CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

CENTRAL VALLEY REGION
11020 SUN CENTER DR #200
RANCHO CORDOVA CA 95670-6114

# 2023 ANNUAL REPORT

PREPARED FOR:

SILVEIRA DAIRY-HEIFERS (Previously Andrade Dairy)

10221 AVE 21 1/2

CHOWCHILLA CA 93610

NOTES:

PREPARED BY:

CAS
CARDOSO AG SERVICES

PO BOX 906
NEWMAN CA 95360

**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:** Silveira Dairy Heifers

Physical address of dairy:

| 10221 Ave. 21 1/2 | Chowchilla | Madera | 93610 |
|---|---|---|---|
| Number and Street | City | County | Zip Code |

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 01/20/1958

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

County Assessor Parcel Number(s) for dairy facility:

X024-X060-X007-XXXX X024-X060-X008-XXXX

**B. OPERATORS**

Silveira, Johnny

Operator name: Silveira, Johnny Telephone no.: (559) 978-6087 (Landline) (Cellular)

| 11135 Ave 21 1/2 | Chowchilla | CA | 93610 |
|---|---|---|---|
| Mailing Address Number and Street | City | State | Zip Code |

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

**C. OWNERS**

Silveira, Johnny

Legal owner name: Silveira, Johnny Telephone no.: (559) 978-6087 (Landline) (Cellular)

| 11135 Ave 21 1/2 | Chowchilla | CA | 93610 |
|---|---|---|---|
| Mailing Address Number and Street | City | State | Zip Code |

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

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 | 0 | 0 | 0 | 0 | 0 | 0 |
| Number under roof | 0 | 0 | 0 | 0 | 0 | 0 |
| Maximum number | 0 | 0 | 0 | 0 | 0 | 0 |
| Average number | 0 | 0 | 0 | 0 | 0 | 0 |
| Avg live weight (lbs) | 0 | 0 | 0 | 0 | | |

Predominant milk cow breed: Holstein

Average milk production: 1 *pounds per cow per day*

## B. MANURE GENERATED

Total manure excreted by the herd: 1.00 *tons per reporting period*

Total nitrogen from manure: 1.00 *lbs per reporting period* After ammonia losses (30% loss applied): 0.70 *lbs per reporting period*

Total phosphorus from manure: 1.00 *lbs per reporting period*

Total potassium from manure: 1.00 *lbs per reporting period*

Total salt from manure: 0.00 *lbs per reporting period*

## C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 405,500 *gallons*

Total nitrogen generated: 1,674.32 *lbs*

Total phosphorus generated: 185.19 *lbs*

Total potassium generated: 2,200.37 *lbs*

Total salt generated: 11,573.68 *lbs*

| | | |
|---|---|---|
| | 11,757,000 | *gallons applied* |
| + | 0 | *gallons exported* |
| - | 11,351,500 | *gallons imported* |
| = | 405,500 | *gallons generated* |

## D. FRESH WATER SOURCES

| Source Description | Type |
|---|---|
| Domestic Well | Ground water |
| Irrigation Well | Ground water |

## E. SUBSURFACE (TILE) DRAINAGE SOURCES

*No subsurface (tile) drainage sources entered.*

## F. NUTRIENT IMPORTS

*No dry manure nutrient imports entered.*

| Date | Material type / Description | Quantity | N (mg/L) | P (mg/L) | K (mg/L) | Salt (mg/L) | TDS (mg/L) |
|---|---|---|---|---|---|---|---|
| 01/01/2023 | Process wastewater<br>*Imported Lagoon Water 10/21/22* | 2,340,000.00 *gal* | 650.00 | 76.60 | 850.00 | | 3,600 |
| 03/13/2023 | Process wastewater<br>*Imported Lagoon* | 892,500.00 *gal* | 650.00 | 76.60 | 850.00 | | 3,600 |
| 04/18/2023 | Process wastewater<br>*Imported Lagoon Water* | 2,374,000.00 *gal* | 650.00 | 76.60 | 850.00 | | 3,600 |
| 06/12/2023 | Process wastewater<br>*Imported Lagoon Water* | 390,000.00 *gal* | 833.90 | 502.00 | 936.00 | | 3,680 |
| 06/30/2023 | Process wastewater<br>*Imported Lagoon Water* | 405,000.00 *gal* | 833.90 | 502.00 | 936.00 | | 3,680 |
| 07/12/2023 | Process wastewater<br>*Imported Lagoon Water* | 2,355,000.00 *gal* | 494.60 | 54.70 | 650.00 | | 3,420 |
| 08/10/2023 | Process wastewater<br>*Imported Lagoon Water* | 2,595,000.00 *gal* | 494.60 | 54.70 | 650.00 | | 3,420 |

*No commercial or other nutrient imports entered.*

| Material type | Total N (lbs) | Total P (lbs) | Total K (lbs) | Total salt (lbs) |
|---|---|---|---|---|
| Commercial fertilizer / Other | 0.00 | 0.00 | 0.00 | 0.00 |
| Dry manure | 0.00 | 0.00 | 0.00 | 0.00 |
| Process wastewater | 56,374.19 | 9,173.77 | 72,828.03 | 334,117.11 |
| Total imports for all materials | 56,374.19 | 9,173.77 | 72,828.03 | 334,117.11 |

## G. NUTRIENT EXPORTS

*No solid nutrient exports entered.*

*No liquid nutrient exports entered.*

APPLICATION AREA

## A. LIST OF LAND APPLICATION AREAS

| Field name | Controlled acres | Cropable acres | Total harvests | Type of waste applied | Parcel number |
|---|---|---|---|---|---|
| East | 75 | 75 | 2 | process wastewater | X024-X060-X008-XXXX |
| Middle | 33 | 33 | 2 | process wastewater | X024-X060-X007-XXXX |
| West | 27 | 27 | 2 | process wastewater | X024-X060-X007-XXXX |
| Totals for areas that were used for application | 135 | 135 | 6 | | |
| Totals for areas that were not used for application | | | | | |
| Land application area totals | 135 | 135 | 6 | | |

## B. CROPS AND HARVESTS

East

Field name: East

10/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage  Acres planted: 75  Plant date: 10/01/2022

| Harvest date | Yield | Reporting basis | Density (lbs/cu ft) | Moisture (%) | N (mg/kg) | P (mg/kg) | K (mg/kg) | Salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|---|---|---|---|
| 05/11/2023 | 1,305.00 *ton* | Dry-weight | | 63.3 | 14,100.00 | 1,800.00 | 17,000.00 | | 9.80 |

| | 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 | 0.00 |
| Total actual harvest content | 17.40 | 180.08 | 22.99 | 217.12 | 1,251.62 |

05/26/2023: Corn, silage

Crop: Corn, silage  Acres planted: 75  Plant date: 05/26/2023

| Harvest date | Yield | Reporting basis | Density (lbs/cu ft) | Moisture (%) | N (mg/kg) | P (mg/kg) | K (mg/kg) | Salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|---|---|---|---|
| 09/12/2023 | 1,935.00 *ton* | Dry-weight | | 66.7 | 13,700.00 | 2,200.00 | 21,200.00 | | 6.80 |

| | 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 | 0.00 |
| Total actual harvest content | 25.80 | 235.40 | 37.80 | 364.28 | 1,168.43 |

## Middle

Field name: Middle

### 10/01/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough  Acres planted: 33  Plant date: 10/01/2022

| 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 | 574.00 *ton* | Dry-weight | | 60.7 | 14,700.00 | 2,200.00 | 17,700.00 | | 7.00 |

| | 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 | 0.00 |
| Total actual harvest content | 17.39 | 200.97 | 30.08 | 241.99 | 957.01 |

### 05/26/2023: Corn, silage

Crop: Corn, silage  Acres planted: 33  Plant date: 05/26/2023

| Harvest date | Yield | Reporting basis | Density (lbs/cu ft) | Moisture (%) | N (mg/kg) | P (mg/kg) | K (mg/kg) | Salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|---|---|---|---|
| 09/06/2023 | 851.00 *ton* | Dry-weight | | 71.2 | 16,100.00 | 3,100.00 | 17,800.00 | | 7.10 |

| | 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 | 0.00 |
| Total actual harvest content | 25.79 | 239.15 | 46.05 | 264.40 | 1,054.62 |

## West

Field name: West

### 10/01/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough  Acres planted: 27  Plant date: 10/01/2022

| 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 | 470.00 *ton* | Dry-weight | | 63.4 | 15,300.00 | 2,000.00 | 16,400.00 | | 9.50 |

| | 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 | 0.00 |
| Total actual harvest content | 17.41 | 194.96 | 25.48 | 208.97 | 1,210.51 |

West

05/26/2023: Corn, silage

Crop: Corn, silage  Acres planted: 27  Plant date: 05/26/2023

| Harvest date | Yield | Reporting basis | Density (lbs/cu ft) | Moisture (%) | N (mg/kg) | P (mg/kg) | K (mg/kg) | Salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|---|---|---|---|
| 09/06/2023 | 697.00 *ton* | Dry-weight | | 69.2 | 16,100.00 | 3,200.00 | 20,300.00 | | 8.30 |

| | 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 | 0.00 |
| Total actual harvest content | 25.81 | 256.02 | 50.89 | 322.81 | 1,319.86 |

NUTRIENT BUDGET

## A. LAND APPLICATIONS

### East - 10/01/2022: Wheat, silage, boot stage

Field name: East

Crop: Wheat, silage, boot stage Plant date: 10/01/2022

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 10/21/2022 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 104.15 | 12.27 | 136.19 | 576.81 | 1,440,000.00 *gal* |
| Irrigation Well | Ground water | 19.30 | 0.00 | 0.00 | 0.00 | 11,640,000.00 *gal* |
| Application event totals | | 123.44 | 12.27 | 136.19 | 576.81 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 04/18/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 101.98 | 12.02 | 133.35 | 564.79 | 1,410,000.00 *gal* |
| Irrigation Well | Ground water | 18.70 | 0.00 | 0.00 | 0.00 | 11,280,000.00 *gal* |
| Application event totals | | 120.68 | 12.02 | 133.35 | 564.79 | |

### East - 05/26/2023: Corn, silage

Field name: East

Crop: Corn, silage Plant date: 05/26/2023

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 05/15/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 25.66 | 0.00 | 0.00 | 0.00 | 15,480,000.00 *gal* |
| Application event totals | | 25.66 | 0.00 | 0.00 | 0.00 | |

East - 05/26/2023: Corn, silage

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 06/12/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 24.57 | 0.00 | 0.00 | 0.00 | 14,820,000.00 *gal* |
| Application event totals | | 24.57 | 0.00 | 0.00 | 0.00 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 06/30/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 24.87 | 0.00 | 0.00 | 0.00 | 15,000,000.00 *gal* |
| Application event totals | | 24.87 | 0.00 | 0.00 | 0.00 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 07/12/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 90.80 | 10.04 | 119.33 | 627.88 | 1,650,000.00 *gal* |
| Irrigation Well | Ground water | 23.87 | 0.00 | 0.00 | 0.00 | 14,400,000.00 *gal* |
| Application event totals | | 114.68 | 10.04 | 119.33 | 627.88 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 07/28/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 23.77 | 0.00 | 0.00 | 0.00 | 14,340,000.00 *gal* |
| Application event totals | | 23.77 | 0.00 | 0.00 | 0.00 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 08/10/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 82.55 | 9.13 | 108.49 | 570.80 | 1,500,000.00 *gal* |
| Irrigation Well | Ground water | 26.16 | 0.00 | 0.00 | 0.00 | 15,780,000.00 *gal* |
| Application event totals | | 108.71 | 9.13 | 108.49 | 570.80 | |

Middle - 10/01/2022: Wheat, silage, soft dough

Field name: Middle

Crop: Wheat, silage, soft dough Plant date: 10/01/2022

## Middle - 10/01/2022: Wheat, silage, soft dough

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 10/21/2022 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 73.97 | 8.72 | 96.73 | 409.66 | 450,000.00 *gal* |
| Irrigation Well | Ground water | 20.35 | 0.00 | 0.00 | 0.00 | 5,400,000.00 *gal* |
| Application event totals | | 94.31 | 8.72 | 96.73 | 409.66 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 03/13/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 73.97 | 8.72 | 96.73 | 409.66 | 450,000.00 *gal* |
| Application event totals | | 73.97 | 8.72 | 96.73 | 409.66 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 04/08/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 88.76 | 10.46 | 116.07 | 491.60 | 540,000.00 *gal* |
| Irrigation Well | Ground water | 16.73 | 0.00 | 0.00 | 0.00 | 4,440,000.00 *gal* |
| Application event totals | | 105.49 | 10.46 | 116.07 | 491.60 | |

## Middle - 05/26/2023: Corn, silage

Field name: Middle

Crop: Corn, silage  Plant date: 05/26/2023

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 05/15/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 29.39 | 0.00 | 0.00 | 0.00 | 7,800,000.00 *gal* |
| Application event totals | | 29.39 | 0.00 | 0.00 | 0.00 | |

Middle - 05/26/2023: Corn, silage

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 06/12/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 25.77 | 0.00 | 0.00 | 0.00 | 6,840,000.00 *gal* |
| Application event totals | | 25.77 | 0.00 | 0.00 | 0.00 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 06/30/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 27.13 | 0.00 | 0.00 | 0.00 | 7,200,000.00 *gal* |
| Application event totals | | 27.13 | 0.00 | 0.00 | 0.00 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 07/12/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 82.55 | 9.13 | 108.49 | 570.80 | 660,000.00 *gal* |
| Irrigation Well | Ground water | 27.35 | 0.00 | 0.00 | 0.00 | 7,260,000.00 *gal* |
| Application event totals | | 109.90 | 9.13 | 108.49 | 570.80 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 07/28/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 26.22 | 0.00 | 0.00 | 0.00 | 6,960,000.00 *gal* |
| Application event totals | | 26.22 | 0.00 | 0.00 | 0.00 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 08/10/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 80.67 | 8.92 | 106.02 | 557.83 | 645,000.00 *gal* |
| Irrigation Well | Ground water | 28.71 | 0.00 | 0.00 | 0.00 | 7,620,000.00 *gal* |
| Application event totals | | 109.38 | 8.92 | 106.02 | 557.83 | |

West - 10/01/2022: Wheat, silage, soft dough

Field name: West

Crop: Wheat, silage, soft dough Plant date: 10/01/2022

## West - 10/01/2022: Wheat, silage, soft dough

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 10/21/2022 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 90.40 | 10.65 | 118.22 | 500.70 | 450,000.00 *gal* |
| Irrigation Well | Ground water | 0.99 | 0.00 | 0.00 | 0.00 | 4,560,000.00 *gal* |
| Application event totals | | 91.39 | 10.65 | 118.22 | 500.70 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 03/13/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 88.90 | 10.48 | 116.25 | 492.36 | 442,500.00 *gal* |
| Application event totals | | 88.90 | 10.48 | 116.25 | 492.36 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 04/18/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 85.28 | 10.05 | 111.52 | 472.33 | 424,500.00 *gal* |
| Irrigation Well | Ground water | 0.86 | 0.00 | 0.00 | 0.00 | 3,960,000.00 *gal* |
| Application event totals | | 86.14 | 10.05 | 111.52 | 472.33 | |

## West - 05/26/2023: Corn, silage

Field name: West

Crop: Corn, silage  Plant date: 05/26/2023

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 05/15/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 1.45 | 0.00 | 0.00 | 0.00 | 6,720,000.00 *gal* |
| Application event totals | | 1.45 | 0.00 | 0.00 | 0.00 | |

West - 05/26/2023: Corn, silage

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 06/12/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 100.52 | 60.51 | 112.82 | 443.58 | 390,000.00 *gal* |
| Irrigation Well | Ground water | 1.38 | 0.00 | 0.00 | 0.00 | 6,360,000.00 *gal* |
| Application event totals | | 101.89 | 60.51 | 112.82 | 443.58 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 06/30/2023 | 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 |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 104.38 | 62.84 | 117.16 | 460.64 | 405,000.00 *gal* |
| Irrigation Well | Ground water | 1.22 | 0.00 | 0.00 | 0.00 | 5,640,000.00 *gal* |
| Application event totals | | 105.60 | 62.84 | 117.16 | 460.64 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 07/12/2023 | 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 Water | Process wastewater | 68.79 | 7.61 | 90.40 | 475.67 | 450,000.00 *gal* |
| Irrigation Well | Ground water | 1.32 | 0.00 | 0.00 | 0.00 | 6,120,000.00 *gal* |
| Application event totals | | 70.11 | 7.61 | 90.40 | 475.67 | |

| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 07/28/2023 | 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 |
|---|---|---|---|---|---|---|
| Irrigation Well | Ground water | 1.23 | 0.00 | 0.00 | 0.00 | 5,700,000.00 *gal* |
| Application event totals | | 1.23 | 0.00 | 0.00 | 0.00 | |

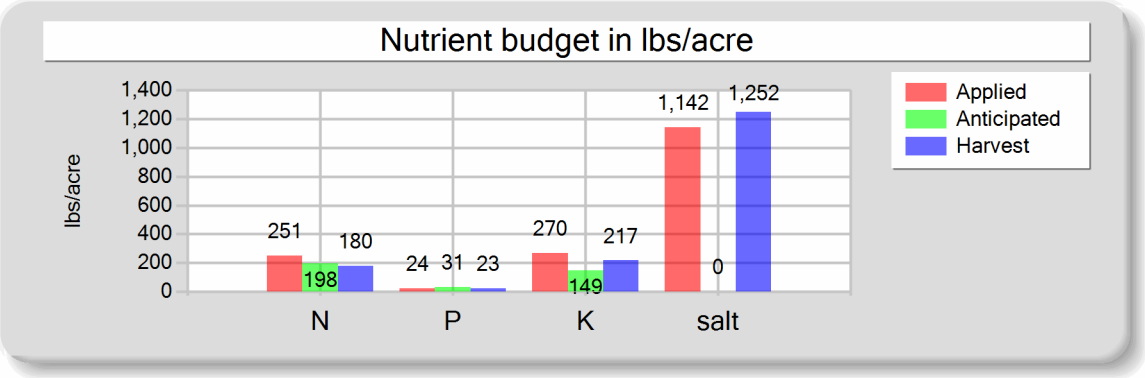
| Application date | Application method | Precipitation 24 hours prior | Precipitation during application | Precipitation 24 hours following |
|---|---|---|---|---|
| 08/10/2023 | Surface (irrigation) | No precipitation | No precipitation | No precipitation |

| Source description | Material type | N (lbs/acre) | P (lbs/acre) | K (lbs/acre) | Salt (lbs/acre) | Amount |
|---|---|---|---|---|---|---|
| Imported Lagoon Water | Process wastewater | 68.79 | 7.61 | 90.40 | 475.67 | 450,000.00 *gal* |
| Irrigation Well | Ground water | 1.27 | 0.00 | 0.00 | 0.00 | 5,880,000.00 *gal* |
| Application event totals | | 70.06 | 7.61 | 90.40 | 475.67 | |

## B. NUTRIENT BUDGET

East - 10/01/2022: Wheat, silage, boot stage

Field name: East  Crop: Wheat, silage, boot stage  Plant date: 10/01/2022




| | 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 | 206.12 | 24.29 | 269.54 | 1,141.60 |
| Fresh water | 38.00 | 0.00 | 0.00 | 0.00 |
| Atmospheric deposition | 7.00 | 0.00 | 0.00 | 0.00 |
| Total nutrients applied | 251.12 | 24.29 | 269.54 | 1,141.60 |
| Anticipated crop nutrient removal | 198.00 | 30.60 | 149.40 | 0.00 |
| Actual crop nutrient removal | 180.08 | 22.99 | 217.12 | 1,251.62 |
| Nutrient balance | 71.04 | 1.30 | 52.43 | -110.02 |
| Applied to removed ratio | 1.39 | 1.06 | 1.24 | 0.91 |

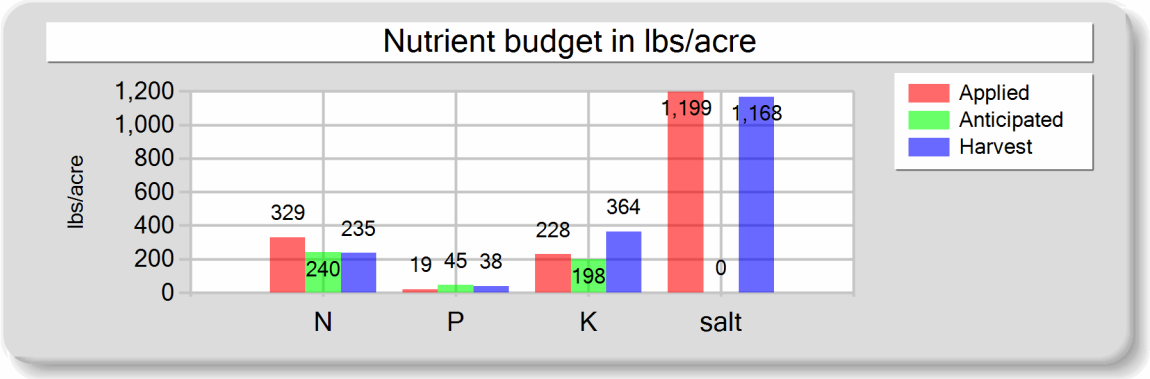
| Fresh water applied | |
|---|---|
| 22,920,000.00 | *gallons* |
| 844.07 | *acre-inches* |
| 11.25 | *inches/acre* |

| Process wastewater applied | |
|---|---|
| 2,850,000.00 | *gallons* |
| 104.96 | *acre-inches* |
| 1.40 | *inches/acre* |

| Total harvests for the crop | |
|---|---|
| 1 | *harvests* |

East - 05/26/2023: Corn, silage

Field name: East  Crop: Corn, silage  Plant date: 05/26/2023




| | 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 | 173.35 | 19.17 | 227.82 | 1,198.68 |
| Fresh water | 148.91 | 0.00 | 0.00 | 0.00 |
| Atmospheric deposition | 7.00 | 0.00 | 0.00 | 0.00 |
| Total nutrients applied | 329.26 | 19.17 | 227.82 | 1,198.68 |
| Anticipated crop nutrient removal | 240.00 | 45.00 | 198.00 | 0.00 |
| Actual crop nutrient removal | 235.40 | 37.80 | 364.28 | 1,168.43 |
| Nutrient balance | 93.86 | -18.63 | -136.46 | 30.25 |
| Applied to removed ratio | 1.40 | 0.51 | 0.63 | 1.03 |

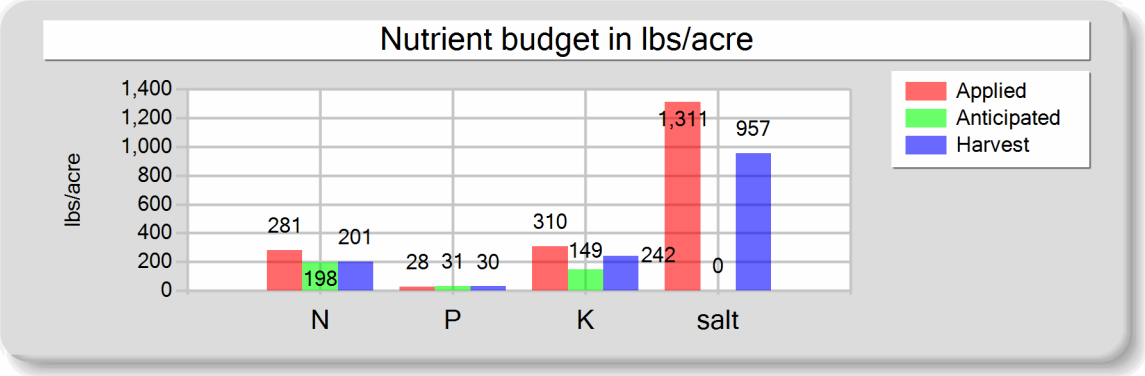
| Fresh water applied | |
|---|---|
| 89,820,000.00 | *gallons* |
| 3,307.77 | *acre-inches* |
| 44.10 | *inches/acre* |

| Process wastewater applied | |
|---|---|
| 3,150,000.00 | *gallons* |
| 116.00 | *acre-inches* |
| 1.55 | *inches/acre* |

| Total harvests for the crop | |
|---|---|
| 1 | *harvests* |

## Middle - 10/01/2022: Wheat, silage, soft dough

Field name: Middle | Crop: Wheat, silage, soft dough | Plant date: 10/01/2022




| | 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 | 236.69 | 27.89 | 309.52 | 1,310.92 |
| Fresh water | 37.08 | 0.00 | 0.00 | 0.00 |
| Atmospheric deposition | 7.00 | 0.00 | 0.00 | 0.00 |
| Total nutrients applied | 280.77 | 27.89 | 309.52 | 1,310.92 |
| Anticipated crop nutrient removal | 198.00 | 30.60 | 149.40 | 0.00 |
| Actual crop nutrient removal | 200.97 | 30.08 | 241.99 | 957.01 |
| Nutrient balance | 79.80 | -2.18 | 67.54 | 353.91 |
| Applied to removed ratio | 1.40 | 0.93 | 1.28 | 1.37 |

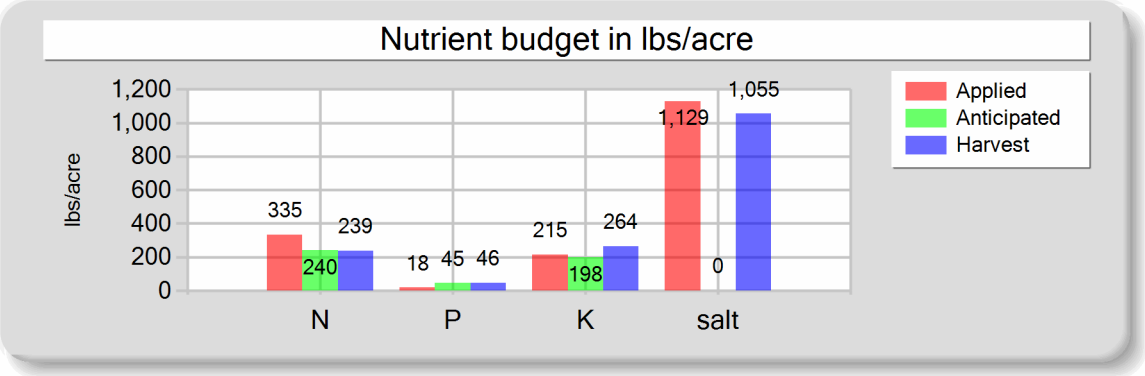
| Fresh water applied | |
|---|---|
| 9,840,000.00 | *gallons* |
| 362.37 | *acre-inches* |
| 10.98 | *inches/acre* |

| Process wastewater applied | |
|---|---|
| 1,440,000.00 | *gallons* |
| 53.03 | *acre-inches* |
| 1.61 | *inches/acre* |

| Total harvests for the crop | |
|---|---|
| 1 | *harvests* |

## Middle - 05/26/2023: Corn, silage

Field name: Middle | Crop: Corn, silage | Plant date: 05/26/2023




| | 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 | 163.22 | 18.05 | 214.50 | 1,128.62 |
| Fresh water | 164.58 | 0.00 | 0.00 | 0.00 |
| Atmospheric deposition | 7.00 | 0.00 | 0.00 | 0.00 |
| Total nutrients applied | 334.80 | 18.05 | 214.50 | 1,128.62 |
| Anticipated crop nutrient removal | 240.00 | 45.00 | 198.00 | 0.00 |
| Actual crop nutrient removal | 239.15 | 46.05 | 264.40 | 1,054.62 |
| Nutrient balance | 95.66 | -28.00 | -49.89 | 74.00 |
| Applied to removed ratio | 1.40 | 0.39 | 0.81 | 1.07 |

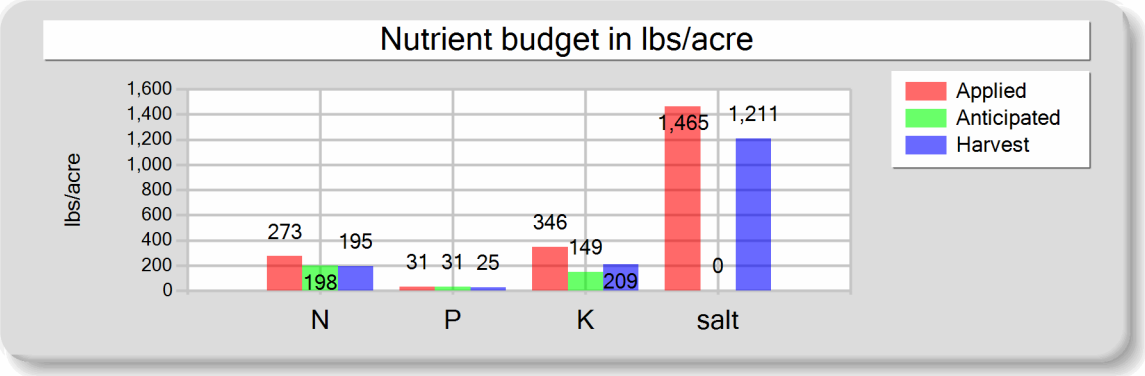
| Fresh water applied | |
|---|---|
| 43,680,000.00 | *gallons* |
| 1,608.59 | *acre-inches* |
| 48.75 | *inches/acre* |

| Process wastewater applied | |
|---|---|
| 1,305,000.00 | *gallons* |
| 48.06 | *acre-inches* |
| 1.46 | *inches/acre* |

| Total harvests for the crop | |
|---|---|
| 1 | *harvests* |

## West - 10/01/2022: Wheat, silage, soft dough

Field name: West | Crop: Wheat, silage, soft dough | Plant date: 10/01/2022




| | 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 | 264.58 | 31.18 | 345.99 | 1,465.38 |
| Fresh water | 1.84 | 0.00 | 0.00 | 0.00 |
| Atmospheric deposition | 7.00 | 0.00 | 0.00 | 0.00 |
| Total nutrients applied | 273.43 | 31.18 | 345.99 | 1,465.38 |
| Anticipated crop nutrient removal | 198.00 | 30.60 | 149.40 | 0.00 |
| Actual crop nutrient removal | 194.96 | 25.48 | 208.97 | 1,210.51 |
| Nutrient balance | 78.47 | 5.70 | 137.02 | 254.87 |
| Applied to removed ratio | 1.40 | 1.22 | 1.66 | 1.21 |

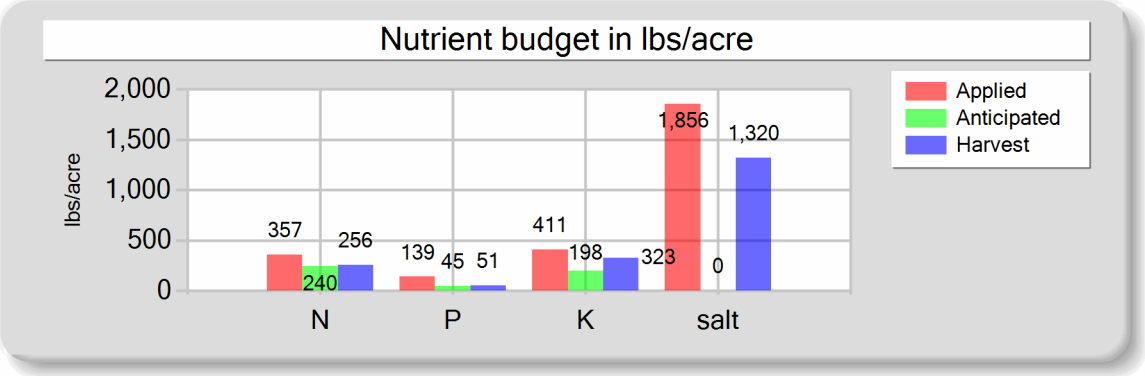
| Fresh water applied | |
|---|---|
| 8,520,000.00 | *gallons* |
| 313.76 | *acre-inches* |
| 11.62 | *inches/acre* |

| Process wastewater applied | |
|---|---|
| 1,317,000.00 | *gallons* |
| 48.50 | *acre-inches* |
| 1.80 | *inches/acre* |

| Total harvests for the crop | |
|---|---|
| 1 | *harvests* |

West - 05/26/2023: Corn, silage

Field name: West  Crop: Corn, silage  Plant date: 05/26/2023




| | 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 | 342.48 | 138.56 | 410.80 | 1,855.56 |
| Fresh water | 7.88 | 0.00 | 0.00 | 0.00 |
| Atmospheric deposition | 7.00 | 0.00 | 0.00 | 0.00 |
| Total nutrients applied | 357.36 | 138.56 | 410.80 | 1,855.56 |
| Anticipated crop nutrient removal | 240.00 | 45.00 | 198.00 | 0.00 |
| Actual crop nutrient removal | 256.02 | 50.89 | 322.81 | 1,319.86 |
| Nutrient balance | 101.34 | 87.68 | 87.99 | 535.70 |
| Applied to removed ratio | 1.40 | 2.72 | 1.27 | 1.41 |

| Fresh water applied | |
|---|---|
| 36,420,000.00 | *gallons* |
| 1,341.22 | *acre-inches* |
| 49.67 | *inches/acre* |

| Process wastewater applied | |
|---|---|
| 1,695,000.00 | *gallons* |
| 62.42 | *acre-inches* |
| 2.31 | *inches/acre* |

| Total harvests for the crop | |
|---|---|
| 1 | *harvests* |

NUTRIENT ANALYSES

## A. MANURE ANALYSES

### Imported Manure

Sample and source description: Imported Manure

Sample date: 10/04/2023 Material type: Separator solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 73.8 %

| | 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** | 20,400.00 | 2,700.00 | 5,900.00 | | | | | | | 0.00 |
| **DL** | 0.01 | 0.01 | 0.01 | | | | | | | 1.00 |

### Corral Manure

Sample and source description: Corral Manure

Sample date: 12/11/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 49.2 %

| | 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** | 15,200.00 | 3,200.00 | 15,600.00 | 10,300.00 | 4,400.00 | 1,600.00 | 2,400.00 | 6,000.00 | | 57.90 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | 1.00 |

## B. PROCESS WASTEWATER ANALYSES

### Imported Lagoon Q4

Sample and source description: Imported Lagoon Q4

Sample date: 12/01/2022 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** | 649.00 | 411.00 | 0.00 | 1.00 | 76.60 | 850.00 | | | | | | | | 8,400.00 | 3,600 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

## Lagoon Q1

Sample and source description: Lagoon Q1

Sample date: 03/07/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 8.00

| | 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** | 176.00 | 128.00 | 0.00 | 0.80 | 29.20 | 333.00 | | | | | | | | 2,840.00 | 1,560 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

## Imported Lagoon Q2

Sample and source description: Imported Lagoon Q2

Sample date: 05/11/2023 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** | 833.00 | 383.00 | 0.00 | 0.90 | 502.00 | 936.00 | | | | | | | | 6,820.00 | 3,680 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

## Lagoon Q2

Sample and source description: Lagoon Q2

Sample date: 05/11/2023 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** | 197.00 | 105.00 | 0.00 | 0.90 | 69.60 | 658.00 | | | | | | | | 4,580.00 | 2,600 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

## Imported Lagoon Q3

Sample and source description: Imported Lagoon Q3

Sample date: 08/02/2023 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** | 494.00 | 453.00 | 0.00 | 0.60 | 54.70 | 650.00 | | | | | | | | 7,580.00 | 3,420 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

Lagoon Q3

Sample and source description: Lagoon Q3

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** | 34.30 | 30.40 | 0.00 | 0.20 | 10.90 | 122.00 | | | | | | | | 1,310.00 | 840 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

Lagoon Q4

Sample and source description: Lagoon Q4

Sample date: 12/11/2023 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** | 159.00 | 88.90 | 0.00 | 0.30 | 42.40 | 367.00 | | | | | | | | 2,840.00 | 1,800 |
| **DL** | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

## C. FRESH WATER ANALYSES

Domestic Well

DW Barn

Sample description: DW Barn

Sample date: 12/11/2023 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** | 0.30 | 0.00 | 0.30 | | | | | | | | 333.00 | 0 |
| **DL** | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

## Domestic Well

### DW House

Sample description: DW House

Sample date: 12/11/2023 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** | 1.10 | 0.00 | 1.10 | | | | | | | | 287.00 | 0 |
| **DL** | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

## Irrigation Well

### IW N/O AVERAGE

Sample description: IW N/O AVERAGE

Sample date: 12/12/2023 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** | 14.90 | 0.00 | 14.90 | | | | | | | | 1,095.00 | 0 |
| **DL** | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

### IW-Rd 11 New (Andrade)

Sample description: IW-Rd 11 New (Andrade)

Sample date: 12/12/2023 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** | 0.30 | 0.00 | 0.30 | | | | | | | | 1,130.00 | 0 |
| **DL** | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

Irrigation Well

IW-Rd 11 Old (Andrade)

Sample description: IW-Rd 11 Old (Andrade)

Sample date: 12/12/2023 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** | 29.50 | 0.00 | 29.50 | | | | | | | | 1,060.00 | 0 |
| **DL** | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

IW-West (Andrade)

Sample description: IW-West (Andrade)

Sample date: 12/12/2023 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** | 0.70 | 0.00 | 0.70 | | | | | | | | 230.00 | 0 |
| **DL** | 0.01 | 0.01 | 0.01 | | | | | | | | 10.00 | 1 |

**D. SOIL ANALYSES**

East

East Soil

Sample and source description: East Soil

Sample date: 09/15/2023 Source of analysis: Lab analysis

| | Nitrate-N (mg/kg) | Total P (mg/kg) | Soluble P (mg/kg) | K (mg/kg) | EC (µmhos/cm) | Organic matter (%) | Total salt (mg/kg) |
|---|---|---|---|---|---|---|---|
| **Value** | | | 34.00 | | | | |
| **DL** | | | 0.01 | | | | |

Middle

Middle

Middle Soil

Sample and source description: Middle Soil

Sample date: 09/15/2023 Source of analysis: Lab analysis

| | Nitrate-N (mg/kg) | Total P (mg/kg) | Soluble P (mg/kg) | K (mg/kg) | EC (µmhos/cm) | Organic matter (%) | Total salt (mg/kg) |
|---|---|---|---|---|---|---|---|
| **Value** | | | 38.00 | | | | |
| **DL** | | | 0.01 | | | | |

West

West Soil

Sample and source description: West Soil

Sample date: 09/15/2023 Source of analysis: Lab analysis

| | Nitrate-N (mg/kg) | Total P (mg/kg) | Soluble P (mg/kg) | K (mg/kg) | EC (µmhos/cm) | Organic matter (%) | Total salt (mg/kg) |
|---|---|---|---|---|---|---|---|
| **Value** | | | 33.00 | | | | |
| **DL** | | | 0.01 | | | | |

## E. PLANT TISSUE ANALYSES

East - 10/01/2022: Wheat, silage, boot stage

Field East Wheat Silage

Sample and source description: Field East Wheat Silage

Sample date: 05/11/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.3 %

| | Total N (mg/kg) | Total P (mg/kg) | Total K (mg/kg) | Total salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|
| **Value** | 14,100.00 | 1,800.00 | 17,000.00 | | 9.80 |
| **DL** | 0.01 | 0.01 | 0.01 | | 1.00 |

East - 05/26/2023: Corn, silage

East - 05/26/2023: Corn, silage

Field East Corn

Sample and source description: Field East Corn

Sample date: 09/12/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.7 %

| | Total N (mg/kg) | Total P (mg/kg) | Total K (mg/kg) | Total salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|
| **Value** | 13,700.00 | 2,200.00 | 21,200.00 | | 6.80 |
| **DL** | 0.01 | 0.01 | 0.01 | | 1.00 |

Middle - 10/01/2022: Wheat, silage, soft dough

Field Middle Wheat Silage

Sample and source description: Field Middle Wheat Silage

Sample date: 05/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 60.7 %

| | Total N (mg/kg) | Total P (mg/kg) | Total K (mg/kg) | Total salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|
| **Value** | 14,700.00 | 2,200.00 | 17,700.00 | | 7.00 |
| **DL** | 0.01 | 0.01 | 0.01 | | 1.00 |

Middle - 05/26/2023: Corn, silage

Middle Field Corn Silage

Sample and source description: Middle Field Corn Silage

Sample date: 09/06/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.2 %

| | Total N (mg/kg) | Total P (mg/kg) | Total K (mg/kg) | Total salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|
| **Value** | 16,100.00 | 3,100.00 | 17,800.00 | | 7.10 |
| **DL** | 0.01 | 0.01 | 0.01 | | 1.00 |

West - 10/01/2022: Wheat, silage, soft dough

Field West Wheat Silage

Sample and source description: Field West Wheat Silage

Sample date: 05/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.4 %

| | Total N (mg/kg) | Total P (mg/kg) | Total K (mg/kg) | Total salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|
| **Value** | 15,300.00 | 2,000.00 | 16,400.00 | | 9.50 |
| **DL** | 0.01 | 0.01 | 0.01 | | 1.00 |

West - 05/26/2023: Corn, silage

West Field Corn Silage

Sample and source description: West Field Corn Silage

Sample date: 09/06/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 69.2 %

| | Total N (mg/kg) | Total P (mg/kg) | Total K (mg/kg) | Total salt (mg/kg) | TFS (%) |
|---|---|---|---|---|---|
| **Value** | 16,100.00 | 3,200.00 | 20,300.00 | | 8.30 |
| **DL** | 0.01 | 0.01 | 0.01 | | 1.00 |

## F. SUBSURFACE (TILE) DRAINAGE ANALYSES

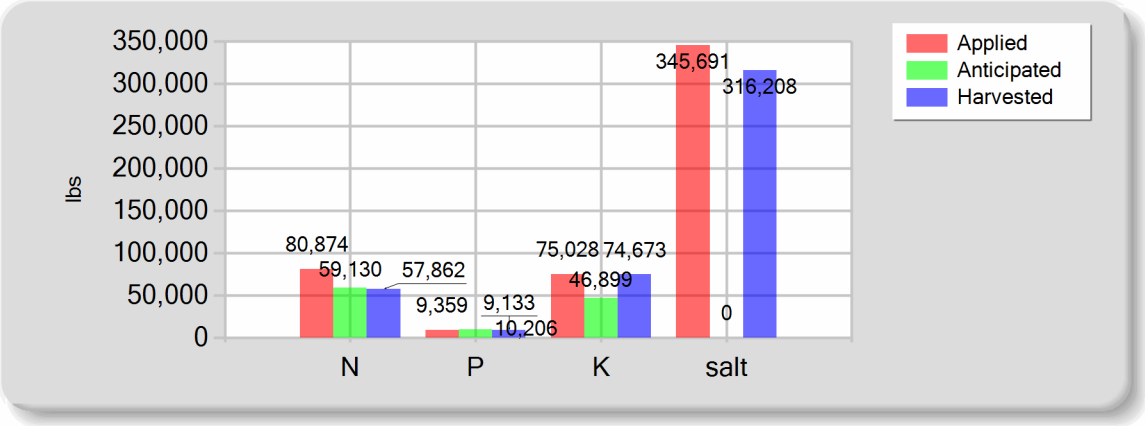
*No subsurface (tile) drainage analyses entered.*

NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

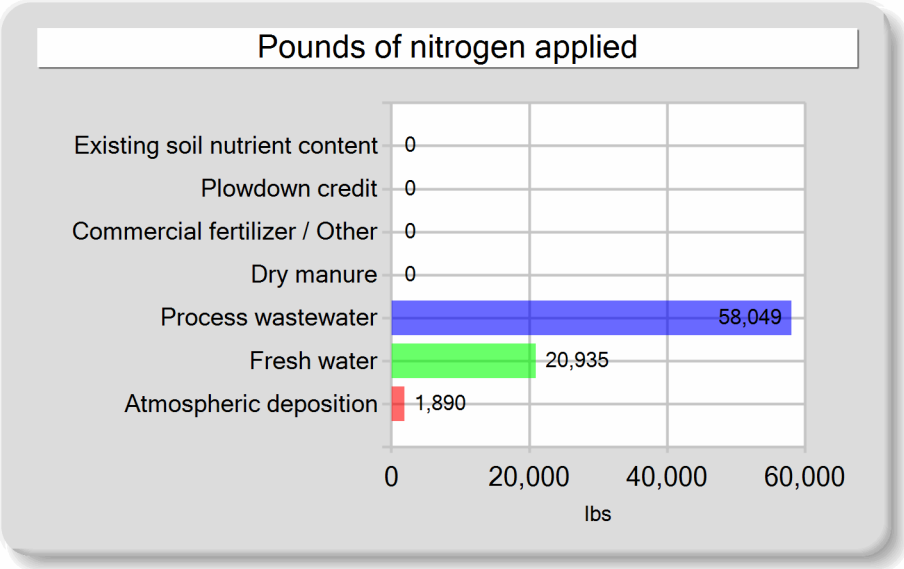
## A. SUMMARY OF NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

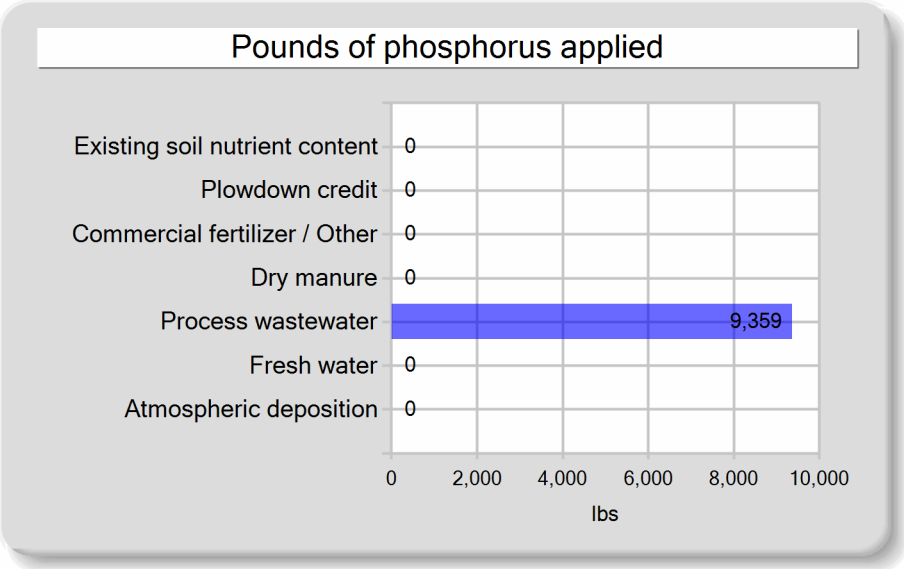
| | Total N (lbs) | Total P (lbs) | Total K (lbs) | Total salt (lbs) |
|---|---|---|---|---|
| Existing soil nutrient content | 0.00 | 0.00 | 0.00 | 0.00 |
| Plowdown credit | 0.00 | 0.00 | 0.00 | 0.00 |
| Commercial fertilizer / Other | 0.00 | 0.00 | 0.00 | 0.00 |
| Dry manure | 0.00 | 0.00 | 0.00 | 0.00 |
| Process wastewater | 58,048.52 | 9,358.96 | 75,028.39 | 345,690.79 |
| Fresh water | 20,935.37 | 0.00 | 0.00 | 0.00 |
| Atmospheric deposition | 1,890.00 | 0.00 | 0.00 | 0.00 |
| Total nutrients applied | 80,873.89 | 9,358.96 | 75,028.39 | 345,690.79 |
| Anticipated crop nutrient removal | 59,130.00 | 10,206.00 | 46,899.00 | 0.00 |
| Actual crop nutrient removal | 57,861.62 | 9,133.44 | 74,673.28 | 316,207.53 |
| Nutrient balance | 23,012.27 | 225.52 | 355.11 | 29,483.26 |
| Applied to removed ratio | 1.40 | 1.02 | 1.00 | 1.09 |

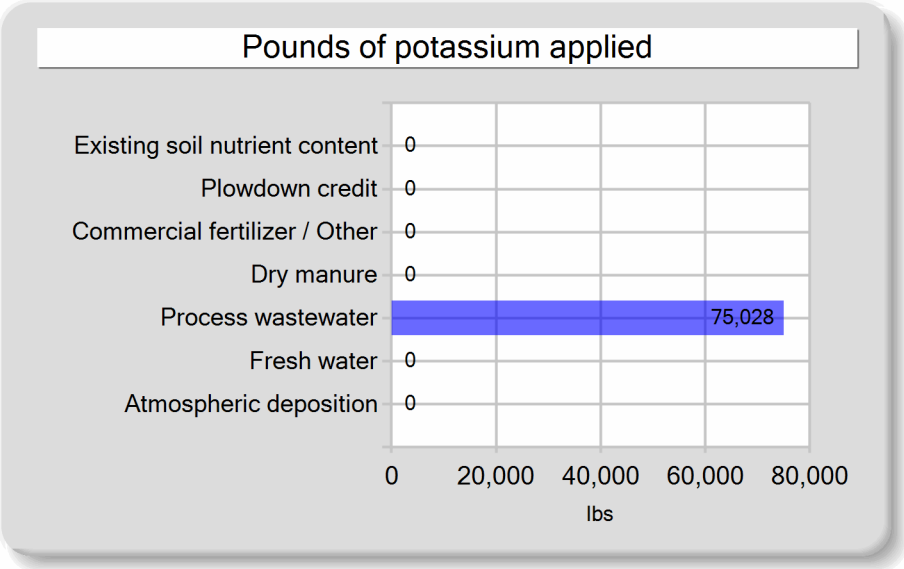
## B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

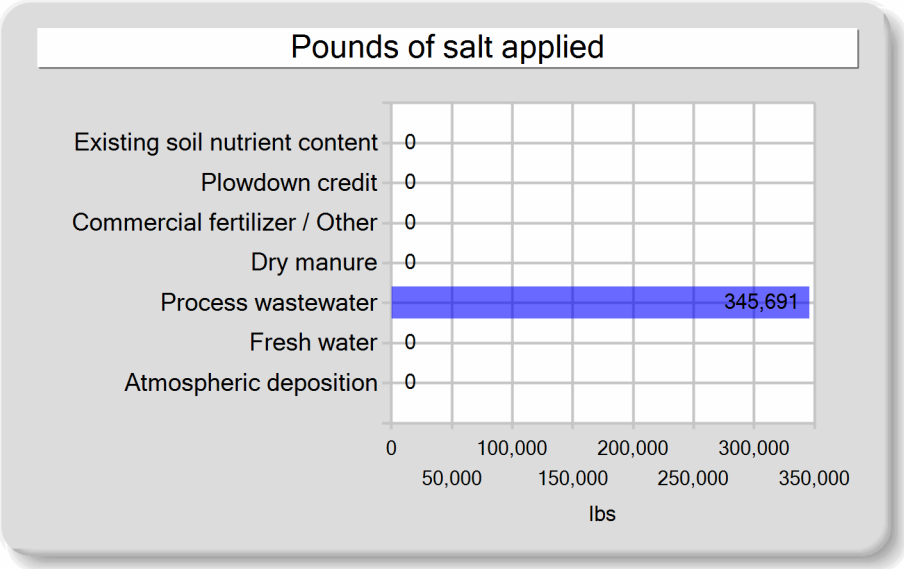


**C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE**



## 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 |

ADDITIONAL NOTES

**A. NOTES**

Facility is only housing support stock and imports lagoon water from main dairy

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.*

Johnny Silveira

| SIGNATURE OF OWNER OF FACILITY | SIGNATURE OF OPERATOR OF FACILITY |
|---|---|
| Johnny Silveira | SAME AS OWNER |
| PRINT OR TYPE NAME | PRINT OR TYPE NAME |
| Jul 1, 2024 | |
| 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.

DELLAVALLE LABORATORY INC

# Report of Dairy Well Water Analysis

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla CA 93610
00-0021349 08

**E-mail:**
**Copy To:** cas.labs@yahoo.com

**Lab No.:** 23L0775
**Sampled By:** J. Silveira
**Requested By:** Johnny Silveira
**Submitted Date:** 12/13/23
**Reported Date:** 12/20/23
**Project:**
**Crop ID:**

| | | Date Sampled | Time Sampled | EC µmhos/cm | EC mmhos/cm | $NO_3$-N mg/L | Field $NH_4$-N mg/L | Total $NH_4$-N mg/L | pH at 25°C unit |
|---|---|---|---|---|---|---|---|---|---|
| 1 | IW - West (Andrade) | 12/12/23 | 8:48 | 230 | 0.23 | 0.7 | ND | | 7.8 |
| 2 | IW - Rd 11 New (Andrade) | 12/12/23 | 8:36 | 1130 | 1.13 | 0.3 | ND | | 7.7 |
| 3 | IW - Rd 11 Old (Andrade) | 12/12/23 | 8:42 | 1060 | 1.06 | 29.5 | ND | | 7.4 |
| ~~4~~ | ~~IW - Orchard~~ | ~~12/12/23~~ | ~~8:58~~ | ~~1430~~ | ~~1.43~~ | ~~0.4~~ | ~~ND~~ | | ~~7.7~~ |
| ~~5~~ | ~~IW #1~~ | ~~12/12/23~~ | ~~8:24~~ | ~~468~~ | ~~0.47~~ | ~~3.4~~ | ~~ND~~ | | ~~7.7~~ |
| ~~6~~ | ~~IW #2~~ | ~~12/12/23~~ | ~~8:29~~ | ~~1180~~ | ~~1.18~~ | ~~0.4~~ | ~~ND~~ | | ~~7.6~~ |

***** = Field $NH_4$-N not Taken.
ND = None Detected

Approved By: Scott M Friedland

Laboratory Director\Technical Manager
ELAP Certification #1595
A2LA Certification #6440.02

DELLAVALLE LABORATORY INC

# Report of Dairy Well Water Analysis

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla CA 93610
00-0021349 08

**Lab No.:** 23L0775
**Sampled By:** J. Silveira
**Requested By:** Johnny Silveira
**Submitted Date:** 12/13/23
**Reported Date:** 12/20/23
**Project:**
**Crop ID:**

**E-mail:**
**Copy To:** cas.labs@yahoo.com

| | | Date Sampled | Time Sampled | **EC** µmhos/cm | **EC** mmhos/cm | **$NO_3$-N** mg/L | Nitrogen agricultural use Calcs calculated from nitrate-N lbs/AcFoot | lbs/AcInch |
|---|---|---|---|---|---|---|---|---|
| 1 | IW - West (Andrade) | 12/12/23 | 8:48 | 230 | 0.23 | 0.7 | 1.91 | 0.16 |
| 2 | IW - Rd 11 New (Andrade) | 12/12/23 | 8:36 | **1130** | **1.13** | 0.3 | 0.82 | 0.07 |
| 3 | IW - Rd 11 Old (Andrade) | 12/12/23 | 8:42 | **1060** | **1.06** | **29.5** | 80.54 | 6.71 |
| ~~4~~ | ~~IW - Orchard~~ | ~~12/12/23~~ | ~~8:58~~ | ~~**1430**~~ | ~~**1.43**~~ | ~~0.4~~ | ~~1.09~~ | ~~0.09~~ |
| ~~5~~ | ~~IW #1~~ | ~~12/12/23~~ | ~~8:24~~ | ~~468~~ | ~~0.47~~ | ~~**3.4**~~ | ~~9.28~~ | ~~0.77~~ |
| ~~6~~ | ~~IW #2~~ | ~~12/12/23~~ | ~~8:29~~ | ~~**1180**~~ | ~~**1.18**~~ | ~~0.4~~ | ~~1.09~~ | ~~0.09~~ |

| **Water for Crop Use** **Nutrient Management** | Total Salts | Total Salts | Nitrate Nitrogen |
|---|---|---|---|
| **Low Levels** | < 900 | < 0.90 | < 2.0 |
| **Significant Levels** | 900-2200 | 0.90-2.2 | 2.0-10.0 |
| **High Levels** | 2200+ | 2.2+ | 10.0+ |

Sampling abbreviations: H.B. = hose bib, S.P. = stand pipe, Dom. = domestic well, IR = irrigation well, AG = ag well.
Nitrate exceeds Water Quality MCL levels if results are above 10 mg/l nitrate-nitrogen NO3-N (equivalent to 45 mg/l nitrate, NO3).
Total Salt results are used to monitor changes of salt in the well aquifers between annual tests.
MCL = Maximum Contaminant Level according to the California Domestic Water Quality and Monitoring Regulations (Title 22)
**MDL** = Method Detection Limit; **RL** = Reporting Limit, mg/L = ppm.
SM = Standard Methods for the Examination of Water and Wastewater
EPA = Environmental Protection Agency methods used unless otherwise indicated.

DELLAVALLE™
LABORATORY INC

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Samples in this Report

| Lab ID | Sample | Matrix | Sampled By | Crop | Date Sampled |
|---|---|---|---|---|---|
| 23L0775-01 | IW - West (Andrade) | Ag Water | J. Silveira | | 12/12/2023 8:48 |
| 23L0775-02 | IW - Rd 11 New (Andrade) | Ag Water | J. Silveira | | 12/12/2023 8:36 |
| 23L0775-03 | IW - Rd 11 Old (Andrade) | Ag Water | J. Silveira | | 12/12/2023 8:42 |
| ~~23L0775-04~~ | ~~IW - Orchard~~ | ~~Ag Water~~ | ~~J. Silveira~~ | | ~~12/12/2023 8:58~~ |
| ~~23L0775-05~~ | ~~IW #1~~ | ~~Ag Water~~ | ~~J. Silveira~~ | | ~~12/12/2023 8:24~~ |
| ~~23L0775-06~~ | ~~IW #2~~ | ~~Ag Water~~ | ~~J. Silveira~~ | | ~~12/12/2023 8:29~~ |

Default Cooler  Temperature on Receipt °C: 0.8
Containers Intact
COC/Labels Agree
Received On Ice

## Notes and Definitions

| Item | Definition |
|---|---|
| H | Hold Time Exceeded |
| MCL | Drinking Water Maximum Contaminant Level |
| ND | Analyte NOT DETECTED at or above the reporting limit. |
| NES | Not Enough Sample |
| * | Not Taken |
| RPD | Relative Percent Difference |
| %REC | Percent Recovery |
| Source | Sample that was matrix spiked or duplicated. |

Laboratory Director/Technical Manager

ELAP Certification #1595
A2LA Certification #6440.02

DELLAVALLE™
LABORATORY INC

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Sample Results

**Sample: IW - West (Andrade)**
**23L0775-01 (Water)**

Sampled: 12/12/2023 8:48
Sampled By: J. Silveira

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **0.23** | mmhos/cm | 0.01 | 1 | | 12/14/23 16:27 | SM 2510 B | | BEL0615 |
| **Electrical Conductivity umhos** | **230** | umhos/cm | 10.0 | 1 | | 12/14/23 16:27 | SM 2510 B | | BEL0615 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/12/23 08:48 | Field | | BEL0439 |
| **Nitrate Nitrogen as NO3N** | **0.7** | mg/L | 0.1 | 1 | 10 | 12/14/23 08:50 | EPA 300.0 | | BEL0569 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/14/23 16:27 | SM 4500-H+ | H | BEL0615 |
| **pH** | **7.8** | units | 1.0 | 1 | | 12/14/23 16:27 | SM 4500-H+ | H | BEL0615 |

DELLAVALLE™
LABORATORY INC

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Sample Results
**(Continued)**

**Sample: IW - Rd 11 New (Andrade)**
**23L0775-02 (Water)**

Sampled: 12/12/2023 8:36
Sampled By: J. Silveira

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **1.13** | mmhos/cm | 0.01 | 1 | | 12/14/23 16:28 | SM 2510 B | | BEL0615 |
| **Electrical Conductivity umhos** | **1130** | umhos/cm | 10.0 | 1 | | 12/14/23 16:28 | SM 2510 B | | BEL0615 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/12/23 08:36 | Field | | BEL0439 |
| **Nitrate Nitrogen as NO3N** | **0.3** | mg/L | 0.1 | 1 | 10 | 12/14/23 09:12 | EPA 300.0 | | BEL0569 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/14/23 16:28 | SM 4500-H+ | H | BEL0615 |
| **pH** | **7.7** | units | 1.0 | 1 | | 12/14/23 16:28 | SM 4500-H+ | H | BEL0615 |

DELLAVALLE™
LABORATORY INC

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Sample Results
**(Continued)**

**Sample: IW - Rd 11 Old (Andrade)**
**23L0775-03 (Water)**

Sampled: 12/12/2023 8:42
Sampled By: J. Silveira

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **1.06** | mmhos/cm | 0.01 | 1 | | 12/14/23 16:30 | SM 2510 B | | BEL0615 |
| **Electrical Conductivity umhos** | **1060** | umhos/cm | 10.0 | 1 | | 12/14/23 16:30 | SM 2510 B | | BEL0615 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/12/23 08:42 | Field | | BEL0439 |
| **Nitrate Nitrogen as NO3N** | **29.5** | mg/L | 0.1 | 1 | 10 | 12/14/23 09:34 | EPA 300.0 | | BEL0569 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/14/23 16:30 | SM 4500-H+ | H | BEL0615 |
| **pH** | **7.4** | units | 1.0 | 1 | | 12/14/23 16:30 | SM 4500-H+ | H | BEL0615 |

DELLAVALLE™
LABORATORY INC

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Sample Results
**(Continued)**

**Sample: IW - Orchard**
**23L0775-04 (Water)**

Sampled: 12/12/2023 8:58
Sampled By: J. Silveira

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **1.43** | mmhos/cm | 0.01 | 1 | | 12/14/23 16:31 | SM 2510 B | | BEL0615 |
| **Electrical Conductivity umhos** | **1430** | umhos/cm | 10.0 | 1 | | 12/14/23 16:31 | SM 2510 B | | BEL0615 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/12/23 08:58 | Field | | BEL0439 |
| **Nitrate Nitrogen as NO3N** | **0.4** | mg/L | 0.1 | 1 | 10 | 12/14/23 09:56 | EPA 300.0 | | BEL0569 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/14/23 16:31 | SM 4500-H+ | H | BEL0615 |
| **pH** | **7.7** | units | 1.0 | 1 | | 12/14/23 16:31 | SM 4500-H+ | H | BEL0615 |

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Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Sample Results
**(Continued)**

**Sample: IW #1**
**23L0775-05 (Water)**

Sampled: 12/12/2023 8:24
Sampled By: J. Silveira

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **0.47** | mmhos/cm | 0.01 | 1 | | 12/14/23 16:33 | SM 2510 B | | BEL0615 |
| **Electrical Conductivity umhos** | **468** | umhos/cm | 10.0 | 1 | | 12/14/23 16:33 | SM 2510 B | | BEL0615 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/12/23 08:24 | Field | | BEL0439 |
| **Nitrate Nitrogen as NO3N** | **3.4** | mg/L | 0.1 | 1 | 10 | 12/14/23 10:17 | EPA 300.0 | | BEL0569 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/14/23 16:33 | SM 4500-H+ | H | BEL0615 |
| **pH** | **7.7** | units | 1.0 | 1 | | 12/14/23 16:33 | SM 4500-H+ | H | BEL0615 |

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Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Sample Results
**(Continued)**

**Sample: IW #2**
**23L0775-06 (Water)**

Sampled: 12/12/2023 8:29
Sampled By: J. Silveira

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **1.18** | mmhos/cm | 0.01 | 1 | | 12/14/23 16:34 | SM 2510 B | | BEL0615 |
| **Electrical Conductivity umhos** | **1180** | umhos/cm | 10.0 | 1 | | 12/14/23 16:34 | SM 2510 B | | BEL0615 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/12/23 08:29 | Field | | BEL0439 |
| **Nitrate Nitrogen as NO3N** | **0.4** | mg/L | 0.1 | 1 | 10 | 12/14/23 10:39 | EPA 300.0 | | BEL0569 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/14/23 16:34 | SM 4500-H+ | H | BEL0615 |
| **pH** | **7.6** | units | 1.0 | 1 | | 12/14/23 16:34 | SM 4500-H+ | H | BEL0615 |

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Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Quality Control

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0569*** | | | | | | | | | | |
| **Blank (BEL0569-BLK1)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **Blank (BEL0569-BLK2)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **Blank (BEL0569-BLK3)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **Blank (BEL0569-BLK4)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **LCS (BEL0569-BS1)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 5.0 | | 0.1 | mg/L | 5.000 | | 99.3 | 90-110 | | |
| **LCS (BEL0569-BS2)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 5.2 | | 0.1 | mg/L | 5.000 | | 103 | 90-110 | | |
| **LCS (BEL0569-BS3)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.9 | | 0.1 | mg/L | 5.000 | | 98.7 | 90-110 | | |
| **Duplicate (BEL0569-DUP1)** | | **Source: 23L0625-01** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 0.06 | | 0.1 | mg/L | | 0.06 | | | 1.77 | 10 |
| **Duplicate (BEL0569-DUP2)** | | **Source: 23L0674-01** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 0.06 | | 0.1 | mg/L | | 0.06 | | | 0.00 | 10 |
| **Duplicate (BEL0569-DUP3)** | | **Source: 23L0730-02** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 0.06 | | 0.1 | mg/L | | 0.05 | | | 1.83 | 10 |
| **Matrix Spike (BEL0569-MS1)** | | **Source: 23L0625-01** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 5.0 | | 0.1 | mg/L | 5.000 | 0.06 | 98.6 | 90-110 | | |
| **Matrix Spike (BEL0569-MS2)** | | **Source: 23L0674-01** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.8 | | 0.1 | mg/L | 5.000 | 0.06 | 94.2 | 90-110 | | |
| **Matrix Spike (BEL0569-MS3)** | | **Source: 23L0730-02** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.8 | | 0.1 | mg/L | 5.000 | 0.05 | 94.1 | 90-110 | | |
| **Reference (BEL0569-SRM1)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.7 | | | mg/L | 10.00 | | 97.4 | 90-110 | | |
| **Reference (BEL0569-SRM2)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.8 | | | mg/L | 10.00 | | 98.4 | 90-110 | | |

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Quality Control
**(Continued)**

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0569 (Continued)*** | | | | | | | | | | |
| **Reference (BEL0569-SRM3)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.9 | | | mg/L | 10.00 | | 99.0 | 90-110 | | |
| **Reference (BEL0569-SRM4)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 10.0 | | | mg/L | 10.00 | | 99.7 | 90-110 | | |

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LABORATORY INC

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Quality Control
**(Continued)**

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0615*** | | | | | | | | | | |
| **Blank (BEL0615-BLK1)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | ND | | 0.01 | mmhos/cm | | | | | | |
| Temperature | 25.0 | | 0.0 | units | | | | | | |
| Electrical Conductivity umhos | ND | | 10.0 | umhos/cm | | | | | | |
| pH | 4.7 | | 1.0 | units | | | | | | |
| **Blank (BEL0615-BLK2)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Temperature | 25.0 | | 0.0 | units | | | | | | |
| Electrical Conductivity | ND | | 0.01 | mmhos/cm | | | | | | |
| Electrical Conductivity umhos | ND | | 10.0 | umhos/cm | | | | | | |
| pH | 7.6 | | 1.0 | units | | | | | | |
| **Blank (BEL0615-BLK3)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | ND | | 0.01 | mmhos/cm | | | | | | |
| Temperature | 25.0 | | 0.0 | units | | | | | | |
| Electrical Conductivity umhos | ND | | 10.0 | umhos/cm | | | | | | |
| pH | 7.5 | | 1.0 | units | | | | | | |
| **Duplicate (BEL0615-DUP1)** | | **Source: 23L0774-08** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | 0.53 | | 0.01 | mmhos/cm | | 0.53 | | | 1.05 | 10 |
| pH | 8.3 | | 1.0 | units | | 8.3 | | | 0.00 | 10 |
| Electrical Conductivity umhos | 528 | | 10.0 | umhos/cm | | 534 | | | 1.05 | 10 |
| **Duplicate (BEL0615-DUP2)** | | **Source: 23L0776-01** | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | 5.91 | | 0.01 | mmhos/cm | | 5.89 | | | 0.203 | 10 |
| Electrical Conductivity umhos | 5910 | | 10.0 | umhos/cm | | 5890 | | | 0.203 | 10 |
| pH | 7.0 | | 1.0 | units | | 7.0 | | | 0.286 | 10 |
| **Reference (BEL0615-SRM1)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | 435 | | | umhos/cm | 426.0 | | 102 | 90-110 | | |
| **Reference (BEL0615-SRM2)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| pH | 7.5 | | | units | 7.520 | | 100 | 67021-101.3 | | |
| **Reference (BEL0615-SRM3)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | 1030 | | | umhos/cm | 1000 | | 103 | 90-110 | | |
| Electrical Conductivity umhos | 1030 | | | umhos/cm | 1000 | | 103 | 90-110 | | |
| **Reference (BEL0615-SRM4)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | 1030 | | | umhos/cm | 1000 | | 103 | 90-110 | | |
| Electrical Conductivity umhos | 1030 | | | umhos/cm | 1000 | | 103 | 90-110 | | |
| **Reference (BEL0615-SRM5)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity | 1050 | | | umhos/cm | 1000 | | 105 | 90-110 | | |

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/13/2023 7:00
Reported: 12/20/2023 14:15

## Quality Control
**(Continued)**

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0615 (Continued)*** | | | | | | | | | | |
| **Reference (BEL0615-SRM5)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| Electrical Conductivity umhos | 1050 | | | umhos/cm | 1000 | | 105 | 90-110 | | |
| **Reference (BEL0615-SRM6)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| pH | 4.0 | | | units | 4.000 | | 101 | 97.5-102.5 | | |
| **Reference (BEL0615-SRM7)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| pH | 4.0 | | | units | 4.000 | | 101 | 97.5-102.5 | | |
| **Reference (BEL0615-SRM8)** | | | | | Prepared & Analyzed: 12/14/2023 | | | | | |
| pH | 4.0 | | | units | 4.000 | | 100 | 97.5-102.5 | | |

12/13/23 07:00 23L0775

JG

# WATER WORK REQUEST

Acct No. / Cons.

Bill To: 21349 / 8

Purchase Order No. ____ Results Needed By ____

Client: **Silveira Dairy (Chowchilla)**
Address: 11380 Ave 22
City, State, Zip: Chowchilla, CA 93610
Phone ____ Fax ____
Cell/Email ____

Copy to: Cardoso Ag Sevices - cas.labs@yahoo.com

Requested by: Johnny Silveira - (559) 978-6087

Ranch ____

Date sampled: 12/12/23

Sampled by: JSilveira

[ X ] QA/QC Document [ X ] Copy of Chain [ ] RWQCB

## DELLAVALLE LABORATORY, INC.

1910 W. McKinley Avenue, Suite 110 • Fresno, CA 93728
www.dellavallelab.com 559 233-6129 / 800 228-9896 • Fax 559 268-8174

No. of Samples: 6 No. Bottles: 6

**Water Type:** [ ] Drinking [ ] Wastewater
[ ] Ag Water [ ] Ground Water [ ] Mon. Well
[ ] Supply Water [ ] Other ____

**Analysis and Bottles Required:** *(Please Indicate Analysis)*

(X) DWW1: (EC, pH, $NO_3$-N, **$NH_4$-N Field Test**) Per maryanne E 12.13.23
*(1) 1 L plastic, unpreserved (white)*

( ) DWW2: (DWW1 Plus $SO_4$, $CO_3$, $HCO_3$, Cl, Ca, Mg, Na, TDS)
*(1) 1 L plastic, unpreserved (white)*

( ) DCW1: (EC, $NO_3$-N, TDS)
*(1) 1 L plastic, unpreserved (white)*

( ) DPW1: (EC, pH, $NO_3$-N, $NH_4$-N, TKN, TDS, TP, TK )
*(1) 1 L plastic, unpreserved (white)*

( ) DPW2: (DPW1 Plus Ca, Mg, Na, $HCO_3$, $CO_3$, $SO_4$, Cl)
*(1) 1 L plastic, unpreserved (white)*

( ) Other ____

## DESCRIPTION OF SAMPLES

| | | Date Sampled | Time Sampled | Field NH4-N (mg/L) | Received Temp °C | H/E |
|---|---|---|---|---|---|---|
| 1. IW-West(Andrade) | Sampled From: | 12/12/23 | 848A | Ø | 0.8 | 1.6 |
| 2. IW-Rd 11 New(Andrade) | Sampled From: | 12/12/23 | 836A | Ø | 1.7 | 1.4 |
| 3. IW-Rd 11 Old (Andrade) | Sampled From: | 12/12/23 | 842A | Ø | 0.6 | -2.8 |
| 4. IW-Orchard | Sampled From: | 12/12/23 | 858A | Ø | 0.9 | -.1 |
| 5. IW #1 | Sampled From: | 12/12/23 | 824A | Ø | 0.1 | .8 |
| 6. IW #2 | Sampled From: | 12/12/23 | 829A | Ø | 0.6 | -.1 |
| 7. | Sampled From: | | | | | |
| 8. | Sampled From: | | | | | |
| 9. | Sampled From: | | | | | |
| 10. | Sampled From: | | | | | |

IR Thermometer SN: 200560723
Correction Factor: 0°C
Calibration Due: 03/06/2024
Location: Laboratory

IR Thermometer SN: 221511276
Correction Factor: 0°C
Calibration Due: 03/06/2024
Location: Hanford

## CHAIN OF CUSTODY

| Carrier | Signature | Company | Received (Date/Time) | Relinquished (Date/Time) |
|---|---|---|---|---|
| First | JSilveira | SilveiraDairy | 12/12/23 858A | 12/12/23 9am |
| Second | MPedroso | CASinc | 12/12/23 9am | 12/12/23 330p |
| Third | | DCI | 12/12/23 3:36pm | |
| Fourth | | | 12/13 07:00 | |

I guarantee that as the client, or on behalf of the client named, I have the authority to contract the above requested services. Should it be found that I do not have such authority, I agree to be personally liable for all costs and, if there should be action against me for this breach, reasonable attorneys' fees. It is understood that payment is expected to be cash with samples unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a dated damage fee of 2% per month (annually 24 %) or $5.00 per month whichever is greater.
If payment is not made when due and a legitimate dispute exists concerning the product or services of Dellavalle Laboratory, Inc., it will be submitted to mediation under the Rules and Procedures of Creative Alternative to Litigation, Inc. (cal). If the dispute is not resolved in mediation, then the dispute will be submitted to binding arbitration through cal under its Rules and Procedures. The prtics will equally bear the costs of mediation/arbitration. If, however, the mediator declares that no legitimate dispute exists, then debtor will pay all mediation and arbitration costs, and in the event of arbitration, reasonable attorneys' fees of Dellavalle Laboratory.

*Invoicing Information:*

Sampling Hrs ___ Miles ___ Consulting ___

Amt Paid ___ Rec By ___ Check No. ___

*Shipping*

$ ____ In
$ ____ Out

Date ____

Signature ____

Sample received in cooler with ice?
[ ] Yes [ ] No

ctt:update 2020

**Shipping Information:** Shipped In □ Picked-Up □ Walk In ☑ DLI Sampler □ Other □ _____

**Container:** Ice Chest □ Box ☑ None □ **Refrigerant:** Wet Ice ☑ Blue Ice □ None □

**Samples Preserved with $HNO_3$ or $H_2SO_4$ were:** □ Received Preserved □ Preserved Upon Receipt at Laboratory

| | Type of Container(s) Received | Sample Number 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sample Containers for Internal (DLI) Use** *(Containers that go into the Lab)* | | | | | | | | | | | |
| Plastics | 100 mL sterile plastic $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 250 mL unpreserved (White) Plastic | | | | | | | | | | |
| | 250 mL $HNO_3$ (Red) Plastic | | | | | | | | | | |
| | * pH Value | | | | | | | | | | |
| | 250 mL $H_2SO_4$ (Yellow) Plastic | | | | | | | | | | |
| | * pH Value | | | | | | | | | | |
| | 500 mL unpreserved (White) Plastic | | | | | | | | | | |
| | 1 L unpreserved (White) Plastic | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| | 1 L unpreserved (BOD) (Purple) Plastic | | | | | | | | | | |
| = | 500mL unpreserved (White) Glass | | | | | | | | | | |
| | PO4-P Kit | | | | | | | | | | |
| | **Other:** | | | | | | | | | | |
| **Sample Containers for Subcontracted ("Send Out") Analyses** *(Containers that go in the Subcontract ("Send Out") Refrigerator)* | | | | | | | | | | | |
| Plastics | 100 mL sterile plastic $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 250 mL unpreserved (White) Plastic | | | | | | | | | | |
| | 250 mL $HNO_3$ (Red) Plastic | | | | | | | | | | |
| | 250 mL $H_2SO_4$ (Yellow) Plastic | | | | | | | | | | |
| | 500 mL $HNO_3$ (Red) | | | | | | | | | | |
| | 1 L unpreserved (White) Plastic | | | | | | | | | | |
| | 1 L unpreserved (BOD) (Purple) Plastic | | | | | | | | | | |
| | 1 L $HNO_3$ (Red) | | | | | | | | | | |
| VOA Vials | 40 mL AG VOA, $Na_2S_2O_3$ + MCAA | | | | | | | | | | |
| | 40 mL AG VOA, $Na_2S_2O_3$ | | | | | | | | | | |
| | 40mL AG VOA unpreserved (White) (Set of 3 | | | | | | | | | | |
| | 40 mL AG VOA, $Na_2S_2O_3$ (Green) (Set of 3) | | | | | | | | | | |
| | 40mL VOA, $H_3PO_4$ (Set of 3) | | | | | | | | | | |
| | 40 mL VOA, HCl (Blue) (Set of 3) | | | | | | | | | | |
| | 40 mL VOA, $Na_2S_2O_3$ (Green) (Set of 3) | | | | | | | | | | |
| Glass | 250 mL AG unpreserved (White) | | | | | | | | | | |
| | 250 mL AG $H_2SO_4$ (Yellow) | | | | | | | | | | |
| | 250 mL AG $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 250 mL AG $Na_2S_2O_3$ + MCAA | | | | | | | | | | |
| | 500 mL glass unpreserved (White) | | | | | | | | | | |
| | 500 mL AG HCl (Blue) | | | | | | | | | | |
| | 1 L AG unpreserved (White) | | | | | | | | | | |
| | 1 L AG $H_2SO_4$ (Yellow) | | | | | | | | | | |
| | 1 L AG $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 1 L AG HCl (Blue) | | | | | | | | | | |
| Special | $Cr^{6+}$ - 50mL Plastic w/Borate/$HCO_3$/$CO_3$ | | | | | | | | | | |
| | Cyanide - 500 mL NaOH | | | | | | | | | | |
| | Asbestos - 1L P wrapped in foil (Set of 2) | | | | | | | | | | |
| | Sulfide - 1 L **AG** or **P** NaOH + ZnAc | | | | | | | | | | |
| | Chlorite/Bromate - 250 mL AG with EDA | | | | | | | | | | |
| | HAA5 - 250mL AG Ammonium Chlorite | | | | | | | | | | |
| | DO KIT | | | | | | | | | | |
| | **Other:** | | | | | | | | | | |
| | **Other:** | | | | | | | | | | |

DELLAVALLE LABORATORY INC

# Report of Dairy Well Water Analysis

Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla CA 93610
00-0021349 08

**E-mail:**
**Copy To:** cas.labs@yahoo.com

**Lab No.:** 23L0731
**Sampled By:** M. Pedroso
**Requested By:** Johnny Silveira
**Submitted Date:** 12/12/23
**Reported Date:** 12/18/23
**Project:**
**Crop ID:**

| | | Date Sampled | Time Sampled | EC µmhos/cm | EC mmhos/cm | $NO_3$-N mg/L | Field $NH_4$-N mg/L | Total $NH_4$-N mg/L | pH at 25°C unit |
|---|---|---|---|---|---|---|---|---|---|
| ~~1~~ | ~~DW - MB~~ | ~~12/11/23~~ | ~~14:40~~ | ~~268~~ | ~~0.27~~ | ~~0.2~~ | ~~ND~~ | | ~~7.7~~ |
| 2 | DW - Barn (Heifers) | 12/11/23 | 14:35 | 333 | 0.33 | 0.3 | ND | | 7.3 |
| 3 | DW - House (Heifers) | 12/11/23 | 14:30 | 287 | 0.29 | 1.1 | ND | | 6.8 |

***** = Field $NH_4$-N not Taken.
ND = None Detected

Approved By: Scott M Friedland

Laboratory Director\Technical Manager
ELAP Certification #1595
A2LA Certification #6440.02

DELLAVALLE LABORATORY INC

# Report of Dairy Well Water Analysis

Silveira Dairy (Chowchilla)
11380 Ave 22
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00-0021349 08

**Lab No.:** 23L0731
**Sampled By:** M. Pedroso
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**Submitted Date:** 12/12/23
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**Project:**
**Crop ID:**

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**Copy To:** cas.labs@yahoo.com

| | | Date Sampled | Time Sampled | **EC** µmhos/cm | **EC** mmhos/cm | **$NO_3$-N** mg/L | Nitrogen agricultural use Calcs calculated from nitrate-N lbs/AcFoot | lbs/AcInch |
|---|---|---|---|---|---|---|---|---|
| ~~1~~ | ~~DW - MB~~ | ~~12/11/23~~ | ~~14:40~~ | ~~268~~ | ~~0.27~~ | ~~0.2~~ | 0.55 | 0.05 |
| 2 | DW - Barn (Heifers) | 12/11/23 | 14:35 | 333 | 0.33 | 0.3 | 0.82 | 0.07 |
| 3 | DW - House (Heifers) | 12/11/23 | 14:30 | 287 | 0.29 | 1.1 | 3.00 | 0.25 |

| **Water for Crop Use** **Nutrient Management** | Total Salts | Total Salts | Nitrate Nitrogen |
|---|---|---|---|
| **Low Levels** | < 900 | < 0.90 | < 2.0 |
| **Significant Levels** | 900-2200 | 0.90-2.2 | 2.0-10.0 |
| **High Levels** | 2200+ | 2.2+ | 10.0+ |

Sampling abbreviations: H.B. = hose bib, S.P. = stand pipe, Dom. = domestic well, IR = irrigation well, AG = ag well.
Nitrate exceeds Water Quality MCL levels if results are above 10 mg/l nitrate-nitrogen NO3-N (equivalent to 45 mg/l nitrate, NO3).
Total Salt results are used to monitor changes of salt in the well aquifers between annual tests.
MCL = Maximum Contaminant Level according to the California Domestic Water Quality and Monitoring Regulations (Title 22)
**MDL** = Method Detection Limit; **RL** = Reporting Limit, mg/L = ppm.
SM = Standard Methods for the Examination of Water and Wastewater
EPA = Environmental Protection Agency methods used unless otherwise indicated.

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Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/12/2023 15:53
Reported: 12/18/2023 12:46

## Samples in this Report

| Lab ID | Sample | Matrix | Sampled By | Crop | Date Sampled |
|---|---|---|---|---|---|
| ~~23L0731-01~~ | ~~DW - MB~~ | ~~Well Water~~ | ~~M. Pedroso~~ | | ~~12/11/2023 14:40~~ |
| 23L0731-02 | DW - Barn (Heifers) | Well Water | M. Pedroso | | 12/11/2023 14:35 |
| 23L0731-03 | DW - House (Heifers) | Well Water | M. Pedroso | | 12/11/2023 14:30 |

Default Cooler  Temperature on Receipt °C: 1.1
Containers Intact
COC/Labels Agree
Received On Ice

## Notes and Definitions

| Item | Definition |
|---|---|
| H | Hold Time Exceeded |
| MCL | Drinking Water Maximum Contaminant Level |
| ND | Analyte NOT DETECTED at or above the reporting limit. |
| NES | Not Enough Sample |
| * | Not Taken |
| RPD | Relative Percent Difference |
| %REC | Percent Recovery |
| Source | Sample that was matrix spiked or duplicated. |

Scott McFriedland

Laboratory Director/Technical Manager

ELAP Certification #1595
A2LA Certification #6440.02

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Silveira Dairy (Chowchilla)
11380 Ave 22
Chowchilla, CA 93610

Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/12/2023 15:53
Reported: 12/18/2023 12:46

## Sample Results

**Sample: DW - MB**
**23L0731-01 (Water)**

Sampled: 12/11/2023 14:40
Sampled By: M. Pedroso

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **0.27** | mmhos/cm | 0.01 | 1 | | 12/13/23 18:47 | SM 2510 B | | BEL0587 |
| **Electrical Conductivity umhos** | **268** | umhos/cm | 10.0 | 1 | | 12/13/23 18:47 | SM 2510 B | | BEL0587 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/11/23 14:40 | Field | | BEL0402 |
| **Nitrate Nitrogen as NO3N** | **0.2** | mg/L | 0.1 | 1 | 10 | 12/13/23 13:19 | EPA 300.0 | | BEL0350 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/13/23 18:47 | SM 4500-H+ | H | BEL0587 |
| **pH** | **7.7** | units | 1.0 | 1 | | 12/13/23 18:47 | SM 4500-H+ | H | BEL0587 |

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Silveira Dairy (Chowchilla)
11380 Ave 22
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Account# 00-0021349
Account Manager: Ben Nydam
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Received: 12/12/2023 15:53
Reported: 12/18/2023 12:46

## Sample Results
**(Continued)**

**Sample: DW - Barn (Heifers)**
**23L0731-02 (Water)**

Sampled: 12/11/2023 14:35
Sampled By: M. Pedroso

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **0.33** | mmhos/cm | 0.01 | 1 | | 12/13/23 18:48 | SM 2510 B | | BEL0587 |
| **Electrical Conductivity umhos** | **333** | umhos/cm | 10.0 | 1 | | 12/13/23 18:48 | SM 2510 B | | BEL0587 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/11/23 14:35 | Field | | BEL0402 |
| **Nitrate Nitrogen as NO3N** | **0.3** | mg/L | 0.1 | 1 | 10 | 12/13/23 13:40 | EPA 300.0 | | BEL0350 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/13/23 18:48 | SM 4500-H+ | H | BEL0587 |
| **pH** | **7.3** | units | 1.0 | 1 | | 12/13/23 18:48 | SM 4500-H+ | H | BEL0587 |

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Silveira Dairy (Chowchilla)
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Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/12/2023 15:53
Reported: 12/18/2023 12:46

## Sample Results
**(Continued)**

**Sample: DW - House (Heifers)**
**23L0731-03 (Water)**

Sampled: 12/11/2023 14:30
Sampled By: M. Pedroso

| Analyte | Result | Units | Reporting Limit | DIL | DW MCL | Date/Time Analyzed | Method | Notes | Batch |
|---|---|---|---|---|---|---|---|---|---|
| **Electrical Conductivity** | **0.29** | mmhos/cm | 0.01 | 1 | | 12/13/23 18:55 | SM 2510 B | | BEL0587 |
| **Electrical Conductivity umhos** | **287** | umhos/cm | 10.0 | 1 | | 12/13/23 18:55 | SM 2510 B | | BEL0587 |
| Ammonia (as N) | ND | mg/L | 0.00 | 1 | | 12/11/23 14:30 | Field | | BEL0402 |
| **Nitrate Nitrogen as NO3N** | **1.1** | mg/L | 0.1 | 1 | 10 | 12/13/23 14:01 | EPA 300.0 | | BEL0350 |
| **Temperature** | **25.0** | units | 0.0 | 1 | | 12/13/23 18:55 | SM 4500-H+ | H | BEL0587 |
| **pH** | **6.8** | units | 1.0 | 1 | | 12/13/23 18:55 | SM 4500-H+ | H | BEL0587 |

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Received: 12/12/2023 15:53
Reported: 12/18/2023 12:46

## Quality Control

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0350*** | | | | | | | | | | |
| **Blank (BEL0350-BLK1)** | | | | | Prepared & Analyzed: 12/12/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **Blank (BEL0350-BLK2)** | | | | | Prepared & Analyzed: 12/12/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **Blank (BEL0350-BLK3)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **Blank (BEL0350-BLK4)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **Blank (BEL0350-BLK5)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | ND | | 0.1 | mg/L | | | | | | |
| **LCS (BEL0350-BS1)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.6 | | 0.1 | mg/L | 5.000 | | 92.8 | 90-110 | | |
| **LCS (BEL0350-BS2)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 5.4 | | 0.1 | mg/L | 5.000 | | 107 | 90-110 | | |
| **LCS (BEL0350-BS3)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.7 | | 0.1 | mg/L | 5.000 | | 94.3 | 90-110 | | |
| **LCS (BEL0350-BS4)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.6 | | 0.1 | mg/L | 5.000 | | 92.7 | 90-110 | | |
| **Duplicate (BEL0350-DUP1)** | | **Source: 23L0592-01** | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 0.08 | | 0.1 | mg/L | | 0.08 | | | 0.00 | 10 |
| **Duplicate (BEL0350-DUP2)** | | **Source: 23L0594-01** | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 0.09 | | 0.1 | mg/L | | 0.09 | | | 5.65 | 10 |
| **Duplicate (BEL0350-DUP3)** | | **Source: 23L0724-01** | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 0.6 | | 0.1 | mg/L | | 0.6 | | | 1.23 | 10 |
| **Duplicate (BEL0350-DUP4)** | | **Source: 23L0731-01** | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 0.2 | | 0.1 | mg/L | | 0.2 | | | 0.466 | 10 |
| **Matrix Spike (BEL0350-MS1)** | | **Source: 23L0592-01** | | | Prepared & Analyzed: 12/12/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.6 | | 0.1 | mg/L | 5.000 | 0.08 | 90.7 | 90-110 | | |
| **Matrix Spike (BEL0350-MS2)** | | **Source: 23L0594-01** | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.7 | | 0.1 | mg/L | 5.000 | 0.09 | 91.7 | 90-110 | | |

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Account# 00-0021349
Account Manager: Ben Nydam
Submitted By: Johnny Silveira

Received: 12/12/2023 15:53
Reported: 12/18/2023 12:46

## Quality Control
**(Continued)**

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0350 (Continued)*** | | | | | | | | | | |
| **Matrix Spike (BEL0350-MS4)** | **Source: 23L0731-01** | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 4.9 | | 0.1 | mg/L | 5.000 | 0.2 | 93.7 | 90-110 | | |
| **Reference (BEL0350-SRM1)** | | | | | Prepared & Analyzed: 12/12/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.2 | | | mg/L | 10.00 | | 92.0 | 90-110 | | |
| **Reference (BEL0350-SRM2)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.3 | | | mg/L | 10.00 | | 92.6 | 90-110 | | |
| **Reference (BEL0350-SRM3)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.3 | | | mg/L | 10.00 | | 92.7 | 90-110 | | |
| **Reference (BEL0350-SRM4)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.4 | | | mg/L | 10.00 | | 93.6 | 90-110 | | |
| **Reference (BEL0350-SRM5)** | | | | | Prepared: 12/12/2023 Analyzed: 12/13/2023 | | | | | |
| Nitrate Nitrogen as NO3N | 9.2 | | | mg/L | 10.00 | | 92.2 | 90-110 | | |

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Submitted By: Johnny Silveira

Received: 12/12/2023 15:53
Reported: 12/18/2023 12:46

## Quality Control
**(Continued)**

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0587*** | | | | | | | | | | |
| **Blank (BEL0587-BLK1)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | ND | | 0.01 | mmhos/cm | | | | | | |
| Temperature | 25.0 | | 0.0 | units | | | | | | |
| pH | 5.5 | | 1.0 | units | | | | | | |
| Electrical Conductivity umhos | ND | | 10.0 | umhos/cm | | | | | | |
| **Blank (BEL0587-BLK2)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | ND | | 0.01 | mmhos/cm | | | | | | |
| Temperature | 25.0 | | 0.0 | units | | | | | | |
| pH | 7.3 | | 1.0 | units | | | | | | |
| Electrical Conductivity umhos | ND | | 10.0 | umhos/cm | | | | | | |
| **Blank (BEL0587-BLK3)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Temperature | 25.0 | | 0.0 | units | | | | | | |
| Electrical Conductivity | ND | | 0.01 | mmhos/cm | | | | | | |
| pH | 7.7 | | 1.0 | units | | | | | | |
| Electrical Conductivity umhos | ND | | 10.0 | umhos/cm | | | | | | |
| **Duplicate (BEL0587-DUP1)** | | **Source: 23L0731-02** | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | 0.34 | | 0.01 | mmhos/cm | | 0.33 | | | 0.509 | 10 |
| Electrical Conductivity umhos | 335 | | 10.0 | umhos/cm | | 333 | | | 0.509 | 10 |
| pH | 7.2 | | 1.0 | units | | 7.3 | | | 1.66 | 10 |
| **Duplicate (BEL0587-DUP2)** | | **Source: 23L0737-03** | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | 0.68 | | 0.01 | mmhos/cm | | 0.66 | | | 3.31 | 10 |
| Electrical Conductivity umhos | 682 | | 10.0 | umhos/cm | | 659 | | | 3.31 | 10 |
| pH | 8.3 | | 1.0 | units | | 8.3 | | | 0.00 | 10 |
| **Reference (BEL0587-SRM1)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | 448 | | | umhos/cm | 426.0 | | 105 | 90-110 | | |
| **Reference (BEL0587-SRM2)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| pH | 7.5 | | | units | 7.520 | | 100 | 67021-101.3 | | |
| **Reference (BEL0587-SRM3)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | 1080 | | | umhos/cm | 1000 | | 108 | 90-110 | | |
| Electrical Conductivity umhos | 1080 | | | umhos/cm | 1000 | | 108 | 90-110 | | |
| **Reference (BEL0587-SRM4)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | 1070 | | | umhos/cm | 1000 | | 107 | 90-110 | | |
| Electrical Conductivity umhos | 1070 | | | umhos/cm | 1000 | | 107 | 90-110 | | |
| **Reference (BEL0587-SRM5)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity | 1060 | | | umhos/cm | 1000 | | 106 | 90-110 | | |

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Reported: 12/18/2023 12:46

## Quality Control
**(Continued)**

| Analyte | Result | Qual | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|
| ***Batch: BEL0587 (Continued)*** | | | | | | | | | | |
| **Reference (BEL0587-SRM5)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| Electrical Conductivity umhos | 1060 | | | umhos/cm | 1000 | | 106 | 90-110 | | |
| **Reference (BEL0587-SRM6)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| pH | 4.0 | | | units | 4.000 | | 101 | 97.5-102.5 | | |
| **Reference (BEL0587-SRM7)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| pH | 4.0 | | | units | 4.000 | | 101 | 97.5-102.5 | | |
| **Reference (BEL0587-SRM8)** | | | | | Prepared & Analyzed: 12/13/2023 | | | | | |
| pH | 4.0 | | | units | 4.000 | | 100 | 97.5-102.5 | | |

12/12/23 15:53 23L0731

JG

# DELLAVALLE LABORATORY, INC.

1910 W. McKinley Avenue, Suite 110 • Fresno, CA 93728
www.dellavallelab.com 559 233-6129 • 800 228-9896 • Fax 559 268-8174

## WATER WORK REQUEST

Acct No. 21349 Cons. 8

Bill To:

Purchase Order No. Results Needed By

Client: Silveira Dairy (Chowchilla)
Address: 11380 Ave 22
City, State, Zip: Chowchilla, CA 93610
Phone Fax
Cell/Email

Copy to: Cardoso Ag Sevices - cas.labs@yahoo.com

Requested by: Johnny Silveira - (559) 978-6087

Ranch

Date sampled: 12/11/23

Sampled by: MPedroso

[ X ] QA/QC Document [ X ] Copy of Chain [ ] RWQCB

No. of Samples No. Bottles

**Water Type:** [ ] Drinking [ ] Wastewater
(X) Ag Water [ ] Ground Water [ ] Mon. Well
[ ] Supply Water [ ] Other

**Analysis and Bottles Required:** *(Please Indicate Analysis)*

(X) DWW1: (EC, pH, $NO_3$-N, **$NH_4$-N Field Test**)
*(1) 1 L plastic, unpreserved (white)*

( ) DWW2: (DWW1 Plus $SO_4$, $CO_3$, $HCO_3$, Cl, Ca, Mg, Na, TDS)
*(1) 1 L plastic, unpreserved (white)*

( ) DCW1: (EC, $NO_3$-N, TDS)
*(1) 1 L plastic, unpreserved (white)*

( ) DPW1: (EC, pH, $NO_3$-N, $NH_4$-N, TKN, TDS, TP, TK )
*(1) 1 L plastic, unpreserved (white)*

( ) DPW2: (DPW1 Plus Ca, Mg, Na, $HCO_3$, $CO_3$, $SO_4$, Cl)
*(1) 1 L plastic, unpreserved (white)*

( ) Other

| DESCRIPTION OF SAMPLES | | Date Sampled | Time Sampled | Field NH4-N (mg/L) | Received Temp °C |
|---|---|---|---|---|---|
| 1. ~~DW-MB~~ | Sampled From: | 12/11/23 | 240P | Ø | 1.1 |
| 2. DW-BarnHeifers | Sampled From: | 12/11/23 | 235P | Ø | 0.9 |
| 3. DW-HouseHeifers | Sampled From: | 12/11/23 | 230P | Ø | 1.1 |
| 4. | Sampled From: | | | | |
| 5. | Sampled From: | | | | |
| 6. | Sampled From: | | | | |
| 7. | Sampled From: | | | | |
| 8. | Sampled From: | | | | |
| 9. | Sampled From: | | | | |
| 10. | Sampled From: | | | | |

IR Thermometer SN: 192603727
Correction Factor: 0°C
Calibration Due: 03/06/2024
Location: Laboratory

**CHAIN OF CUSTODY**

| Carrier | Signature | Company | Received (Date/Time) | Relinquished (Date/Time) |
|---|---|---|---|---|
| First | MPed | CASInc | 12/11/23 240P | 12/12/23 9:30 |
| Second | JCF | DLV | 12-12-23 9:30 | 12-12-23 2:01 |
| Third | MM | DLV | 12/12 15:53 | |
| Fourth | | | | |

I guarantee that as the client, or on behalf of the client named, I have the authority to contract the above requested services. Should it be found that I do not have such authority, I agree to be personally liable for all costs and, if there should be action against me for this breach, reasonable attorneys' fees. It is understood that payment is expected to be cash with samples unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a dated damage fee of 2% per month (annually 24 %) or $5.00 per month whichever is greater.

If payment is not made when due and a legitimate dispute exists concerning the product or services of Dellavalle Laboratory, Inc., it will be submitted to mediation under the Rules and Procedures of Creative Alternative to Litigation, Inc. (cal). If the dispute is not resolved in mediation, then the dispute will be submitted to binding arbitration through cal under its Rules and Procedures. The prties will equally bear the costs of mediation/arbitration. If, however, the mediator declares that no legitimate dispute exists, then debtor will pay all mediation and arbitration costs, and in the event of arbitration, reasonable attorneys' fees of Dellavalle Laboratory.

*Invoicing Information:*

Sampling Hrs ___ Miles ___ Consulting ___

Amt Paid ___ Rec By ___ Check No. ___

*Shipping*

$ ___ In
$ ___ Out

Date ___

Signature

Sample received in cooler with ice?
[ ] Yes [ ] No

ctt:update 2020

**Shipping Information:** Shipped In ☐ Picked-Up ☒ Walk In ☐ DLI Sampler ☐ Other ☐ _____

**Container:** Ice Chest ☒ Box ☐ None ☐ **Refrigerant:** Wet Ice ☐ Blue Ice ☐ None ☐

**Samples Preserved with $HNO_3$ or $H_2SO_4$ were:** ☐ Received Preserved ☐ Preserved Upon Receipt at Laboratory

| | Type of Container(s) Received | Sample Number 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Sample Containers for Internal (DLI) Use** *(Containers that go into the Lab)* | | | | | | | | | | |
| Plastics | 100 mL sterile plastic $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 250 mL unpreserved (White) Plastic | | | | | | | | | | |
| | 250 mL $HNO_3$ (Red) Plastic | | | | | | | | | | |
| | * pH Value | | | | | | | | | | |
| | 250 mL $H_2SO_4$ (Yellow) Plastic | | | | | | | | | | |
| | * pH Value | | | | | | | | | | |
| | 500 mL unpreserved (White) Plastic | | | | | | | | | | |
| | 1 L unpreserved (White) Plastic | 1 | 1 | 1 | | | | | | | |
| | 1 L unpreserved (BOD) (Purple) Plastic | | | | | | | | | | |
| " | 500mL unpreserved (White) Glass | | | | | | | | | | |
| | PO4-P Kit | | | | | | | | | | |
| | **Other:** | | | | | | | | | | |
| | **Sample Containers for Subcontracted ("Send Out") Analyses** *(Containers that go in the Subcontract ("Send Out") Refrigerator)* | | | | | | | | | | |
| Plastics | 100 mL sterile plastic $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 250 mL unpreserved (White) Plastic | | | | | | | | | | |
| | 250 mL $HNO_3$ (Red) Plastic | | | | | | | | | | |
| | 250 mL $H_2SO_4$ (Yellow) Plastic | | | | | | | | | | |
| | 500 mL $HNO_3$ (Red) | | | | | | | | | | |
| | 1 L unpreserved (White) Plastic | | | | | | | | | | |
| | 1 L unpreserved (BOD) (Purple) Plastic | | | | | | | | | | |
| | 1 L $HNO_3$ (Red) | | | | | | | | | | |
| VOA Vials | 40 mL AG VOA, $Na_2S_2O_3$ + MCAA | | | | | | | | | | |
| | 40 mL AG VOA, $Na_2S_2O_3$ | | | | | | | | | | |
| | 40mL AG VOA unpreserved (White) (Set of 3 | | | | | | | | | | |
| | 40 mL AG VOA, $Na_2S_2O_3$ (Green) (Set of 3) | | | | | | | | | | |
| | 40mL VOA, $H_3PO_4$ (Set of 3) | | | | | | | | | | |
| | 40 mL VOA, HCl (Blue) (Set of 3) | | | | | | | | | | |
| | 40 mL VOA, $Na_2S_2O_3$ (Green) (Set of 3) | | | | | | | | | | |
| Glass | 250 mL AG unpreserved (White) | | | | | | | | | | |
| | 250 mL AG $H_2SO_4$ (Yellow) | | | | | | | | | | |
| | 250 mL AG $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 250 mL AG $Na_2S_2O_3$ + MCAA | | | | | | | | | | |
| | 500 mL glass unpreserved (White) | | | | | | | | | | |
| | 500 mL AG HCl (Blue) | | | | | | | | | | |
| | 1 L AG unpreserved (White) | | | | | | | | | | |
| | 1 L AG $H_2SO_4$ (Yellow) | | | | | | | | | | |
| | 1 L AG $Na_2S_2O_3$ (Green) | | | | | | | | | | |
| | 1 L AG HCl (Blue) | | | | | | | | | | |
| Special | $Cr^{6+}$ - 50mL Plastic w/Borate/$HCO_3$/$CO_3$ | | | | | | | | | | |
| | Cyanide - 500 mL NaOH | | | | | | | | | | |
| | Asbestos - 1L P wrapped in foil (Set of 2) | | | | | | | | | | |
| | Sulfide - 1 L **AG** or **P** NaOH + ZnAc | | | | | | | | | | |
| | Chlorite/Bromate - 250 mL AG with EDA | | | | | | | | | | |
| | HAA5 - 250mL AG Ammonium Chlorite | | | | | | | | | | |
| | DO KIT | | | | | | | | | | |
| | **Other:** | | | | | | | | | | |
| | **Other:** | | | | | | | | | | |

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SEND OUT