:

Resolution:



(4019696)
Sentry Ag Service
VI 2348030

U1 2348030

ATTACHMENT D

Manure/Process Wastewater Tracking Manifest For Existing Milk Cow Dairies

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/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

Operator Information: Name of Operator: <u>Pete DeBoer</u>				
Name of Dairy Facility: <u>Peterson Dairy</u>				
Facility Address: <u>30999 Peterson Rd.</u>		Number and Street	City	Zip Code
Contact Person Name and Phone Number: <u>Pete DeBoer</u>		Name	Phone Number	
Manure/Process Wastewater Hauler Information: Name of Hauling Company/Person: <u>AgNow, Corp</u>				
Address of Hauling Company /Person: <u>6748 Lindsay Rd</u>		Number and Street	City	Zip Code
Contact Person: <u>Ryan Rice</u>		Name	Phone Number	
Destination Information: Composting Facility / Broker / Farmer Other (identify) _____ (please circle one)				
Contact information of Composting Facility, Broker, Farmer, or Other (as identified above):				
Name	Number and Street	City	Zip Code	Phone Number
Manure/Process Wastewater Destination Address or Assessor's Parcel Number: <u>Sun Pacific Farming 10025 Reed Rd Delano 93215</u>				
Number and Street	City	Zip Code	Assessor's Parcel Number	
Dates Hauled: <u>11/6 - 12/14/23</u>				
Amount Hauled: Enter the amount of manure hauled in tons or cubic yards (indicate which units used), the manure solids content (if amount reported in tons) or manure density (if amount reported in cubic yards), and the method used to calculate the amount:				
Manure: <u>2,800</u> Tons or Cubic Yards (indicate which units used)				
Manure Solids Content (if amount reported in tons): _____				
Manure Density (if amount reported in cubic yards): _____				

Attachment D

D-2

Waste Discharge Requirements General Order No. R5-2007-0035
Existing Milk Cow Dairies

Method used to determine amount of manure: 112 Truckloads
at 25 Tons per load

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

Process Wastewater: _____ Gallons

Method used to determine volume of process wastewater: _____

Written Agreement:

Does the Operator have a written agreement (in compliance with Land Application Specification C.2 of Waste Discharge Requirements General Order No. R5-2007-0035) with any party that receives process wastewater from the Operator for its own use? (please check one)

Yes No

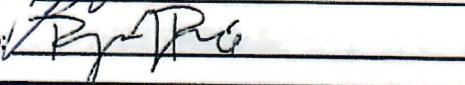
If the answer is no, the Operator agrees to have such a written agreement with any such party for any process wastewater transferred after 31 December 2007 to such party.
(Operator shall provide initials here to acknowledge this requirement).

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: 6-24-24

Hauler's Signature: 

Date: 6/12/24

Manure / Process Wastewater Tracking Manifest

For

Existing Milk Cow Dairies

General Order No. R5-2007-0035, Attachment D

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/process wastewater hauling event.
- 4) The operator shall submit copies of manure/process wastewater tracking manifest(s) with the Annual Monitoring Report for Existing Milk Cow Dairies.

OPERATOR INFORMATION

Name of Operator: Pete DeBoer

Name of Dairy Facility: Peterson Dairy

Facility Address:

30999 Peterson RD
Number and Street

Mcfarland
City

Kern
County

93250
Zip Code

Contact Person Name and Phone Number: Pete DeBoer
Name

(661) 303-6737
Phone Number

MANURE HAULER INFORMATION

Name of Hauling Company/Person: Western Ag Service Inc.

Address of Hauling Company/Person:

P.O. Box 82553
Number and Street

Bakersfield
City

CA
State

93380
Zip Code

Contact Person: Jorgen Lundgren
Name

(661) 303-6737
Phone Number

DESTINATION INFORMATION

Composting Facility / Broker / Farmer / Other (identify): Farmer

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

Bolthouse Farms
Name

(661) 303-6737
Phone Number

7200 E Brundage LN
Address

Bakersfield
City

CA
State

93307
Zip Code

Destination Address or Assessor's Parcel Number:

7200 E Brundage LN
Address

Bakersfield
City

93380
Zip Code

Street and nearest cross street (if no address)

Kern
County

Assessor's Parcel Number

Assessor's Parcel Number County

Last date hauled: 11/12/2023

Manure / Process Wastewater Tracking Manifest
For
Existing Milk Cow Dairies
General Order No. R5-2007-0035, Attachment D

MANURE AMOUNT HAULED

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

Manure: 5,290.00 tons

Manure Solids Content: 96.8 %

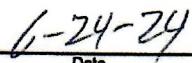
Method used to determine amount of manure:

Scale

CERTIFICATION

I declare under 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 Signature


Date

Hauler Signature

Date