

**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: BANOS DAIRY**

Physical address of dairy:

4667 Avenue 23 1/2

Number and Street

Chowchilla

City

Madera

County

93610

Zip Code

Street and nearest cross street (if no address): \_\_\_\_\_

Date facility was originally placed in operation: 01/01/1980

Regional Water Quality Control Board Basin Plan designation: San Joaquin River Basin

County Assessor Parcel Number(s) for dairy facility:

0020-0032-0003-0000

**B. OPERATORS**

Areias, James

Operator name: Areias, James

Telephone no.: (209) 826-6011 (209) 604-7837

Landline Cellular

15688 W Henry Miller Road

Los Banos

CA

93655

Mailing Address Number and Street

City

State

Zip Code

**This operator is responsible for paying permit fees.**

**C. OWNERS**

Areias, James

Legal owner name: Areias, James

Telephone no.: (209) 826-6011 (209) 604-7837

Landline Cellular

15688 W Henry Miller Road

Los Banos

CA

93655

Mailing Address Number and Street

City

State

Zip Code

**This owner is responsible for paying permit fees.**

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

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

**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	610	77	76	0	0	0
Number under roof	0	0	0	0	0	0
Maximum number	618	80	100	0	0	0
Average number	610	77	76	0	0	0
Avg live weight (lbs)	1,400	1,450	1,000	0		

Predominant milk cow breed: Holstein

Average milk production: 68 pounds per cow per day

**B. MANURE GENERATED**

Total manure excreted by the herd: 17,422.84 tons per reporting period

Total nitrogen from manure: 223,974.72 lbs per reporting period

After ammonia losses (30% loss applied): 156,782.30 lbs per reporting period

Total phosphorus from manure: 37,365.75 lbs per reporting period

Total potassium from manure: 116,019.09 lbs per reporting period

Total salt from manure: 304,924.65 lbs per reporting period

**C. PROCESS WASTEWATER GENERATED**

Process wastewater generated: 7,344,000 gallons

Total nitrogen generated: 15,970.33 lbs

Total phosphorus generated: 2,849.42 lbs

Total potassium generated: 25,411.93 lbs

Total salt generated: 160,784.78 lbs

7,344,000 gallons applied
+ 0 gallons exported
- 0 gallons imported
= 7,344,000 gallons generated

**D. FRESH WATER SOURCES**

Source Description	Type
D-1	Ground water
D-2	Ground water
D-3	Ground water

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

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

**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 (%)
06/01/2023	Corral solids	2,100.00 ton	Dry-weight	17.6		21,700.00	4,370.00	21,500.00		0.00
09/20/2023	Corral solids	1,400.00 ton	Dry-weight	9.9		24,300.00	6,350.00	28,500.00		0.00

*No liquid nutrient exports entered.*

Material type	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Dry manure	136,403.40	31,143.48	146,307.00	0.00
Process wastewater	0.00	0.00	0.00	0.00
Total exports for all materials	136,403.40	31,143.48	146,307.00	0.00

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

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

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

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
Field #1	40	40	1	process wastewater	0020-0032-0007-0000
Field #2	17	17	1	process wastewater	0020-0032-0003-0000
Totals for areas that were used for application	57	57	2		
Totals for areas that were not used for application					
Land application area totals	57	57	2		

**B. CROPS AND HARVESTS****Field #1**

Field name: Field #1

11/02/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough      Acres planted: 40      Plant date: 11/02/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/26/2023	678.00 ton	Dry-weight		65.0	19,900.00	2,650.00	25,700.00		13.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	176.00	27.20	132.80	960.00
Total actual harvest content	16.95	236.11	31.44	304.93	1,554.32

**Field #2**

Field name: Field #2

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

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

**Field #2**

11/03/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough      Acres planted: 17      Plant date: 11/03/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/26/2023	215.00 <i>ton</i>	Dry-weight		65.6	17,400.00	2,770.00	27,600.00		12.80

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	176.00	27.20	132.80	960.00
Total actual harvest content	12.65	151.40	24.10	240.15	1,113.75

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

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

**NUTRIENT BUDGET****A. LAND APPLICATIONS**

Field #1 - 11/02/2022: Wheat, silage, soft dough

Field name: Field #1

Crop: Wheat, silage, soft dough Plant date: 11/02/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
12/20/2022	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Blended Lg and Fresh Water Application	Process wastewater	76.79	17.66	93.73	584.02	864,000.00 gal
Application event totals		76.79	17.66	93.73	584.02	
01/18/2023	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
Blended Lg and Fresh Water Application	Process wastewater	88.68	15.00	102.02	648.91	1,728,000.00 gal
Application event totals		88.68	15.00	102.02	648.91	
03/20/2023	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
Blended Lg and Fresh Water Application	Process wastewater	73.90	12.50	85.02	540.76	1,440,000.00 gal
Application event totals		73.90	12.50	85.02	540.76	
04/04/2023	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
Blended Lg and Fresh Water Application	Process wastewater	78.59	12.33	261.00	1,651.11	1,728,000.00 gal
Application event totals		78.59	12.33	261.00	1,651.11	

Field #2 - 11/03/2022: Wheat, silage, soft dough

Field name: Field #2

Crop: Wheat, silage, soft dough Plant date: 11/03/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

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

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

Field #2 - 11/03/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
01/06/2023	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
Blended Lg and Fresh Water Application	Process wastewater	69.56	11.76	80.02	508.95	576,000.00 gal
Application event totals		69.56	11.76	80.02	508.95	
02/26/2023	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
Blended Lg and Fresh Water Application	Process wastewater	121.72	20.58	140.03	890.66	1,008,000.00 gal
Application event totals		121.72	20.58	140.03	890.66	

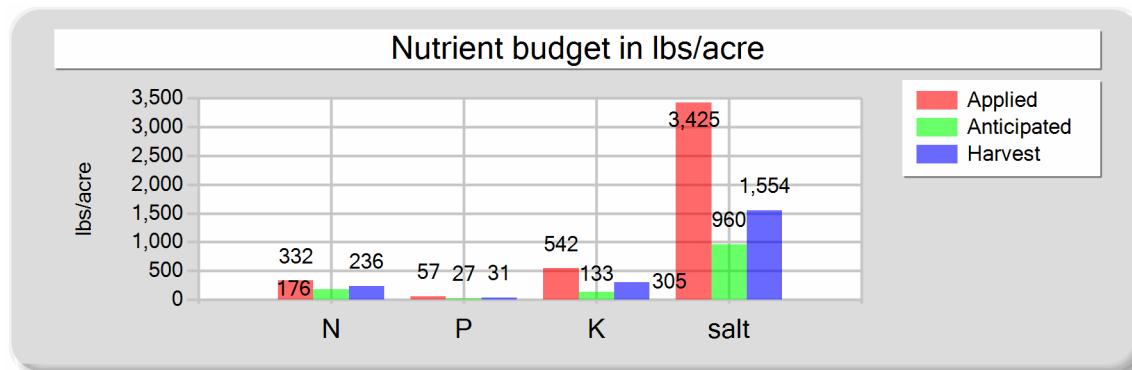
**Annual Report - General Order No. R5-2007-0035**

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

**B. NUTRIENT BUDGET**

Field #1 - 11/02/2022: Wheat, silage, soft dough

Field name: Field #1      Crop: Wheat, silage, soft dough      Plant date: 11/02/2022



	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	317.96	57.49	541.78	3,424.79
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	14.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>331.96</b>	<b>57.49</b>	<b>541.78</b>	<b>3,424.79</b>
Anticipated crop nutrient removal	176.00	27.20	132.80	960.00
Actual crop nutrient removal	236.11	31.44	304.93	1,554.32
Nutrient balance	95.85	26.05	236.85	1,870.47
Applied to removed ratio	1.41	1.83	1.78	2.20

Fresh water applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre
Process wastewater applied
5,760,000.00 gallons
212.12 acre-inches
5.30 inches/acre
Total harvests for the crop
1 harvests

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

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

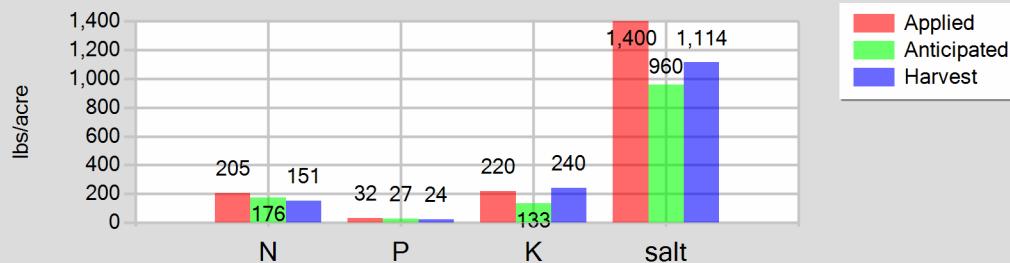
Field #2 - 11/03/2022: Wheat, silage, soft dough

Field name: Field #2

Crop: Wheat, silage, soft dough

Plant date: 11/03/2022

**Nutrient budget in lbs/acre**



	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	191.28	32.35	220.05	1,399.60
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	205.28	32.35	220.05	1,399.60
Anticipated crop nutrient removal	176.00	27.20	132.80	960.00
Actual crop nutrient removal	151.40	24.10	240.15	1,113.75
Nutrient balance	53.88	8.24	-20.10	285.85
Applied to removed ratio	1.36	1.34	0.92	1.26

**Fresh water applied**

0.00 gallons  
0.00 acre-inches  
0.00 inches/acre

**Process wastewater applied**

1,584,000.00 gallons  
58.33 acre-inches  
3.43 inches/acre

**Total harvests for the crop**

1 harvests

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

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

**NUTRIENT ANALYSES****A. MANURE ANALYSES****Manures**

Sample and source description: Manures

Sample date: 06/08/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 17.6 %

	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	21,700.00	4,370.00	21,500.00							0.00
DL	1,000.00	1,000.00	1,000.00							1.00

**Corral Solids**

Sample and source description: Corral Solids

Sample date: 09/20/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 9.9 %

	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	24,300.00	6,350.00	28,500.00							0.00
DL	1,000.00	1,000.00	1,000.00							1.00

**B. PROCESS WASTEWATER ANALYSES****LG-1-4 2022**

Sample and source description: LG-1-4 2022

Sample date: 11/10/2022 Material type: Process wastewater Source of analysis: Lab analysis pH: \_\_\_\_\_

	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	426.00	266.00	0.00	0.00	98.00	520.00								4,340.00	3,240
DL	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

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

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

**LG-2-1**

Sample and source description: LG-2-1

Sample date: 03/16/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: \_\_\_\_\_

	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)
<b>Value</b>	246.00	132.00	0.00	0.00	41.60	283.00								2,510.00	1,800
<b>DL</b>	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

**LG-1-2**

Sample and source description: LG-1-2

Sample date: 06/08/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: \_\_\_\_\_

	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)
<b>Value</b>	218.00	129.00	0.00	0.00	34.20	724.00								5,300.00	4,580
<b>DL</b>	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

**LG-1-3**

Sample and source description: LG-1-3

Sample date: 08/17/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: \_\_\_\_\_

	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)
<b>Value</b>	221.00	132.00	0.00	0.00	34.60	825.00								6,010.00	5,160
<b>DL</b>	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

**LG-2-4**

Sample and source description: LG-2-4

Sample date: 11/07/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: \_\_\_\_\_

	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)
<b>Value</b>	210.00	137.00	0.00	0.00	13.20	276.00								2,670.00	1,640
<b>DL</b>	0.50	0.50	0.50	0.50	0.50	2.00								1.00	10

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

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

**C. FRESH WATER ANALYSES**

D-1

D-1

Sample description: D-1

Sample date: 08/27/2023    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	31.50	0.00	31.50								1,250.00	799
DL	0.50	0.50	0.50								1.00	10

D-2

D-2

Sample description: D-2

Sample date: 08/17/2023    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	28.20	0.00	28.20								1,130.00	724
DL	0.50	0.50	0.50								1.00	10

D-3

D-3

Sample description: D-3

Sample date: 08/17/2023    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	9.33	0.00	9.33								4,630.00	296
DL	0.50	0.50	0.50								1.00	10

**D. SOIL ANALYSES**

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

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

*No soil analyses entered.***E. PLANT TISSUE ANALYSES**

Field #1 - 11/02/2022: Wheat, silage, soft dough

**Winter Forage**Sample and source description: Winter ForageSample date: 04/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 65.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	19,900.00	2,650.00	25,700.00		13.10
<b>DL</b>	1,000.00	1,000.00	1,000.00		0.10

Field #2 - 11/03/2022: Wheat, silage, soft dough

**Winter Forage**Sample and source description: Winter ForageSample date: 04/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weightMoisture: 65.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
<b>Value</b>	17,400.00	2,770.00	27,600.00		12.80
<b>DL</b>	1,000.00	1,000.00	1,000.00		0.10

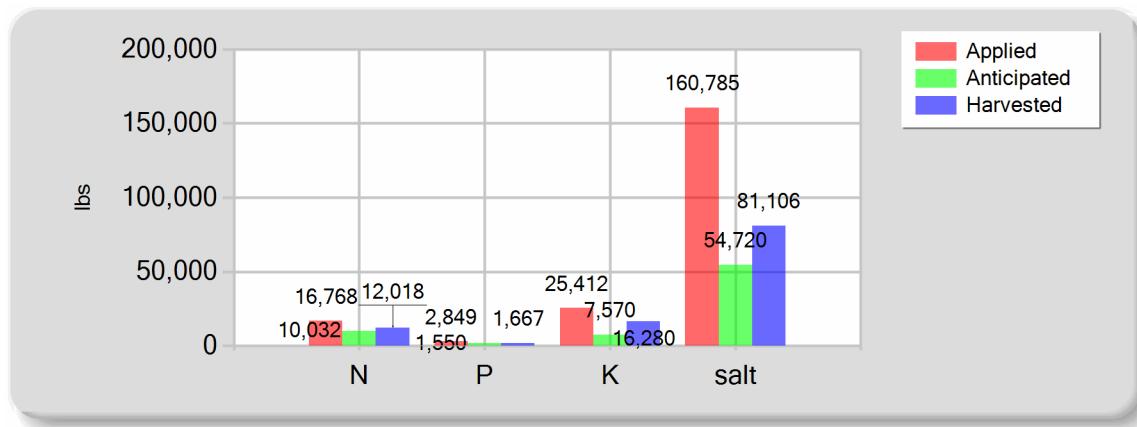
**F. SUBSURFACE (TILE) DRAINAGE ANALYSES***No subsurface (tile) drainage analyses entered.*

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

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

**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	15,970.33	2,849.42	25,411.93	160,784.78
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	798.00	0.00	0.00	0.00
<b>Total nutrients applied</b>	<b>16,768.33</b>	<b>2,849.42</b>	<b>25,411.93</b>	<b>160,784.78</b>
Anticipated crop nutrient removal	10,032.00	1,550.40	7,569.60	54,720.00
Actual crop nutrient removal	12,018.35	1,667.43	16,279.81	81,106.36
<b>Nutrient balance</b>	<b>4,749.98</b>	<b>1,182.00</b>	<b>9,132.11</b>	<b>79,678.42</b>
Applied to removed ratio	1.40	1.71	1.56	1.98

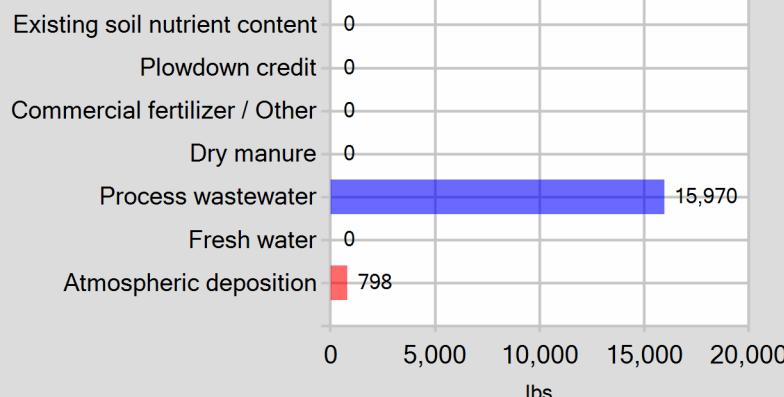
**B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL**

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

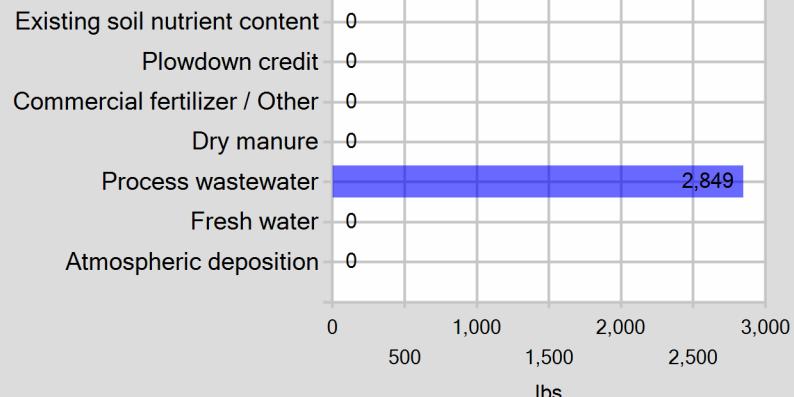
Reporting period 01/01/2023 to 12/31/2023.

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

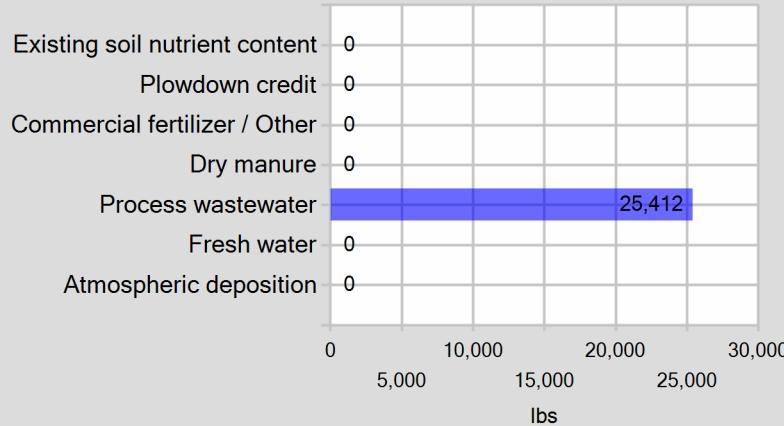
Pounds of nitrogen applied



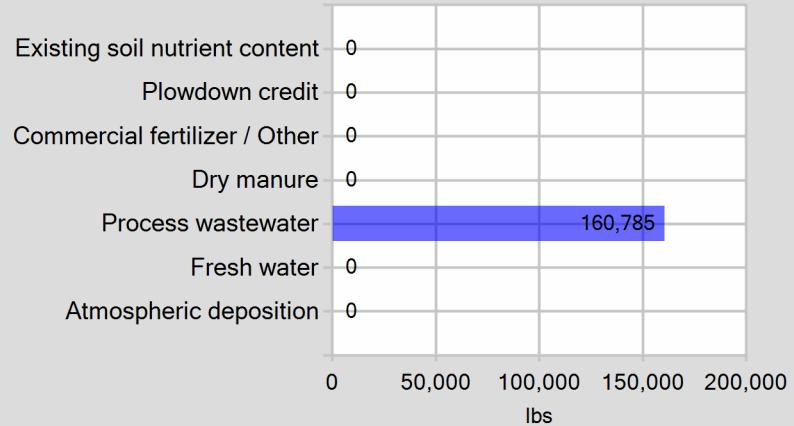
Pounds of phosphorus applied



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**

Banos Dairy:

Owner/operator did not have any canal water access so no Spring crop was planted. winter forages were dry land farmed with blended Lagoon waters. Lagoons have three times the capacity needed so Process waster waters were held in storage.

Solids are used for bedding and excess Solid manures were exported.

**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.*

James A. Areias Jr.

James A. Areias Jr. (Jun 26, 2024 06:32 PDT)

SIGNATURE OF OWNER OF FACILITY

James Areias

PRINT OR TYPE NAME

Jun 26, 2024

SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

DATE

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.

**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: James Areias

Name of Dairy Facility: BANOS DAIRY

Facility Address:

4667 Avenue 23 1/2 Number and Street	Chowchilla City	Madera County	93610 Zip Code
-----------------------------------------	--------------------	------------------	-------------------

Contact Person Name and Phone Number:	<u>James Areias</u> Name	(209) 604-7837 Phone Number
---------------------------------------	-----------------------------	--------------------------------

**MANURE HAULER INFORMATION**

Name of Hauling Company/Person: J & F Fertilizer

Address of Hauling Company/Person:

1275 North Avenue Number and Street	Gustine City	CA State	95322 Zip Code
----------------------------------------	-----------------	-------------	-------------------

Contact Person:	<u>John Nunes</u> Name	(209) 495-1964 Phone Number
-----------------	---------------------------	--------------------------------

**DESTINATION INFORMATION**

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

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

J & F Fertilizer Name	(209) 495-1964 Phone Number
--------------------------	--------------------------------

1275 North Avenue Address	Gustine City	CA State	95322 Zip Code
------------------------------	-----------------	-------------	-------------------

Destination Address or Assessor's Parcel Number:

Address	Gustine City	95322 Zip Code
---------	-----------------	-------------------

Merideth and North Avenues Street and nearest cross street (if no address)	Stanislaus County
-------------------------------------------------------------------------------	----------------------

Assessor's Parcel Number      Assessor's Parcel Number County

Last date hauled: 06/01/2023

**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: 2,100.00 tons

Manure Solids Content: 82.4 %

Method used to determine amount of manure:

An average of scale weighed trucks multiplied by the total number of trucks hauled.

**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.

James A. Areias Jr.

James A. Areias Jr. (Jun 26, 2024 06:32 PDT)

Jun 26, 2024

Operator Signature

Date

John Nunes

Hauler Signature

06-24-2024

Date

**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: James Areias

Name of Dairy Facility: BANOS DAIRY

Facility Address:

4667 Avenue 23 1/2 Number and Street	Chowchilla City	Madera County	93610 Zip Code
-----------------------------------------	--------------------	------------------	-------------------

Contact Person Name and Phone Number:	<u>James Areias</u> Name	(209) 604-7837 Phone Number
---------------------------------------	-----------------------------	--------------------------------

**MANURE HAULER INFORMATION**

Name of Hauling Company/Person: J & F Fertilizer

Address of Hauling Company/Person:

1275 North Avenue Number and Street	Gustine City	CA State	95322 Zip Code
----------------------------------------	-----------------	-------------	-------------------

Contact Person:	<u>John Nunes</u> Name	(209) 495-1964 Phone Number
-----------------	---------------------------	--------------------------------

**DESTINATION INFORMATION**

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

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

J & F Fertilizer Name	(209) 495-1964 Phone Number
--------------------------	--------------------------------

1275 North Avenue Address	Gustine City	CA State	95322 Zip Code
------------------------------	-----------------	-------------	-------------------

Destination Address or Assessor's Parcel Number:

Address	Gustine City	95322 Zip Code
---------	-----------------	-------------------

Merideth and North Avenues Street and nearest cross street (if no address)	Stanislaus County
-------------------------------------------------------------------------------	----------------------

Assessor's Parcel Number      Assessor's Parcel Number County

Last date hauled: 09/20/2023

**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: 1,400.00 tons

Manure Solids Content: 90.1 %

Method used to determine amount of manure:

An average of scale weighed trucks multiplied by the total number of trucks hauled.

**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.

James A. Areias Jr.

James A. Areias Jr. (Jun 26, 2024 06:32 PDT)

Jun 26, 2024

Date

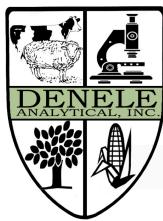
Operator Signature

John Nunes

Hauler Signature

06-24-2024

Date



## Denele Analytical, Inc.

865 South Kilroy Avenue Turlock, CA 95380  
Phone (209) 634-9055 - Fax (209) 634-9057  
[www.denelelabs.com](http://www.denelelabs.com)

40 N. East Street, Woodland, CA 95776  
Phone (530) 666-9056 - Fax (530) 666-9058

## Compliance Analysis Report

**Customer**

BANOS DAIRY  
15688 W. Henry Miller Rd  
Los Banos, CA 95635

**Grower****Consultant:**

Heartland Consulting  
P.O. Box 3679  
Merced, CA 95344

**PURCHASE ORDER:**

RECEIVED DATE: 8/17/23 2:40 PM  
SUBMITTED BY: Dan  
ANALYZED DATE: 8/18/23

Irrigation/ Ground Water (H1)

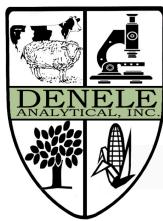
SOURCE: Well Water

NOTES: Temperature was above qualifying at 16.8c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
D-2	T3229022B	Electrical Conductivity (EC)	EPA 120.1 and	1.13	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	28.2	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	724	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	98.6	94.0 (T3229020B)	92.8 (T3229020B)	1.28
Electrical Conductivity (EC)	100			0.032
Nitrate Nitrogen (NO3-N)	110	93.9 (T3229020B)	92.7 (T3229020B)	1.29

The warranty of Denele Analytical is limited to the accuracy of the analyses of the samples as received. Denele Analytical assumes no responsibility for which the customer uses our test results, nor liability for any other warranties, express or implied. These terms and conditions shall supercede any conflicting terms and conditions submitted on customer purchase orders or other forms submitted for work.



## Denele Analytical, Inc.

865 South Kilroy Avenue Turlock, CA 95380  
Phone (209) 634-9055 - Fax (209) 634-9057  
[www.denelelabs.com](http://www.denelelabs.com)

40 N. East Street, Woodland, CA 95776  
Phone (530) 666-9056 - Fax (530) 666-9058

## Compliance Analysis Report

**Customer**

BANOS DAIRY  
15688 W. Henry Miller Rd  
Los Banos, CA 95635

**Grower****Consultant:**

Heartland Consulting  
P.O. Box 3679  
Merced, CA 95344

**PURCHASE ORDER:**

RECEIVED DATE: 8/17/23 2:40 PM  
SUBMITTED BY: Dan  
ANALYZED DATE: 8/18/23

Irrigation/ Ground Water (H1)

SOURCE: Well Water

NOTES: Temperature was above qualifying at 16.8c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
D-1	T3229022C	Electrical Conductivity (EC)	EPA 120.1 and	1.25	mmhos/cm
		Nitrate Nitrogen (NO3-N)	EPA 353.2	31.5	mg/L
		Ammonia Nitrogen (NH3-N)	SM 4500-NH3 D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	799	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH3-N)	98.6	94.0 (T3229020B)	92.8 (T3229020B)	1.28
Electrical Conductivity (EC)	100			0.032
Nitrate Nitrogen (NO3-N)	110	93.9 (T3229020B)	92.7 (T3229020B)	1.29

The warranty of Denele Analytical is limited to the accuracy of the analyses of the samples as received. Denele Analytical assumes no responsibility for which the customer uses our test results, nor liability for any other warranties, express or implied. These terms and conditions shall supercede any conflicting terms and conditions submitted on customer purchase orders or other forms submitted for work.



## Denele Analytical, Inc.

865 South Kilroy Avenue Turlock, CA 95380  
Phone (209) 634-9055 - Fax (209) 634-9057  
[www.denelelabs.com](http://www.denelelabs.com)

40 N. East Street, Woodland, CA 95776  
Phone (530) 666-9056 - Fax (530) 666-9058

## Compliance Analysis Report

**Customer**

BANOS DAIRY  
15688 W. Henry Miller Rd  
Los Banos, CA 95635

**Grower****Consultant:**

Heartland Consulting  
P.O. Box 3679  
Merced, CA 95344

**PURCHASE ORDER:**

RECEIVED DATE: 8/17/23 2:40 PM  
SUBMITTED BY: Dan  
ANALYZED DATE: 8/18/23

Irrigation/ Ground Water (H1)

SOURCE: Well Water

NOTES: Temperature was above qualifying at 17.0c

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
D-3	T3229022D	Electrical Conductivity (EC)	EPA 120.1 and	0.463	mmhos/cm
		Nitrate Nitrogen (NO <sub>3</sub> -N)	EPA 353.2	9.33	mg/L
		Ammonia Nitrogen (NH <sub>3</sub> -N)	SM 4500-NH <sub>3</sub> D,C	< 0.500	mg/L
		Soluble Salts (SALT-SOL)	Calculation	296	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
Ammonia Nitrogen (NH <sub>3</sub> -N)	98.6	94.0 (T3229020B)	92.8 (T3229020B)	1.28
Electrical Conductivity (EC)	100			0.032
Nitrate Nitrogen (NO <sub>3</sub> -N)	110	93.9 (T3229020B)	92.7 (T3229020B)	1.29

The warranty of Denele Analytical is limited to the accuracy of the analyses of the samples as received. Denele Analytical assumes no responsibility for which the customer uses our test results, nor liability for any other warranties, express or implied. These terms and conditions shall supercede any conflicting terms and conditions submitted on customer purchase orders or other forms submitted for work.



**DENELE ANALYTICAL, INC.**  
865 S. KILROY  
TURLOCK, CA 95380

PH# 209-634-9055 FAX# 209-634-9057

Client: BANOS DAIRY  
Mailing address: 15688 W. Henry Miller Rd. Los Banos CA 95635  
(not facility address)  
Phone#: 209-604-7837

**IRRIGATION/GROUND WATER**

H1 EC\*, NO3-N, NH4-N\*  
H6 EC, TN, TDS  
H7 Combination of H1 & H6  
H14 EC, NO3-N, NH4-N, Ca, Mg, Na, Bicarb  
Carb, SO4, Cl, TDS

**PROCESS WASTE WATER**

H3 EC\*, NH4-N, TKN, TP, K, TDS  
H4 EC\*, NO3-N, NH4-N, TKN, TP, K, TDS  
H5 Ca, Mg, Na, Bicarb, Carb, SO4, Cl  
H8 Combination of H3 & H5

H9 Combination of H4 & H5

**TILE DRAIN**

H2 EC\*, NO3-N, TP, NH4-N\*, TDS

\* Required Field Measurement

(Check here if performed)

Date Collected	Time Collected	Sample ID	Description	Temp	Well Purge	Analysis			
1 8-17-23	715	L6-1-3		18.2'		X			
2	720	D-2		16e8'	X				
3	730	D-1		16a8	X				
4	8-17-23	740	D-3	17.0"	X				
5									
6									
7									
8									
9									
10									

**CHAIN OF CUSTODY RECORDING**

Signature	Company	Received Date & Time	Relinquished Date & Time	(LABORATORY USE ONLY)
1st	HeartLand Consulting		8/17/23 1440	Logged In By:
2nd	DENELE ANALYTICAL, INC.			LABORATORY NUMBER: T3229022

Required to be submitted to any agency? (YES / NO)

**DAIRY COMPLIANCE**

Authorized Copy Released To:

hlcdan@yahoo.com

Sampled By: Daniel Roos

Project ID:

**SOIL**

K3 Soluble Phosphorus  
K4 1ft NO3, Organic Matter  
K5 Pre-Plant (2ft NO3), Fall (1-2ft NO3), Fall (2-3ft NO3)  
K6 0-1ft EC, NO3, Soluble P, K, Organic Matter  
K7 Combination of K3 & K4  
K8 Combination of K3 & K5

H1	H3	M3	F18	OTHER

# 2022 AR BANOS DAIRY

Final Audit Report

2024-06-26

Created:	2024-06-24
By:	Daniel Roos (hlcdan@yahoo.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAA5YGGuBngGdTG8q30dYIVhWErRQ6xxGQO

## "2022 AR BANOS DAIRY" History

-  Document created by Daniel Roos (hlcdan@yahoo.com)  
2024-06-24 - 6:56:28 PM GMT- IP address: 54.176.9.25
-  Document emailed to jareiasjr@gmail.com for signature  
2024-06-24 - 6:57:56 PM GMT
-  Email viewed by jareiasjr@gmail.com  
2024-06-26 - 1:30:49 PM GMT- IP address: 66.249.84.73
-  Signer jareiasjr@gmail.com entered name at signing as James A. Areias Jr.  
2024-06-26 - 1:32:30 PM GMT- IP address: 98.238.232.78
-  Document e-signed by James A. Areias Jr. (jareiasjr@gmail.com)  
Signature Date: 2024-06-26 - 1:32:32 PM GMT - Time Source: server- IP address: 98.238.232.78
-  Agreement completed.  
2024-06-26 - 1:32:32 PM GMT



Adobe Acrobat Sign