

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:** Henry Veenendaal Dairy, L.P.

Physical address of dairy:

3678 Houston Ave.

Number and Street

Hanford

City

Kings

County

93230

Zip Code

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

Date facility was originally placed in operation: 08/05/1969Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0016-0110-0007-0000**B. OPERATORS**

Veenendaal, Ben

Operator name: Veenendaal, BenTelephone no.: (559) 582-4721(559) 901-1474

Landline

Cellular

3678 Houston AVE

Mailing Address Number and Street

Hanford

City

CA

State

93230

Zip Code

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

Veenendaal, Ben

Legal owner name: Veenendaal, BenTelephone no.: (559) 582-4721(559) 901-1474

Landline

Cellular

3678 Houston AVE

Mailing Address Number and Street

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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	100	300	100	0	0
Number under roof	1,010	0	0	0	0	0
Maximum number	1,010	100	300	100	0	0
Average number	1,010	100	300	100	0	0
Avg live weight (lbs)	1,200	1,300	1,000	800		

Predominant milk cow breed: Holstein

Average milk production: 69 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 31,305.31 tons per reporting period

Total nitrogen from manure: 393,394.10 lbs per reporting period

After ammonia losses (30% loss applied): 275,375.87 lbs per reporting period

Total phosphorus from manure: 65,893.65 lbs per reporting period

Total potassium from manure: 192,760.75 lbs per reporting period

Total salt from manure: 498,553.50 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 39,815,000 gallons

Total nitrogen generated: 132,760.91 lbs

Total phosphorus generated: 15,170.68 lbs

Total potassium generated: 86,881.27 lbs

Total salt generated: 637,802.38 lbs

39,815,000 gallons applied
+ 0 gallons exported
- 0 gallons imported
= 39,815,000 gallons generated

D. FRESH WATER SOURCES

Source Description	Type
Barn	Ground water
Canal	Surface water
D-2	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.

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APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
Field 1E	84	84	2	process wastewater	X016-X120-X034-XXXX
Field 1W	76	76	2	both	X016-X120-X034-XXXX
Field 36E	47	47	2	both	X016-X080-X030-XXXX
Field 36W	33	33	2	process wastewater	X016-X080-X030-XXXX
Field 6	44	44	2	process wastewater	X016-X110-X007-XXXX
Totals for areas that were used for application	284	284	10		
Totals for areas that were not used for application					
Land application area totals	284	284	10		

B. CROPS AND HARVESTS

Field 1E									
Field name: <u>Field 1E</u>									
11/01/2022: <u>Wheat, silage, boot stage</u>									
Crop: <u>Wheat, silage, boot stage</u>						Acres planted: <u>84</u>		Plant date: <u>11/01/2022</u>	
Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/26/2023	1,205.20 <i>ton</i>	Dry-weight		60.2	15,100.00	3,700.00	26,300.00		9.87
	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)				
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00				
Total actual harvest content	14.35	172.45	42.26	300.36	1,127.22				

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Field 1E

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 84 Plant date: 06/01/2023

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	2,416.80 ton	Dry-weight		65.3	9,700.00	3,300.00	14,600.00		4.99

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	28.77	193.68	65.89	291.52	996.37

Field 1W

Field name: Field 1W

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 76 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/26/2023	1,298.10 ton	Dry-weight		60.1	14,900.00	3,000.00	23,300.00		9.80

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	17.08	203.09	40.89	317.58	1,335.74

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 76 Plant date: 06/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/23/2023	2,212.30 ton	Dry-weight		65.9	21,200.00	3,500.00	16,600.00		7.13

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	29.11	420.87	69.48	329.55	1,415.48

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Field 36E

Field name: Field 36E

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 47 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/26/2023	788.60 ton	Dry-weight		61.0	17,700.00	3,800.00	24,400.00		11.11

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	16.78	231.65	49.73	319.33	1,454.01

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 47 Plant date: 06/01/2023

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	1,375.50 ton	Dry-weight		65.4	12,200.00	3,800.00	13,000.00		5.23

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	29.27	247.07	76.96	263.28	1,059.18

Field 36W

Field name: Field 36W

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 33 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/26/2023	546.20 ton	Dry-weight		63.5	16,200.00	3,000.00	26,700.00		9.41

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	16.55	195.74	36.25	322.61	1,136.97

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Field 36W

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 33 Plant date: 06/01/2023

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	955.20 ton	Dry-weight		65.5	11,400.00	3,400.00	12,300.00		5.43

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	224.00	42.00	184.80	0.00
Total actual harvest content	28.95	227.68	67.91	245.66	1,084.50

Field 6

Field name: Field 6

11/01/2022: Wheat, silage, boot stage

Crop: Wheat, silage, boot stage Acres planted: 44 Plant date: 11/01/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
06/26/2023	721.50 ton	Dry-weight		60.7	17,100.00	4,200.00	32,100.00		9.54

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	16.00	256.00	44.80	192.00	0.00
Total actual harvest content	16.40	220.40	54.13	413.72	1,229.57

07/10/2023: Sorghum

Crop: Sorghum Acres planted: 44 Plant date: 07/10/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/16/2023	1,215.20 ton	Dry-weight		73.1	23,700.00	2,800.00	29,200.00		11.29

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	28.00	1,400.00	243.60	1,120.00	0.00
Total actual harvest content	27.62	352.15	41.60	433.87	1,677.53

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NUTRIENT BUDGET

A. LAND APPLICATIONS

Field 1E - 11/01/2022: Wheat, silage, boot stage

Field name: Field 1E

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/18/2023	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
WW	Process wastewater	190.67	10.32	90.10	635.59	3,048,000.00 gal
Application event totals		190.67	10.32	90.10	635.59	

Field 1E - 06/01/2023: Corn, silage

Field name: Field 1E

Crop: Corn, silage

Plant date: 06/01/2023

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
Canal	Surface water	0.00	0.00	0.00	10.31	8,648,000.00 gal
Application event totals		0.00	0.00	0.00	10.31	

07/19/2023	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
WW	Process wastewater	51.36	14.41	65.44	506.99	2,072,000.00 gal
Canal	Surface water	0.00	0.00	0.00	10.31	8,648,000.00 gal
Application event totals		51.36	14.41	65.44	517.30	

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Field 1E - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
07/31/2023	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	
WW		Process wastewater	50.56	14.18	64.43	499.16	2,040,000.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	10.31	8,648,000.00 <i>gal</i>	
Application event totals			50.56	14.18	64.43	509.47		
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	
WW		Process wastewater	50.56	14.18	64.43	499.16	2,040,000.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	10.31	8,648,000.00 <i>gal</i>	
Application event totals			50.56	14.18	64.43	509.47		
08/28/2023	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	
WW		Process wastewater	70.85	4.90	28.21	189.49	2,040,000.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	10.31	8,648,000.00 <i>gal</i>	
Application event totals			70.85	4.90	28.21	199.80		
09/10/2023	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		Surface water	0.00	0.00	0.00	10.31	8,648,000.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	10.31		

Field 1W - 11/01/2022: Wheat, silage, boot stage

Field name: Field 1W

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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Field 1W - 11/01/2022: Wheat, silage, boot stage

Application date	Application method		Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
02/22/2023	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
WW			Process wastewater	127.22	6.88	60.12	424.08	1,840,000.00 <i>gal</i>
Application event totals				127.22	6.88	60.12	424.08	
03/14/2023	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
WW			Process wastewater	127.22	6.88	60.12	424.08	1,840,000.00 <i>gal</i>
Application event totals				127.22	6.88	60.12	424.08	

Field 1W - 06/01/2023: Corn, silage

Field name: Field 1W

Crop: Corn, silage

Plant date: 06/01/2023

Application date	Application method		Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following		
05/26/2023	Plow/disc		No precipitation		No precipitation		No precipitation		
Source description			Material type		N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure			Corral solids		146.05	19.74	75.00	907.89	1,500.00 <i>ton</i>
Application event totals					146.05	19.74	75.00	907.89	
06/22/2023	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			Surface water		0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>
Application event totals					0.00	0.00	0.00	14.24	
07/02/2023	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
Canal			Surface water		0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>
Application event totals					0.00	0.00	0.00	14.24	

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Field 1W - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application			Precipitation 24 hours following	
07/12/2023	Surface (irrigation)	No precipitation		No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
WW		Process wastewater	105.75	29.66	134.74	1,043.91	3,860,000.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>	
Application event totals			105.75	29.66	134.74	1,058.16		
07/22/2023	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		Surface water	0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	14.24		
08/06/2023	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	
Canal		Surface water	0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	14.24		
08/18/2023	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	
WW		Process wastewater	105.75	29.66	134.74	1,043.91	3,860,000.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>	
Application event totals			105.75	29.66	134.74	1,058.16		
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	
Canal		Surface water	0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	14.24		
09/14/2023	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		Surface water	0.00	0.00	0.00	14.24	10,809,000.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	14.24		

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Field 36E - 11/01/2022: Wheat, silage, boot stage

Field name: Field 36E

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method		Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following
02/11/2023	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
WW		Process wastewater	148.14	8.02	70.00	493.81	1,325,000.00 <i>gal</i>
Application event totals			148.14	8.02	70.00	493.81	

03/12/2023	Surface (irrigation)		No precipitation	No precipitation			No precipitation
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
WW		Process wastewater	148.14	8.02	70.00	493.81	1,325,000.00 <i>gal</i>
Application event totals			148.14	8.02	70.00	493.81	

Field 36E - 06/01/2023: Corn, silage

Field name: Field 36E

Crop: Corn, silage

Plant date: 06/01/2023

Application date	Application method		Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/28/2023	Plow/disc		No precipitation	No precipitation		No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Dry Manure		Corral solids	236.17	31.91	121.28	1,468.09	1,500.00 <i>ton</i>
Application event totals			236.17	31.91	121.28	1,468.09	
07/09/2023	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
Canal		Surface water	0.00	0.00	0.00	18.96	8,900,000.00 <i>gal</i>
Application event totals			0.00	0.00	0.00	18.96	

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Field 36E - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior		Precipitation during application		Precipitation 24 hours following	
07/14/2023	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	Surface water	0.00	0.00	0.00	18.96	8,900,000.00 <i>gal</i>	
Application event totals		0.00	0.00	0.00	18.96		
07/22/2023	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	Surface water	0.00	0.00	0.00	18.96	8,900,000.00 <i>gal</i>	
Application event totals		0.00	0.00	0.00	18.96		
08/10/2023	Surface (irrigation)	No precipitation		No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Canal	Surface water	0.00	0.00	0.00	18.96	8,900,000.00 <i>gal</i>	
Application event totals		0.00	0.00	0.00	18.96		
08/18/2023	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	Surface water	0.00	0.00	0.00	18.96	8,900,000.00 <i>gal</i>	
Application event totals		0.00	0.00	0.00	18.96		
08/27/2023	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	
Canal	Surface water	0.00	0.00	0.00	18.96	8,900,000.00 <i>gal</i>	
Application event totals		0.00	0.00	0.00	18.96		
09/09/2023	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	
Canal	Surface water	0.00	0.00	0.00	18.96	8,900,000.00 <i>gal</i>	
Application event totals		0.00	0.00	0.00	18.96		

Field 36W - 11/01/2022: Wheat, silage, boot stage

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

Field 36W - 11/01/2022: Wheat, silage, boot stage

Field name: Field 36W

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
02/14/2023	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
WW		Process wastewater	210.98	11.42	99.70	703.30	1,325,000.00 <i>gal</i>
Application event totals			210.98	11.42	99.70	703.30	

Field 36W - 06/01/2023: Corn, silage

Field name: Field 36W

Crop: Corn, silage

Plant date: 06/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following		
07/09/2023	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
Canal	Surface water	0.00	0.00	0.00	12.27	4,045,000.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	12.27	
07/19/2023	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
WW	Process wastewater	128.71	36.11	164.00	1,270.59	2,040,000.00 <i>gal</i>
Canal	Surface water	0.00	0.00	0.00	12.28	4,045,800.00 <i>gal</i>
Application event totals		128.71	36.11	164.00	1,282.87	
08/02/2023	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
Canal	Surface water	0.00	0.00	0.00	12.28	4,045,800.00 <i>gal</i>
Application event totals		0.00	0.00	0.00	12.28	

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

Field 36W - 06/01/2023: Corn, silage

Application date	Application method		Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
08/14/2023	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	
WW		Process wastewater	180.35	12.46	71.81	482.34	2,040,000.00 <i>gal</i>	
Canal		Surface water	0.00	0.00	0.00	12.28	4,045,800.00 <i>gal</i>	
Application event totals			180.35	12.46	71.81	494.62		
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	
Canal		Surface water	0.00	0.00	0.00	12.27	4,045,000.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	12.27		
09/12/2023	Surface (irrigation)		No precipitation	No precipitation			No precipitation	
Source description		Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount	
Canal		Surface water	0.00	0.00	0.00	12.27	4,045,000.00 <i>gal</i>	
Application event totals			0.00	0.00	0.00	12.27		

Field 6 - 11/01/2022: Wheat, silage, boot stage

Field name: Field 6

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application			Precipitation 24 hours following	
03/16/2023	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
WW		Process wastewater	249.36	13.49	117.83	831.22	2,088,000.00 <i>gal</i>
Application event totals			249.36	13.49	117.83	831.22	

Field 6 - 07/10/2023: Sorghum

Field name: Field 6

Crop: Sorghum

Plant date: 07/10/2023

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

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

Field 6 - 07/10/2023: Sorghum

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following			
06/24/2023	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
Canal		Surface water	0.00	0.00	0.00	18.39	8,078,240.00 <i>gal</i>
Application event totals			0.00	0.00	0.00	18.39	
08/03/2023	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
WW		Process wastewater	466.26	32.22	185.65	1,246.99	7,032,000.00 <i>gal</i>
Canal		Surface water	0.00	0.00	0.00	18.39	8,078,240.00 <i>gal</i>
Application event totals			466.26	32.22	185.65	1,265.38	

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

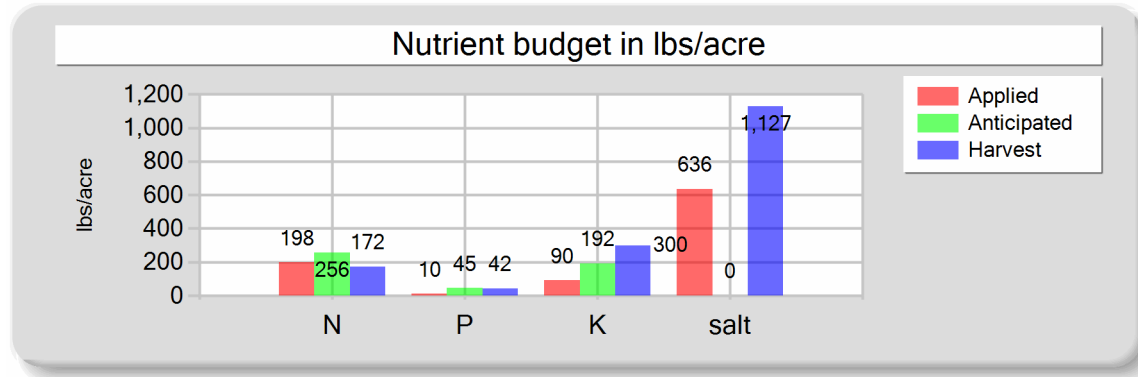
B. NUTRIENT BUDGET

Field 1E - 11/01/2022: Wheat, silage, boot stage

Field name: Field 1E

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)	Fresh water applied
Existing soil nutrient content	0.00	0.00	0.00	0.00	0.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	0.00 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	0.00 inches/acre
Dry manure	0.00	0.00	0.00	0.00	
Process wastewater	190.67	10.32	90.10	635.59	Process wastewater applied
Fresh water	0.00	0.00	0.00	0.00	3,048,000.00 gallons
Atmospheric deposition	7.00	0.00	0.00	0.00	112.25 acre-inches
Total nutrients applied	197.67	10.32	90.10	635.59	1.34 inches/acre
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00	
Actual crop nutrient removal	172.45	42.26	300.36	1,127.22	Total harvests for the crop
Nutrient balance	25.22	-31.94	-210.27	-491.64	1 harvests
Applied to removed ratio	1.15	0.24	0.30	0.56	

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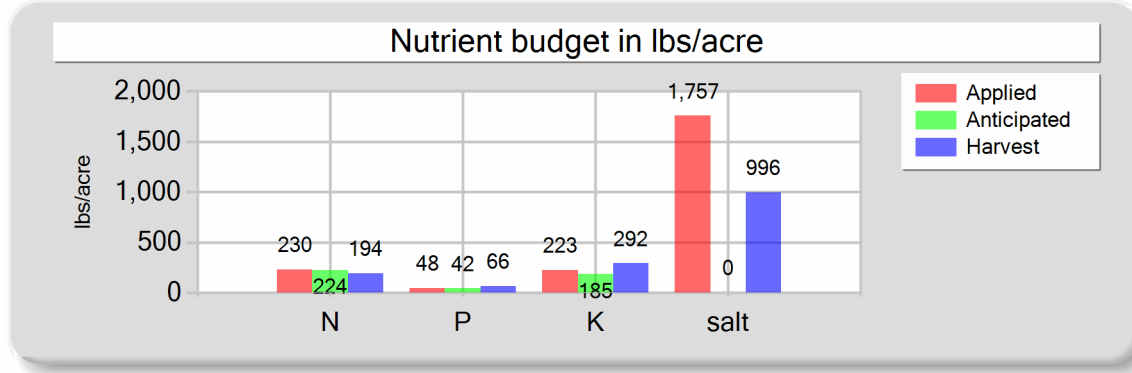
Reporting period 01/01/2023 to 12/31/2023.

Field 1E - 06/01/2023: Corn, silage

Field name: Field 1E

Crop: Corn, silage

Plant date: 06/01/2023



	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	223.34	47.67	222.50	1,694.81
Fresh water	0.00	0.00	0.00	61.86
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	230.34	47.67	222.50	1,756.67
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	193.68	65.89	291.52	996.37
Nutrient balance	36.66	-18.22	-69.02	760.29
Applied to removed ratio	1.19	0.72	0.76	1.76

Fresh water applied
51,888,000.00 <i>gallons</i>
1,910.86 <i>acre-inches</i>
22.75 <i>inches/acre</i>

Process wastewater applied
8,192,000.00 <i>gallons</i>
301.68 <i>acre-inches</i>
3.59 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

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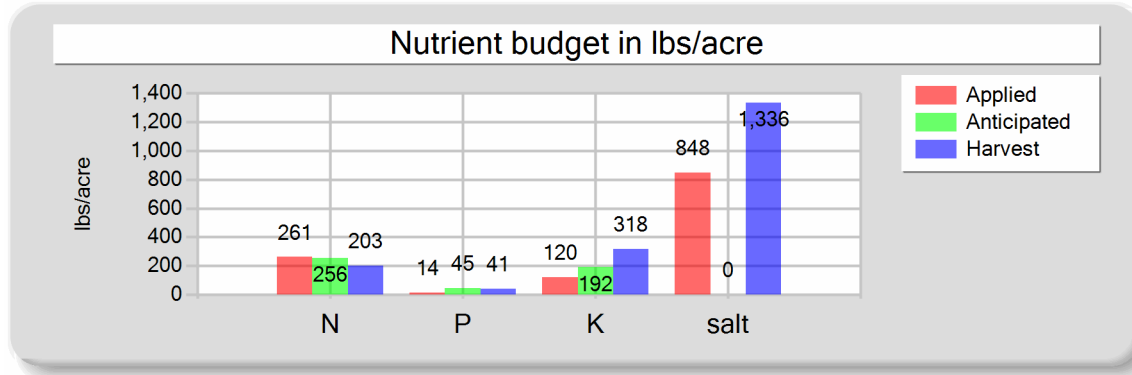
Reporting period 01/01/2023 to 12/31/2023.

Field 1W - 11/01/2022: Wheat, silage, boot stage

Field name: Field 1W

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	254.44	13.77	120.23	848.15
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	261.44	13.77	120.23	848.15
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	203.09	40.89	317.58	1,335.74
Nutrient balance	58.35	-27.12	-197.35	-487.59
Applied to removed ratio	1.29	0.34	0.38	0.63

Fresh water applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <i>inches/acre</i>

Process wastewater applied
3,680,000.00 <i>gallons</i>
135.52 <i>acre-inches</i>
1.78 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

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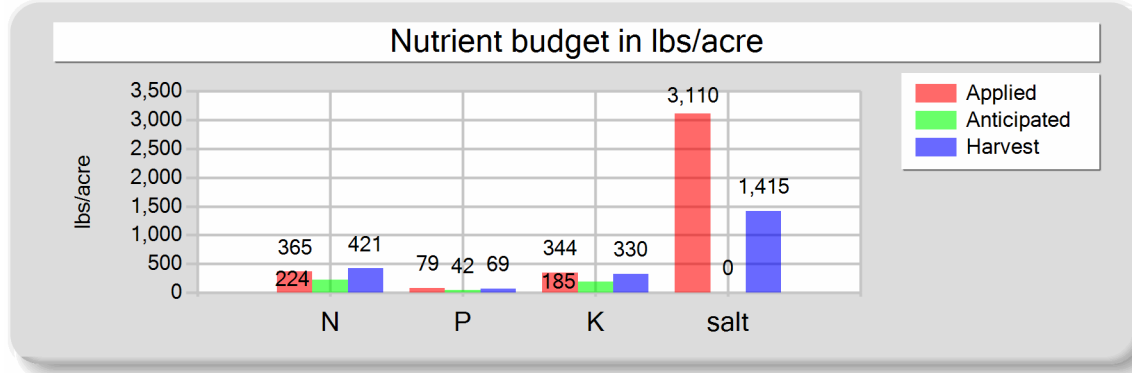
Reporting period 01/01/2023 to 12/31/2023.

Field 1W - 06/01/2023: Corn, silage

Field name: Field 1W

Crop: Corn, silage

Plant date: 06/01/2023



	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	146.05	19.74	75.00	907.89
Process wastewater	211.50	59.33	269.48	2,087.83
Fresh water	0.00	0.00	0.00	113.94
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	364.55	79.07	344.48	3,109.66
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	420.87	69.48	329.55	1,415.48
Nutrient balance	-56.32	9.58	14.93	1,694.18
Applied to removed ratio	0.87	1.14	1.05	2.20

Fresh water applied
86,472,000.00 <i>gallons</i>
3,184.47 <i>acre-inches</i>
41.90 <i>inches/acre</i>

Process wastewater applied
7,720,000.00 <i>gallons</i>
284.30 <i>acre-inches</i>
3.74 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

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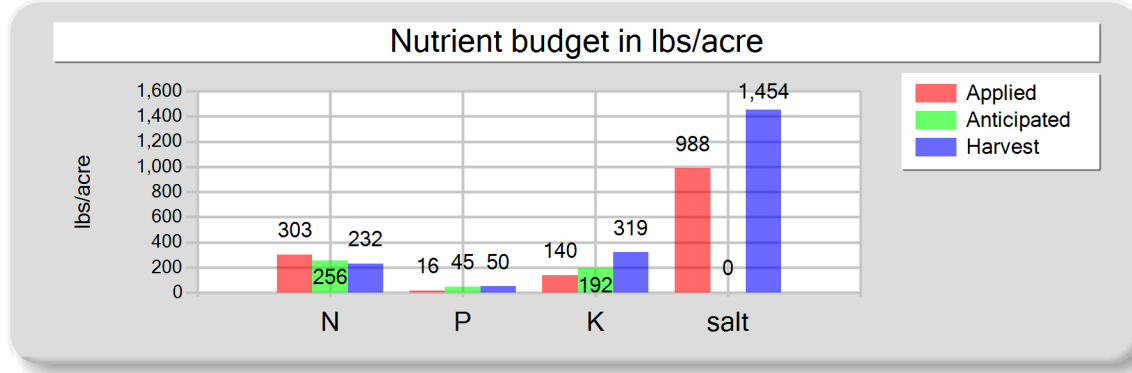
Reporting period 01/01/2023 to 12/31/2023.

Field 36E - 11/01/2022: Wheat, silage, boot stage

Field name: Field 36E

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	296.27	16.03	140.00	987.61
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	303.27	16.03	140.00	987.61
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	231.65	49.73	319.33	1,454.01
Nutrient balance	71.63	-33.70	-179.33	-466.40
Applied to removed ratio	1.31	0.32	0.44	0.68

Fresh water applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <i>inches/acre</i>

Process wastewater applied
2,650,000.00 <i>gallons</i>
97.59 <i>acre-inches</i>
2.08 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

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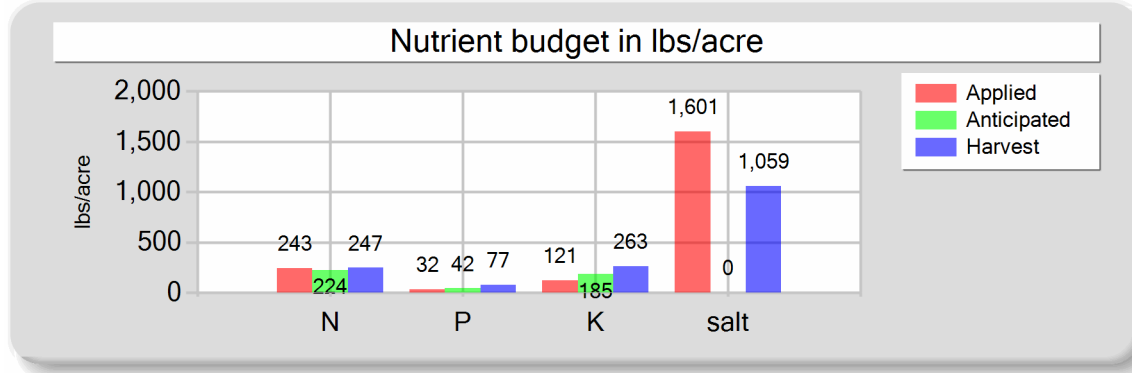
Reporting period 01/01/2023 to 12/31/2023.

Field 36E - 06/01/2023: Corn, silage

Field name: Field 36E

Crop: Corn, silage

Plant date: 06/01/2023



	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	236.17	31.91	121.28	1,468.09
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	0.00	0.00	0.00	132.74
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	243.17	31.91	121.28	1,600.82
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	247.07	76.96	263.28	1,059.18
Nutrient balance	-3.90	-45.04	-142.00	541.64
Applied to removed ratio	0.98	0.41	0.46	1.51

Fresh water applied
62,300,000.00 <i>gallons</i>
2,294.30 <i>acre-inches</i>
48.81 <i>inches/acre</i>

Process wastewater applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

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

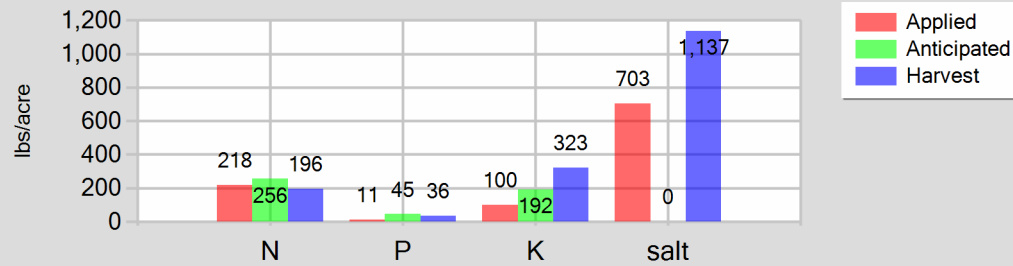
Field 36W - 11/01/2022: Wheat, silage, boot stage

Field name: Field 36W

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	210.98	11.42	99.70	703.30
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	217.98	11.42	99.70	703.30
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	195.74	36.25	322.61	1,136.97
Nutrient balance	22.25	-24.83	-222.91	-433.67
Applied to removed ratio	1.11	0.31	0.31	0.62

Fresh water applied
0.00 gallons
0.00 acre-inches
0.00 inches/acre
Process wastewater applied
1,325,000.00 gallons
48.80 acre-inches
1.48 inches/acre
Total harvests for the crop
1 harvests

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

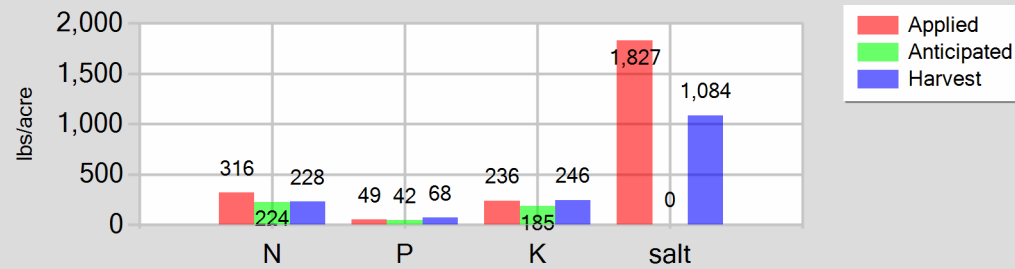
Field 36W - 06/01/2023: Corn, silage

Field name: Field 36W

Crop: Corn, silage

Plant date: 06/01/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	309.06	48.57	235.81	1,752.94
Fresh water	0.00	0.00	0.00	73.66
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	316.06	48.57	235.81	1,826.59
Anticipated crop nutrient removal	224.00	42.00	184.80	0.00
Actual crop nutrient removal	227.68	67.91	245.66	1,084.50
Nutrient balance	88.37	-19.34	-9.85	742.09
Applied to removed ratio	1.39	0.72	0.96	1.68

Fresh water applied
24,272,400.00 gallons
893.87 acre-inches
27.09 inches/acre

Process wastewater applied
4,080,000.00 gallons
150.25 acre-inches
4.55 inches/acre

Total harvests for the crop
1 harvests

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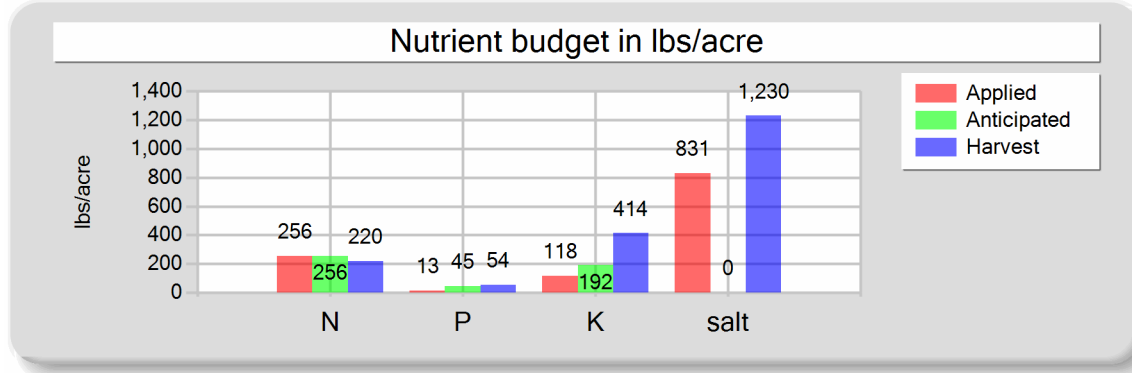
Reporting period 01/01/2023 to 12/31/2023.

Field 6 - 11/01/2022: Wheat, silage, boot stage

Field name: Field 6

Crop: Wheat, silage, boot stage

Plant date: 11/01/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	249.36	13.49	117.83	831.22
Fresh water	0.00	0.00	0.00	0.00
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	256.36	13.49	117.83	831.22
Anticipated crop nutrient removal	256.00	44.80	192.00	0.00
Actual crop nutrient removal	220.40	54.13	413.72	1,229.57
Nutrient balance	35.96	-40.64	-295.89	-398.35
Applied to removed ratio	1.16	0.25	0.28	0.68

Fresh water applied
0.00 <i>gallons</i>
0.00 <i>acre-inches</i>
0.00 <i>inches/acre</i>

Process wastewater applied
2,088,000.00 <i>gallons</i>
76.89 <i>acre-inches</i>
1.75 <i>inches/acre</i>

Total harvests for the crop
1 <i>harvests</i>

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

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

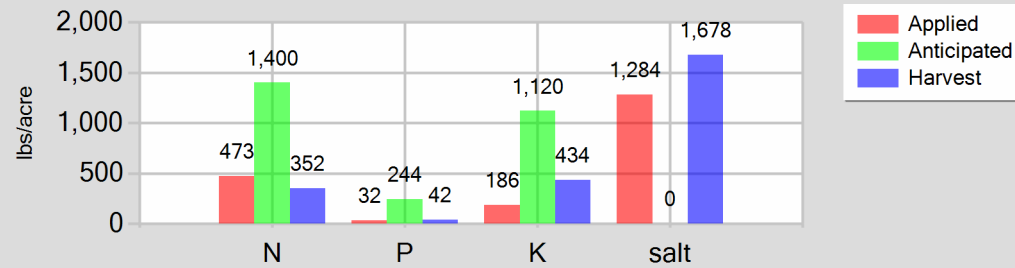
Field 6 - 07/10/2023: Sorghum

Field name: Field 6

Crop: Sorghum

Plant date: 07/10/2023

Nutrient budget in lbs/acre



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	466.26	32.22	185.65	1,246.99
Fresh water	0.00	0.00	0.00	36.77
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	473.26	32.22	185.65	1,283.76
Anticipated crop nutrient removal	1,400.00	243.60	1,120.00	0.00
Actual crop nutrient removal	352.15	41.60	433.87	1,677.53
Nutrient balance	121.11	-9.38	-248.22	-393.77
Applied to removed ratio	1.34	0.77	0.43	0.77

Fresh water applied
16,156,480.00 <i>gallons</i>
594.99 <i>acre-inches</i>
13.52 <i>inches/acre</i>
Process wastewater applied
7,032,000.00 <i>gallons</i>
258.96 <i>acre-inches</i>
5.89 <i>inches/acre</i>
Total harvests for the crop
1 <i>harvests</i>

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

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

NUTRIENT ANALYSES

A. MANURE ANALYSES

Dry Manure

Sample and source description: Dry Manure

Sample date: 05/26/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 80.0 %

	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	3,700.00	500.00	1,900.00	400.00	1,600.00	400.00	500.00	5.40		11.50
DL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	1.00		1.00

Dry Manure

Sample and source description: Dry Manure

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

Moisture: 39.1 %

	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	6,900.00	4,200.00	18,200.00							59.80
DL	100.00	100.00	100.00							1.00

B. PROCESS WASTEWATER ANALYSES

1st Qtr WW

Sample and source description: 1st Qtr WW

Sample date: 02/03/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.49

	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	629.68	97.84	0.00	0.00	34.07	297.55								3,280.00	2,099
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

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

2nd Qtr WW

Sample and source description: 2nd Qtr WW

Sample date: 06/09/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.63

	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	249.50	154.89	0.00	0.00	69.99	317.90	5.40	4.80	13.10	34.42	5.40	1.70	5.80	3,849.00	2,463
DL	67.00	0.57	0.01	0.01	0.64	0.01	0.02	0.01	0.01	0.10	0.02	0.02	0.01	1.00	19

3rd Qtr WW

Sample and source description: 3rd Qtr WW

Sample date: 08/28/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.21

	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	349.60	82.62	0.00	0.00	24.16	139.20								1,461.00	935
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

4th Qtr WW

Sample and source description: 4th Qtr WW

Sample date: 12/08/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.50

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	429.40	114.00	0.00	0.00	38.10	684.30								6,508.00	4,165
DL	67.00	0.57	0.01	0.01	0.64	0.01								1.00	19

C. FRESH WATER ANALYSES

Barn

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

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

Barn

Barn

Sample description: Barn

Sample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.50										1,150.00	
DL	0.10										10.00	

Canal

Canal

Sample description: Canal

Sample date: 08/17/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	0.00										20.00	
DL	0.10										1.00	

D-2

D-2

Sample description: D-2

Sample date: 12/12/2023 Source of analysis: Lab analysis

	Total N (mg/L)	NH4-N (mg/L)	Nitrate-N (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Sodium (mg/L)	Bicarbonate (mg/L)	Carbonate (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	1.30										653.00	
DL	0.10										10.00	

D. SOIL ANALYSES

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

No soil analyses entered.

E. PLANT TISSUE ANALYSES

Field 1E - 11/01/2022: Wheat, silage, boot stage

1E

Sample and source description: 1E

Sample date: 05/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 60.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,100.00	3,700.00	26,300.00		9.87
DL	100.00	100.00	100.00		1.00

Field 1E - 06/01/2023: Corn, silage

1E

Sample and source description: 1E

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

Moisture: 65.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	9,700.00	3,300.00	14,600.00		4.99
DL	100.00	100.00	100.00		1.00

Field 1W - 11/01/2022: Wheat, silage, boot stage

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Field 1W - 11/01/2022: Wheat, silage, boot stage

1W

Sample and source description: 1W

Sample date: 05/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 60.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,900.00	3,000.00	23,300.00		9.80
DL	100.00	100.00	100.00		1.00

Field 1W - 06/01/2023: Corn, silage

1W

Sample and source description: 1W

Sample date: 10/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 65.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	21,200.00	3,500.00	16,600.00		7.13
DL	100.00	100.00	100.00		1.00

Field 36E - 11/01/2022: Wheat, silage, boot stage

36E

Sample and source description: 36E

Sample date: 05/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,700.00	3,800.00	24,400.00		11.11
DL	100.00	100.00	100.00		1.00

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

Field 36E - 06/01/2023: Corn, silage

36E

Sample and source description: 36E

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

Moisture: 65.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,200.00	3,800.00	13,000.00		5.23
DL	100.00	100.00	100.00		1.00

Field 36W - 11/01/2022: Wheat, silage, boot stage

36W

Sample and source description: 36W

Sample date: 05/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,200.00	3,000.00	26,700.00		9.41
DL	100.00	100.00	100.00		1.00

Field 36W - 06/01/2023: Corn, silage

36W

Sample and source description: 36W

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

Moisture: 65.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,400.00	3,400.00	12,300.00		5.43
DL	100.00	100.00	100.00		1.00

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

Field 6 - 11/01/2022: Wheat, silage, boot stage

6

Sample and source description: 6

Sample date: 06/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 60.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,100.00	4,200.00	32,100.00		9.54
DL	100.00	100.00	100.00		1.00

Field 6 - 07/10/2023: Sorghum

6

Sample and source description: 6

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

Moisture: 73.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	23,700.00	2,800.00	29,200.00		11.29
DL	100.00	100.00	100.00		1.00

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

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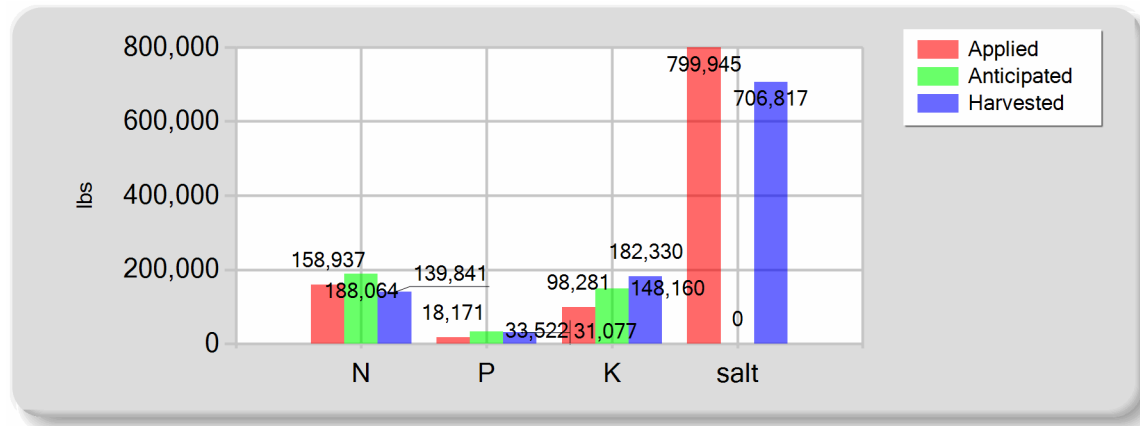
Reporting period 01/01/2023 to 12/31/2023.

NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

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

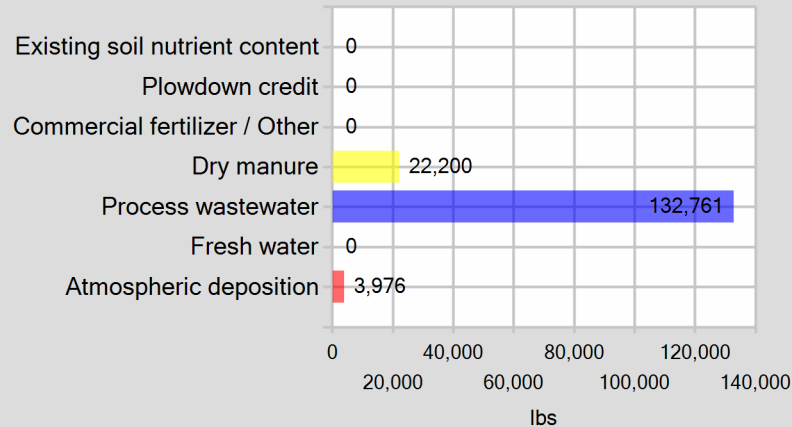
	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	22,200.00	3,000.00	11,400.00	138,000.00
Process wastewater	132,760.91	15,170.68	86,881.27	637,802.38
Fresh water	0.00	0.00	0.00	24,142.64
Atmospheric deposition	3,976.00	0.00	0.00	0.00
Total nutrients applied	158,936.91	18,170.68	98,281.27	799,945.02
Anticipated crop nutrient removal	188,064.00	33,521.60	148,160.00	0.00
Actual crop nutrient removal	139,841.24	31,076.82	182,330.17	706,816.63
Nutrient balance	19,095.66	-12,906.14	-84,048.90	93,128.40
Applied to removed ratio	1.14	0.58	0.54	1.13

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

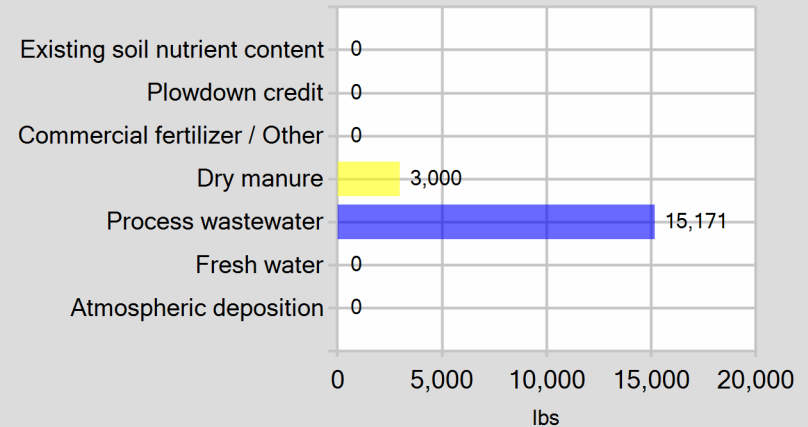


C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

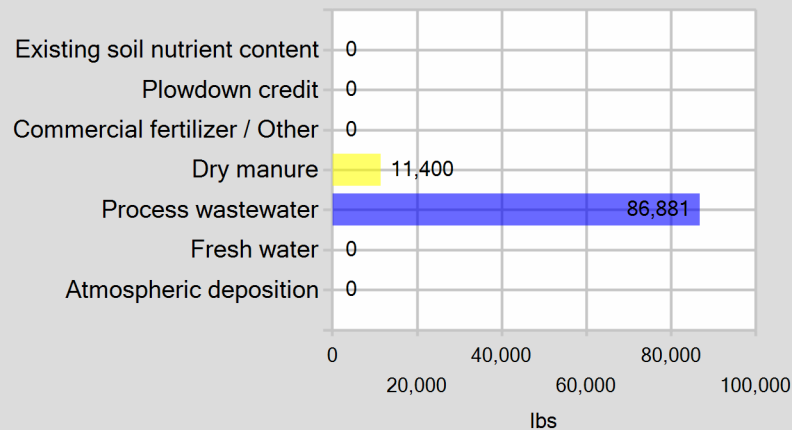
Pounds of nitrogen applied



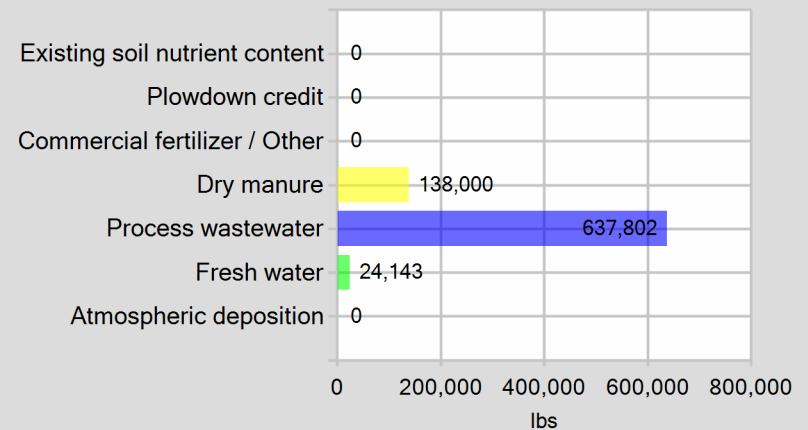
Pounds of phosphorus applied



Pounds of potassium applied



Pounds of salt applied



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

EXCEPTION REPORTING

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

The following is a summary of all manure and process wastewater discharges from the production area to surface water or to land areas (land application areas or otherwise) when not in accordance with the facility's Nutrient Management Plan.

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

Was the facility's NMP updated in the reporting period? No

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

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

ADDITIONAL NOTES

A. NOTES

All of the wells that were sampled came out negative for Ammonia which we tested onsite with a test strip .

We had an extremely wet year and had early flood release water and then Canal water thru the whole year so no wells were turned on .

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

Ben Veenendaal

PRINT OR TYPE NAME

Ben V. Veenendaal

DATE

SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

6-20-24

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.

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/18/2023 13:51

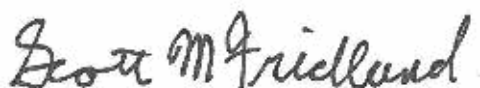
Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23L0696-01	Barn	Ag Water	Medeiros		12/12/2023 9:55
23L0696-02	D-2	Ag Water	Medeiros		12/12/2023 10:00

Default Cooler Temperature on Receipt °C: 20.9
Containers Intact
COC/Labels Agree
Received On Ice

Notes and Definitions

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



Laboratory Director/Technical Manager

ELAP Certification #1595
A2LA Certification #6440.02

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/18/2023 13:51

Sample Results

Sample: Barn
23L0696-01 (Water)

Sampled: 12/12/2023 9:55
Sampled By: Medeiros

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	1.15	mmhos/cm	0.01	1		12/13/23 17:17	SM 2510 B		BEL0497
Electrical Conductivity umhos	1150	umhos/cm	10.0	1		12/13/23 17:17	SM 2510 B		BEL0497
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 09:55	Field		BEL0527
Nitrate Nitrogen as NO3N	0.5	mg/L	0.1	1	10	12/14/23 00:19	EPA 300.0		BEL0444
Temperature	25.0	units	0.0	1		12/13/23 17:17	SM 4500-H+	H	BEL0497
pH	7.7	units	1.0	1		12/13/23 17:17	SM 4500-H+	H	BEL0497

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/18/2023 13:51

Sample Results (Continued)

Sample: D-2
23L0696-02 (Water)

Sampled: 12/12/2023 10:00
Sampled By: Medeiros

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.65	mmhos/cm	0.01	1		12/13/23 17:19	SM 2510 B		BEL0497
Electrical Conductivity umhos	653	umhos/cm	10.0	1		12/13/23 17:19	SM 2510 B		BEL0497
Ammonia (as N)	ND	mg/L	0.00	1		12/12/23 10:00	Field		BEL0527
Nitrate Nitrogen as NO3N	1.3	mg/L	0.1	1	10	12/14/23 00:38	EPA 300.0		BEL0444
Temperature	25.0	units	0.0	1		12/13/23 17:19	SM 4500-H+	H	BEL0497
pH	8.2	units	1.0	1		12/13/23 17:19	SM 4500-H+	H	BEL0497

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/18/2023 13:51

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEL0444									
Blank (BEL0444-BLK1)				Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	ND	0.1	mg/L						
Blank (BEL0444-BLK2)				Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	ND	0.1	mg/L						
Blank (BEL0444-BLK3)				Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	ND	0.1	mg/L						
Blank (BEL0444-BLK4)				Prepared: 12/13/2023 Analyzed: 12/14/2023					
Nitrate Nitrogen as NO3N	ND	0.1	mg/L						
LCS (BEL0444-BS1)				Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	5.2	0.1	mg/L	5.000		103	90-110		
LCS (BEL0444-BS2)				Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	5.2	0.1	mg/L	5.000		104	90-110		
LCS (BEL0444-BS3)				Prepared: 12/13/2023 Analyzed: 12/14/2023					
Nitrate Nitrogen as NO3N	5.2	0.1	mg/L	5.000		103	90-110		
Duplicate (BEL0444-DUP1)		Source: 23L0740-02		Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	0.05	0.1	mg/L		0.05			3.92	10
Duplicate (BEL0444-DUP2)		Source: 23L0744-02		Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	0.05	0.1	mg/L		0.05			1.98	10
Duplicate (BEL0444-DUP3)		Source: 23L0700-01		Prepared: 12/13/2023 Analyzed: 12/14/2023					
Nitrate Nitrogen as NO3N	0.04	0.1	mg/L		0.04			0.00	10
Matrix Spike (BEL0444-MS1)		Source: 23L0740-02		Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	5.1	0.1	mg/L	5.000	0.05	101	90-110		
Matrix Spike (BEL0444-MS2)		Source: 23L0744-02		Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	5.1	0.1	mg/L	5.000	0.05	100	90-110		
Matrix Spike (BEL0444-MS3)		Source: 23L0700-01		Prepared: 12/13/2023 Analyzed: 12/14/2023					
Nitrate Nitrogen as NO3N	5.1	0.1	mg/L	5.000	0.04	102	90-110		
Reference (BEL0444-SRM1)				Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	10.1		mg/L	10.00		101	90-110		
Reference (BEL0444-SRM2)				Prepared & Analyzed: 12/13/2023					
Nitrate Nitrogen as NO3N	10.2		mg/L	10.00		102	90-110		

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Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/18/2023 13:51

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
---------	-------------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------

Batch: BEL0444 (Continued)

Reference (BEL0444-SRM3)

Nitrate Nitrogen as NO3N	10.2	mg/L	10.00	102	90-110
--------------------------	------	------	-------	-----	--------

Prepared & Analyzed: 12/13/2023

Reference (BEL0444-SRM4)

Nitrate Nitrogen as NO3N	10.2	mg/L	10.00	102	90-110
--------------------------	------	------	-------	-----	--------

Prepared: 12/13/2023 Analyzed: 12/14/2023

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/18/2023 13:51

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEL0497									
Blank (BEL0497-BLK1)				Prepared & Analyzed: 12/13/2023					
Electrical Conductivity	ND	0.01	mmhos/cm						
Temperature	25.0	0.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
pH	5.5	1.0	units						
Blank (BEL0497-BLK2)				Prepared & Analyzed: 12/13/2023					
Temperature	25.0	0.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
pH	7.7	1.0	units						
Blank (BEL0497-BLK3)				Prepared & Analyzed: 12/13/2023					
Electrical Conductivity	ND	0.01	mmhos/cm						
Temperature	25.0	0.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
pH	7.2	1.0	units						
Duplicate (BEL0497-DUP1)				Source: 23L0694-04		Prepared & Analyzed: 12/13/2023			
Electrical Conductivity	1.14	0.01	mmhos/cm		1.13		0.986		10
pH	7.8	1.0	units		7.8		0.129		10
Electrical Conductivity umhos	1140	10.0	umhos/cm		1130		0.986		10
Duplicate (BEL0497-DUP2)				Source: 23L0704-01		Prepared & Analyzed: 12/13/2023			
Electrical Conductivity	1.94	0.01	mmhos/cm		1.91		1.40		10
Electrical Conductivity umhos	1940	10.0	umhos/cm		1910		1.40		10
pH	7.3	1.0	units		7.4		0.815		10
Reference (BEL0497-SRM1)				Prepared & Analyzed: 12/13/2023					
Electrical Conductivity	456		umhos/cm	426.0		107	90-110		
Reference (BEL0497-SRM2)				Prepared & Analyzed: 12/13/2023					
pH	7.5		units	7.520		100	67021-101.3;		
Reference (BEL0497-SRM3)				Prepared & Analyzed: 12/13/2023					
Electrical Conductivity	1090		umhos/cm	1000		109	90-110		
Electrical Conductivity umhos	1090		umhos/cm	1000		109	90-110		
Reference (BEL0497-SRM4)				Prepared & Analyzed: 12/13/2023					
Electrical Conductivity	1090		umhos/cm	1000		109	90-110		
Electrical Conductivity umhos	1090		umhos/cm	1000		109	90-110		
Reference (BEL0497-SRM5)				Prepared & Analyzed: 12/13/2023					
Electrical Conductivity	1070		umhos/cm	1000		107	90-110		

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Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 12/13/2023 7:00
Reported: 12/18/2023 13:51

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEL0497 (Continued)									
Reference (BEL0497-SRM5)				Prepared & Analyzed: 12/13/2023					
Electrical Conductivity umhos	1070		umhos/cm	1000		107	90-110		
Reference (BEL0497-SRM6)				Prepared & Analyzed: 12/13/2023					
pH	4.0		units	4.000		100	97.5-102.5		
Reference (BEL0497-SRM7)				Prepared & Analyzed: 12/13/2023					
pH	4.0		units	4.000		101	97.5-102.5		
Reference (BEL0497-SRM8)				Prepared & Analyzed: 12/13/2023					
pH	4.0		units	4.000		100	97.5-102.5		

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12/13/23 07:00

23L0696

WATER WORK REQUESTBill To: Acct No. 15776 Cons. 8

Purchase Order No. _____ Results Needed By _____

Client Henry Veenendaal Dairy
Address 3678 Houston Ave
City, State, Zip Hanford CA 93230
Email daallp@hughes.netCopy to: mel_tinamedeiros@yahoo.comRequested by/Cell: Christina Medeiros/ 559-903-2490

Facility: _____

Date sampled _____

Sampled by medeiros☒ QA/QC Document ☒ Copy of Chain ☐ RWQCB**DESCRIPTION OF SAMPLES**

1. <u>Barn</u>	Sampled From:
2. <u>D-2</u>	Sampled From:
3.	Sampled From:
4.	Sampled From:
5.	Sampled From:
6.	Sampled From:
7.	Sampled From:
8.	Sampled From:
9.	Sampled From:
10.	Sampled From:

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<u>[Signature]</u>			<u>12/12/23 11:32 AM</u>
Second	<u>[Signature]</u>	<u>DLI</u>	<u>12/12/23 11:32 AM</u>	
Third				
Fourth	<u>[Signature]</u>	<u>DLI</u>	<u>12/13 07:00</u>	

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

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

Invoicing Information:**Medeiros Pricing 2023**

Sampling Hrs _____ Miles _____ Consulting _____

Amt Paid _____

Rec By _____

Check No. _____

Date _____

Shipping

\$ _____ In

\$ _____ Out

Signature _____

Sample received in cooler with ice?

☐ Yes ☐ No

cttrupdate 2020

DELLAVALLE LABORATORY, INC.

1910 W. McKinley Avenue, Suite 110 • Fresno, CA 93728

www.dellavallelab.com 559 233-6129 • 800 228-9896 • Fax 559 268-8174

No. of Samples _____ No. Bottles _____
Water Type: ☒ Drinking ☐ Wastewater
☒ Ag Water ☐ Ground Water ☐ Mon. Well
☒ Supply Water ☐ Other _____**Analysis and Bottles Required: (Please Indicate Analysis)**

- ☒ EC, NO₃-N
(1) 1 L plastic, unpreserved (white)
☐ DWW1: (EC, pH, NO₃-N, NH₄-N Field Test)
(1) 1 L plastic, unpreserved (white)
☐ DWW2: (DWW1 Plus SO₄, CO₃, HCO₃, Cl, Ca, Mg, Na, TDS)
(1) 1 L plastic, unpreserved (white)
☐ DCW1: (EC, NO₃-N, TDS)
(1) 1 L plastic, unpreserved (white)
☐ DPW1: (EC, pH, NO₃-N, NH₄-N, TKN, TDS, TP, TK)
(1) 1 L plastic, unpreserved (white)
☐ DPW2: (DPW1 Plus Ca, Mg, Na, HCO₃, CO₃, SO₄, Cl)
(1) 1 L plastic, unpreserved (white)

☐ Other _____

Date Sampled	Time Sampled	Field NH ₄ -N (mg/L)	Received Temp °C
<u>12/12/23</u>	<u>955 AM</u>	<u>0</u>	<u>20.9 / 7.4</u>
<u>1</u>	<u>10 AM</u>	<u>0</u>	<u>14.3 / 5.2</u>

IR Thermometer SN: 200560723
Correction Factor: 0°C
Calibration Due: 03/06/2024
Location: LaboratoryIR Thermometer SN: 221511276
Correction Factor: 0°C
Calibration Due: 03/06/2024
Location: HanfordH/P
7.4
5.2



12/13/23 07:00

23L0696

Shipping Information: Shipped In <input type="checkbox"/> Picked-Up <input type="checkbox"/> Walk In <input checked="" type="checkbox"/> DLI Sampler <input type="checkbox"/> Other <input type="checkbox"/>											
<input type="checkbox"/> Samples re Fridgerated before pick up					<input type="checkbox"/> Picked up samples placed in Ice chest						
Container: Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/>					Refrigerant: Wet Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/>						
Samples Preserved with HNO₃ or H₂SO₄ were: <input type="checkbox"/> Received Preserved <input type="checkbox"/> Preserved Upon Receipt at Laboratory											
Type of Container(s) Received		Sample Number									
		1	2	3	4	5	6	7	8	9	10
Sample Containers for Internal (DLI) Use (Containers that go into the Lab)											
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)										
	250 mL unpreserved (White) Plastic										
	250 mL HNO ₃ (Red) Plastic										
	* pH Value										
	250 mL H ₂ SO ₄ (Yellow) Plastic										
	* pH Value										
	500 mL unpreserved (White) Plastic										
	1 L unpreserved (White) Plastic										
Special	1 L unpreserved (BOD) (Purple) Plastic										
	500mL unpreserved (White) Glass										
	PO4-P Kit										
Other:											
Sample Containers for Subcontracted ("Send Out") Analyses (Containers that go in the Subcontract ("Send Out") Refrigerator)											
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)										
	250 mL unpreserved (White) Plastic										
	250 mL HNO ₃ (Red) Plastic										
	250 mL H ₂ SO ₄ (Yellow) Plastic										
	500 mL HNO ₃ (Red)										
	1 L unpreserved (White) Plastic										
	1 L unpreserved (BOD) (Purple) Plastic										
	1 L HNO ₃ (Red)										
VOA Vials	40 mL VOA, Na ₂ S ₂ O ₃ + MCAA (EPA531)										
	40 mL VOA, Na ₂ S ₂ O ₃ (EPA547)										
	40mL AG VOA unpreserved (White) (Set of 3)										
	40 mL AG VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)										
	40mL VOA, H ₃ PO ₄ (Set of 3)										
	40 mL VOA, HCl (Blue) (Set of 3)										
	40 mL VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)										
Glass	250 mL AG unpreserved (White)										
	250 mL AG H ₂ SO ₄ (Yellow)										
	250 mL AG Na ₂ S ₂ O ₃ (Green)										
	250 mL AG Na ₂ S ₂ O ₃ + MCAA										
	500 mL glass unpreserved (White)										
	500 mL AG HCl (Blue)										
	1 L AG unpreserved (White)										
	1 L AG H ₂ SO ₄ (Yellow)										
	1 L AG Na ₂ S ₂ O ₃ (Green)										
	1 L AG HCl (Blue)										
Special	Cr ^{VI} - 50mL Plastic w/Borate/HCO ₃ /CO ₃										
	Cyanide - 500 mL NaOH										
	Asbestos - 1L P wrapped in foil (Set of 2)										
	Sulfide - 1 L AG or P NaOH + ZnAc										
	Chlorite/Bromate - 250 mL AG with EDA										
	HAA5 - 250mL AG Ammonium Chlorite										
	DO KIT										
	Other:										
Other:											

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:47
Reported: 08/21/2023 14:57

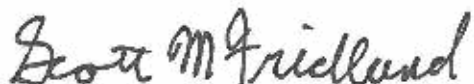
Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23H1601-01	Canal	Ag Water			08/16/2023 15:50

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

Notes and Definitions

Item	Definition
MCL	Drinking Water Maximum Contaminant Level
ND	Analyte NOT DETECTED at or above the reporting limit.
NES	Not Enough Sample
*	Not Taken



Laboratory Director/Technical Manager

ELAP Certification #1595
A2LA Certification #6440.02

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:47
Reported: 08/21/2023 14:57

Sample Results

Sample: Canal
23H1601-01 (Water)

Sampled: 8/16/2023 15:50

Sampled By:

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.02	mmhos/cm	0.01	1		08/18/23 17:51	SM 2510 B		BEH0919
Nitrate Nitrogen as NO3N	ND	mg/L	0.1	1	10	08/18/23 12:08	EPA 300.0		BEH0887

Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:47
Reported: 08/21/2023 14:57

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEH0887									
Blank (BEH0887-BLK1)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L	Prepared: 8/17/2023	Analyzed: 8/18/2023				
Blank (BEH0887-BLK2)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L	Prepared: 8/17/2023	Analyzed: 8/18/2023				
LCS (BEH0887-BS1)									
Nitrate Nitrogen as NO3N	5.1	0.1	mg/L	5.000	102	90-110			
Duplicate (BEH0887-DUP1)									
Nitrate Nitrogen as NO3N	0.7	0.1	mg/L	Prepared: 8/17/2023	Analyzed: 8/18/2023			0.151	10
Matrix Spike (BEH0887-MS1)									
Nitrate Nitrogen as NO3N	6.0	0.1	mg/L	5.000	0.7	106	90-110		
Reference (BEH0887-SRM1)									
Nitrate Nitrogen as NO3N	10.2		mg/L	10.00	102	90-110			
Reference (BEH0887-SRM2)									
Nitrate Nitrogen as NO3N	10.2		mg/L	10.00	102	90-110			

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Henry Veenendaal Dairy LP
3678 Houston Ave
Hanford, CA 93230

Account# 00-0015776
Account Manager: Ben Nydam
Submitted By: Christina Medeiros

Received: 08/17/2023 8:47
Reported: 08/21/2023 14:57

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEH0919									
Blank (BEH0919-BLK1)									
Electrical Conductivity	ND	0.01	mmhos/cm		Prepared: 8/17/2023	Analyzed: 8/18/2023			
Blank (BEH0919-BLK2)									
Electrical Conductivity	ND	0.01	mmhos/cm		Prepared: 8/17/2023	Analyzed: 8/18/2023			
Blank (BEH0919-BLK3)									
Electrical Conductivity	ND	0.01	mmhos/cm		Prepared: 8/17/2023	Analyzed: 8/18/2023			
Duplicate (BEH0919-DUP1)									
Electrical Conductivity	0.02	0.01	mmhos/cm		Prepared: 8/17/2023	Analyzed: 8/18/2023		6.30	10
Duplicate (BEH0919-DUP2)									
Electrical Conductivity	0.47	0.01	mmhos/cm		Prepared: 8/17/2023	Analyzed: 8/18/2023		0.466	10
Reference (BEH0919-SRM1)									
Electrical Conductivity	517		umhos/cm	538.0	Prepared: 8/17/2023	Analyzed: 8/18/2023	96.1	90-110	
Reference (BEH0919-SRM3)									
Electrical Conductivity	981		umhos/cm	1000	Prepared: 8/17/2023	Analyzed: 8/18/2023	98.1	90-110	
Reference (BEH0919-SRM4)									
Electrical Conductivity	990		umhos/cm	1000	Prepared: 8/17/2023	Analyzed: 8/18/2023	99.0	90-110	
Reference (BEH0919-SRM5)									
Electrical Conductivity	994		umhos/cm	1000	Prepared: 8/17/2023	Analyzed: 8/18/2023	99.4	90-110	

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08/17/23 08:47

23H1601

WATER WORK REQUEST

Acct No. 15776 Cons. 8

Bill To: _____

Purchase Order No. _____ Results Needed By _____

Client **Henry Veenendaal Dairy**

Address 3678 Houston Ave

City, State, Zip Hanford CA 93230

Email daallp@hughes.net

Copy to: mel_tinameideiros@yahoo.com

Requested by/Cell: Christina Medeiros/ 559-903-2490

Facility: _____

Date sampled _____

Sampled by _____

☒ QA/QC Document
 ☒ Copy of Chain
 ☐ RWQCB
DESCRIPTION OF SAMPLES

1. <u>Canal</u>	Sampled From: _____
2. _____	Sampled From: _____
3. _____	Sampled From: _____
4. _____	Sampled From: _____
5. _____	Sampled From: _____
6. _____	Sampled From: _____
7. _____	Sampled From: _____
8. _____	Sampled From: _____
9. _____	Sampled From: _____
10. _____	Sampled From: _____

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<u>[Signature]</u>	<u>Med BW</u>	<u>8/16/23 4:35pm</u>	<u>8/16/23 4:35pm</u>
Second	<u>[Signature]</u>	<u>DLI</u>	<u>8/16/23 4:35pm</u>	<u>8/16/23</u>
Third	<u>MM</u>	<u>DLI</u>	<u>8/17/23 8:47</u>	
Fourth				

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

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

Invoicing Information:

Medeiros Pricing 2023

Sampling Hrs _____ Miles _____ Consulting _____

Armt Paid _____ Rec By _____ Check No. _____ Date _____

Shipping

\$ _____ In

\$ _____ Out

DELLAVALLE LABORATORY, INC.

1910 W. McKinley Avenue, Suite 110 • Fresno, CA 93728
 www.dellavallelab.com 559 233-6128 • 800 228-9896 • Fax 559 268-8174

No. of Samples _____ No. Bottles _____

Water Type: ☒ Tap Water ☐ Drinking ☐ Wastewater

☐ Ground Water ☐ Other ☐ Mon. Well

☐ Supply Water

Analysis and Bottles Required: (Please Indicate Analysis)

- ☒ EC, NO₃-N
 (1) 1 L plastic, unpreserved (white)
- ☐ DWW1: (EC, pH, NO₃-N, NH₄-N Field Test)
 (1) 1 L plastic, unpreserved (white)
- ☐ DWW2: (DWW1 Plus SO₄, CO₃, HCO₃, Cl, Ca, Mg, Na, TDS)
 (1) 1 L plastic, unpreserved (white)
- ☐ DCW1: (EC, NO₃-N, TDS)
 (1) 1 L plastic, unpreserved (white)
- ☐ DPW1: (EC, pH, NO₃-N, NH₄-N, TKN, TDS, TP, TK)
 (1) 1 L plastic, unpreserved (white)
- ☐ DPW2: (DPW1 Plus Ca, Mg, Na, HCO₃, CO₃, SO₄, Cl)
 (1) 1 L plastic, unpreserved (white)
- ☐ Other _____

Date Sampled	Time Sampled	Field NH ₄ -N (mg/L)	Received Temp °C
<u>8/16/23</u>	<u>3:30pm</u>		<u>1.1</u>

Signature [Signature]

Sample received in cooler with ice?

[] Yes [] No

ctt:update 2020

IR Thermometer SN: 200560723
 Correction Factor: 0°C
 Calibration Due: 9/26/2023
 Location: Laboratory



08/17/23 08:47

23H1601

Shipping Information: Shipped In <input type="checkbox"/> Picked-Up <input type="checkbox"/> Walk In <input type="checkbox"/> DLI Sampler <input checked="" type="checkbox"/> Other <input type="checkbox"/>											
<input type="checkbox"/> Samples refrigerated before pick up					<input type="checkbox"/> Picked up samples placed in Ice chest						
Container: Ice Chest <input checked="" type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/>					Refrigerant: Wet Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/>						
Samples Preserved with HNO ₃ or H ₂ SO ₄ were:					<input type="checkbox"/> Received Preserved <input type="checkbox"/> Preserved Upon Receipt at Laboratory						
Type of Container(s) Received		Sample Number									
		1	2	3	4	5	6	7	8	9	10
Sample Containers for Internal (DLI) Use (Containers that go into the Lab)											
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)										
	250 mL unpreserved (White) Plastic										
	250 mL HNO ₃ (Red) Plastic										
	* pH Value										
	250 mL H ₂ SO ₄ (Yellow) Plastic										
	* pH Value										
	500 mL unpreserved (White) Plastic										
	1 L unpreserved (White) Plastic										
Special	1 L unpreserved (BOD) (Purple) Plastic										
	500mL unpreserved (White) Glass										
	PO4-P Kit										
	Other:										
Sample Containers for Subcontracted ("Send Out") Analyses (Containers that go in the Subcontract ("Send Out") Refrigerator)											
Plastics	100 mL sterile plastic Na ₂ S ₂ O ₃ (Green)										
	250 mL unpreserved (White) Plastic										
	250 mL HNO ₃ (Red) Plastic										
	250 mL H ₂ SO ₄ (Yellow) Plastic										
	500 mL HNO ₃ (Red)										
	1 L unpreserved (White) Plastic										
	1 L unpreserved (BOD) (Purple) Plastic										
	1 L HNO ₃ (Red)										
VOA Vials	40 mL VOA, Na ₂ S ₂ O ₃ + MCAA (EPA531)										
	40 mL VOA, Na ₂ S ₂ O ₃ (EPA547)										
	40mL AG VOA unpreserved (White) (Set of 3)										
	40 mL AG VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)										
	40mL VOA, H ₃ PO ₄ (Set of 3)										
	40 mL VOA, HCl (Blue) (Set of 3)										
	40 mL VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)										
Glass	250 mL AG unpreserved (White)										
	250 mL AG H ₂ SO ₄ (Yellow)										
	250 mL AG Na ₂ S ₂ O ₃ (Green)										
	250 mL AG Na ₂ S ₂ O ₃ + MCAA										
	500 mL glass unpreserved (White)										
	500 mL AG HCl (Blue)										
	1 L AG unpreserved (White)										
	1 L AG H ₂ SO ₄ (Yellow)										
	1 L AG Na ₂ S ₂ O ₃ (Green)										
	1 L AG HCl (Blue)										
Special	Cr ⁶⁺ - 50mL Plastic w/Borate/HCO ₃ /CO ₃										
	Cyanide - 500 mL NaOH										
	Asbestos - 1L P wrapped in foil (Set of 2)										
	Sulfide - 1 L AG or P NaOH + ZnAc										
	Chlorite/Bromate - 250 mL AG with EDA										
	HAA5 - 250mL AG Ammonium Chlorite										
	DO KIT										
Other:											