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: Parreira Gaspar Dairy

Physical address of dairy:

17800 4th AVE	Hanford	Kings	93230
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 05/15/1974

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

X028-X190-X027-XXXX

B. OPERATORS

Gaspar, Steve

Operator name: Gaspar, Steve

Telephone no.: Landline: | Cellular: (559) 381-0947

17800 4th AVE	Hanford	CA	93230
Mailing Address Number and Street	City	State	Zip Code

This operator is responsible for paying permit fees.

C. OWNERS

Parreira, Joe

Legal owner name: Parreira, Joe

Telephone no.: Landline: | Cellular: (559) 737-2300

17800 4th AVE	Hanford	CA	93230
Mailing Address Number and Street	City	State	Zip Code

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

AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	0	135	268	247	172	0
Number under roof	1,208	0	0	0	0	0
Maximum number	1,231	145	281	259	184	0
Average number	1,208	135	268	247	172	0
Avg live weight (lbs)	1,400	1,450	1,000	750		

Predominant milk cow breed: Holstein

Average milk production: 75 *pounds per cow per day*

B. MANURE GENERATED

Total manure excreted by the herd: 39,350.15 *tons per reporting period*

Total nitrogen from manure: 496,196.17 *lbs per reporting period* After ammonia losses (30% loss applied): 347,337.32 *lbs per reporting period*

Total phosphorus from manure: 82,394.79 *lbs per reporting period*

Total potassium from manure: 236,674.99 *lbs per reporting period*

Total salt from manure: 599,830.05 *lbs per reporting period*

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 64,091,006 *gallons*

Total nitrogen generated: 223,691.47 *lbs*

Total phosphorus generated: 46,566.21 *lbs*

Total potassium generated: 485,306.48 *lbs*

Total salt generated: 2,515,208.57 *lbs*

	64,091,006	*gallons applied*
+	0	*gallons exported*
-	0	*gallons imported*
=	64,091,006	*gallons generated*

D. FRESH WATER SOURCES

Source Description	Type
D1	Ground water
D2	Ground water
D3	Ground water
P-13	Ground water
P-4	Ground water

Source Description	Type
P-5	Ground water
P-6	Ground water
P-7	Ground water

E. SUBSURFACE (TILE) DRAINAGE SOURCES

No subsurface (tile) drainage sources entered.

F. NUTRIENT IMPORTS

No dry manure nutrient imports entered.

No process wastewater nutrient imports entered.

No commercial or other nutrient imports entered.

G. NUTRIENT EXPORTS

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
1	160	160	2	process wastewater	X028-X180-X006-XXXX
3	153	153	2	process wastewater	X028-X180-X012-XXXX
5	85	85	2	process wastewater	X028-X190-X068-XXXX
6	53	53	1	process wastewater	X028-X190-X027-XXXX X028-X190-X067-XXXX
7	57	57	1	process wastewater	X028-X190-X027-XXXX X028-X190-X067-XXXX
Totals for areas that were used for application	508	508	8		
Totals for areas that were not used for application					
Land application area totals	508	508	8		

B. CROPS AND HARVESTS

1

Field name: 1

11/13/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 160 Plant date: 11/13/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/22/2023	3,172.00 *ton*	Dry-weight		71.3	16,900.00	3,700.00	19,900.00		10.80

	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	1,494.00
Total actual harvest content	19.83	192.31	42.10	226.45	1,228.99

1

06/25/2023: Corn, silage

Crop: Corn, silage Acres planted: 160 Plant date: 06/25/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/16/2023	4,525.00 *ton*	Dry-weight		64.7	13,500.00	2,500.00	12,300.00		5.28

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	1,500.00
Total actual harvest content	28.28	269.55	49.92	245.59	1,054.23

3

Field name: 3

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

Crop: Wheat, silage, soft dough Acres planted: 153 Plant date: 11/11/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/21/2023	3,056.00 *ton*	Dry-weight		72.3	17,100.00	3,900.00	19,600.00		11.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	1,494.00
Total actual harvest content	19.97	189.22	43.16	216.88	1,316.80

06/26/2023: Corn, silage

Crop: Corn, silage Acres planted: 153 Plant date: 06/26/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/16/2023	4,320.00 *ton*	Dry-weight		66.1	14,200.00	2,400.00	13,500.00		5.51

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	1,500.00
Total actual harvest content	28.24	271.84	45.94	258.44	1,054.81

5

Field name: 5

11/14/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 85 Plant date: 11/14/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/21/2023	1,640.00 *ton*	Dry-weight		73.3	16,000.00	4,000.00	21,300.00		10.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	18.00	198.00	30.60	149.40	1,494.00
Total actual harvest content	19.29	164.85	41.21	219.46	1,123.03

06/28/2023: Corn, silage

Crop: Corn, silage Acres planted: 85 Plant date: 06/28/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/19/2023	2,430.00 *ton*	Dry-weight		62.6	12,000.00	2,600.00	6,700.00		5.28

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	1,500.00
Total actual harvest content	28.59	256.61	55.60	143.27	1,129.08

6

Field name: 6

01/10/2018: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 53 Plant date: 01/10/2018

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
11/14/2023	420.00 *ton*	Dry-weight		8.6	32,500.00	2,800.00	24,500.00		10.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	7.92	470.80	40.56	354.91	1,578.98

7

Field name: 7

01/10/2018: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 57 Plant date: 01/10/2018

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
11/14/2023	445.00 *ton*	Dry-weight		8.5	35,700.00	3,000.00	23,800.00		11.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	1,600.00
Total actual harvest content	7.81	510.04	42.86	340.03	1,614.41

NUTRIENT BUDGET

A. LAND APPLICATIONS

1 - 11/13/2022: Wheat, silage, soft dough

Field name: 1

Crop: Wheat, silage, soft dough Plant date: 11/13/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/24/2022	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
Lagoon	Process wastewater	80.35	21.07	187.97	1,601.90	4,798,980.00 *gal*
P-7	Ground water	1.27	0.00	0.00	177.58	24,319,565.00 *gal*
Application event totals		81.61	21.07	187.97	1,779.48	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/15/2023	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
Lagoon	Process wastewater	85.55	21.06	150.85	842.54	3,106,580.00 *gal*
P-7	Ground water	1.22	0.00	0.00	171.37	23,468,800.00 *gal*
Application event totals		86.77	21.06	150.85	1,013.91	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	80.65	17.60	194.36	598.80	3,865,600.00 *gal*
P-7	Ground water	1.17	0.00	0.00	163.62	22,408,450.00 *gal*
Application event totals		81.81	17.60	194.36	762.42	

1 - 06/25/2023: Corn, silage

Field name: 1

Crop: Corn, silage Plant date: 06/25/2023

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

1 - 06/25/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	98.07	21.40	236.34	728.14	4,700,565.00 *gal*
P-7	Ground water	1.23	0.00	0.00	172.77	23,660,525.00 *gal*
Application event totals		99.30	21.40	236.34	900.90	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/15/2023	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
P-7	Ground water	1.35	0.00	0.00	189.55	25,959,550.00 *gal*
Application event totals		1.35	0.00	0.00	189.55	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/26/2023	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
P-7	Ground water	1.35	0.00	0.00	188.79	25,854,540.00 *gal*
Application event totals		1.35	0.00	0.00	188.79	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/08/2023	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
Lagoon	Process wastewater	108.21	17.44	234.02	1,518.65	4,500,366.00 *gal*
P-7	Ground water	1.24	0.00	0.00	174.14	23,848,400.00 *gal*
Application event totals		109.45	17.44	234.02	1,692.79	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	98.74	15.91	213.54	1,385.79	4,106,650.00 *gal*
P-7	Ground water	1.27	0.00	0.00	178.21	24,405,510.00 *gal*
Application event totals		100.01	15.91	213.54	1,564.00	

1 - 06/25/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
P-7	Ground water	1.22	0.00	0.00	171.34	23,465,650.00 *gal*
Application event totals		1.22	0.00	0.00	171.34	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/20/2023	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
P-7	Ground water	1.14	0.00	0.00	160.03	21,916,500.00 *gal*
Application event totals		1.14	0.00	0.00	160.03	

3 - 11/11/2022: Wheat, silage, soft dough

Field name: 3

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

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/22/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	73.69	19.33	172.40	1,469.23	4,208,950.00 *gal*
P-7	Ground water	1.26	0.00	0.00	176.46	23,108,665.00 *gal*
Application event totals		74.95	19.33	172.40	1,645.68	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/30/2023	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
Lagoon	Process wastewater	92.18	22.70	162.54	907.86	3,200,950.00 *gal*
P-7	Ground water	1.15	0.00	0.00	160.95	21,078,450.00 *gal*
Application event totals		93.33	22.70	162.54	1,068.81	

3 - 11/11/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/30/2023	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
Lagoon	Process wastewater	85.21	18.60	205.35	632.68	3,905,650.00 *gal*
P-7	Ground water	1.09	0.00	0.00	153.22	20,065,600.00 *gal*
Application event totals		86.30	18.60	205.35	785.90	

3 - 06/26/2023: Corn, silage

Field name: 3

Crop: Corn, silage Plant date: 06/26/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/06/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	108.29	23.63	260.98	804.06	4,963,620.00 *gal*
P-7	Ground water	1.30	0.00	0.00	181.40	23,756,650.00 *gal*
Application event totals		109.59	23.63	260.98	985.47	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/16/2023	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
P-7	Ground water	1.35	0.00	0.00	189.26	24,785,500.00 *gal*
Application event totals		1.35	0.00	0.00	189.26	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	102.00	22.26	245.82	757.34	4,675,210.00 *gal*
P-7	Ground water	1.31	0.00	0.00	183.31	24,006,500.00 *gal*
Application event totals		103.31	22.26	245.82	940.66	

3 - 06/26/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/08/2023	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
P-7	Ground water	1.25	0.00	0.00	175.55	22,989,840.00 *gal*
Application event totals		1.25	0.00	0.00	175.55	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/20/2023	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
P-7	Ground water	1.22	0.00	0.00	171.06	22,401,860.00 *gal*
Application event totals		1.22	0.00	0.00	171.06	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	108.29	17.45	234.20	1,519.86	4,306,890.00 *gal*
P-7	Ground water	1.17	0.00	0.00	163.17	21,368,980.00 *gal*
Application event totals		109.46	17.45	234.20	1,683.03	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/19/2023	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
P-7	Ground water	1.09	0.00	0.00	152.76	20,005,454.00 *gal*
Application event totals		1.09	0.00	0.00	152.76	

5 - 11/14/2022: Wheat, silage, soft dough

Field name: 5

Crop: Wheat, silage, soft dough Plant date: 11/14/2022

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

5 - 11/14/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/26/2022	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
Lagoon	Process wastewater	69.41	10.70	88.05	578.69	1,808,090.00 *gal*
P-4	Ground water	8.91	0.00	0.00	216.06	13,754,820.00 *gal*
Application event totals		78.32	10.70	88.05	794.75	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
02/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	62.33	11.47	68.72	664.10	1,808,650.00 *gal*
P-4	Ground water	8.97	0.00	0.00	217.54	13,848,540.00 *gal*
Application event totals		71.30	11.47	68.72	881.64	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	58.55	12.77	120.55	776.05	1,406,520.00 *gal*
P-4	Ground water	9.14	0.00	0.00	221.57	14,105,650.00 *gal*
Application event totals		67.69	12.77	120.55	997.62	

5 - 06/28/2023: Corn, silage

Field name: 5

Crop: Corn, silage Plant date: 06/28/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/08/2023	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
Lagoon	Process wastewater	110.15	24.04	265.47	817.89	2,804,990.00 *gal*
P-13	Ground water	11.11	0.00	0.00	306.54	13,009,550.00 *gal*
Application event totals		121.27	24.04	265.47	1,124.43	

5 - 06/28/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/18/2023	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
P-4	Ground water	5.75	0.00	0.00	178.84	13,011,800.00 *gal*
Application event totals		5.75	0.00	0.00	178.84	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	90.91	14.65	196.61	1,275.90	2,008,650.00 *gal*
P-4	Ground water	6.18	0.00	0.00	192.37	13,995,668.00 *gal*
Application event totals		97.09	14.65	196.61	1,468.26	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/11/2023	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
P-4	Ground water	6.17	0.00	0.00	191.96	13,965,870.00 *gal*
Application event totals		6.17	0.00	0.00	191.96	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/23/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	77.60	12.51	167.82	1,089.09	1,714,560.00 *gal*
P-4	Ground water	5.69	0.00	0.00	176.88	12,868,900.00 *gal*
Application event totals		83.29	12.51	167.82	1,265.97	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/07/2023	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
P-13	Ground water	10.47	0.00	0.00	288.89	12,260,690.00 *gal*
Application event totals		10.47	0.00	0.00	288.89	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/23/2023	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
P-4	Ground water	5.31	0.00	0.00	165.07	12,009,860.00 *gal*
Application event totals		5.31	0.00	0.00	165.07	

6 - 01/10/2018: Alfalfa, hay

Field name: 6

Crop: Alfalfa, hay Plant date: 01/10/2018

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/30/2023	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
Lagoon	Process wastewater	76.33	16.58	183.05	563.97	1,205,995.00 *gal*
P-4	Ground water	5.62	0.00	0.00	174.86	7,932,565.00 *gal*
Application event totals		81.96	16.58	183.05	738.83	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/30/2023	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
P-4	Ground water	5.67	0.00	0.00	176.33	7,999,002.00 *gal*
Application event totals		5.67	0.00	0.00	176.33	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/29/2023	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
P-4	Ground water	6.10	0.00	0.00	189.72	8,606,440.00 *gal*
Application event totals		6.10	0.00	0.00	189.72	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/28/2023	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
P-4	Ground water	6.23	0.00	0.00	193.69	8,786,560.00 *gal*
Application event totals		6.23	0.00	0.00	193.69	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/25/2023	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
P-4	Ground water	6.28	0.00	0.00	195.41	8,864,600.00 *gal*
Application event totals		6.28	0.00	0.00	195.41	

6 - 01/10/2018: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/24/2023	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
P-4	Ground water	6.06	0.00	0.00	188.40	8,546,710.00 *gal*
Application event totals		6.06	0.00	0.00	188.40	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/24/2023	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
P-4	Ground water	5.88	0.00	0.00	183.08	8,305,650.00 *gal*
Application event totals		5.88	0.00	0.00	183.08	

7 - 01/10/2018: Alfalfa, hay

Field name: 7

Crop: Alfalfa, hay Plant date: 01/10/2018

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon	Process wastewater	76.80	18.91	135.42	756.38	993,540.00 *gal*
P-4	Ground water	4.97	0.00	0.00	154.56	7,540,620.00 *gal*
Application event totals		81.77	18.91	135.42	910.94	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/26/2023	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
P-4	Ground water	5.43	0.00	0.00	168.82	8,236,565.00 *gal*
Application event totals		5.43	0.00	0.00	168.82	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/26/2023	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
P-4	Ground water	5.87	0.00	0.00	182.55	8,906,500.00 *gal*
Application event totals		5.87	0.00	0.00	182.55	

7 - 01/10/2018: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/25/2023	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
P-4	Ground water	6.00	0.00	0.00	186.65	9,106,450.00 *gal*
Application event totals		6.00	0.00	0.00	186.65	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/24/2023	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
P-4	Ground water	6.13	0.00	0.00	190.71	9,304,650.00 *gal*
Application event totals		6.13	0.00	0.00	190.71	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/23/2023	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
P-4	Ground water	5.93	0.00	0.00	184.60	9,006,565.00 *gal*
Application event totals		5.93	0.00	0.00	184.60	

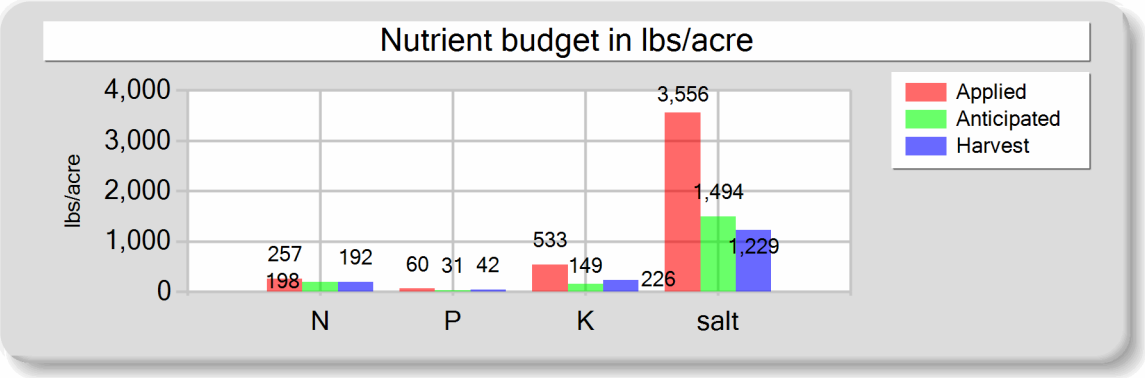
Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/23/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
P-4	Ground water	5.34	0.00	0.00	166.15	8,106,440.00 *gal*
Application event totals		5.34	0.00	0.00	166.15	

B. NUTRIENT BUDGET

1 - 11/13/2022: Wheat, silage, soft dough

Field name: 1 Crop: Wheat, silage, soft dough Plant date: 11/13/2022



	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	246.54	59.74	533.18	3,043.24
Fresh water	3.66	0.00	0.00	512.57
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	257.20	59.74	533.18	3,555.81
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	192.31	42.10	226.45	1,228.99
Nutrient balance	64.89	17.64	306.72	2,326.82
Applied to removed ratio	1.34	1.42	2.35	2.89

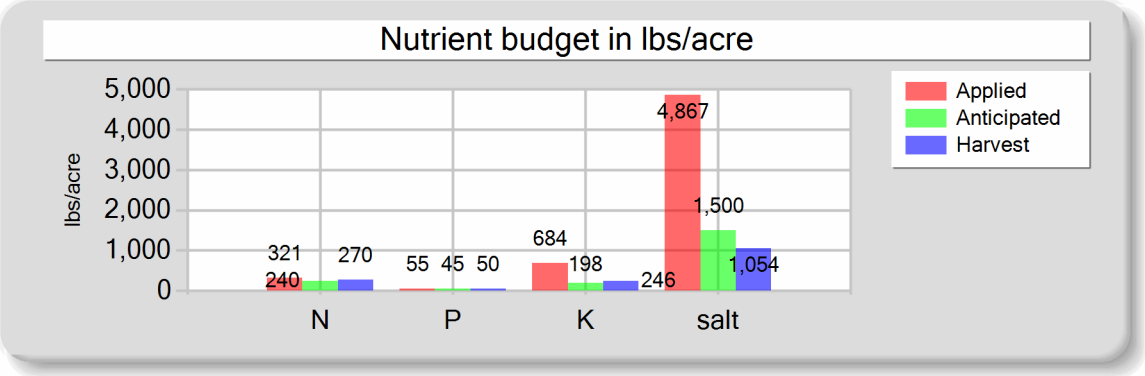
Fresh water applied	
70,196,815.00	*gallons*
2,585.11	*acre-inches*
16.16	*inches/acre*

Process wastewater applied	
11,771,160.00	*gallons*
433.49	*acre-inches*
2.71	*inches/acre*

Total harvests for the crop	
1	*harvests*

1 - 06/25/2023: Corn, silage

Field name: 1 Crop: Corn, silage Plant date: 06/25/2023



	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	305.01	54.76	683.90	3,632.58
Fresh water	8.82	0.00	0.00	1,234.83
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	320.83	54.76	683.90	4,867.41
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	269.55	49.92	245.59	1,054.23
Nutrient balance	51.28	4.84	438.31	3,813.17
Applied to removed ratio	1.19	1.10	2.78	4.62

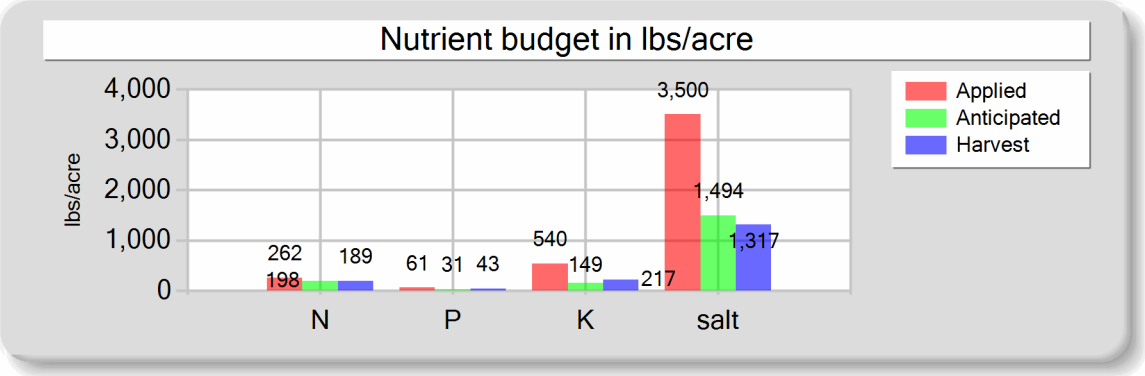
Fresh water applied	
169,110,675.00	*gallons*
6,227.77	*acre-inches*
38.92	*inches/acre*

Process wastewater applied	
13,307,581.00	*gallons*
490.07	*acre-inches*
3.06	*inches/acre*

Total harvests for the crop	
1	*harvests*

3 - 11/11/2022: Wheat, silage, soft dough

Field name: 3 Crop: Wheat, silage, soft dough Plant date: 11/11/2022



	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	251.08	60.62	540.30	3,009.76
Fresh water	3.50	0.00	0.00	490.63
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	261.59	60.62	540.30	3,500.39
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	189.22	43.16	216.88	1,316.80
Nutrient balance	72.37	17.47	323.42	2,183.60
Applied to removed ratio	1.38	1.40	2.49	2.66

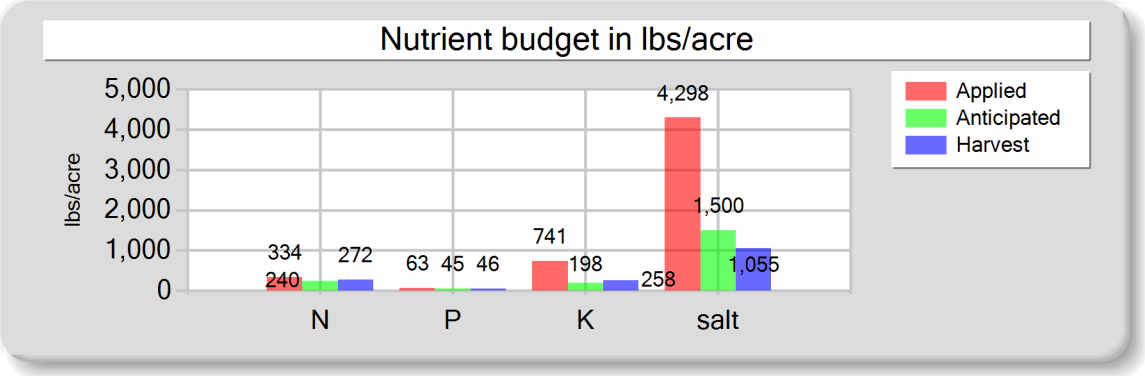
Fresh water applied	
64,252,715.00	*gallons*
2,366.21	*acre-inches*
15.47	*inches/acre*

Process wastewater applied	
11,315,550.00	*gallons*
416.71	*acre-inches*
2.72	*inches/acre*

Total harvests for the crop	
1	*harvests*

3 - 06/26/2023: Corn, silage

Field name: 3 Crop: Corn, silage Plant date: 06/26/2023



	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	318.58	63.35	741.00	3,081.26
Fresh water	8.69	0.00	0.00	1,216.52
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	334.27	63.35	741.00	4,297.78
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	271.84	45.94	258.44	1,054.81
Nutrient balance	62.43	17.41	482.57	3,242.97
Applied to removed ratio	1.23	1.38	2.87	4.07

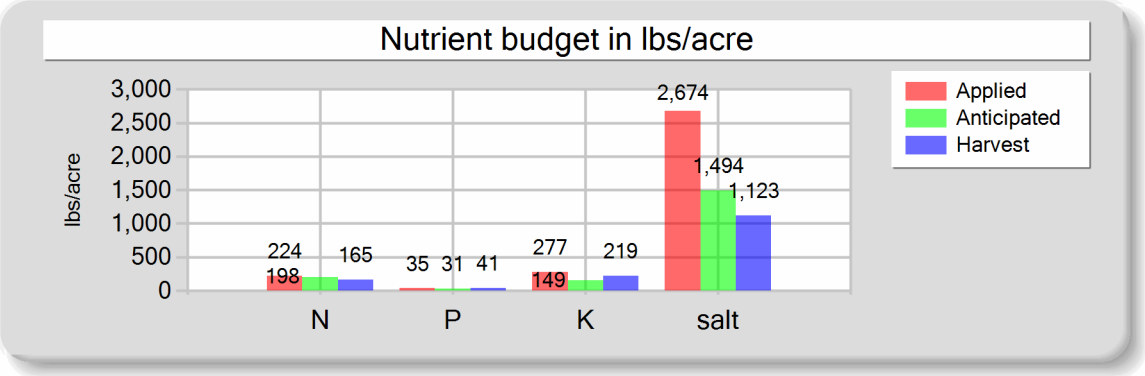
Fresh water applied	
159,314,784.00	*gallons*
5,867.02	*acre-inches*
38.35	*inches/acre*

Process wastewater applied	
13,945,720.00	*gallons*
513.57	*acre-inches*
3.36	*inches/acre*

Total harvests for the crop	
1	*harvests*

5 - 11/14/2022: Wheat, silage, soft dough

Field name: 5 Crop: Wheat, silage, soft dough Plant date: 11/14/2022



	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	190.28	34.95	277.31	2,018.84
Fresh water	27.03	0.00	0.00	655.17
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	224.31	34.95	277.31	2,674.01
Anticipated crop nutrient removal	198.00	30.60	149.40	1,494.00
Actual crop nutrient removal	164.85	41.21	219.46	1,123.03
Nutrient balance	59.46	-6.26	57.86	1,550.98
Applied to removed ratio	1.36	0.85	1.26	2.38

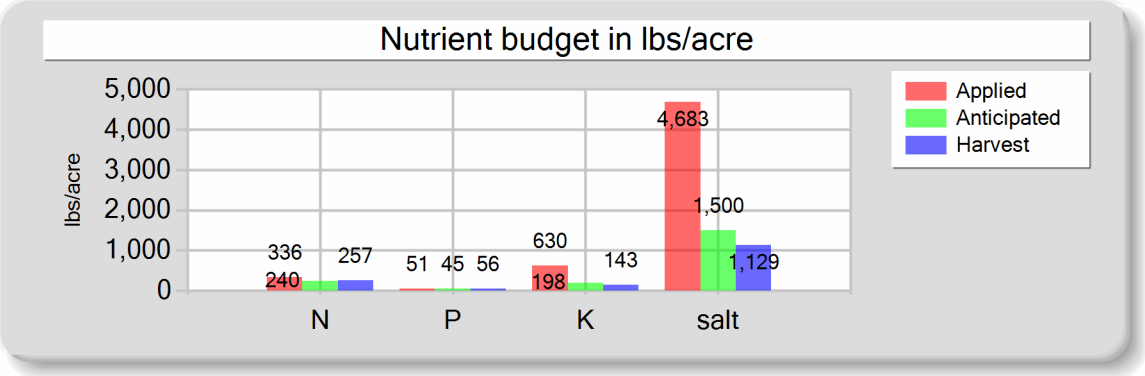
Fresh water applied	
41,709,010.00	*gallons*
1,536.00	*acre-inches*
18.07	*inches/acre*

Process wastewater applied	
5,023,260.00	*gallons*
184.99	*acre-inches*
2.18	*inches/acre*

Total harvests for the crop	
1	*harvests*

5 - 06/28/2023: Corn, silage

Field name: 5 Crop: Corn, silage Plant date: 06/28/2023



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	278.66	51.20	629.91	3,182.88
Fresh water	50.68	0.00	0.00	1,500.54
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	336.34	51.20	629.91	4,683.42
Anticipated crop nutrient removal	240.00	45.00	198.00	1,500.00
Actual crop nutrient removal	256.61	55.60	143.27	1,129.08
Nutrient balance	79.73	-4.40	486.63	3,554.35
Applied to removed ratio	1.31	0.92	4.40	4.15

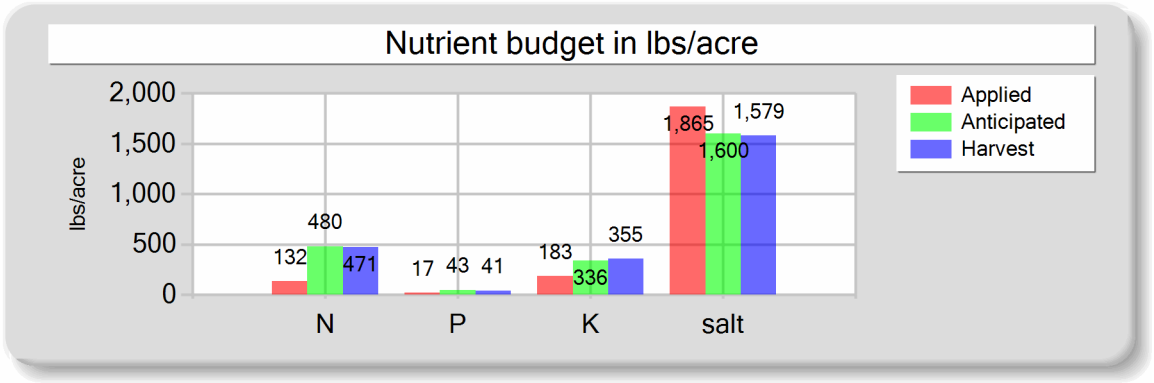
Fresh water applied	
91,122,338.00	*gallons*
3,355.73	*acre-inches*
39.48	*inches/acre*

Process wastewater applied	
6,528,200.00	*gallons*
240.41	*acre-inches*
2.83	*inches/acre*

Total harvests for the crop	
1	*harvests*

6 - 01/10/2018: Alfalfa, hay

Field name: 6 Crop: Alfalfa, hay Plant date: 01/10/2018



	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	76.33	16.58	183.05	563.97
Fresh water	41.83	0.00	0.00	1,301.48
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	132.17	16.58	183.05	1,865.44
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	470.80	40.56	354.91	1,578.98
Nutrient balance	-338.63	-23.98	-171.86	286.46
Applied to removed ratio	0.28	0.41	0.52	1.18

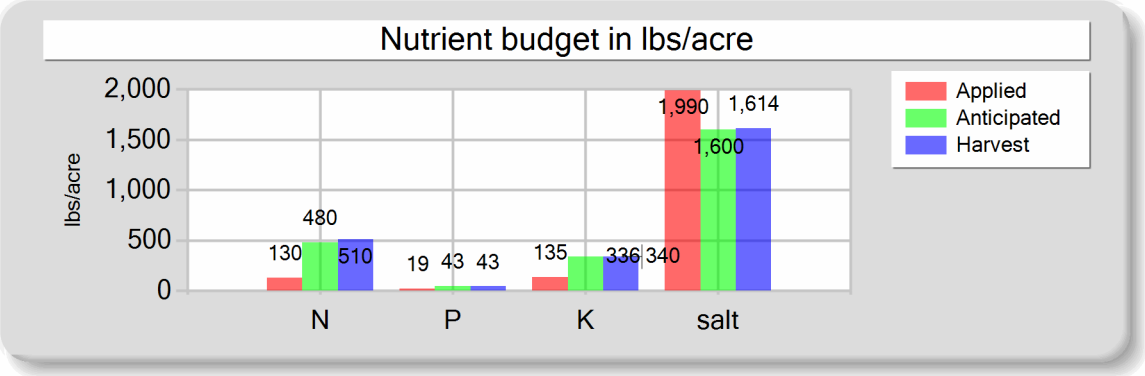
Fresh water applied	
59,041,527.00	*gallons*
2,174.30	*acre-inches*
41.02	*inches/acre*

Process wastewater applied	
1,205,995.00	*gallons*
44.41	*acre-inches*
0.84	*inches/acre*

Total harvests for the crop	
1	*harvests*

7 - 01/10/2018: Alfalfa, hay

Field name: 7 Crop: Alfalfa, hay Plant date: 01/10/2018



	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	76.80	18.91	135.42	756.38
Fresh water	39.67	0.00	0.00	1,234.05
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	130.47	18.91	135.42	1,990.43
Anticipated crop nutrient removal	480.00	43.20	336.00	1,600.00
Actual crop nutrient removal	510.04	42.86	340.03	1,614.41
Nutrient balance	-379.57	-23.95	-204.61	376.02
Applied to removed ratio	0.26	0.44	0.40	1.23

Fresh water applied	
60,207,790.00	*gallons*
2,217.25	*acre-inches*
38.90	*inches/acre*

Process wastewater applied	
993,540.00	*gallons*
36.59	*acre-inches*
0.64	*inches/acre*

Total harvests for the crop	
1	*harvests*

NUTRIENT ANALYSES

A. MANURE ANALYSES

Manure

Sample and source description: Manure

Sample date: 05/02/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 16.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,900.00	2,500.00	14,500.00							
DL	100.00	200.00	200.00							

Manure

Sample and source description: Manure

Sample date: 10/03/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 56.7 %

	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	20,000.00	4,800.00	43,100.00							
DL	100.00	200.00	200.00							

B. PROCESS WASTEWATER ANALYSES

Lagoon

Sample and source description: Lagoon

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

	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	321.00	283.00			84.20	751.00								9,640.00	6,400
DL	10.00	2.00			0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 02/22/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.10

	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	526.00	226.00		2.00	130.00	931.00								7,830.00	5,200
DL	10.00	2.00		2.00	0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 05/02/2023 Material type: Process wastewater Source of analysis: Lab analysis pH:

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	400.00	380.00			87.30	964.00								4,480.00	2,970
DL	10.00	2.00			0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 08/04/2023 Material type: Process wastewater Source of analysis: Lab analysis pH:

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	461.00	450.00			74.30	997.00								9,740.00	6,470
DL	10.00	2.00			0.20	0.50								100.00	10

Lagoon

Sample and source description: Lagoon

Sample date: 11/08/2023 Material type: Process wastewater Source of analysis: Lab analysis pH:

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	540.00	473.00			226.00	953.00								8,100.00	5,380
DL	10.00	2.00			0.20	0.50								100.00	10

C. FRESH WATER ANALYSES

D2

Domestic well

Sample description: Domestic well

Sample date: 12/06/2023 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			0.80	8.00	0.00	35.00	110.00	0.00	1.10	3.00	196.00	110
DL			0.10	1.00	1.00	1.00	10.00	10.00	0.17	1.00	1.00	20

P-13

Irrigation well

Sample description: Irrigation well

Sample date: 09/14/2023 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	8.70		8.70	21.00	0.00	52.00	120.00	0.00	8.80	16.00	382.00	240
DL	0.50		0.10	1.00	1.00	1.00	10.00	10.00	0.17	1.00	1.00	20

P-4

Irrigation well

Sample description: Irrigation well

Sample date: 09/14/2023 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	4.50		4.50								230.00	140
DL	0.50		0.40								1.00	20

P-7

Irrigation well

Sample description: Irrigation well

Sample date: 09/14/2023 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	1.00		1.00								206.00	140
DL	0.50		0.40								1.00	20

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

1 - 11/13/2022: Wheat, silage, soft dough

wheat sample

Sample and source description: wheat sample

Sample date: 05/22/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 71.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,900.00	3,700.00	19,900.00		10.80
DL	500.00	200.00	200.00		0.05

1 - 06/25/2023: Corn, silage

1 - 06/25/2023: Corn, silage

corn sample

Sample and source description: corn sample

Sample date: 10/16/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 64.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,500.00	2,500.00	12,300.00		5.28
DL	500.00	200.00	200.00		0.05

3 - 11/11/2022: Wheat, silage, soft dough

wheat sample

Sample and source description: wheat sample

Sample date: 05/21/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 72.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,100.00	3,900.00	19,600.00		11.90
DL	500.00	200.00	200.00		0.05

3 - 06/26/2023: Corn, silage

corn sample

Sample and source description: corn sample

Sample date: 10/16/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,200.00	2,400.00	13,500.00		5.51
DL	500.00	200.00	200.00		0.05

5 - 11/14/2022: Wheat, silage, soft dough

wheat sample

Sample and source description: wheat sample

Sample date: 05/21/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 73.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,000.00	4,000.00	21,300.00		10.90
DL	500.00	200.00	200.00		0.05

5 - 06/28/2023: Corn, silage

corn sample

Sample and source description: corn sample

Sample date: 10/19/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 62.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,000.00	2,600.00	6,700.00		5.28
DL	500.00	200.00	200.00		0.05

6 - 01/10/2018: Alfalfa, hay

alfalfa sample

Sample and source description: alfalfa sample

Sample date: 11/14/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 8.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	32,500.00	2,800.00	24,500.00		10.90
DL	500.00	200.00	200.00		0.05

7 - 01/10/2018: Alfalfa, hay

alfalfa sample

Sample and source description: alfalfa sample

Sample date: 11/14/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 8.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	35,700.00	3,000.00	23,800.00		11.30
DL	500.00	200.00	200.00		0.05

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

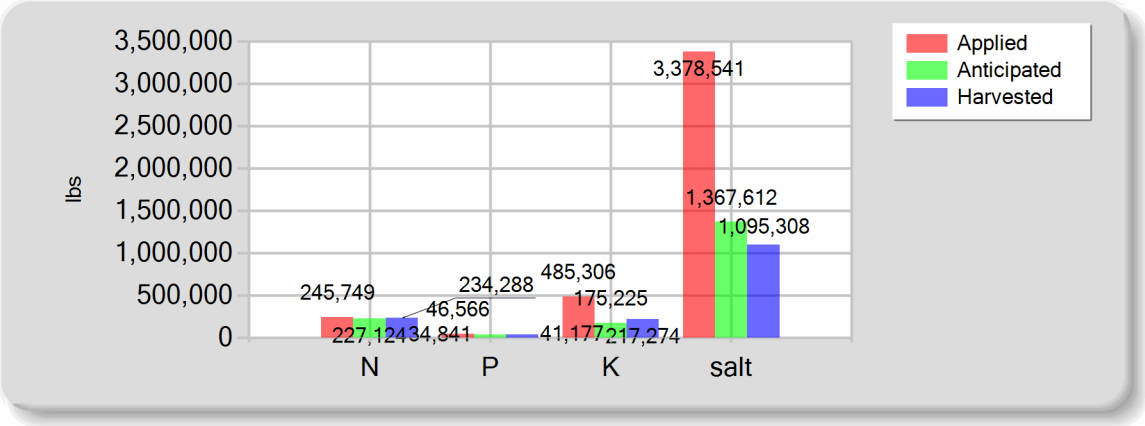
No subsurface (tile) drainage analyses entered.

NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

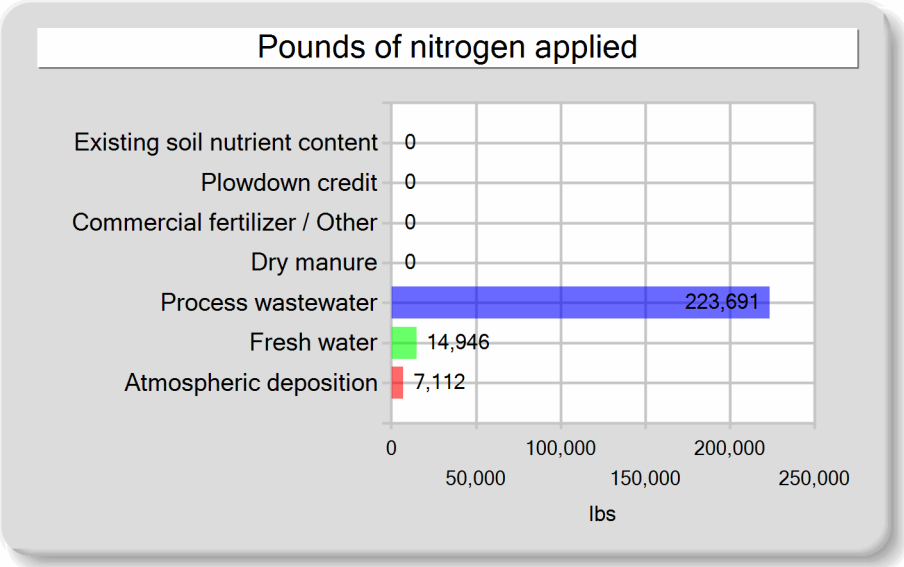
A. SUMMARY OF NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

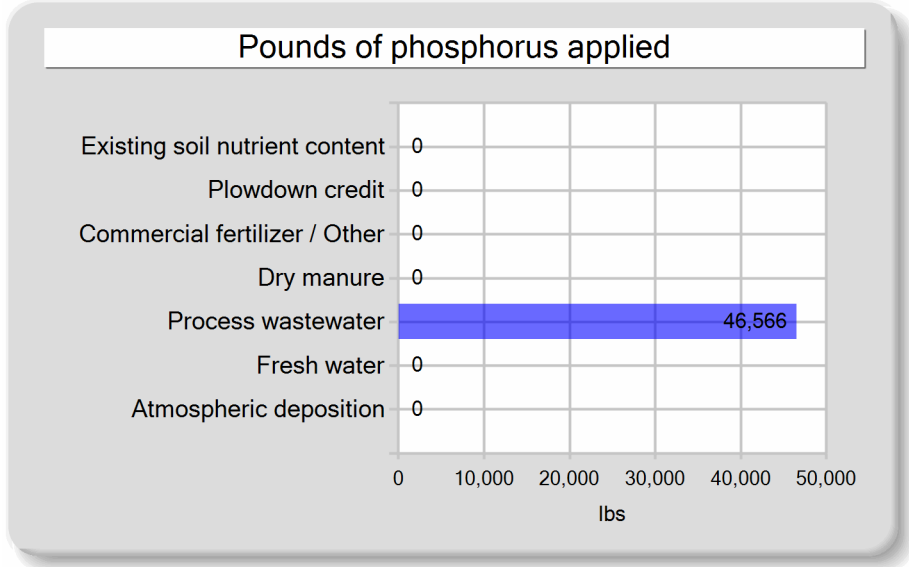
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	223,691.47	46,566.21	485,306.48	2,515,208.57
Fresh water	14,945.58	0.00	0.00	863,331.94
Atmospheric deposition	7,112.00	0.00	0.00	0.00
Total nutrients applied	245,749.05	46,566.21	485,306.48	3,378,540.51
Anticipated crop nutrient removal	227,124.00	34,840.80	175,225.20	1,367,612.00
Actual crop nutrient removal	234,288.36	41,177.30	217,274.44	1,095,308.32
Nutrient balance	11,460.69	5,388.91	268,032.04	2,283,232.19
Applied to removed ratio	1.05	1.13	2.23	3.08

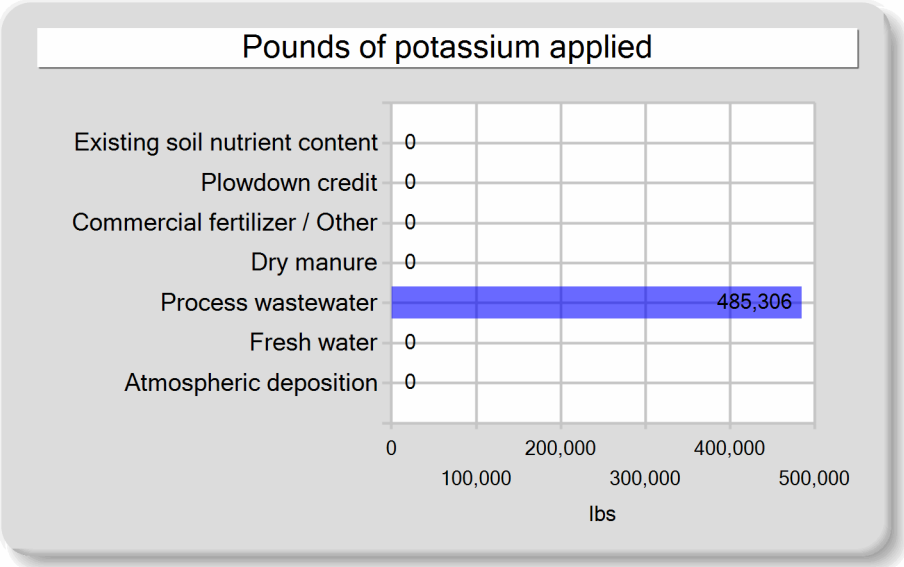
B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

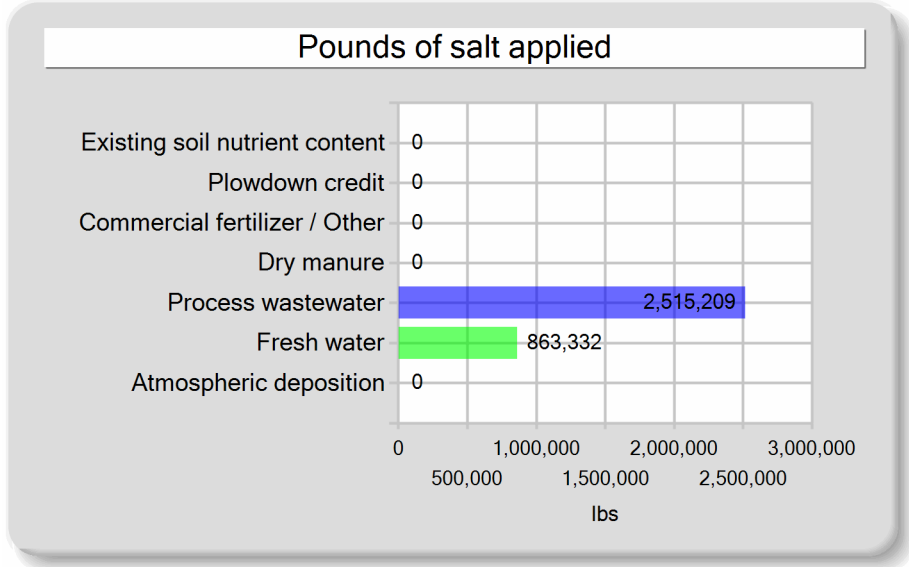


C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE









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

Wells D1, D3, P5, and P6 were out of service in 2023.

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

CERTIFICATION

A. OWNER AND/OR OPERATOR CERTIFICATION

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

SIGNATURE OF OWNER OF FACILITY

Joe Parreira
PRINT OR TYPE NAME

6/13/24
DATE

SIGNATURE OF OPERATOR OF FACILITY

Steve Gaspar
PRINT OR TYPE NAME

6/14/24
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.

October 4, 2023

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

Lab No. : **VI 2346275**
Customer No. : **4019696**
Reference : **3160**

Laboratory Report

Introduction: This report package contains a total of 7 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(3 pages)	: Results for each sample submitted.
Quality Control	(3 pages)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
P-13	09/14/2023	09/14/2023	VI 2346275-001	AGW
P-7	09/14/2023	09/14/2023	VI 2346275-002	AGW
P-4	09/14/2023	09/14/2023	VI 2346275-003	AGW

Sampling and Receipt Information:

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

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

Test Summary	
EPA 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 351.2	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 2540 C	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-H+B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-NO3 F	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: EHB

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-10-05

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

October 4, 2023

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

Description : P-13
Project : Parriera Gaspar

Lab No. : VI 2346275-001
Customer No. : 4019696
Reference : 3160
Sampled On : September 14, 2023 at 08:10
Sampled By : Brandon
Received On : September 14, 2023 at 15:14
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Alkalinity (as CaCO3)	110	10	mg/L		1		09/22/2023	19:41	amm	SM 4500-H+B	09/23/2023	02:07	amm
Bicarbonate	120	10	mg/L		1		09/22/2023	19:41	amm	SM 4500-H+B	09/23/2023	02:07	amm
Carbonate	ND	10	mg/L		1	U	09/22/2023	19:41	amm	SM 4500-H+B	09/23/2023	02:07	amm
Hydroxide	ND	10	mg/L		1	U	09/22/2023	19:41	amm	SM 4500-H+B	09/23/2023	02:07	amm
Chloride	16	1	mg/L		1		09/15/2023	15:07	ldm	EPA 300.0	09/16/2023	01:59	ldm
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	Ul	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:23	lcr
Nitrate Nitrogen	8.7	0.1	mg/L		1		09/15/2023	15:07	ldm	EPA 300.0	09/16/2023	01:59	ldm
Nitrogen, Total as Nitrogen	8.7	0.5	mg/L		1	l	09/28/2023	10:26	sta	Calc.	10/03/2023	22:23	lcr
Nitrate + Nitrite as N	8.7	0.1	mg/L		1		09/15/2023	15:07	ldm	EPA 300.0	09/16/2023	01:59	ldm
Kjeldahl Nitrogen	ND	0.5	mg/L		1	Ul	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:23	lcr
Conductivity	382	1	umhos/cm		1		09/22/2023	19:41	amm	SM 4500-H+B	09/23/2023	02:07	amm
Sulfate Sulfur	8.80	0.17	mg/L		1	b	09/15/2023	15:07	ldm	EPA 300.0	09/16/2023	01:59	ldm
Solids, Total Dissolved (TDS)	240	20	mg/L		1		09/19/2023	11:20	ctl	SM 2540 C	09/20/2023	11:00	ctl
Calcium	21	1	mg/L		1		09/21/2023	10:32	ejc	EPA 200.7	09/25/2023	17:50	ac
Magnesium	ND	1	mg/L		1	Jl	09/21/2023	10:32	ejc	EPA 200.7	09/25/2023	17:50	ac
Sodium	52	1	mg/L		1		09/21/2023	10:32	ejc	EPA 200.7	09/25/2023	17:50	ac

DQF Flags Definition:
U Constituent results were non-detect.
l The MS/MSD did not meet QC criteria.
b The Blank was positive for constituent but less than the PQL
J Reported value is estimated; detected at a concentration below the RL and above the laboratory MDL.

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

October 4, 2023

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

Description : P-7
Project : Parriera Gaspar

Lab No. : VI 2346275-002
Customer No. : 4019696
Reference : 3160
Sampled On : September 14, 2023 at 08:20
Sampled By : Brandon
Received On : September 14, 2023 at 15:14
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	Ul	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:35	lcr
Nitrate Nitrogen	1.0	0.4	mg/L		1		09/15/2023	13:00	lfs	SM 4500-NO3 F	09/15/2023	15:49	lfs
Nitrogen, Total as Nitrogen	1	0.5	mg/L		1	l	09/28/2023	10:26	sta	Calc.	10/03/2023	22:35	lcr
Nitrate + Nitrite as N	1.0	0.4	mg/L		1		09/15/2023	13:00	lfs	SM 4500-NO3 F	09/15/2023	15:49	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	Ul	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:35	lcr
Conductivity	206	1	umhos/cm		1	I	09/21/2023	11:31	krh	SM 4500-H+B	09/21/2023	15:55	krh
Solids, Total Dissolved (TDS)	140	20	mg/L		1		09/19/2023	09:45	ctl	SM 2540 C	09/20/2023	11:00	ctl

DQF Flags Definition:
U Constituent results were non-detect.
l The MS/MSD did not meet QC criteria.
I The RPD for the laboratory duplicate exceeded laboratory criteria.

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

October 4, 2023

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

Description : P-4
Project : Parriera Gaspar

Lab No. : VI 2346275-003
Customer No. : 4019696
Reference : 3160
Sampled On : September 14, 2023 at 08:30
Sampled By : Brandon
Received On : September 14, 2023 at 15:14
Matrix : Ag Water

Sample Results - Inorganic

Constituent	Result	RL	Units	Note	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Nitrogen, Total Kjeldahl	ND	0.5	mg/L		1	Ul	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:37	lcr
Nitrate Nitrogen	4.5	0.4	mg/L		1		09/15/2023	13:00	lfs	SM 4500-NO3 F	09/15/2023	15:52	lfs
Nitrogen, Total as Nitrogen	4.5	0.5	mg/L		1	l	09/28/2023	10:26	sta	Calc.	10/03/2023	22:37	lcr
Nitrate + Nitrite as N	4.5	0.4	mg/L		1		09/15/2023	13:00	lfs	SM 4500-NO3 F	09/15/2023	15:52	lfs
Kjeldahl Nitrogen	ND	0.5	mg/L		1	Ul	09/28/2023	10:26	sta	EPA 351.2	10/03/2023	22:37	lcr
Conductivity	230	1	umhos/cm		1	I	09/21/2023	11:31	krh	SM 4500-H+B	09/21/2023	16:01	krh
Solids, Total Dissolved (TDS)	140	20	mg/L		1		09/19/2023	09:45	ctl	SM 2540 C	09/20/2023	11:00	ctl

DQF Flags Definition:
U Constituent results were non-detect.
l The MS/MSD did not meet QC criteria.
I The RPD for the laboratory duplicate exceeded laboratory criteria.

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

October 4, 2023

Sentry Ag Service

Lab No. : VI 2346275
Customer No. : 4019696

Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Calcium	200.7	09/21/2023:210620EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	93.6%	85-115	
			MS	mg/L	12.00	31.6%	<¼	406
		(SP 2315861-001)	MSD	mg/L	12.00	76.9%	75-125	
			MSRPD	mg/L		5.3%	≤20.0	
Magnesium	200.7	09/21/2023:210620EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	96.4%	85-115	
			MS	mg/L	12.00	97.2%	75-125	
		(SP 2315864-001)	MSD	mg/L	12.00	66.9%	<1/4	
			MSRPD	mg/L		2.0%	≤20	
			MS	mg/L	12.00	73.2%	75-125	435
		(SP 2315861-001)	MSD	mg/L	12.00	89.1%	75-125	
			MSRPD	mg/L		4.1%	≤20	
Sodium	200.7	09/21/2023:210620EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	91.3%	85-115	
			MS	mg/L	12.00	23.5%	<¼	406
		(SP 2315861-001)	MSD	mg/L	12.00	77.6%	75-125	
			MSRPD	mg/L		5.4%	≤20.0	

Definition

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

Explanation

406 : Matrix Spike (MS) not within the Acceptance Range (AR) because of high analyte concentration in the sample. Data was accepted based on the LCS or CCV recovery.
435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

October 4, 2023
Sentry Ag Service

Lab No. : VI 2346275
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
E. C.	2320B	09/21/2023:210608KRH	ND	umhos/cm		110%	5	435
	2320B	(SP 2315816-002)	Dup	umhos/cm		0.8%	5	
Solids, Total Dissolved	2540CE	09/19/2023:210493CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	99.7%	90-110	
		(SP 2315608-001)	Dup	mg/L		0.8%	5	
		(SP 2315608-001)	Dup	mg/L		0.7%	5	
			Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	101%	90-110	
		(CC 2383155-001)	Dup	mg/L		0.4%	5	
		(CC 2383155-001)	Dup	mg/L		2.89%	5	
Chloride	300.0	09/15/2023:210455LDM	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	102 %	90-110	
			MS	mg/L	50.00	97.7 %	67-117	
		(VI 2346275-001)	MSD	mg/L	50.00	98.0 %	67-117	
			MSRPD	mg/L	10.00	0.2%	≤7	
			MS	mg/L	50.00	100 %	67-117	
		(STK2352450-001)	MSD	mg/L	50.00	100 %	67-117	
			MSRPD	mg/L	10.00	0.1%	≤7	
Nitrate + Nitrite as N	300.0	09/15/2023:210455LDM	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	102 %	90-110	
			MS	mg/L	40.00	89.4 %	86-112	
		(VI 2346275-001)	MSD	mg/L	40.00	89.5 %	86-112	
			MSRPD	mg/L	10.00	0.03%	≤7	
			MS	mg/L	40.00	101 %	86-112	
		(STK2352450-001)	MSD	mg/L	40.00	100 %	86-112	
			MSRPD	mg/L	10.00	0.3%	≤7	
Nitrate Nitrogen	300.0	09/15/2023:210455LDM	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	102 %	90-110	
			MS	mg/L	40.00	89.4 %	86-112	
		(VI 2346275-001)	MSD	mg/L	40.00	89.5 %	86-112	
			MSRPD	mg/L	10.00	0.03%	≤7	
			MS	mg/L	40.00	101 %	86-112	
		(STK2352450-001)	MSD	mg/L	40.00	100 %	86-112	
			MSRPD	mg/L	10.00	0.3%	≤7	
Sulfate Sulfur	300.0	09/15/2023:210455LDM	Blank	mg/L		1	<0.5	
			LCS	mg/L	50.00	102 %	90-110	
			MS	mg/L	100.0	98.3 %	18-165	
		(VI 2346275-001)	MSD	mg/L	100.0	98.7 %	18-165	
			MSRPD	mg/L	10.00	0.3%	≤7	
			MS	mg/L	100.0	98.1 %	18-165	
		(STK2352450-001)	MSD	mg/L	100.0	98.0 %	18-165	
			MSRPD	mg/L	10.00	0.02%	≤7	
Nitrogen, Total Kjeldahl	351.2	09/28/2023:210923STA	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	91.0%	73-124	
			MS	mg/L	12.00	89.3%	90-110	435
		(SP 2315701-001)	MSD	mg/L	12.00	89.7%	90-110	435
			MSRPD	mg/L		0.4%	≤20	
			MS	mg/L	12.00	89.9%	90-110	435
		(SP 2315701-003)	MSD	mg/L	12.00	92.8%	90-110	
			MSRPD	mg/L		3.2%	≤20	

Page 6 of 7

October 4, 2023

Sentry Ag Service

Lab No. : VI 2346275
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Nitrate + Nitrite as N	4500NO3F	09/15/2023:210406LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	95.2%	80-120	
			MS	mg/L	5.609	94.5%	66-125	
		(CH 2377879-001)	MSD	mg/L	5.609	96.2%	66-125	
			MSRPD	mg/L		1.3%	≤30.4	
Nitrate Nitrogen	4500NO3F	09/15/2023:210406LFS	Blank	mg/L		ND	<0.4	
			LCS	mg/L	11.22	95.2%	80-120	
			MS	mg/L	5.609	94.5%	66-125	
		(CH 2377879-001)	MSD	mg/L	5.609	96.2%	66-125	
			MSRPD	mg/L		1.3%	≤30.4	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.

ND : Non-detect - Result was below the DQO listed for the analyte.

Explanation

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

Page 7 of 7

Laboratory Analysis Work Order

3160

SITE NAME: Parriera Gospar 2346275

LABORATORY: ~~SAS~~ | FGL 4-19696

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

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- W1 EC, NO_3N (Dom)
- W2 EC, NO_3N, TDS, TN (Irr)
- W3 NH_4-N (Ammonium)
- W4 EC, NO_3N, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl, TDS (Dom, GM)
- W5 EC, NO_3N, TDS, TN, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl (Irr, GM)
- W6 NO_3N, NO_2 (Dom ILRP, Annually)
- W7 Ca, Mg, Na, K, HCO_3, CO_3, SO_4, Cl + Lab Filtering (GWM)
- W8 Other: _____

Plant Tissue

- P1 TN, NO_3N, PO_4P, K (Mid Season - Wheat)
- P2 TN, P, K (Mid-season - Corn)
- P3 TN, TP, TK, Ash, %M (At Harvest)
- P4 TN, %M
- P5 % Moisture
- P6 NIR
- P7 Other: _____

Process Waste Water (lagoon)

- L1 EC, NH_4N, TKN, TP, TK, TDS (Quarterly)
- L2 EC, NO_3N, NH_4N, TKN, TP, TK, TDS, pH (Annually)
- L3 Ca, Mg, Na, HCO_3,CO_3, SO_4S, Cl (Biennially)
- L4 Other: _____

Manure

- M1 TN, TP, TK, %M (2/year)
- M2 TN, TP, K, %M, Ca, Mg, Na, S, Cl, ash (Biennially)
- M3 Other: _____

Soil

- S1 SP%, pH, EC, Ca, Mg, Na, K, ESP, LP, B, NO_3N, PO_4P, K-AA, Zn, Mn, Fe, Cu, SO_4S
- S2 S1 + CEC, CaCO3, OM, C:N, TN
- S3 NO_3N, NH_4N
- S4 Other: _____

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS NH_3N *	pH	Temp
1	P-13	irrigation	W5	9/14/23 8:10	Brandon			
2	P-7	"	W2	" 8:20	"			
3	P-4	"	W2	" 8:30	"			
4								
5								
6								
7								
8								
9								
10								
11								
12								

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

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

NOTES:

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1st		SAS		9/14/23 15:14
2nd		FGL	9/14/23 1514	
3rd				9/14/23 1735
4th			9/14/23 1735	

LABORATORY USE ONLY

Logged In By: _____ **Total Samples:** _____ **Laboratory No.:** _____

GLS 9/15/23
mc 1145

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: STK CC CH VI

1. Number of ice chests/packages received: 1 Shipping tracking # CSTC
2. Were samples received in a chilled condition? Temps 2.8I / 14.0C / ____ / ____

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

3.	Do the number of bottles received agree with the COC?	Yes	No	N/A
4.	Were samples received intact? (i.e. no broken bottles, leaks etc.)	Yes	No	
5.	VOAs checked for Headspace?	Yes	No	N/A
6.	Were sample custody seals intact?	Yes	No	N/A
7.	If required, was sample split for pH analysis?	Yes	No	N/A
8.	Were all analyses within holding times at time of receipt?	Yes	No	
9.	Verify sample date, time and sampler name	Yes	No	

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): AH 1/14/07

Sample Receipt at SP:

1. Were samples received in a chilled condition? Temps: 2C / ____ / ____ / ____ / ____

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

2. Shipping tracking numbers: 560126075 068

3.	Do the number of bottles received agree with the COC?	Yes	No	N/A
4.	Were samples received intact? (i.e. no broken bottles, leaks etc.)	Yes	No	
5.	Were sample custody seals intact?	Yes	No	N/A

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

Sample Verification, Labeling and Distribution:

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

Attach labels to the containers and include a copy of the COC for lab delivery.
Sample Receipt, Login and Verification completed by (initials): MK

Discrepancy Documentation:

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

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

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

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

(4019696)
Sentry Ag Service
VI 2346275
mdc 09/14/2023 18:04:58
VI 2346275

December 18, 2023

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

Lab No. : **VI 2348252**
Customer No. : **4019696**
Reference : **3460**

Laboratory Report

Introduction: This report package contains a total of 4 pages divided into 3 sections:

Case Narrative	(1 page)	: An overview of the work performed at FGL.
Sample Results	(1 page)	: Results for each sample submitted.
Quality Control	(2 pages)	: Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab No.	Matrix
D2	12/06/2023	12/06/2023	VI 2348252-001	DW

Sampling and Receipt Information:

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

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

Test Summary	
EPA 200.7	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
EPA 300.0	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 2540 C	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)
SM 4500-H+B	Preparation and analysis performed by FGL-Santa Paula (FGL-SP ELAP# 1573)

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

KD: JRD

Approved By **Kelly A. Dunnahoo, B.S.** Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2023-12-18

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

December 18, 2023

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

Description : D2
Project : Parriera Gaspar

Lab No. : VI 2348252-001
Customer No. : 4019696
Reference : 3460
Sampled On : December 6, 2023 at 08:20
Sampled By : Brandon
Received On : December 6, 2023 at 12:47
Matrix : Drinking Water

Sample Results - Inorganic

Constituent	Result	RL	Units	MCL/AL	Dil.	DQF	Sample Preparation			Sample Analysis			
Dairy Analysis							Date	Time	Who	Method	Date	Time	Who
Alkalinity (as CaCO3)	90	10	mg/L		1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	21:24	amm
Bicarbonate	110	10	mg/L		1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	21:24	amm
Carbonate	ND	10	mg/L		1	U	12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	21:24	amm
Hydroxide	ND	10	mg/L		1	U	12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	21:24	amm
Chloride	3	1	mg/L	500[2]	1		12/07/2023	11:23	ldm	EPA 300.0	12/08/2023	06:06	ldm
Nitrate Nitrogen	0.8	0.1	mg/L	10	1		12/07/2023	11:23	ldm	EPA 300.0	12/08/2023	06:06	ldm
Conductivity	196	1	umhos/cm	1600[2]	1		12/09/2023	15:04	amm	SM 4500-H+B	12/09/2023	21:24	amm
Sulfate Sulfur	1.10	0.17	mg/L		1		12/07/2023	11:23	ldm	EPA 300.0	12/08/2023	06:06	ldm
Solids, Total Dissolved (TDS)	110	20	mg/L	1000[2]	1		12/08/2023	09:50	ctl	SM 2540 C	12/11/2023	11:30	ctl
Calcium	8	1	mg/L		1		12/07/2023	07:15	ejc	EPA 200.7	12/08/2023	20:45	ac
Magnesium	ND	1	mg/L		1	U	12/07/2023	07:15	ejc	EPA 200.7	12/08/2023	20:45	ac
Potassium	ND	1	mg/L		1	U	12/07/2023	07:15	ejc	EPA 200.7	12/08/2023	20:45	ac
Sodium	35	1	mg/L		1		12/07/2023	07:15	ejc	EPA 200.7	12/08/2023	20:45	ac

DQF Flags Definition:
U Constituent results were non-detect.

ND=Non-Detected, RL=Reporting Level , Dil.=Dilution
MCL = Maximum Contamination Level. 2 - Secondary Standard. 3 - CDPH Notification Level. AL = Regulatory Action Level.

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

December 18, 2023
Sentry Ag Service

Lab No. : VI 2348252
Customer No. : 4019696

Quality Control - Metals

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals								
Calcium	200.7	12/07/2023:213815EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	91.5%	85-115	
			MS	mg/L	12.00	72.6%	<¼	406
		(CC 2384296-003)	MSD	mg/L	12.00	115%	75-125	
			MSRPD	mg/L		7.1%	≤20.0	
			MS	mg/L	12.00	126%	<¼	406
		(CC 2384274-002)	MSD	mg/L	12.00	108%	75-125	
			MSRPD	mg/L		3.3%	≤20.0	
Magnesium	200.7	12/07/2023:213815EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	93.4%	85-115	
			MS	mg/L	12.00	76.9%	75-125	
		(CC 2384296-003)	MSD	mg/L	12.00	114%	75-125	
			MSRPD	mg/L		6.6%	≤20	
			MS	mg/L	12.00	123%	75-125	
		(CC 2384274-002)	MSD	mg/L	12.00	105%	75-125	
			MSRPD	mg/L		3.7%	≤20	
Potassium	200.7	12/07/2023:213815EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	92.2%	85-115	
			MS	mg/L	12.00	95.5%	75-125	
		(CC 2384296-003)	MSD	mg/L	12.00	99.7%	75-125	
			MSRPD	mg/L		3.8%	≤20.0	
			MS	mg/L	12.00	110%	75-125	
		(CC 2384274-002)	MSD	mg/L	12.00	99.0%	75-125	
			MSRPD	mg/L		4.4%	≤20.0	
Sodium	200.7	12/07/2023:213815EJC	Blank	mg/L		ND	<1	
			LCS	mg/L	12.00	89.3%	85-115	
			MS	mg/L	12.00	82.9%	75-125	
		(CC 2384296-003)	MSD	mg/L	12.00	108%	75-125	
			MSRPD	mg/L		4.3%	≤20.0	
			MS	mg/L	12.00	129%	<¼	406
		(CC 2384274-002)	MSD	mg/L	12.00	111%	75-125	
			MSRPD	mg/L		2.1%	≤20.0	

Definition

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

Explanation

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

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
TEL: (805)392-2000
Env FAX: (805)525-4172 / Ag FAX: (805)392-2063
CA ELAP Certification No. 1573

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
TEL: (209)942-0182
FAX: (209)942-0423
CA ELAP Certification No. 1563

Office & Laboratory
563 E. Lindo Avenue
Chico, CA 95926
TEL: (530)343-5818
FAX: (530)343-3807
CA ELAP Certification No. 2670

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
TEL: (805)783-2940
FAX: (805)783-2912
CA ELAP Certification No. 2775

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
TEL: (559)734-9473
FAX: (559)734-8435
CA ELAP Certification No. 2810

December 18, 2023
Sentry Ag Service

Lab No. : VI 2348252
Customer No. : 4019696

Quality Control - Wet Chem

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Alkalinity (as CaCO3)	2320B	12/09/2023:213884AMM	ND	mg/L		0.4%	10	406
Bicarbonate	2320B	(VI 2348309-001)	Dup	mg/L		0.4%	10	
E. C.	2320B	(VI 2348309-001)	Dup	umhos/cm		0.2%	5	
Solids, Total Dissolved	2540CE	12/08/2023:213823CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	991.5	99.5%	90-110	
		(SP 2320140-001)	Dup	mg/L		0.6%	5	
		(SP 2320140-001)	Dup	mg/L		0.2%	5	
Chloride	300.0	12/07/2023:213946LDM	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	98.5%	90-110	
			MS	mg/L	50.00	102%	67-117	
		(CH 2373985-001)	MSD	mg/L	50.00	102%	67-117	
			MSRPD	mg/L		0.0%	≤7	
			MS	mg/L	50.00	100%	67-117	
		(VI 2348252-001)	MSD	mg/L	50.00	101%	67-117	
			MSRPD	mg/L		0.8%	≤7	
Nitrate Nitrogen	300.0	12/07/2023:213946LDM	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	96.6%	90-110	
			MS	mg/L	40.00	101%	86-112	
		(CH 2373985-001)	MSD	mg/L	40.00	101%	86-112	
			MSRPD	mg/L		0.1%	≤7	
			MS	mg/L	40.00	101%	86-112	
		(VI 2348252-001)	MSD	mg/L	40.00	102%	86-112	
			MSRPD	mg/L		0.9%	≤7	
Sulfate Sulfur	300.0	12/07/2023:213946LDM	Blank	mg/L		ND	<0.5	
			LCS	mg/L	50.00	99.8%	90-110	
			MS	mg/L	100.0	103%	18-165	
		(CH 2373985-001)	MSD	mg/L	100.0	103%	18-165	
			MSRPD	mg/L		0.1%	≤7	
			MS	mg/L	100.0	102%	18-165	
		(VI 2348252-001)	MSD	mg/L	100.0	103%	18-165	
			MSRPD	mg/L		1.0%	≤7	

Definition

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries are an indication of how that sample matrix affects analyte recovery.

MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.

ND : Non-detect - Result was below the DQO listed for the analyte.

Explanation

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

Page 4 of 4

Laboratory Analysis Work Order

2348252

3460

SITE NAME: Parriera Geiger

LABORATORY: VT | FGL 4-19696

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

Authorized Copy Release to:
labs@sentryagservices.com

ANALYSIS TO BE COMPLETED

Irrigation/Ground Water (ELAP Standards)

- **W1** EC, NO_3N (Dom)
- **W2** EC, NO_3N, TDS, TN (Irr)
- **W3** NH_4-N (Ammonium)
- **W4** EC, NO_3N, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl, TDS (Dom, GM) — 7.8 C ROS
- **W5** EC, NO_3N, TDS, TN, Ca, Mg, Na, HCO_3, CO_3, SO_4S, Cl (Irr, GM)
- **W6** NO_3N, NO_2 (Dom ILRP, Annually)
- **W7** Ca, Mg, Na, K, HCO_3, CO_3, SO_4, Cl + Lab Filtering (GWM) — TH407
- **W8** Other: _____

Plant Tissue

- **P1** TN, NO_3N, PO_4P, K (Mid Season - Wheat)
- **P2** TN, P, K (Mid-season - Corn)
- **P3** TN, TP, TK, Ash, %M (At Harvest)
- **P4** TN, %M
- **P5** % Moisture
- **P6** NIR
- **P7** Other: _____

Process Waste Water (lagoon)

- **L1** EC, NH_4N, TKN, TP, TK, TDS (Quarterly)
- **L2** EC, NO_3N, NH_4N, TKN, TP, TK, TDS, pH (Annually)
- **L3** Ca, Mg, Na, HCO_3,CO_3, SO_4S, Cl (Biennially)
- **L4** Other: _____

Manure

- **M1** TN, TP, TK, %M (2/year)
- **M2** TN, TP, K, %M, Ca, Mg, Na, S, Cl, ash (Biennially)
- **M3** Other: _____

Soil

- **S1** SP%, pH, EC, Ca, Mg, Na, K, ESP, LP, B, NO_3N, PO_4P, K-AA, Zn, Mn, Fe, Cu, SO_4S
- **S2** S1 + CEC, CaCO3, OM, C:N, TN
- **S3** NO_3N, NH_4N
- **S4** Other: _____

	Sample ID	Description	Analysis	Date/Time	Sampled by	SAS USE ONLY: FIELD TESTS NH_3N *	pH	Temp
1	D2	domestic	W4	12/6/23 8:20	[redacted]	0		
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

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

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

NOTES:

CHAIN OF CUSTODY RECORDING

	Signature	Company	Received Date & Time	Relinquished Date & Time
1st	[redacted]	SAS		12/6/23 12:47
2nd	ASB	FGL	12/6/23 1247	
3rd	ASB	FGL		12/6/23 1730
4th	[redacted]	FGL	12/6/23 1730	

LABORATORY USE ONLY
Logged In By: _____ **Total Samples:** _____ **Laboratory No:** 12/6/23 1730

Inter-Laboratory Condition Upon Receipt (Attach to COC)

Sample Receipt at: CC CH STK (VI)

1. Number of ice chests/packages received: 1 Shipping tracking #(s): OTC
2. Temp IR Gun ID #: TH407
3. Were samples received on ice? (Yes) No Temps: 7.8 / / / /
   Surface water SWTR bact samples: A sample that has a temperature upon receipt of >10° C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.

4. Do the number of bottles received agree with the COC?	(Yes)	No	N/A
5. Were samples received intact? (i.e. no broken bottles, leaks etc.)	(Yes)	No	
6. VOAs checked for Headspace?	Yes	No	(N/A)
7. Were all analyses within holding times at time of receipt?	(Yes)	No	
8. Verify sample date, time and sampler name	(Yes)	No	

Sign and date the COC, place in a ziplock and put in the same ice chest as the samples.
Sample Receipt Review completed by (initials): AJB

Sample Receipt at SP:

1. Number of ice chests/packages received: 6 Shipping tracking #(s): 5160518049, 5160516003, 5160516013, 5160516073, 5160516074, 5160516002
2. Temp IR Gun ID #: VWR
3. Were samples received on ice? (Yes) No Temps: 1 / 1 / 1 / 1 / 1, 1
   Acceptable is above freezing to 6°C. If many packages are received at one time check for tests/H.T.'s/rushes/

4. Do the number of bottles received agree with the COC?	(Yes)	No	N/A
5. Were samples received intact? (i.e. no broken bottles, leaks etc.)	(Yes)	No	

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

Sample Verification, Labeling and Distribution:

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

Attach labels to the containers and include a copy of the COC for lab delivery.
Sample Receipt, Login and Verification completed by (initials): JL

Discrepancy Documentation:

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

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

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

(Please use the back of this sheet for additional comments

(4019696)
Sentry Ag Service
VI 2348252
iv 12/07/2023 08:37:40
VI 2348252