

DAIRY FACILITY INFORMATION

A. NAME OF DAIRY OR BUSINESS OPERATING THE DAIRY:

T&W Farms 2

Physical address of dairy:

5959 Houghton Rd

Bakersfield

Kern

93311

Number and Street

City

County

Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation:

01-01-2000

Regional Water Quality Control Board Basin Plan designation:

Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0184-0400-0003-0000 0184-0400-0004-0000 0184-0400-0006-0000 0184-0400-0007-0000 0184-0400-0008-0000

B. OPERATORS

Brian Wind

Operator Name:

Brian Wind

Telephone no.:

(661) 477-2973

Landline

Cellular

18000 Old River Rd

Bakersfield

Kern

93311

Mailing Address Number and Street

City

County

Zip Code

C. OWNERS

Brian Wind

Owner Name:

Brian Wind

Telephone no.:

(661) 477-2973

Landline

Cellular

18000 Old River Rd

Bakersfield

Kern

93311

Mailing Address Number and Street

City

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo.to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	0	145	358	303	135	139
Number under roof	795	0	0	0	0	0
Maxiumu number	800	160	370	317	150	150
Average number	795	145	358	303	135	139
Average live weight (lbs)	1400	1450	1000	300		

Predominant milk cow breed: Holsteins

Average Milk Production: 70 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 29,674.62 tons per reporting period

Total nitrogen from manure: 369,819.98 lbs per reporting period

After ammonia losses (30% loss applied): 258,873.99 lbs per reporting period

Total phosphorus from manure: 60,237.19 lbs per reporting period

Total potassium from manure: 152,249.84 lbs per reporting period

Total salt from manure: 407,668.50 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 19,512,021.00 gallons

Total nitrogen generated: 50,433.47 lbs

Total phosphorus generated: 60,667,316.04 lbs

Total potassium generated: 45,300.61 lbs

Total salt generated: 615,763.56 lbs

	19,512,021.00 gallons applied
+	0 gallons exported
-	0 gallons imported
=	19,512,021.00 gallons generated

D. FRESH WATER SOURCES

Source Description	Type
Canal - Farmers	Surface Water
TW2-2	Ground Water
TW2-DW1	Ground Water

E. SUBSURFACE (TILE) DRAINAGE SOURCES

No fresh water sources entered.

F. NUTRIENT IMPORTS

No dry manure nutrient imports entered.

No process wastewater nutrient imports entered.

No commercial or other nutrient imports entered.

G. NUTRIENT EXPORTS

Date	Material type	Quantity	Reporting basis	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	TFS (%)
03/01/2023	Separator solids	7,064 tons	as-is	67.4	26,000.00	8,810.00	30,190.00	28.00
12/01/2023	Separator solids	5,233 tons	as-is	68.8	20,900.00	5,730.00	25,570.00	52.00

No process wastewater nutrient exports entered.

Material type	N (lbs)	P (lbs)	K (lbs)	TDS (%)
Dry Manure	586,067.40	184,437.86	694,139.94	9,398,160.00
Process wastewater	0.00	0.00	0.00	0.00
Total exports for all materials	586,067.40	184,437.86	694,139.94	9,398,160.00

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
11	86.23	86.00	2	PROCESS WASTEWATER	0184-0400-0003-0000, 0184-0400-0004-0000, 0184-0400-0006-0000, 0184-0400-0007-0000, 0184-0400-0008-0000
12	4.53	4.53	2	PROCESS WASTEWATER	0184-0400-0004-0000
Totals for areas that were used for application	90.76	90.53	4.00		
Totals for areas that were not used for application	0.23	0.23			
Land application area totals	90.76	90.76	4.00		

B. CROPS AND HARVESTS

11

Field Name: 11

10/01/2022: Triticale

Crop: Triticale Acres planted: 86 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 (%)
05/18/2023	1,735.48 ton	As-is		0.00	7,344.00	1,548.00	15,480.00	0.01	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	20.18	296.40	62.48	624.77	0.00

05/10/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 86 Plant date: 05/10/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/26/2023	1,896.30 ton	As-is		0.00	4,940.00	1,185.60	6,186.40	87.40	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	22.05	217.85	52.28	272.82	0.00

Field Name: 12

10/01/2022: Triticale

Crop: Triticale Acres planted: 4.53 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 (%)
05/18/2023	91.42 ton	As-is		0.00	9,108.00	2,412.00	20,520.00	0.01	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	26.00	358.80	44.20	195.00	520.00
Total actual harvest content	20.18	367.60	97.35	828.19	0.00

05/10/2023: Corn, Late Silage

Crop: Corn, Late Silage Acres planted: 4.53 Plant date: 05/10/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/26/2023	99.89 ton	As-is		0.00	6,558.80	1,147.60	6,319.40	87.40	0.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	23.00	736.00	174.80	920.00	460.00
Total actual harvest content	22.05	289.24	50.61	278.69	0.00

NUTRIENT BUDGET

A. LAND APPLICATIONS

11

Field name: 11 Crop: Corn, Late Silage Plant date: 05/10/2023

05/10/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/01/2023	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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	1,204.00 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	

05/02/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	15.48	22,049.56	17.34	148.47	455,377.35 <i>gal</i>
Canal Water	Ground water	0.00	1,411.28	36,975.55	141.13	14,544,052.98 <i>gal</i>
Application event totals		15.48	23,460.84	36,992.89	289.60	

05/21/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.00	1,006.57	26,372.09	100.66	10,373,262.75 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	17.70	0.00	0.00	0.00	430.00 <i>Gal.</i>
Application event totals		17.70	1,006.57	26,372.09	100.66	

06/01/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.42	0.00	1.80	228.25	10,940,733.08 <i>gal</i>
Lagoon Water Effluent	Process wastewater	33.02	47,039.06	36.99	316.74	971,471.74 <i>gal</i>
Application event totals		33.44	47,039.06	38.79	544.99	

06/13/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.00	1,049.40	27,494.18	104.94	10,814,628.81 <i>gal</i>
Application event totals		0.00	1,049.40	27,494.18	104.94	

06/26/2023	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
Well Water	Ground water	0.51	0.00	2.17	275.36	13,198,937.79 <i>gal</i>
Lagoon Water Effluent	Process wastewater	68.66	97,809.58	76.91	658.60	2,020,007.33 <i>gal</i>
Application event totals		69.17	97,809.58	79.08	933.96	
07/10/2023	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
Canal Water	Ground water	0.00	917.51	24,038.86	91.75	9,455,501.91 <i>gal</i>
Lagoon Water Effluent	Process wastewater	63.11	89,894.35	70.69	605.30	1,856,538.55 <i>gal</i>
Application event totals		63.11	90,811.86	24,109.55	697.05	
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
Lagoon Water Effluent	Process wastewater	69.06	98,374.95	77.36	662.40	2,031,683.66 <i>gal</i>
Well Water	Ground water	0.63	0.00	2.71	344.64	16,519,689.53 <i>gal</i>
Application event totals		69.69	98,374.95	80.07	1,007.04	
08/09/2023	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
Well Water	Ground water	0.59	0.00	2.53	320.67	15,370,737.16 <i>gal</i>
Application event totals		0.59	0.00	2.53	320.67	

10/01/2022: Triticale

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following
10/02/2022	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
Well Water	Ground water	0.43	0.00	2.01	326.41	12,458,657.87 <i>gal</i>
Application event totals		0.43	0.00	2.01	326.41	
10/30/2022	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
Well Water	Ground water	0.42	0.00	1.96	317.17	12,106,032.26 <i>gal</i>
Lagoon Water Effluent	Process wastewater	61.22	25,080.82	14.28	921.77	2,209,164.01 <i>gal</i>
Application event totals		61.64	25,080.82	16.24	1,238.94	
11/29/2022	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 Water Effluent	Process wastewater	79.47	32,557.34	18.54	1,196.55	2,867,709.90 <i>gal</i>
Canal Water	Ground water	1.29	0.00	30,567.55	184.91	11,909,869.44 <i>gal</i>
Application event totals		80.76	32,557.34	30,586.09	1,381.46	

12/29/2022	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.35	0.00	32,006.02	193.61	12,470,334.48 <i>gal</i>
Lagoon Water Effluent	Process wastewater	79.41	32,530.83	18.52	1,195.58	2,865,374.52 <i>gal</i>
Application event totals		80.76	32,530.83	32,024.54	1,389.19	

01/28/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.39	0.00	1.69	214.37	10,275,181.89 <i>gal</i>
Lagoon Water Effluent	Process wastewater	80.89	210,037.87	158.38	1,025.15	3,035,849.02 <i>gal</i>
Application event totals		81.28	210,037.87	160.07	1,239.52	

02/18/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.26	0.00	29,848.31	180.56	11,629,637.48 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	53.09	0.00	0.00	0.00	1,290.00 <i>Gal.</i>
Application event totals		54.35	0.00	29,848.31	180.56	

Field name: 12

Crop: Corn, Late Silage

Plant date: 05/10/2023

05/10/2023: Corn, Late Silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/01/2023	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
Atmospheric Deposition	Atmospheric deposition	14.00	0.00	0.00	0.00	63.42 <i>Lbs</i>
Application event totals		14.00	0.00	0.00	0.00	

05/02/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.00	1,012.01	26,514.58	101.20	549,357.84 <i>gal</i>
Lagoon Water Effluent	Process wastewater	17.70	25,215.65	19.83	169.79	27,430.99 <i>gal</i>
Application event totals		17.70	26,227.66	26,534.41	270.99	

05/21/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.00	1,191.02	31,204.80	119.10	646,534.89 <i>gal</i>
Un 32	Commercial fertilizer / Other: Liquid commercial fertilizer	35.39	0.00	0.00	0.00	45.30 <i>Gal.</i>
Application event totals		35.39	1,191.02	31,204.80	119.10	

06/01/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	54.06	77,003.84	60.55	518.50	83,769.07 <i>gal</i>
Well Water	Ground water	0.63	0.00	2.69	341.96	863,399.61 <i>gal</i>
Application event totals		54.69	77,003.84	63.24	860.46	

06/13/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	0.00	1,026.51	26,894.55	102.65	557,230.43 <i>gal</i>
Application event totals		0.00	1,026.51	26,894.55	102.65	

06/26/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
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Well Water	Ground water	0.59	0.00	2.53	321.16	810,874.80 <i>gal</i>
Lagoon Water Effluent	Process wastewater	102.40	145,866.30	114.70	982.19	158,681.50 <i>gal</i>
Application event totals		102.99	145,866.30	117.23	1,303.35	

07/10/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	99.86	142,247.92	111.86	957.82	154,745.22 <i>gal</i>
Canal Water	Ground water	0.00	1,007.02	26,383.96	100.70	546,651.61 <i>gal</i>
Application event totals		99.86	143,254.94	26,495.82	1,058.52	

07/25/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.58	0.00	2.47	313.07	790,455.33 <i>gal</i>
Lagoon Water Effluent	Process wastewater	56.36	80,283.00	63.13	540.58	87,336.33 <i>gal</i>
Application event totals		56.94	80,283.00	65.60	853.65	

08/09/2023	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well Water	Ground water	0.49	0.00	2.12	269.37	680,116.29 <i>gal</i>
Application event totals		0.49	0.00	2.12	269.37	

10/01/2022: Triticale

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/02/2022	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
Canal Water	Ground water	1.07	0.00	25,389.05	153.58	521,065.79 <i>gal</i>
Application event totals		1.07	0.00	25,389.05	153.58	

10/30/2022	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Canal Water	Ground water	1.23	0.00	29,165.04	176.42	598,561.42 <i>gal</i>
Lagoon Water Effluent	Process wastewater	45.76	18,744.33	10.67	688.89	86,967.31 <i>gal</i>
Application event totals		46.99	18,744.33	29,175.71	865.31	

11/29/2022	Surface (Irrigation)	No precipitation	No precipitation	No precipitation
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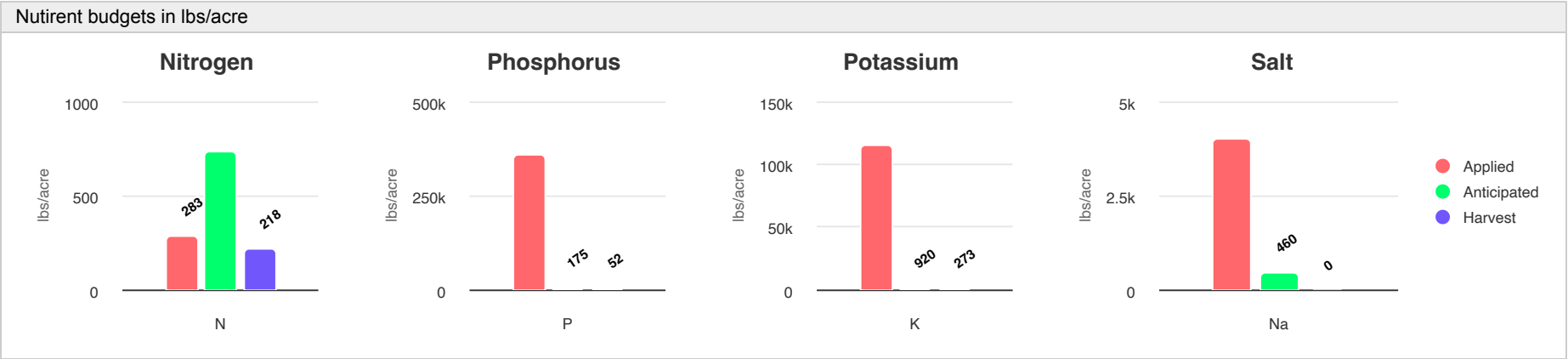
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Lagoon Water Effluent	Process wastewater	72.68	29,773.53	16.95	1,094.24	138,139.02 <i>gal</i>

Well Water	Ground water	0.43	0.00	2.02	328.37	660,188.88 <i>gal</i>
Application event totals		73.11	29,773.53	18.97	1,422.61	
12/29/2022	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 Water Effluent	Process wastewater	84.00	34,413.22	19.59	1,264.76	159,665.57 <i>gal</i>
Canal Water	Ground water	1.30	0.00	30,879.22	186.79	633,741.95 <i>gal</i>
Application event totals		85.30	34,413.22	30,898.81	1,451.55	
01/28/2023	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
Well Water	Ground water	0.44	0.00	1.89	240.04	606,064.95 <i>gal</i>
Lagoon Water Effluent	Process wastewater	79.40	206,160.26	155.46	1,006.22	156,959.38 <i>gal</i>
Application event totals		79.84	206,160.26	157.35	1,246.26	
02/18/2023	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
Canal Water	Ground water	1.21	0.00	28,733.50	173.81	589,704.78 <i>gal</i>
Lagoon Water Effluent	Process wastewater	73.42	190,649.76	143.76	930.52	145,150.52 <i>gal</i>
Application event totals		74.63	190,649.76	28,877.26	1,104.33	
03/20/2023	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
Well Water	Ground water	1.22	0.00	29,069.14	175.84	596,593.25 <i>gal</i>
Application event totals		1.22	0.00	29,069.14	175.84	
04/15/2023	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
Well Water	Ground water	1.50	0.00	35,602.20	215.36	730,672.99 <i>gal</i>
Application event totals		1.50	0.00	35,602.20	215.36	

B. NUTRIENT BUDGET

11 - 05/10/2023: Corn, Late Silage

Field name: 11 Crop: Corn, Late Silage Plant date: 05/10/2023



	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	17.70	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	249.33	355,167.50	279.29	2,391.51
Fresh water	2.15	4,384.76	114,889.89	1,607.40
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	283.18	359,552.26	115,169.18	3,998.91
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	217.85	52.28	272.82	0.00
Nutrient balance	65.33	359,499.98	114,896.36	3,998.91
Applied to removed ratio	1.30	6,876.78	422.14	0.00

Fresh water applied	
101,217,544.00	gallons
3,727.50	acre-inches
43.34	inches/acre

Process wastewater applied	
7,335,078.63	gallons
270.13	acre-inches
3.14	inches/acre

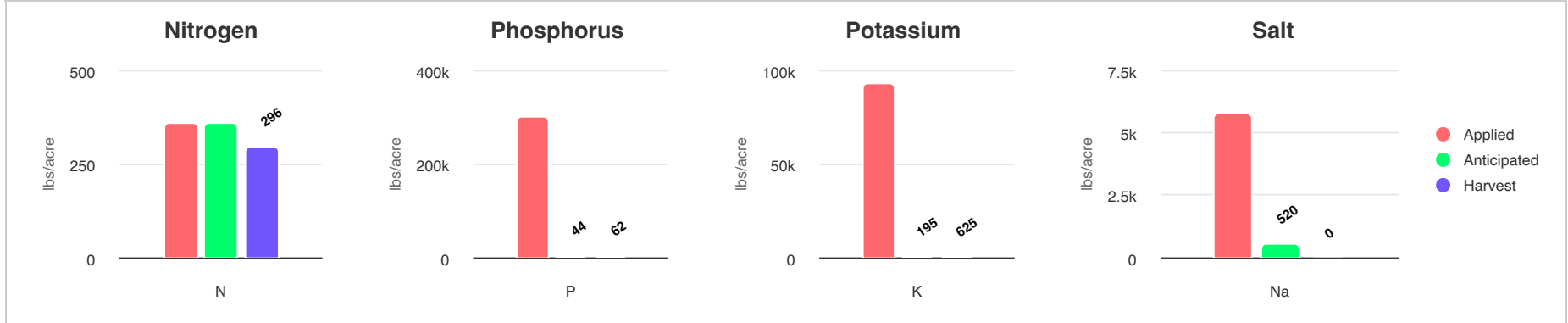
Total Harvests for the crop	
1	harvests

Field name: 11

Crop: Triticale

Plant date: 10/01/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	53.09	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	300.99	300,206.86	209.72	4,339.05
Fresh water	5.14	0.00	92,427.54	1,417.03
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	359.22	300,206.86	92,637.26	5,756.08
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	296.40	62.48	624.77	0.00
Nutrient balance	62.82	300,144.38	92,012.49	5,756.08
Applied to removed ratio	1.21	4,805.06	148.27	0.00

Fresh water applied

70,849,713.42 gallons
 2,609.15 acre-inches
 30.34 inches/acre

Process wastewater applied

10,978,097.45 gallons
 404.29 acre-inches
 4.70 inches/acre

Total Harvests for the crop

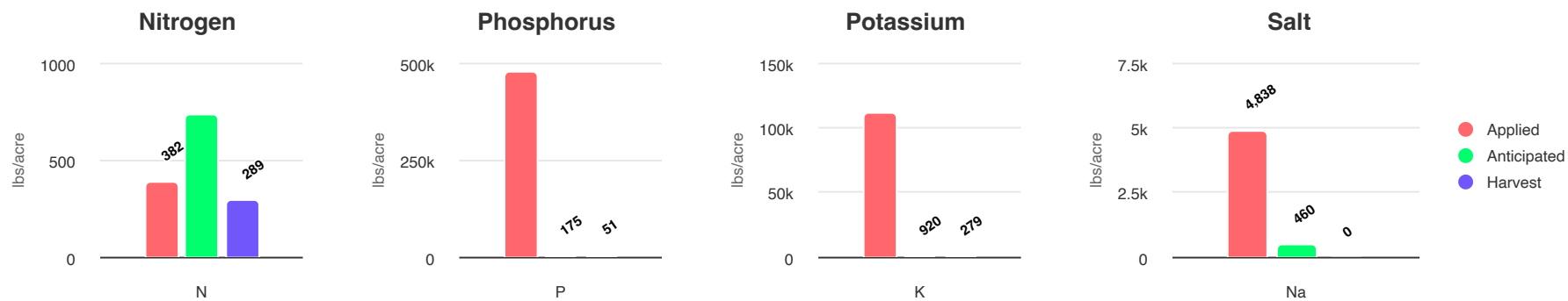
1 harvests

Field name: 12

Crop: Corn, Late Silage

Plant date: 05/10/2023

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	35.39	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	330.38	470,616.71	370.07	3,168.88
Fresh water	2.29	4,236.56	111,007.70	1,669.21
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	382.06	474,853.27	111,377.77	4,838.09
Anticipated crop nutrient removal	736.00	174.80	920.00	460.00
Actual crop nutrient removal	289.24	50.61	278.69	0.00
Nutrient balance	92.82	474,802.66	111,099.08	4,838.09
Applied to removed ratio	1.32	9,382.75	399.65	0.00

Fresh water applied

5,444,620.80 *gallons*
 200.51 *acre-inches*
 44.26 *inches/acre*

Process wastewater applied

511,963.12 *gallons*
 18.85 *acre-inches*
 4.16 *inches/acre*

Total Harvests for the crop

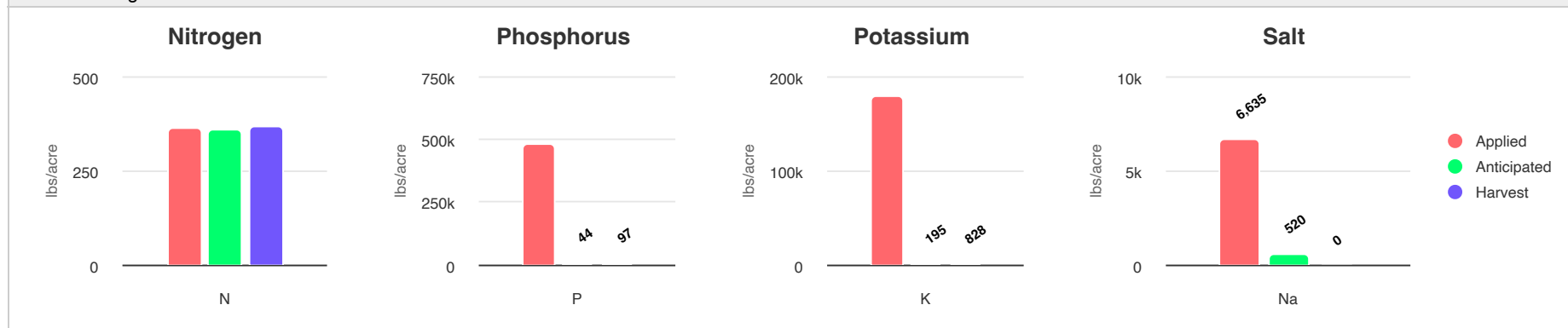
1 *harvests*

Field name: 12

Crop: Triticale

Plant date: 10/01/2022

Nutrient budgets in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	355.26	479,741.10	346.43	4,984.63
Fresh water	8.40	0.00	178,842.06	1,650.21
Atmospheric deposition	0.00	0.00	0.00	0.00
Total nutrients applied	363.66	479,741.10	179,188.49	6,634.84
Anticipated crop nutrient removal	358.80	44.20	195.00	520.00
Actual crop nutrient removal	367.60	97.35	828.19	0.00
Nutrient balance	-3.94	479,643.75	178,360.30	6,634.84
Applied to removed ratio	0.99	4,928.09	216.36	0.00

Fresh water applied

4,936,594.01 gallons
 181.80 acre-inches
 40.13 inches/acre

Process wastewater applied

686,881.81 gallons
 25.30 acre-inches
 5.58 inches/acre

Total Harvests for the crop

1 harvests

NUTRIENT ANALYSES

A. MANURE ANALYSES

T3090004A

Sample and source description name: T3090004A

Sample date: 03/17/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is

Moisture: 57.1%

	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	14,380.00	5,500.00	8,340.00	13,290.00	8,970.00	1,730.00	2,500.00	858.00	8,340.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3167062A

Sample and source description name: T3167062A

Sample date: 06/12/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is

Moisture: 5.2%

	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	27,640.00	6,190.00	8,760.00	18,010.00	6,140.00	2,570.00	2,700.00	1,176.00	8,760.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3263076A

Sample and source description name: T3263076A

Sample date: 09/15/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is

Moisture: 9.8%

	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	20,900.00	5,730.00	25,570.00	16,820.00	6,630.00	5,160.00	4,780.00	1,256.00	25,570.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

T3362035A

Sample and source description name: T3362035A

Sample date: 12/22/2023 Material type: Corral solids Source of analysis: Lab Analysis Method of reporting: As-is

Moisture: 38.6%

	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	23,500.00	6,390.00	26,410.00	21,420.00	6,980.00	5,570.00	3,610,000.00	1,542.00	26,410.00	0.00
DL	100.00	200.00	500.00	500.00	500.00	500.00	100.00	.10		.10

B. PROCESS WASTEWATER ANALYSES

T3089016A

Sample and source description name: T3089016A

Sample date: 03/17/2023 Material type: Process wastewater Source of analysis: Lab Analysis pH: 0

	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 (mmhos/cm)	TDS (mg/L)
Value	274.40	0.00	156.80	0.19	71.30	537.65	266.90	94.46	202.31	0.00	0.00	133.29	255.24	4.39	3,480.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

T3167010A

Sample and source description name: T3167010A

Sample date: 06/12/2023 Material type: Process wastewater Source of analysis: Lab Analysis pH: 0

	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 (mmhos/cm)	TDS (mg/L)
Value	350.00	0.00	179.20	0.31	49.90	392.40	225.88	81.58	168.51	0.00	0.00	163.46	226.39	4.01	3,360.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

T3263049A

Sample and source description name: T3263049A

Sample date: 09/15/2023 Material type: Process wastewater Source of analysis: Lab Analysis pH: 0

	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 (mmhos/cm)	TDS (mg/L)
Value	243.60	0.00	184.80	0.00	41.00	248.05	161.75	56.88	147.70	0.00	0.00	133.09	197.81	4.19	3,180.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

T3362093A

Sample and source description name: T3362093A

Sample date: 12/22/2023 Material type: Process wastewater Source of analysis: Lab Analysis pH: 0

	Kjeldahl-N (mg/L)	NH ₄ -N (mg/L)	NH ₃ -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 (mmhos/cm)	TDS (mg/L)
Value	347.20	0.00	176.40	0.09	53.00	285.55	200.70	67.61	142.16	0.00	0.00	218.79	245.69	4.34	3,800.00
DL	0.50	0.50	0.50	0.50	0.20	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

C. FRESH WATER ANALYSES

TW2-2

T3228025A

Sample and source description name: T3228025A

Sample date: 08/14/2023 Source of analysis: Lab Analysis

	Total N (mg/L)	NH ₄ -N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	0.40	0.00	0.40	33.96	1.69	59.74	0.00	0.00	52.65	20.06	0.47	215.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

TW2-DW1

T3228025B

Sample and source description name: T3228025B

Sample date: 08/14/2023 Source of analysis: Lab Analysis

	Total N (mg/L)	NH ₄ -N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	15.48	0.00	15.48	122.24	2.51	70.78	0.00	0.00	125.27	59.90	1.06	560.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

Canal - Farmers

T3362072B-185-187

Sample and source description name: T3362072B-185-187

Sample date: 12/27/2023

Source of analysis: Lab Analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (mmhos/cm)	TDS (mg/L)
Value	2.80	0.00	0.00	16.59	6.27	23.89	0.00	0.00	22.73	26.87	0.28	100.00
DL	0.50	0.50	0.50	0.50	0.50	0.50	2.00	2.00	0.50	0.50	1.00	10

D. SOIL ANALYSES

11

48564_1

Sample description: 48564_1

Sample date: 05/16/2019

Source of analysis: Lab Analysis

	Nitrate-N (mg/kg)	Total P (mg/kg)	Soluble P (mg/kg)	K (mg/kg)	EC (mmhos/cm)	Organic matter (%)	Total Salt (mg/kg)
Value	13.87	0.00	0.00	0.00	1.08	2.09	
DL	0.50	0.20	0.20	0.50	1.00	0.10	

12

48564_2

Sample description: 48564_2

Sample date: 05/16/2019

Source of analysis: Lab Analysis

	Nitrate-N (mg/kg)	Total P (mg/kg)	Soluble P (mg/kg)	K (mg/kg)	EC (mmhos/cm)	Organic matter (%)	Total Salt (mg/kg)
Value	19.61	0.00	0.00	0.00	1.41	1.87	
DL	0.50	0.20	0.20	0.50	1.00	0.10	

E. PLANT TISSUE ANALYSES

11 - 05/01/2023: Corn, Late Silage

T3342006A

Sample
description: T3342006A

Sample date: 11/03/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	13,000.00	3,120.00	16,280.00	230.00	0.00
DL	100.00	200.00	500.00		0.10

12 - 05/01/2023: Corn, Late Silage

T3342006B

Sample
description: T3342006B

Sample date: 11/03/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	17,260.00	3,020.00	16,630.00	230.00	0.00
DL	100.00	200.00	500.00		0.10

11 - 10/01/2022: Triticale

T3139032A

Sample
description: T3139032A

Sample date: 05/16/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	20,400.00	4,300.00	43,000.00	0.03	0.00
DL	100.00	200.00	500.00		0.10

12 - 10/01/2022: Triticale

T3139032B

Sample
description: T3139032B

Sample date: 05/16/2023 Source of analysis: Lab Analysis Method of reporting: Dry

Mositure: 0%

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total Salt (mg/kg)	TFS (%)
Value	25,300.00	6,700.00	57,000.00	0.04	0.00
DL	100.00	200.00	500.00		0.10

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

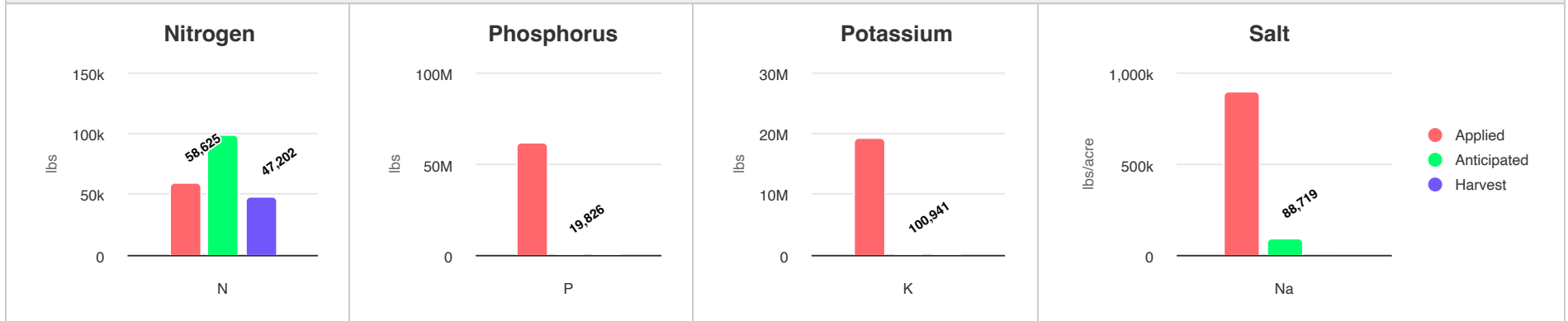
NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

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

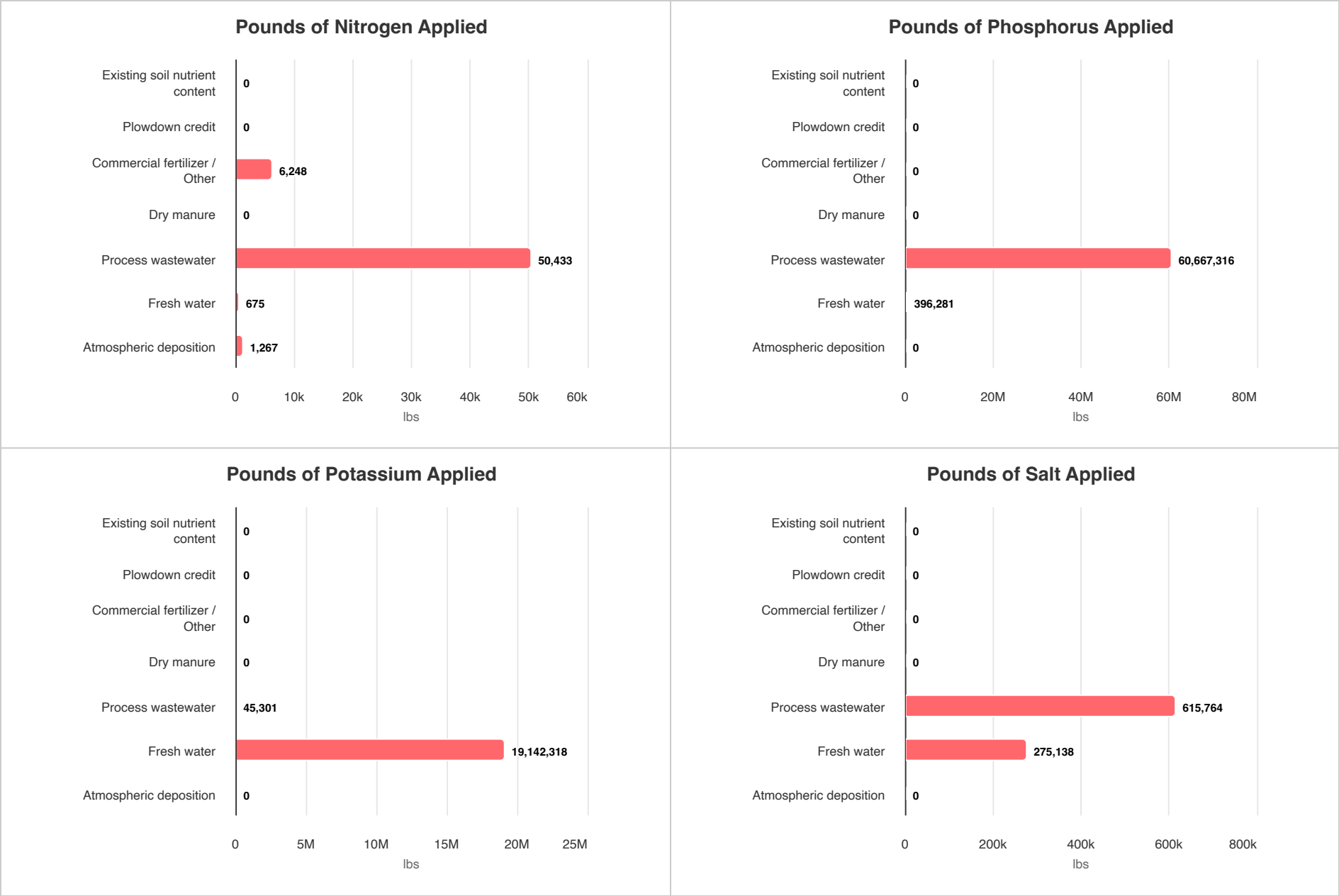
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	6,248.26	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	50,433.47	60,667,316.04	45,300.61	4,984.63
Fresh water	675.37	396,280.98	19,142,318.45	1,650.21
Atmospheric deposition	1,267.42	0.00	0.00	0.00
Total nutrients applied	58,624.51	61,063,597.02	19,187,619.06	890,901.52
Anticipated crop nutrient removal	99,112.25	19,826.07	100,940.95	88,719.40
Actual crop nutrient removal	47,201.67	10,539.80	82,207.14	0.00
Nutrient balance	11,422.84	61,053,057.22	19,105,411.92	890,901.52
Applied to removed ratio	1.24	5,793.62	233.41	0.00

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

Nutrient budgets in lbs/acre



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

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?	<u>No</u>
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ADDITIONAL NOTES

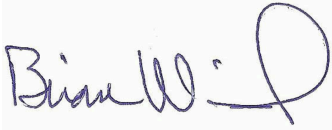
A. NOTES

No notes entered for this annual report.

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.



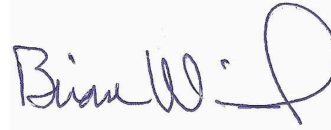
SIGNATURE OF OWNER OF FACILITY

Brian Wind

PRINT OR TYPE NAME

6/29/2024

DATE



SIGNATURE OF OPERATOR OF FACILITY

Brian Wind

PRINT OR TYPE NAME

6/29/2024

DATE

REQUIRED 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 PDF/A 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.

Discharge Maps

Provide map(s) showing the discharge and sample locations for each discharge or release of waste to land areas (land application areas or otherwise) or surface water.

Discharge Lab Reports

Provide copies of laboratory analyses of all discharges (manure, process wastewater, or tailwater), surface water (upstream and downstream of a discharge), and storm water, including chain-of-custody forms and laboratory quality assurance/quality control results.

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.

Solid/Liquid Manure Tracking Manifest

Waste Generator Information:

Name: Brian Wind
Facility Name: T&W Farms 2
Facility Address: 5959 Houghton Rd
Facility City/State: Bakersfield, CA 93311

Contact:

Name: Brian Wind
Number: (661) 477-2973

Manure Hauler / Processor Information:

Name: Rico Trucking
Facility Address: P.O. Box 515
Facility City/State: Norco, CA 92860

Contact:

Name: Fernando Rico
Number: (951) 314-2209

Manure Destination Farmer

Destination Information:

Name: Grimmway Farms
Facility Address: PO Box 81498
Facility City/State: Bakersfield, CA

Contact:

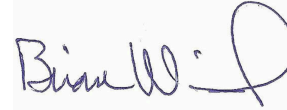
Name: Grimmway Farms
Number: (661) 845-5289

If amount hauled / transferred is liquid, then a "Waste Water Agreement" is required in compliance with Land Application Specification C.2 of the General Order R5-2007-0035.

Does the operator have an agreement, and is a Waste Water Agreement on file with the RWQCD? NO

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

Signature of Owner:



Date:

12/30/2023

Signature of Hauler:



Date:

12/30/2023

Dates Hauled / Transferred	Amount Hauled / Transferred	Units	Moisture %
Mar 1, 2023 - Mar, 31 2023	7,064	ton	67 %
Dec 1, 2023 - Dec, 31 2023	5,233	ton	69 %
Total	12,297		

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www.denelelabs.com

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

Compliance Analysis Report

Customer

T & W #2
18000 Old River Road
Bakersfield, CA 93311

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/17/23

Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-2	T3228025A	Boron (B)	EPA 200.7	0.143	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
----------------------------	-------	------	-------	-------

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Grower

Consultant:

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Bakersfield, CA 93312

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ANALYZED DATE: 8/17/23

Irrigation /Ground Water (H14)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-2	T3228025A	Electrical Conductivity (EC)	EPA 120.1 and	0.470	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	130	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	52.7	mg/L
		Sodium (Na)	EPA 200.7	59.7	mg/L
		Ammonia Nitrogen (NH ₃ -N)	SM 4500-NH ₃ D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	1.69	mg/L
		Nitrate Nitrogen (NO ₃ -N)	EPA 353.2	0.395	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	215	mg/L
		Calcium (Ca)	EPA 200.7	34.0	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	20.1	mg/L
		Soluble Salts (SALT-SOL)	Calculation	301	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.6	101 (T3228024C)	98.8 (T3228024C)			1.80
Calcium (Ca)	95.3	103 (T3228029B)	112 (T3228029B)			8.90
Chloride (Cl)	103	99.6 (T3228024C)	98.1 (T3228024C)			1.56
Magnesium (Mg)	95.1	94.5 (T3228029B)	105 (T3228029B)			10.5
Nitrate Nitrogen (NO ₃ -N)	103	97.1 (T3228024C)	94.4 (T3228024C)			2.88
Sodium (Na)	98.5	102 (T3228029B)	117 (T3228029B)			13.5
Sulfate (SO ₄)	102	114 (T3228024C)	105 (T3228024C)			7.89
Total Dissolved Solids (TDS)	99.5			115 (T3230006A)	120 (Dup)	4.26

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Compliance Analysis Report

Customer

T & W #2
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Bakersfield, CA 93311

Grower**Consultant:**

Icon Ag
9530 Hageman Rd, Ste B. #292
Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/18/23

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-2	T3228025A	pH (pH)	SM4500-H+ B-2000	8.1	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/22/23

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-2	T3228025A	Total Nitrogen (TN)	SM 4500-NH3 D,C	< 1.50	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
----------------------------	-------	------	-------	-------

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SUBMITTED BY: Courier
ANALYZED DATE: 8/17/23

Boron (B)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-DW1	T3228025B	Boron (B)	EPA 200.7	0.241	ppm

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
----------------------------	-------	------	-------	-------

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Grower

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SUBMITTED BY: Courier

ANALYZED DATE: 8/17/23

Irrigation /Ground Water (H14)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-DW1	T3228025B	Electrical Conductivity (EC)	EPA 120.1 and	1.06	mmhos/cm
		Bicarbonate Alkalinity (ALK-B)	SM 2320B-2011	266	mg/L
		Carbonate Alkalinity (Carb)	SM 2320B-2011	< 2.00	mg/L
		Sulfate (SO ₄)	EPA 375.2	125	mg/L
		Sodium (Na)	EPA 200.7	70.8	mg/L
		Ammonia Nitrogen (NH ₃ -N)	SM 4500-NH ₃ D,C	< 0.500	mg/L
		Magnesium (Mg)	EPA 200.7	2.51	mg/L
		Nitrate Nitrogen (NO ₃ -N)	EPA 353.2	15.5	mg/L
		Total Dissolved Solids (TDS)	SM 2540 C-1997 and	560	mg/L
		Calcium (Ca)	EPA 200.7	122	mg/L
		Chloride (Cl)	SM 4500-Cl D-2011	59.9	mg/L
		Soluble Salts (SALT-SOL)	Calculation	678	mg/L

Laboratory Quality Control	LCS %	MS %	MSD %	Sample mg/L	Dup mg/L	RPD %
Ammonia Nitrogen (NH ₃ -N)	97.6	101 (T3228024C)	98.8 (T3228024C)			1.80
Calcium (Ca)	95.3	103 (T3228029B)	112 (T3228029B)			8.90
Chloride (Cl)	103	99.6 (T3228024C)	98.1 (T3228024C)			1.56
Magnesium (Mg)	95.1	94.5 (T3228029B)	105 (T3228029B)			10.5
Nitrate Nitrogen (NO ₃ -N)	103	97.1 (T3228024C)	94.4 (T3228024C)			2.88
Sodium (Na)	98.5	102 (T3228029B)	117 (T3228029B)			13.5
Sulfate (SO ₄)	102	114 (T3228024C)	105 (T3228024C)			7.89
Total Dissolved Solids (TDS)	99.5			115 (T3230006A)	120 (Dup)	4.26

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Bakersfield, CA 93312

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ANALYZED DATE: 8/16/23

Icon Sampling Fee (ISF)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-DW1	T3228025B	Icon Sampling Fee (ISF)	1664B	0.000	N/A

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
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ANALYZED DATE: 8/18/23

pH (pH)

SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-DW1	T3228025B	pH (pH)	SM4500-H+ B-2000	8.1	S.U.

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
----------------------------	-------	------	-------	-------

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Bakersfield, CA 93312

PURCHASE ORDER:

RECEIVED DATE: 8/16/23 10:00 AM
SUBMITTED BY: Courier
ANALYZED DATE: 8/22/23

Total Nitrogen (TN)
SOURCE: Well Water

Sample ID	Lab ID	Analyte	Method Ref	Result	Units
TW2-DW1	T3228025B	Total Nitrogen (TN)	SM 4500-NH3 D,C	15.5	%

Laboratory Quality Control	LCS %	MS %	MSD %	RPD %
----------------------------	-------	------	-------	-------

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Irrigation / Ground / Tile Water



9530 Hageman Rd. Ste B, #292 Bakersfield, CA 93312

Dominic Patino

☎ (661) 333-7776

📠 (661) 215-5168

✉ dpatino@iconaginc.com

Date	8-14-2023
Sampled By	TONY
Lab Name	Denele

T&W Farms 2

Ranch: T&W 2

***Required Field Measurement

NH4-N ☒ Check here if performed

Analysis Types

W5 - Ag Suitability (Non-Compliance)

W2 - W1 + Ca, Mg, Na, Bicard, SO4, Cl, B

W4 - pH, SpCon, TDS, Ca, CO3, Ca, Mg, Na, K, SO4, Cl, B (Reg 3 comp)

W1 - EC, pH, NO3-N, TN, TDS, NH4-N*** (Reg 5 comp)

W3 - W2 + TP, NH4-N, Carb (tile drain)

Weather Conditions

SH - Sunny & Hot

CC - Cold & Cloudy

SW - Sunny & Warm

CCL - Cold & Clear

R - Rainy

1. Location:	T&W Farms 2		
Analysis	Weather	Temp (°F)	# of Bags/Bottles
W2	SH	92	1
<div> <div>CHAIN</div> <div>23-01</div> </div> <div> T&W Farms 2 TW2-2 W Ranch: T&W 2 Date: 8-14-2023 11:20 am IW 35.237867, -119.070127 </div>			
2. Location:	T&W Farms 2		
Analysis	Weather	Temp (°F)	# of Bags/Bottles
W2	SH	92	1
<div> <div>CHAIN</div> <div>23-01</div> </div> <div> T&W Farms 2 TW2-DW1 W Ranch: T&W 2 Date: 8-14-2023 11:30 am IW 35.236562, -119.067884 </div>			
3. Location:	Place CHAIN Label Here Place additional labels on sample bags/bottles		
4. Location:	Place CHAIN Label Here Place additional labels on sample bags/bottles		
5. Location:	Place CHAIN Label Here Place additional labels on sample bags/bottles		
6. Location:	Place CHAIN Label Here Place additional labels on sample bags/bottles		

Chain of Custody Recording Log

	Signature	Company	Received Date/Time	Relinquished Date/Time	Laboratory Use Only	
1st	Antonio Mera	Icon Ag		8-15-2023 7:00 am	Logged in By:	Laboratory #
2nd						
3rd		Denele	8-16-23 10:00			
4th						T3228025