

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: Friesian Farms Dairy

Physical address of dairy:

5593 Avenue 176

Number and Street

Tulare

Tulare

93274

City

County

Zip Code

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

Date facility was originally placed in operation: 03/01/1939

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0200-0150-0006-0000

B. OPERATORS

Leyendekker, Nonning

Operator name: Leyendekker, Nonning

Telephone no.:

(559) 730-1290

Landline

Cellular

5593 Avenue 176

Tulare

CA

93274

Mailing Address Number and Street

City

State

Zip Code

This operator is responsible for paying permit fees.

C. OWNERS

Leyendekker, Nonning

Legal owner name: Leyendekker, Nonning

Telephone no.:

(559) 730-1290

Landline

Cellular

5593 Avenue 176

Tulare

CA

93274

Mailing Address Number and Street

City

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This owner is responsible for paying permit fees.

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

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

AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	2,608	292	773	1,054	0	0
Number under roof	0	0	0	0	0	0
Maximum number	2,657	322	790	1,096	0	0
Average number	2,608	292	773	1,054	0	0
Avg live weight (lbs)	1,400	1,600	1,160	685		

Predominant milk cow breed: Holstein

Average milk production: 73 pounds per cow per day

B. MANURE GENERATED

Total manure excreted by the herd: 90,679.36 tons per reporting period

Total nitrogen from manure: 1,113,349.21 lbs per reporting period

After ammonia losses (30% loss applied): 779,344.45 lbs per reporting period

Total phosphorus from manure: 186,659.99 lbs per reporting period

Total potassium from manure: 504,596.43 lbs per reporting period

Total salt from manure: 1,295,122.20 lbs per reporting period

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 56,232,000 gallons

Total nitrogen generated: 47,946.46 lbs

<u>56,232,000 gallons applied</u>
+ <u>0 gallons exported</u>
- <u>0 gallons imported</u>
<u>= 56,232,000 gallons generated</u>

Total phosphorus generated: 13,035.88 lbs

Total potassium generated: 56,195.18 lbs

Total salt generated: 441,314.58 lbs

D. FRESH WATER SOURCES

Source Description	Type
Domestic Well #H3	Ground water
Tulare ID	Surface water
Well #1	Ground water
Well #10	Ground water
Well #11	Ground water

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

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

Source Description	Type
Well #12	Ground water
Well #14	Ground water
Well #15	Ground water
Well #16	Ground water
Well #17	Ground water
Well #18	Ground water
Well #19	Ground water
Well #2	Ground water
Well #6	Ground water
Well #8	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.

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

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

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
Dairy East	85	85	2	both	0200-0150-0006-0000
Dairy West	85	85	2	both	0200-0150-0006-0000
Hamstra 1	18	18	1	both	0200-0130-0007-0000
Hamstra 2	79	79	2	both	0200-0130-0007-0000
Hamstra 3	38	38	2	both	0200-0130-0007-0000
Hamstra 4	40	40	2	both	0200-0130-0007-0000
Hamstra 5	77	77	1	none	0200-0130-0007-0000
Hamstra 6	78	78	2	both	0200-0130-0007-0000
Pires 1	75	75	2	both	0200-0120-0010-0000
Pires 2	72	72	2	both	0200-0120-0009-0000 0200-0120-0010-0000
Pires 3	75	75	1	none	0200-0120-0008-0000 0200-0120-0009-0000
Pires 4	77	77	1	process wastewater	0200-0120-0008-0000
Totals for areas that were used for application	647	647	18		
Totals for areas that were not used for application	152	152	2		
Land application area totals	799	799	20		

B. CROPS AND HARVESTS

Dairy East

Field name: Dairy East

10/29/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 85 Plant date: 10/29/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/26/2023	1,800.30 ton	Dry-weight		60.0	15,900.00	2,200.00	17,800.00		9.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	21.18	269.41	37.28	301.60	1,677.46

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

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

Dairy East

05/29/2023: Corn, silage

Crop: Corn, silage Acres planted: 85 Plant date: 05/29/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/20/2023	2,632.45 ton	Dry-weight		61.1	13,500.00	3,100.00	16,400.00		6.70
		Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre)				Salt (lbs/acre)			
Anticipated harvest content		30.00 240.00 45.00 198.00				0.00			
Total actual harvest content		30.97 325.28 74.69 395.15				1,614.34			

Dairy WestField name: Dairy West

10/25/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 85 Plant date: 10/25/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/26/2023	1,747.60 ton	Dry-weight		53.5	16,700.00	2,400.00	19,300.00		12.30
		Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre)				Salt (lbs/acre)			
Anticipated harvest content		20.00 220.00 34.00 166.00				0.00			
Total actual harvest content		20.56 319.32 45.89 369.03				2,351.86			

05/29/2023: Corn, silage

Crop: Corn, silage Acres planted: 85 Plant date: 05/29/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/20/2023	2,658.80 ton	Dry-weight		63.7	13,900.00	2,400.00	17,900.00		6.80
		Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre)				Salt (lbs/acre)			
Anticipated harvest content		30.00 240.00 45.00 198.00				0.00			
Total actual harvest content		31.28 315.66 54.50 406.50				1,544.23			

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

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

Hamstra 1Field name: Hamstra 1

11/22/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 18 Plant date: 11/22/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/04/2023	376.74 ton	Dry-weight		56.5	16,000.00	3,100.00	20,600.00		9.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	20.93	291.35	56.45	375.11	1,766.28

Hamstra 2Field name: Hamstra 2

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

Crop: Wheat, silage, soft dough Acres planted: 79 Plant date: 11/14/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/04/2023	1,679.54 ton	Dry-weight		60.9	14,400.00	3,200.00	24,300.00		9.20

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	21.26	239.40	53.20	404.00	1,529.53

06/01/2023: Corn, silage

Crop: Corn, silage Acres planted: 79 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 (%)
09/17/2023	2,461.64 ton	Dry-weight		63.6	10,600.00	2,700.00	12,800.00		6.10

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	31.16	240.46	61.25	290.36	1,383.75

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

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

Hamstra 3Field name: Hamstra 3

11/15/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 38 Plant date: 11/15/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/04/2023	791.92 ton	Dry-weight		55.1	14,000.00	2,300.00	14,700.00		8.60

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	20.84	262.00	43.04	275.10	1,609.43

06/02/2023: Corn, silage

Crop: Corn, silage Acres planted: 38 Plant date: 06/02/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/18/2023	1,182.18 ton	Dry-weight		63.0	10,300.00	2,400.00	13,700.00		5.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	31.11	237.12	55.25	315.39	1,151.07

Hamstra 4Field name: Hamstra 4

11/15/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 40 Plant date: 11/15/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/04/2023	843.60 ton	Dry-weight		58.6	14,300.00	3,700.00	27,200.00		8.80

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	21.09	249.71	64.61	474.98	1,536.70

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

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

Hamstra 4

06/02/2023: Corn, silage

Crop: Corn, silage Acres planted: 40 Plant date: 06/02/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/18/2023	1,235.60 ton	Dry-weight		63.0	10,300.00	2,400.00	13,700.00		5.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	30.89	235.44	54.86	313.16	1,142.93

Hamstra 5

Field name: Hamstra 5

12/08/2022: Alfalfa, hay

Crop: Alfalfa, hay Acres planted: 77 Plant date: 12/08/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
12/31/2023	688.38 ton	Dry-weight		6.7	36,200.00	3,200.00	35,300.00		12.60

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	0.00
Total actual harvest content	8.94	603.89	53.38	588.88	2,101.94

Hamstra 6

Field name: Hamstra 6

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

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

Hamstra 6

11/16/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 78 Plant date: 11/16/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/05/2023	1,623.96 ton	Dry-weight		63.2	17,200.00	3,000.00	21,700.00		10.20

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	20.82	263.56	45.97	332.52	1,563.00

06/03/2023: Corn, silage

Crop: Corn, silage Acres planted: 78 Plant date: 06/03/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/19/2023	2,356.38 ton	Dry-weight		63.0	12,500.00	2,600.00	14,500.00		5.80

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	30.21	279.44	58.12	324.15	1,296.61

Pires 1

Field name: Pires 1

11/01/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 75 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 (%)
05/07/2023	1,574.25 ton	Dry-weight		61.3	15,900.00	2,600.00	18,900.00		9.20

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	20.99	258.32	42.24	307.05	1,494.66

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

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

Pires 1

05/30/2023: Corn, silage

Crop: Corn, silage Acres planted: 75 Plant date: 05/30/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/25/2023	2,344.50 ton	Dry-weight		68.0	12,900.00	2,600.00	16,400.00		5.70
		Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre)				Salt (lbs/acre)			
Anticipated harvest content		30.00 240.00 45.00 198.00				0.00			
Total actual harvest content		31.26 258.08 52.02 328.10				1,140.36			

Pires 2

Field name: Pires 2

11/12/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 72 Plant date: 11/12/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/07/2023	1,527.84 ton	Dry-weight		59.3	14,500.00	2,900.00	24,200.00		8.90
		Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre)				Salt (lbs/acre)			
Anticipated harvest content		20.00 220.00 34.00 166.00				0.00			
Total actual harvest content		21.22 250.46 50.09 418.01				1,537.30			

05/30/2023: Corn, silage

Crop: Corn, silage Acres planted: 72 Plant date: 05/30/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
09/25/2023	2,241.36 ton	Dry-weight		66.2	11,100.00	2,200.00	12,800.00		5.00
		Yield (tons/acre) Total N (lbs/acre) Total P (lbs/acre) Total K (lbs/acre)				Salt (lbs/acre)			
Anticipated harvest content		30.00 240.00 45.00 198.00				0.00			
Total actual harvest content		31.13 233.59 46.30 269.36				1,052.19			

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

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

Pires 3

Field name: Pires 3

12/06/2020: Alfalfa, hay

Crop: Alfalfa, hay

Acres planted: 75 Plant date: 12/06/2020

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
12/31/2023	660.75 ton	Dry-weight		7.0	33,900.00	3,300.00	35,900.00		12.40

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	8.00	480.00	43.20	336.00	0.00
Total actual harvest content	8.81	555.51	54.08	588.28	2,031.94

Pires 4

Field name: Pires 4

04/01/2023: Corn, silage

Crop: Corn, silage

Acres planted: 77 Plant date: 04/01/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
08/03/2023	2,296.14 ton	Dry-weight		66.5	13,000.00	2,600.00	13,200.00		6.40

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	30.00	240.00	45.00	198.00	0.00
Total actual harvest content	29.82	259.73	51.95	263.73	1,278.68

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

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

NUTRIENT BUDGET

A. LAND APPLICATIONS

Dairy East - 10/29/2022: Wheat, silage, soft dough

Field name: Dairy East

Crop: Wheat, silage, soft dough Plant date: 10/29/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/16/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	232.80	87.60	278.40	0.00	510.00 ton
Application event totals		232.80	87.60	278.40	0.00	
10/30/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	8.18	2.01	8.78	69.01	1,278,000.00 gal
Well #2	Ground water	10.79	0.00	0.00	268.00	2,556,000.00 gal
Well #12	Ground water	21.75	0.00	0.00	501.88	4,260,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	115.23	6,816,000.00 gal
Application event totals		40.79	2.01	8.78	954.12	
12/07/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	12.90	3.17	13.85	108.86	2,016,000.00 gal
Well #17	Ground water	0.11	0.00	0.00	181.77	10,752,000.00 gal
Application event totals		13.01	3.17	13.85	290.63	
01/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	24.05	5.88	34.85	249.81	2,052,000.00 gal
Well #17	Ground water	0.11	0.00	0.00	185.02	10,944,000.00 gal
Application event totals		24.16	5.88	34.85	434.83	

Dairy East - 05/29/2023: Corn, silage

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

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

Dairy East - 05/29/2023: Corn, silage

Field name: Dairy East

Crop: Corn, silage

Plant date: 05/29/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/28/2023	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	158.40	62.40	230.40	0.00	510.00 ton
Application event totals		158.40	62.40	230.40	0.00	
05/06/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #2	Ground water	12.31	0.00	0.00	305.75	2,916,000.00 gal
Well #12	Ground water	24.81	0.00	0.00	572.57	4,860,000.00 gal
Well #17	Ground water	0.08	0.00	0.00	131.46	7,776,000.00 gal
Application event totals		37.20	0.00	0.00	1,009.78	
06/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	18.87	5.34	21.38	170.71	1,512,000.00 gal
Well #2	Ground water	12.77	0.00	0.00	317.07	3,024,000.00 gal
Well #12	Ground water	25.73	0.00	0.00	593.77	5,040,000.00 gal
Well #17	Ground water	0.08	0.00	0.00	136.33	8,064,000.00 gal
Application event totals		57.44	5.34	21.38	1,217.88	
07/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #2	Ground water	11.85	0.00	0.00	294.43	2,808,000.00 gal
Well #12	Ground water	23.89	0.00	0.00	551.36	4,680,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	126.59	7,488,000.00 gal
Application event totals		35.82	0.00	0.00	972.38	

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

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

Dairy East - 05/29/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/13/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #2	Ground water	11.70	0.00	0.00	290.65	2,772,000.00 gal
Well #12	Ground water	23.59	0.00	0.00	544.29	4,620,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	124.97	7,392,000.00 gal
Application event totals		35.36	0.00	0.00	959.91	
07/23/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	8.84	2.65	11.65	96.51	1,332,000.00 gal
Well #2	Ground water	11.25	0.00	0.00	279.33	2,664,000.00 gal
Well #12	Ground water	22.67	0.00	0.00	523.08	4,440,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	120.10	7,104,000.00 gal
Application event totals		42.82	2.65	11.65	1,019.02	
08/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #2	Ground water	10.64	0.00	0.00	264.23	2,520,000.00 gal
Well #12	Ground water	21.44	0.00	0.00	494.81	4,200,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	113.61	6,720,000.00 gal
Application event totals		32.15	0.00	0.00	872.65	
08/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	8.12	2.44	10.71	88.68	1,224,000.00 gal
Well #2	Ground water	10.33	0.00	0.00	256.68	2,448,000.00 gal
Well #12	Ground water	20.83	0.00	0.00	480.67	4,080,000.00 gal
Well #17	Ground water	0.06	0.00	0.00	110.36	6,528,000.00 gal
Application event totals		39.35	2.44	10.71	936.40	

Dairy West - 10/25/2022: Wheat, silage, soft dough

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

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

Dairy West - 10/25/2022: Wheat, silage, soft dough

Field name: Dairy West

Crop: Wheat, silage, soft dough

Plant date: 10/25/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/16/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
	Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
	Corral Manure	Corral solids	232.80	87.60	278.40	0.00
	Application event totals		232.80	87.60	278.40	0.00
10/27/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
	Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
	Wastewater	Process wastewater	7.95	1.95	8.54	67.06
	Well #2	Ground water	10.49	0.00	0.00	260.45
	Well #12	Ground water	21.14	0.00	0.00	487.74
	Well #17	Ground water	0.07	0.00	0.00	111.99
	Application event totals		39.64	1.95	8.54	927.24
12/02/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
	Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
	Wastewater	Process wastewater	13.25	3.25	14.23	111.77
	Well #17	Ground water	0.11	0.00	0.00	186.64
	Application event totals		13.36	3.25	14.23	298.42
01/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
	Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)
	Wastewater	Process wastewater	24.05	5.88	34.85	249.81
	Well #17	Ground water	0.11	0.00	0.00	185.02
	Application event totals		24.16	5.88	34.85	434.83

Dairy West - 05/29/2023: Corn, silage

Field name: Dairy West

Crop: Corn, silage

Plant date: 05/29/2023

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

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

Dairy West - 05/29/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/28/2023	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	158.40	62.40	230.40	0.00	510.00 ton
Application event totals		158.40	62.40	230.40	0.00	
05/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #2	Ground water	12.31	0.00	0.00	305.75	2,916,000.00 gal
Well #12	Ground water	24.81	0.00	0.00	572.57	4,860,000.00 gal
Well #17	Ground water	0.08	0.00	0.00	131.46	7,776,000.00 gal
Application event totals		37.20	0.00	0.00	1,009.78	
06/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #2	Ground water	13.07	0.00	0.00	324.62	3,096,000.00 gal
Well #12	Ground water	26.34	0.00	0.00	607.91	5,160,000.00 gal
Well #17	Ground water	0.08	0.00	0.00	139.58	8,256,000.00 gal
Application event totals		39.49	0.00	0.00	1,072.11	
06/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #2	Ground water	12.16	0.00	0.00	301.98	2,880,000.00 gal
Well #12	Ground water	24.50	0.00	0.00	565.50	4,800,000.00 gal
Well #17	Ground water	0.08	0.00	0.00	129.84	7,680,000.00 gal
Application event totals		36.74	0.00	0.00	997.31	

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

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

Dairy West - 05/29/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
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
Wastewater	Process wastewater	7.65	2.30	10.08	83.47	1,152,000.00 gal
Well #2	Ground water	11.85	0.00	0.00	294.43	2,808,000.00 gal
Well #12	Ground water	23.89	0.00	0.00	551.36	4,680,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	126.59	7,488,000.00 gal
Application event totals		43.47	2.30	10.08	1,055.84	
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
Well #2	Ground water	11.55	0.00	0.00	286.88	2,736,000.00 gal
Well #12	Ground water	23.28	0.00	0.00	537.22	4,560,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	123.35	7,296,000.00 gal
Application event totals		34.90	0.00	0.00	947.44	
08/01/2023	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
Wastewater	Process wastewater	7.41	2.22	9.76	80.86	1,116,000.00 gal
Well #2	Ground water	10.79	0.00	0.00	268.00	2,556,000.00 gal
Well #12	Ground water	21.75	0.00	0.00	501.88	4,260,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	115.23	6,816,000.00 gal
Application event totals		40.01	2.22	9.76	965.97	
08/12/2023	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
Well #2	Ground water	10.49	0.00	0.00	260.45	2,484,000.00 gal
Well #12	Ground water	21.14	0.00	0.00	487.74	4,140,000.00 gal
Well #17	Ground water	0.07	0.00	0.00	111.99	6,624,000.00 gal
Application event totals		31.69	0.00	0.00	860.18	

Hamstra 1 - 11/22/2022: Wheat, silage, soft dough

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

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

Hamstra 1 - 11/22/2022: Wheat, silage, soft dough

Field name: Hamstra 1

Crop: Wheat, silage, soft dough

Plant date: 11/22/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/28/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	237.11	89.22	283.56	0.00	110.00 ton
Application event totals		237.11	89.22	283.56	0.00	
10/27/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	7.62	1.87	8.18	64.26	252,000.00 gal
Well #6	Ground water	9.58	0.00	0.00	243.01	840,000.00 gal
Well #8	Ground water	5.98	0.00	0.00	213.66	1,008,000.00 gal
Well #10	Ground water	7.42	0.00	0.00	176.65	1,260,000.00 gal
Application event totals		30.60	1.87	8.18	697.57	
01/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	11.96	2.92	17.32	124.17	216,000.00 gal
Well #6	Ground water	8.21	0.00	0.00	208.29	720,000.00 gal
Well #8	Ground water	5.13	0.00	0.00	183.14	864,000.00 gal
Well #10	Ground water	6.36	0.00	0.00	151.41	1,080,000.00 gal
Application event totals		31.65	2.92	17.32	667.01	
12/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	9.96	2.44	14.44	103.48	180,000.00 gal
Well #6	Ground water	6.84	0.00	0.00	173.58	600,000.00 gal
Well #8	Ground water	4.27	0.00	0.00	152.61	720,000.00 gal
Well #10	Ground water	5.30	0.00	0.00	126.18	900,000.00 gal
Application event totals		26.38	2.44	14.44	555.84	

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

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

Hamstra 2 - 11/14/2022: Wheat, silage, soft dough

Field name: Hamstra 2

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/28/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	230.84	86.86	276.05	0.00	470.00 ton
Application event totals		230.84	86.86	276.05	0.00	
10/27/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	6.07	1.49	6.52	51.24	882,000.00 gal
Well #8	Ground water	4.77	0.00	0.00	170.39	3,528,000.00 gal
Well #10	Ground water	5.92	0.00	0.00	140.87	4,410,000.00 gal
Well #19	Ground water	0.06	0.00	0.00	1,038.64	5,880,000.00 gal
Application event totals		16.82	1.49	6.52	1,401.14	
12/02/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	4.83	1.19	5.19	40.78	702,000.00 gal
Well #8	Ground water	3.80	0.00	0.00	135.61	2,808,000.00 gal
Well #10	Ground water	4.71	0.00	0.00	112.12	3,510,000.00 gal
Well #19	Ground water	0.05	0.00	0.00	826.67	4,680,000.00 gal
Application event totals		13.39	1.19	5.19	1,115.19	
01/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	8.17	2.00	11.84	84.88	648,000.00 gal
Well #8	Ground water	3.50	0.00	0.00	125.18	2,592,000.00 gal
Well #10	Ground water	4.35	0.00	0.00	103.50	3,240,000.00 gal
Well #19	Ground water	0.05	0.00	0.00	763.08	4,320,000.00 gal
Application event totals		16.07	2.00	11.84	1,076.64	

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

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

Hamstra 2 - 06/01/2023: Corn, silage

Field name: Hamstra 2

Crop: Corn, silage

Plant date: 06/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/06/2023	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
Wastewater	Process wastewater	13.78	3.90	15.61	124.64	1,026,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	37.37	13,680,000.00 gal
Application event totals		13.78	3.90	15.61	162.01	
05/27/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	180.86	61.87	228.46	0.00	470.00 ton
Application event totals		180.86	61.87	228.46	0.00	
06/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	14.26	4.04	16.15	129.01	1,062,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	38.68	14,160,000.00 gal
Application event totals		14.26	4.04	16.15	167.69	
06/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	34.75	12,720,000.00 gal
Application event totals		0.00	0.00	0.00	34.75	
07/07/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #8	Ground water	2.63	0.00	0.00	93.89	1,944,000.00 gal
Well #10	Ground water	3.26	0.00	0.00	77.62	2,430,000.00 gal
Well #19	Ground water	0.03	0.00	0.00	572.31	3,240,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	17.70	6,480,000.00 gal
Application event totals		5.92	0.00	0.00	761.52	

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

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

Hamstra 2 - 06/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/18/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	11.84	3.35	13.42	107.14	882,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	32.12	11,760,000.00 gal
Application event totals		11.84	3.35	13.42	139.27	
08/01/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	29.50	10,800,000.00 gal
Application event totals		0.00	0.00	0.00	29.50	
08/13/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	10.15	2.87	11.50	91.84	756,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	27.54	10,080,000.00 gal
Application event totals		10.15	2.87	11.50	119.37	
08/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	9.43	2.67	10.68	85.28	702,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	25.57	9,360,000.00 gal
Application event totals		9.43	2.67	10.68	110.85	

Hamstra 3 - 11/15/2022: Wheat, silage, soft dough

Field name:	Hamstra 3			
Crop:	Wheat, silage, soft dough	Plant date: 11/15/2022		
Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

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

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

Hamstra 3 - 11/15/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/28/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	234.84	88.37	280.84	0.00	230.00 ton
Application event totals		234.84	88.37	280.84	0.00	
10/29/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	6.19	1.52	6.64	52.18	432,000.00 gal
Well #8	Ground water	4.86	0.00	0.00	173.50	1,728,000.00 gal
Well #10	Ground water	6.02	0.00	0.00	143.44	2,160,000.00 gal
Well #19	Ground water	0.06	0.00	0.00	1,057.60	2,880,000.00 gal
Application event totals		17.13	1.52	6.64	1,426.72	
12/04/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	4.90	1.20	5.26	41.31	342,000.00 gal
Well #8	Ground water	3.85	0.00	0.00	137.35	1,368,000.00 gal
Well #10	Ground water	4.77	0.00	0.00	113.56	1,710,000.00 gal
Well #19	Ground water	0.05	0.00	0.00	837.27	2,280,000.00 gal
Application event totals		13.56	1.20	5.26	1,129.49	
01/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	8.02	1.96	11.63	83.33	306,000.00 gal
Well #8	Ground water	3.44	0.00	0.00	122.89	1,224,000.00 gal
Well #10	Ground water	4.27	0.00	0.00	101.61	1,530,000.00 gal
Well #19	Ground water	0.04	0.00	0.00	749.14	2,040,000.00 gal
Application event totals		15.78	1.96	11.63	1,056.96	

Hamstra 3 - 06/02/2023: Corn, silage

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

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

Hamstra 3 - 06/02/2023: Corn, silage

Field name: Hamstra 3

Crop: Corn, silage

Plant date: 06/02/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/08/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	15.07	4.27	17.08	136.37	540,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	40.89	7,200,000.00 gal
Application event totals		15.07	4.27	17.08	177.26	
05/27/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	184.00	62.95	232.42	0.00	230.00 ton
Application event totals		184.00	62.95	232.42	0.00	
06/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	14.07	3.98	15.94	127.28	504,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	38.16	6,720,000.00 gal
Application event totals		14.07	3.98	15.94	165.45	
06/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	35.44	6,240,000.00 gal
Application event totals		0.00	0.00	0.00	35.44	
07/08/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #8	Ground water	2.23	0.00	0.00	79.52	792,000.00 gal
Well #10	Ground water	2.76	0.00	0.00	65.74	990,000.00 gal
Well #19	Ground water	0.03	0.00	0.00	484.74	1,320,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	14.99	2,640,000.00 gal
Application event totals		5.02	0.00	0.00	644.99	

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

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

Hamstra 3 - 06/02/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/20/2023	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
Wastewater	Process wastewater	11.56	3.27	13.09	104.55	414,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	31.35	5,520,000.00 gal
Application event totals		11.56	3.27	13.09	135.90	
08/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	28.62	5,040,000.00 gal
Application event totals		0.00	0.00	0.00	28.62	
08/14/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	10.55	2.99	11.95	95.46	378,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	28.62	5,040,000.00 gal
Application event totals		10.55	2.99	11.95	124.08	
08/28/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	9.55	2.70	10.82	86.37	342,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	28.17	4,960,000.00 gal
Application event totals		9.55	2.70	10.82	114.54	

Hamstra 4 - 11/15/2022: Wheat, silage, soft dough

Field name: Hamstra 4

Crop: Wheat, silage, soft dough

Plant date: 11/15/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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Annual Report - General Order No. R5-2007-0035

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

Hamstra 4 - 11/15/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/28/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	232.80	87.60	278.40	0.00	240.00 ton
Application event totals		232.80	87.60	278.40	0.00	
10/30/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	6.12	1.50	6.57	51.63	450,000.00 gal
Well #8	Ground water	4.81	0.00	0.00	171.69	1,800,000.00 gal
Well #10	Ground water	5.96	0.00	0.00	141.95	2,250,000.00 gal
Well #19	Ground water	0.06	0.00	0.00	1,046.59	3,000,000.00 gal
Application event totals		16.95	1.50	6.57	1,411.86	
12/05/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	4.90	1.20	5.26	41.31	360,000.00 gal
Well #8	Ground water	3.85	0.00	0.00	137.35	1,440,000.00 gal
Well #10	Ground water	4.77	0.00	0.00	113.56	1,800,000.00 gal
Well #19	Ground water	0.05	0.00	0.00	837.27	2,400,000.00 gal
Application event totals		13.56	1.20	5.26	1,129.49	
01/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	4.41	1.08	4.73	37.18	324,000.00 gal
Well #8	Ground water	3.46	0.00	0.00	123.62	1,296,000.00 gal
Well #10	Ground water	4.29	0.00	0.00	102.20	1,620,000.00 gal
Well #19	Ground water	0.05	0.00	0.00	753.54	2,160,000.00 gal
Application event totals		12.21	1.08	4.73	1,016.54	

Hamstra 4 - 06/02/2023: Corn, silage

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

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

Hamstra 4 - 06/02/2023: Corn, silage

Field name: Hamstra 4

Crop: Corn, silage

Plant date: 06/02/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/10/2023	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
Wastewater	Process wastewater	14.80	4.19	16.76	133.87	558,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	40.14	7,440,000.00 gal
Application event totals		14.80	4.19	16.76	174.01	
05/27/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	182.40	62.40	230.40	0.00	240.00 ton
Application event totals		182.40	62.40	230.40	0.00	
06/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	13.84	3.92	15.68	125.24	522,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	37.55	6,960,000.00 gal
Application event totals		13.84	3.92	15.68	162.79	
06/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	33.67	6,240,000.00 gal
Application event totals		0.00	0.00	0.00	33.67	
07/09/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #8	Ground water	2.50	0.00	0.00	89.28	936,000.00 gal
Well #10	Ground water	3.10	0.00	0.00	73.81	1,170,000.00 gal
Well #19	Ground water	0.03	0.00	0.00	544.23	1,560,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	16.83	3,120,000.00 gal
Application event totals		5.63	0.00	0.00	724.15	

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

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

Hamstra 4 - 06/02/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/21/2023	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
Wastewater	Process wastewater	11.46	3.24	12.98	103.64	432,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	31.08	5,760,000.00 gal
Application event totals		11.46	3.24	12.98	134.72	
08/04/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	29.78	5,520,000.00 gal
Application event totals		0.00	0.00	0.00	29.78	
08/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	10.02	2.84	11.36	90.69	378,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	28.81	5,340,000.00 gal
Application event totals		10.02	2.84	11.36	119.50	
08/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	9.07	2.57	10.27	82.05	342,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	25.68	4,760,000.00 gal
Application event totals		9.07	2.57	10.27	107.73	

Hamstra 5 - 12/08/2022: Alfalfa, hay

Field name:	Hamstra 5			
Crop:	Alfalfa, hay	Plant date: 12/08/2022		
Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following

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

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

Hamstra 5 - 12/08/2022: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/24/2023	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
Tulare ID	Surface water	0.00	0.00	0.00	39.69	14,160,000.00 gal
Application event totals		0.00	0.00	0.00	39.69	
05/16/2023	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
Tulare ID	Surface water	0.00	0.00	0.00	34.98	12,480,000.00 gal
Application event totals		0.00	0.00	0.00	34.98	
06/12/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	35.54	12,680,000.00 gal
Application event totals		0.00	0.00	0.00	35.54	
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
Well #8	Ground water	2.50	0.00	0.00	89.19	1,800,000.00 gal
Well #10	Ground water	3.10	0.00	0.00	73.74	2,250,000.00 gal
Well #19	Ground water	0.03	0.00	0.00	543.68	3,000,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	16.82	6,000,000.00 gal
Application event totals		5.63	0.00	0.00	723.43	
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
Tulare ID	Surface water	0.00	0.00	0.00	37.67	13,440,000.00 gal
Application event totals		0.00	0.00	0.00	37.67	

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

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

Hamstra 5 - 12/08/2022: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
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
Tulare ID	Surface water	0.00	0.00	0.00	36.32	12,960,000.00 gal
Application event totals		0.00	0.00	0.00	36.32	
09/01/2023	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
Tulare ID	Surface water	0.00	0.00	0.00	34.30	12,240,000.00 gal
Application event totals		0.00	0.00	0.00	34.30	
09/19/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #6	Ground water	7.68	0.00	0.00	194.77	2,880,000.00 gal
Well #10	Ground water	5.95	0.00	0.00	141.58	4,320,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	32.29	11,520,000.00 gal
Application event totals		13.62	0.00	0.00	368.63	
10/11/2023	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
Tulare ID	Surface water	0.00	0.00	0.00	30.94	11,040,000.00 gal
Application event totals		0.00	0.00	0.00	30.94	

Hamstra 6 - 11/16/2022: Wheat, silage, soft dough

Field name: Hamstra 6

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022

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

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

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

Hamstra 6 - 11/16/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/20/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	233.79	87.97	279.59	0.00	470.00 ton
Application event totals		233.79	87.97	279.59	0.00	
10/31/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	6.03	1.48	6.47	50.84	864,000.00 gal
Well #8	Ground water	4.73	0.00	0.00	169.05	3,456,000.00 gal
Well #10	Ground water	5.87	0.00	0.00	139.76	4,320,000.00 gal
Well #19	Ground water	0.06	0.00	0.00	1,030.49	5,760,000.00 gal
Application event totals		16.69	1.48	6.47	1,390.14	
12/06/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	4.90	1.20	5.26	41.31	702,000.00 gal
Well #8	Ground water	3.85	0.00	0.00	137.35	2,808,000.00 gal
Well #10	Ground water	4.77	0.00	0.00	113.56	3,510,000.00 gal
Well #19	Ground water	0.05	0.00	0.00	837.27	4,680,000.00 gal
Application event totals		13.56	1.20	5.26	1,129.49	
01/19/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	8.51	2.08	12.33	88.35	666,000.00 gal
Well #8	Ground water	3.65	0.00	0.00	130.31	2,664,000.00 gal
Well #10	Ground water	4.52	0.00	0.00	107.74	3,330,000.00 gal
Well #19	Ground water	0.05	0.00	0.00	794.33	4,440,000.00 gal
Application event totals		16.73	2.08	12.33	1,120.73	

Hamstra 6 - 06/03/2023: Corn, silage

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

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

Hamstra 6 - 06/03/2023: Corn, silage

Field name: Hamstra 6

Crop: Corn, silage

Plant date: 06/03/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/11/2023	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
Wastewater	Process wastewater	15.18	4.30	17.19	137.31	1,116,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	41.17	14,880,000.00 gal
Application event totals		15.18	4.30	17.19	178.48	
05/28/2023	Broadcast/incorporate	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	183.18	62.67	231.38	0.00	470.00 ton
Application event totals		183.18	62.67	231.38	0.00	
06/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	14.69	4.16	16.64	132.88	1,080,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	39.84	14,400,000.00 gal
Application event totals		14.69	4.16	16.64	172.72	
06/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	40.50	14,640,000.00 gal
Application event totals		0.00	0.00	0.00	40.50	

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

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

Hamstra 6 - 06/03/2023: Corn, silage

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
Wastewater	Process wastewater	5.63	1.59	6.38	50.94	414,000.00 gal
Well #8	Ground water	2.27	0.00	0.00	81.00	1,656,000.00 gal
Well #10	Ground water	2.81	0.00	0.00	66.97	2,070,000.00 gal
Well #19	Ground water	0.03	0.00	0.00	493.77	2,760,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	15.27	5,520,000.00 gal
Application event totals		10.74	1.59	6.38	707.96	
07/22/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Tulare ID	Surface water	0.00	0.00	0.00	37.18	13,440,000.00 gal
Application event totals		0.00	0.00	0.00	37.18	
08/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	12.97	3.67	14.70	117.38	954,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	35.19	12,720,000.00 gal
Application event totals		12.97	3.67	14.70	152.57	
08/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	12.24	3.47	13.87	110.73	900,000.00 gal
Tulare ID	Surface water	0.00	0.00	0.00	33.20	12,000,000.00 gal
Application event totals		12.24	3.47	13.87	143.93	

Pires 1 - 11/01/2022: Wheat, silage, soft dough

Field name: Pires 1

Crop: Wheat, silage, soft dough

Plant date: 11/01/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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Annual Report - General Order No. R5-2007-0035

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

Pires 1 - 11/01/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/17/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	232.80	87.60	278.40	0.00	450.00 ton
Application event totals		232.80	87.60	278.40	0.00	
10/11/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	7.31	1.79	7.85	61.69	1,008,000.00 gal
Well #14	Ground water	9.62	0.00	0.00	313.37	3,696,000.00 gal
Well #15	Ground water	11.71	0.00	0.00	355.31	4,032,000.00 gal
Well #16	Ground water	10.62	0.00	0.00	383.13	4,704,000.00 gal
Application event totals		39.27	1.79	7.85	1,113.49	
12/02/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	6.14	1.51	6.59	51.77	846,000.00 gal
Well #14	Ground water	8.08	0.00	0.00	263.00	3,102,000.00 gal
Well #15	Ground water	9.83	0.00	0.00	298.21	3,384,000.00 gal
Well #16	Ground water	8.92	0.00	0.00	321.55	3,948,000.00 gal
Application event totals		32.96	1.51	6.59	934.54	
01/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	5.75	1.41	6.17	48.47	792,000.00 gal
Well #14	Ground water	7.56	0.00	0.00	246.22	2,904,000.00 gal
Well #15	Ground water	9.20	0.00	0.00	279.17	3,168,000.00 gal
Well #16	Ground water	8.35	0.00	0.00	301.03	3,696,000.00 gal
Application event totals		30.85	1.41	6.17	874.89	

Pires 1 - 05/30/2023: Corn, silage

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

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

Pires 1 - 05/30/2023: Corn, silage

Field name: Pires 1

Crop: Corn, silage

Plant date: 05/30/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/11/2023	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
Wastewater	Process wastewater	17.06	4.83	19.32	154.32	1,206,000.00 gal
Well #14	Ground water	11.51	0.00	0.00	374.92	4,422,000.00 gal
Well #15	Ground water	14.01	0.00	0.00	425.11	4,824,000.00 gal
Well #16	Ground water	12.71	0.00	0.00	458.38	5,628,000.00 gal
Application event totals		55.29	4.83	19.32	1,412.73	
06/21/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	16.55	4.69	18.75	149.71	1,170,000.00 gal
Well #14	Ground water	11.17	0.00	0.00	363.73	4,290,000.00 gal
Well #15	Ground water	13.59	0.00	0.00	412.42	4,680,000.00 gal
Well #16	Ground water	12.33	0.00	0.00	444.70	5,460,000.00 gal
Application event totals		53.64	4.69	18.75	1,370.56	
06/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.48	0.00	0.00	341.35	4,026,000.00 gal
Well #15	Ground water	12.75	0.00	0.00	387.04	4,392,000.00 gal
Well #16	Ground water	11.57	0.00	0.00	417.34	5,124,000.00 gal
Application event totals		34.81	0.00	0.00	1,145.72	

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

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

Pires 1 - 05/30/2023: Corn, silage

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
Wastewater	Process wastewater	15.27	4.33	17.30	138.19	1,080,000.00 gal
Well #14	Ground water	8.42	0.00	0.00	274.20	3,234,000.00 gal
Well #15	Ground water	10.25	0.00	0.00	310.90	3,528,000.00 gal
Well #16	Ground water	9.30	0.00	0.00	335.24	4,116,000.00 gal
Well #1	Ground water	7.16	0.00	0.00	266.93	2,940,000.00 gal
Application event totals		50.40	4.33	17.30	1,325.46	
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
Well #14	Ground water	10.14	0.00	0.00	330.15	3,894,000.00 gal
Well #15	Ground water	12.34	0.00	0.00	374.35	4,248,000.00 gal
Well #16	Ground water	11.19	0.00	0.00	403.65	4,956,000.00 gal
Application event totals		33.67	0.00	0.00	1,108.15	
08/05/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	13.49	3.82	15.29	122.07	954,000.00 gal
Well #14	Ground water	9.11	0.00	0.00	296.58	3,498,000.00 gal
Well #15	Ground water	11.08	0.00	0.00	336.28	3,816,000.00 gal
Well #16	Ground water	10.06	0.00	0.00	362.60	4,452,000.00 gal
Application event totals		43.74	3.82	15.29	1,117.53	
08/16/2023	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
Well #14	Ground water	8.94	0.00	0.00	290.98	3,432,000.00 gal
Well #15	Ground water	10.87	0.00	0.00	329.93	3,744,000.00 gal
Well #16	Ground water	9.87	0.00	0.00	355.76	4,368,000.00 gal
Application event totals		29.67	0.00	0.00	976.68	

Pires 2 - 11/12/2022: Wheat, silage, soft dough

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

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

Pires 2 - 11/12/2022: Wheat, silage, soft dough

Field name: Pires 2

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
09/17/2022	Broadcast/incorporate	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Corral Manure	Corral solids	231.72	87.19	277.11	0.00	430.00 ton
Application event totals		231.72	87.19	277.11	0.00	
10/13/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	8.30	2.04	8.91	69.99	1,098,000.00 gal
Well #14	Ground water	10.92	0.00	0.00	355.57	4,026,000.00 gal
Well #15	Ground water	13.29	0.00	0.00	403.16	4,392,000.00 gal
Well #16	Ground water	12.06	0.00	0.00	434.72	5,124,000.00 gal
Application event totals		44.56	2.04	8.91	1,263.45	
12/04/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	6.12	1.50	6.57	51.63	810,000.00 gal
Well #14	Ground water	8.06	0.00	0.00	262.30	2,970,000.00 gal
Well #15	Ground water	9.80	0.00	0.00	297.42	3,240,000.00 gal
Well #16	Ground water	8.89	0.00	0.00	320.70	3,780,000.00 gal
Application event totals		32.87	1.50	6.57	932.05	
01/18/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	5.85	1.44	6.28	49.34	774,000.00 gal
Well #14	Ground water	7.70	0.00	0.00	250.65	2,838,000.00 gal
Well #15	Ground water	9.37	0.00	0.00	284.20	3,096,000.00 gal
Well #16	Ground water	8.50	0.00	0.00	306.45	3,612,000.00 gal
Application event totals		31.41	1.44	6.28	890.63	

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

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

Pires 2 - 05/30/2023: Corn, silage

Field name: Pires 2

Crop: Corn, silage

Plant date: 05/30/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/14/2023	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
Wastewater	Process wastewater	18.30	5.18	20.73	165.54	1,242,000.00 gal
Well #14	Ground water	12.35	0.00	0.00	402.20	4,554,000.00 gal
Well #15	Ground water	15.03	0.00	0.00	456.04	4,968,000.00 gal
Well #16	Ground water	13.64	0.00	0.00	491.74	5,796,000.00 gal
Application event totals		59.31	5.18	20.73	1,515.52	
06/24/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	16.97	4.81	19.23	153.55	1,152,000.00 gal
Well #14	Ground water	11.46	0.00	0.00	373.05	4,224,000.00 gal
Well #15	Ground water	13.94	0.00	0.00	422.99	4,608,000.00 gal
Well #16	Ground water	12.65	0.00	0.00	456.10	5,376,000.00 gal
Application event totals		55.01	4.81	19.23	1,405.70	
07/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.74	0.00	0.00	349.74	3,960,000.00 gal
Well #15	Ground water	13.07	0.00	0.00	396.55	4,320,000.00 gal
Well #16	Ground water	11.86	0.00	0.00	427.60	5,040,000.00 gal
Application event totals		35.67	0.00	0.00	1,173.89	
07/12/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.56	0.00	0.00	343.91	3,894,000.00 gal
Well #15	Ground water	12.85	0.00	0.00	389.95	4,248,000.00 gal
Well #16	Ground water	11.66	0.00	0.00	420.47	4,956,000.00 gal
Application event totals		35.07	0.00	0.00	1,154.33	

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

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

Pires 2 - 05/30/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/25/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	15.38	4.36	17.42	139.15	1,044,000.00 gal
Well #14	Ground water	10.38	0.00	0.00	338.08	3,828,000.00 gal
Well #15	Ground water	12.63	0.00	0.00	383.34	4,176,000.00 gal
Well #16	Ground water	11.46	0.00	0.00	413.34	4,872,000.00 gal
Application event totals		49.86	4.36	17.42	1,273.91	
08/07/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	9.31	0.00	0.00	303.11	3,432,000.00 gal
Well #15	Ground water	11.33	0.00	0.00	343.68	3,744,000.00 gal
Well #16	Ground water	10.28	0.00	0.00	370.58	4,368,000.00 gal
Application event totals		30.91	0.00	0.00	1,017.37	
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
Wastewater	Process wastewater	13.26	3.76	15.02	119.96	900,000.00 gal
Well #14	Ground water	8.95	0.00	0.00	291.45	3,300,000.00 gal
Well #15	Ground water	10.89	0.00	0.00	330.46	3,600,000.00 gal
Well #16	Ground water	9.88	0.00	0.00	356.33	4,200,000.00 gal
Application event totals		42.98	3.76	15.02	1,098.20	

Pires 3 - 12/06/2020: Alfalfa, hay

Field name: Pires 3

Crop: Alfalfa, hay

Plant date: 12/06/2020

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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Annual Report - General Order No. R5-2007-0035

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

Pires 3 - 12/06/2020: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
04/03/2023	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
Well #14	Ground water	11.00	0.00	0.00	358.13	4,224,000.00 gal
Well #15	Ground water	13.38	0.00	0.00	406.07	4,608,000.00 gal
Well #16	Ground water	12.14	0.00	0.00	437.86	5,376,000.00 gal
Application event totals		36.52	0.00	0.00	1,202.06	
05/16/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.48	0.00	0.00	341.35	4,026,000.00 gal
Well #15	Ground water	12.75	0.00	0.00	387.04	4,392,000.00 gal
Well #16	Ground water	11.57	0.00	0.00	417.34	5,124,000.00 gal
Application event totals		34.81	0.00	0.00	1,145.72	
06/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.14	0.00	0.00	330.15	3,894,000.00 gal
Well #15	Ground water	12.34	0.00	0.00	374.35	4,248,000.00 gal
Well #16	Ground water	11.19	0.00	0.00	403.65	4,956,000.00 gal
Application event totals		33.67	0.00	0.00	1,108.15	
06/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.65	0.00	0.00	346.94	4,092,000.00 gal
Well #15	Ground water	12.96	0.00	0.00	393.38	4,464,000.00 gal
Well #16	Ground water	11.76	0.00	0.00	424.18	5,208,000.00 gal
Application event totals		35.38	0.00	0.00	1,164.50	

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

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

Pires 3 - 12/06/2020: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/03/2023	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
Well #14	Ground water	9.97	0.00	0.00	324.56	3,828,000.00 gal
Well #15	Ground water	12.13	0.00	0.00	368.00	4,176,000.00 gal
Well #16	Ground water	11.00	0.00	0.00	396.81	4,872,000.00 gal
Application event totals		33.10	0.00	0.00	1,089.37	
07/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.31	0.00	0.00	335.75	3,960,000.00 gal
Well #15	Ground water	12.55	0.00	0.00	380.69	4,320,000.00 gal
Well #16	Ground water	11.38	0.00	0.00	410.49	5,040,000.00 gal
Application event totals		34.24	0.00	0.00	1,126.94	
08/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.14	0.00	0.00	330.15	3,894,000.00 gal
Well #15	Ground water	12.34	0.00	0.00	374.35	4,248,000.00 gal
Well #16	Ground water	11.19	0.00	0.00	403.65	4,956,000.00 gal
Application event totals		33.67	0.00	0.00	1,108.15	
09/17/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation	No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	9.79	0.00	0.00	318.96	3,762,000.00 gal
Well #15	Ground water	11.92	0.00	0.00	361.66	4,104,000.00 gal
Well #16	Ground water	10.81	0.00	0.00	389.97	4,788,000.00 gal
Application event totals		32.53	0.00	0.00	1,070.59	

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

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

Pires 3 - 12/06/2020: Alfalfa, hay

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
10/10/2023	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
Well #14	Ground water	9.62	0.00	0.00	313.37	3,696,000.00 gal
Well #15	Ground water	11.71	0.00	0.00	355.31	4,032,000.00 gal
Well #16	Ground water	10.62	0.00	0.00	383.13	4,704,000.00 gal
Application event totals		31.96	0.00	0.00	1,051.81	

Pires 4 - 04/01/2023: Corn, silage

Field name: Pires 4

Crop: Corn, silage

Plant date: 04/01/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
03/19/2023	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
Wastewater	Process wastewater	16.36	4.64	18.54	148.06	1,188,000.00 gal
Well #14	Ground water	11.05	0.00	0.00	359.73	4,356,000.00 gal
Well #15	Ground water	13.44	0.00	0.00	407.88	4,752,000.00 gal
Well #16	Ground water	12.20	0.00	0.00	439.81	5,544,000.00 gal
Application event totals		53.05	4.64	18.54	1,355.50	
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
Wastewater	Process wastewater	15.62	4.42	17.70	141.33	1,134,000.00 gal
Well #14	Ground water	10.54	0.00	0.00	343.38	4,158,000.00 gal
Well #15	Ground water	12.83	0.00	0.00	389.34	4,536,000.00 gal
Well #16	Ground water	11.64	0.00	0.00	419.82	5,292,000.00 gal
Application event totals		50.64	4.42	17.70	1,293.88	

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

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

Pires 4 - 04/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
05/18/2023	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
Wastewater	Process wastewater	15.87	4.49	17.98	143.58	1,152,000.00 gal
Well #14	Ground water	10.71	0.00	0.00	348.83	4,224,000.00 gal
Well #15	Ground water	13.03	0.00	0.00	395.52	4,608,000.00 gal
Well #16	Ground water	11.83	0.00	0.00	426.49	5,376,000.00 gal
Application event totals		51.44	4.49	17.98	1,314.42	
06/07/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well #14	Ground water	10.04	0.00	0.00	327.03	3,960,000.00 gal
Well #15	Ground water	12.22	0.00	0.00	370.80	4,320,000.00 gal
Well #16	Ground water	11.09	0.00	0.00	399.83	5,040,000.00 gal
Application event totals		33.35	0.00	0.00	1,097.66	
06/18/2023	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
Well #14	Ground water	9.71	0.00	0.00	316.13	3,828,000.00 gal
Well #15	Ground water	11.81	0.00	0.00	358.44	4,176,000.00 gal
Well #16	Ground water	10.72	0.00	0.00	386.50	4,872,000.00 gal
Application event totals		32.24	0.00	0.00	1,061.08	
06/28/2023	Surface (irrigation)	No precipitation	No precipitation		No precipitation	
Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	13.88	3.93	15.73	125.63	1,008,000.00 gal
Well #14	Ground water	9.37	0.00	0.00	305.23	3,696,000.00 gal
Well #15	Ground water	11.41	0.00	0.00	346.08	4,032,000.00 gal
Well #16	Ground water	10.35	0.00	0.00	373.18	4,704,000.00 gal
Application event totals		45.01	3.93	15.73	1,150.12	

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

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

Pires 4 - 04/01/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application		Precipitation 24 hours following	
07/06/2023	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
Well #14	Ground water	9.04	0.00	0.00	294.33	3,564,000.00 gal
Well #15	Ground water	11.00	0.00	0.00	333.72	3,888,000.00 gal
Well #16	Ground water	9.98	0.00	0.00	359.85	4,536,000.00 gal
Application event totals		30.02	0.00	0.00	987.90	

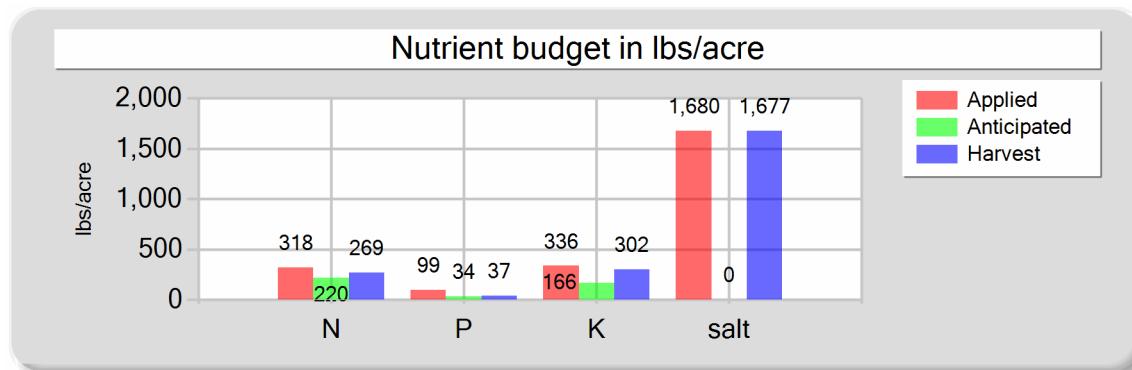
Annual Report - General Order No. R5-2007-0035

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

B. NUTRIENT BUDGET

Dairy East - 10/29/2022: Wheat, silage, soft dough

Field name: Dairy East Crop: Wheat, silage, soft dough Plant date: 10/29/2022



	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	232.80	87.60	278.40	0.00
Process wastewater	45.14	11.06	57.49	427.67
Fresh water	32.82	0.00	0.00	1,251.90
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	317.76	98.66	335.89	1,679.58
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	269.41	37.28	301.60	1,677.46
Nutrient balance	48.35	61.38	34.29	2.12
Applied to removed ratio	1.18	2.65	1.11	1.00

Fresh water applied
35,328,000.00 gallons
1,301.01 acre-inches
15.31 inches/acre
Process wastewater applied
5,346,000.00 gallons
196.88 acre-inches
2.32 inches/acre
Total harvests for the crop
1 harvests

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

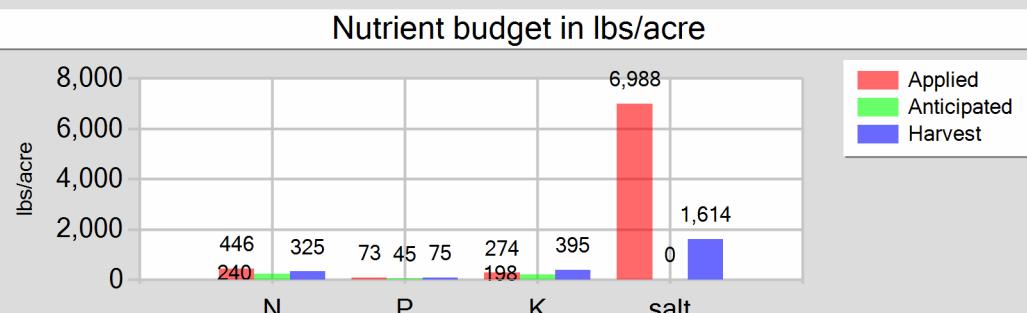
Reporting period 01/01/2023 to 12/31/2023.

Dairy East - 05/29/2023: Corn, silage

Field name: Dairy East

Crop: Corn, silage

Plant date: 05/29/2023



	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	158.40	62.40	230.40	0.00
Process wastewater	35.83	10.44	43.73	355.90
Fresh water	244.31	0.00	0.00	6,632.11
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	445.54	72.84	274.13	6,988.01
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	325.28	74.69	395.15	1,614.34
Nutrient balance	120.26	-1.86	-121.02	5,373.67
Applied to removed ratio	1.37	0.98	0.69	4.33

Fresh water applied

102,144,000.00 gallons
3,761.62 acre-inches
44.25 inches/acre

Process wastewater applied

4,068,000.00 gallons
149.81 acre-inches
1.76 inches/acre

Total harvests for the crop

1 harvests

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

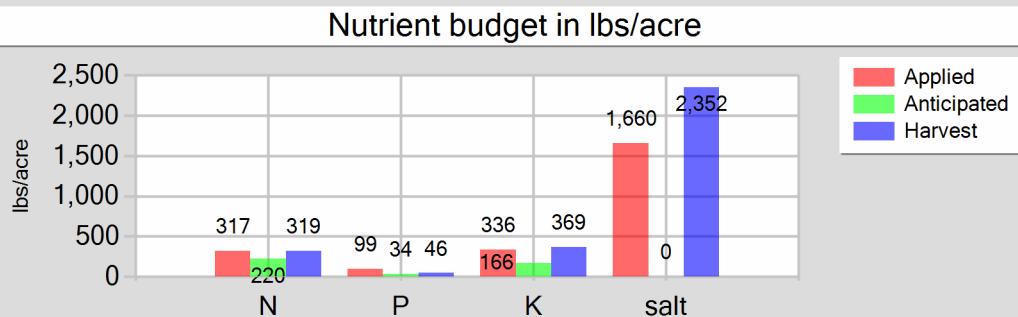
Reporting period 01/01/2023 to 12/31/2023.

Dairy West - 10/25/2022: Wheat, silage, soft dough

Field name: Dairy West

Crop: Wheat, silage, soft dough

Plant date: 10/25/2022



	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	232.80	87.60	278.40	0.00
Process wastewater	45.25	11.09	57.61	428.65
Fresh water	31.90	0.00	0.00	1,231.84
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	316.96	98.69	336.01	1,660.49
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	319.32	45.89	369.03	2,351.86
Nutrient balance	-2.36	52.80	-33.02	-691.37
Applied to removed ratio	0.99	2.15	0.91	0.71

Fresh water applied
35,232,000.00 gallons
1,297.47 acre-inches
15.26 inches/acre

Process wastewater applied
5,364,000.00 gallons
197.54 acre-inches
2.32 inches/acre

Total harvests for the crop
1 harvests

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

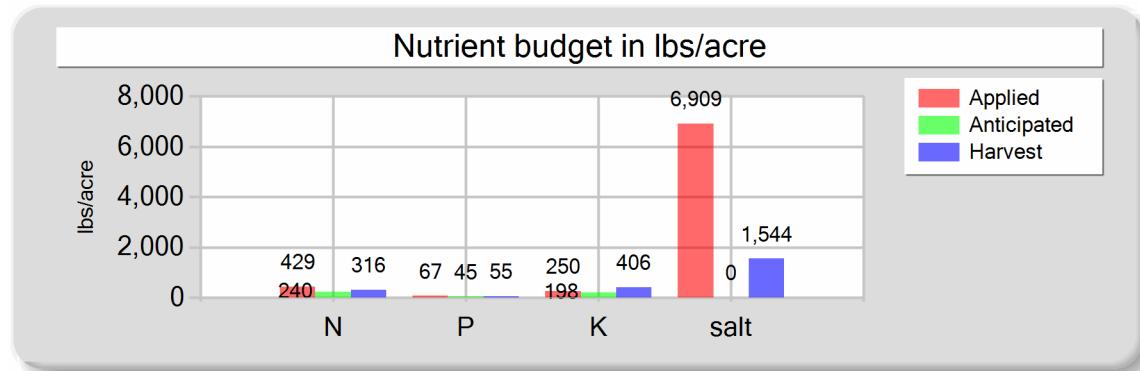
Reporting period 01/01/2023 to 12/31/2023.

Dairy West - 05/29/2023: Corn, silage

Field name: Dairy West

Crop: Corn, silage

Plant date: 05/29/2023



	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	158.40	62.40	230.40	0.00
Process wastewater	15.05	4.52	19.84	164.33
Fresh water	248.44	0.00	0.00	6,744.31
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	428.90	66.92	250.24	6,908.63
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	315.66	54.50	406.50	1,544.23
Nutrient balance	113.24	12.42	-156.26	5,364.40
Applied to removed ratio	1.36	1.23	0.62	4.47

Fresh water applied
103,872,000.00 gallons
3,825.25 acre-inches
45.00 inches/acre

Process wastewater applied
2,268,000.00 gallons
83.52 acre-inches
0.98 inches/acre

Total harvests for the crop
1 harvests

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

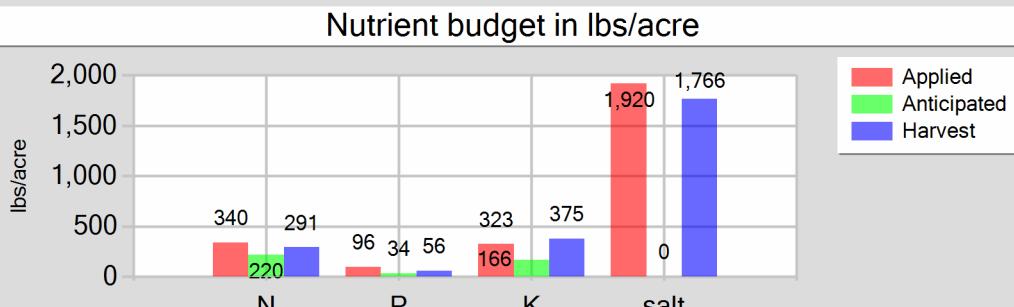
Reporting period 01/01/2023 to 12/31/2023.

Hamstra 1 - 11/22/2022: Wheat, silage, soft dough

Field name: Hamstra 1

Crop: Wheat, silage, soft dough

Plant date: 11/22/2022



	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	7,992,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	294.32 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	16.35 inches/acre
Dry manure	237.11	89.22	283.56	0.00	
Process wastewater	29.54	7.23	39.94	291.91	
Fresh water	59.09	0.00	0.00	1,628.52	
Atmospheric deposition	14.00	0.00	0.00	0.00	
Total nutrients applied	339.74	96.45	323.49	1,920.42	
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00	
Actual crop nutrient removal	291.35	56.45	375.11	1,766.28	
Nutrient balance	48.40	40.00	-51.61	154.14	
Applied to removed ratio	1.17	1.71	0.86	1.09	
Total harvests for the crop					1 harvests

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

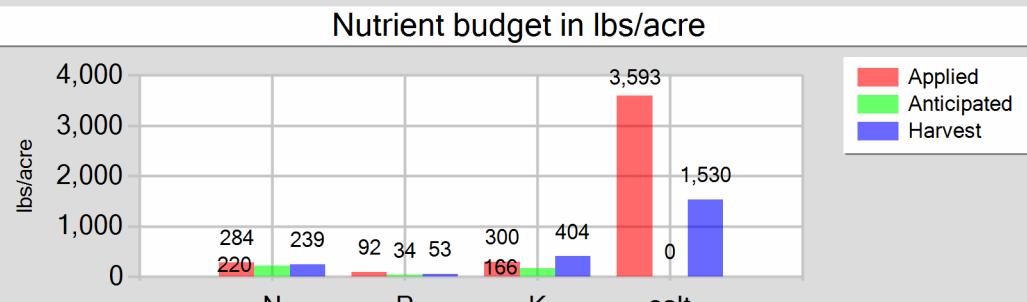
Reporting period 01/01/2023 to 12/31/2023.

Hamstra 2 - 11/14/2022: Wheat, silage, soft dough

Field name: Hamstra 2

Crop: Wheat, silage, soft dough

Plant date: 11/14/2022



	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	230.84	86.86	276.05	0.00
Process wastewater	19.08	4.68	23.55	176.91
Fresh water	27.20	0.00	0.00	3,416.06
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	284.12	91.54	299.61	3,592.97
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	239.40	53.20	404.00	1,529.53
Nutrient balance	44.71	38.34	-104.39	2,063.44
Applied to removed ratio	1.19	1.72	0.74	2.35

Fresh water applied

34,968,000.00 gallons
1,287.75 acre-inches
16.30 inches/acre

Process wastewater applied

2,232,000.00 gallons
82.20 acre-inches
1.04 inches/acre

Total harvests for the crop

1 harvests

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

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

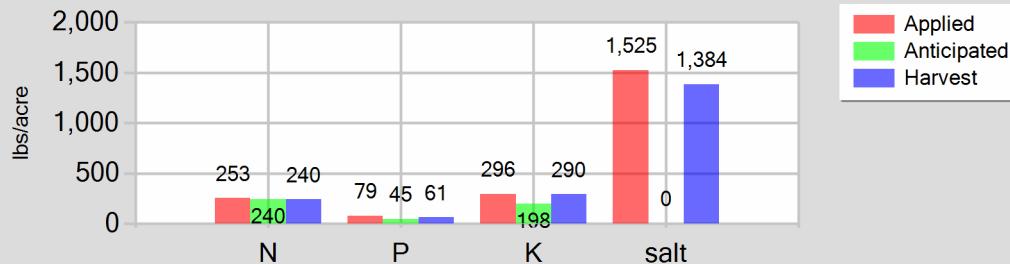
Hamstra 2 - 06/01/2023: Corn, silage

Field name: Hamstra 2

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	180.86	61.87	228.46	0.00
Process wastewater	59.45	16.84	67.35	537.90
Fresh water	5.92	0.00	0.00	987.05
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	253.23	78.71	295.81	1,524.95
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	240.46	61.25	290.36	1,383.75
Nutrient balance	12.78	17.46	5.45	141.20
Applied to removed ratio	1.05	1.29	1.02	1.10

Fresh water applied

96,654,000.00 gallons
3,559.44 acre-inches
45.06 inches/acre

Process wastewater applied

4,428,000.00 gallons
163.07 acre-inches
2.06 inches/acre

Total harvests for the crop

1 harvests

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

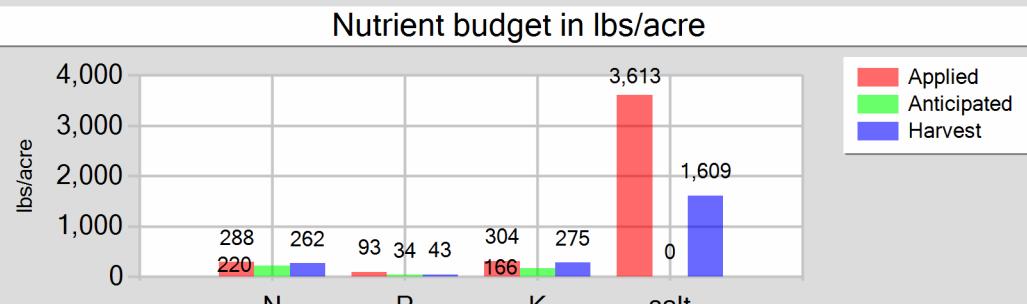
Reporting period 01/01/2023 to 12/31/2023.

Hamstra 3 - 11/15/2022: Wheat, silage, soft dough

Field name: Hamstra 3

Crop: Wheat, silage, soft dough

Plant date: 11/15/2022



	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	16,920,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	623.11 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	16.40 inches/acre
Dry manure	234.84	88.37	280.84	0.00	
Process wastewater	19.11	4.68	23.52	176.81	1,080,000.00 gallons
Fresh water	27.36	0.00	0.00	3,436.36	39.77 acre-inches
Atmospheric deposition	7.00	0.00	0.00	0.00	1.05 inches/acre
Total nutrients applied	288.31	93.05	304.37	3,613.18	
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00	
Actual crop nutrient removal	262.00	43.04	275.10	1,609.43	
Nutrient balance	26.31	50.01	29.27	2,003.74	
Applied to removed ratio	1.10	2.16	1.11	2.25	
Total harvests for the crop					1 harvests

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

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

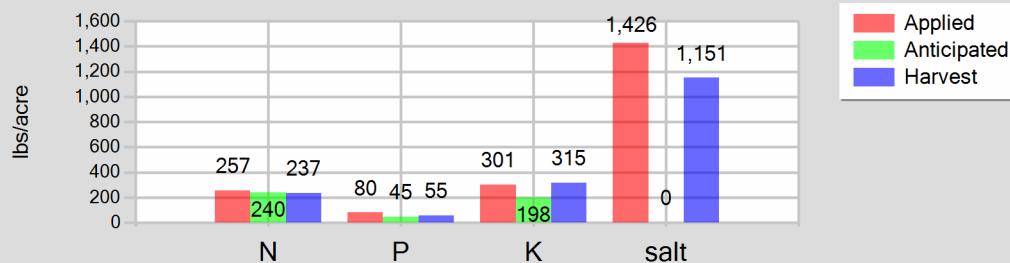
Hamstra 3 - 06/02/2023: Corn, silage

Field name: Hamstra 3

Crop: Corn, silage

Plant date: 06/02/2023

Nutrient budget in lbs/acre



	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	46,462,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	1,711.04 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	45.03 inches/acre
Dry manure	184.00	62.95	232.42	0.00	
Process wastewater	60.79	17.22	68.88	550.05	2,178,000.00 gallons
Fresh water	5.02	0.00	0.00	876.24	80.21 acre-inches
Atmospheric deposition	7.00	0.00	0.00	0.00	2.11 inches/acre
Total nutrients applied	256.81	80.17	301.30	1,426.29	
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00	
Actual crop nutrient removal	237.12	55.25	315.39	1,151.07	
Nutrient balance	19.69	24.91	-14.10	275.22	
Applied to removed ratio	1.08	1.45	0.96	1.24	
Total harvests for the crop					1 harvests

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

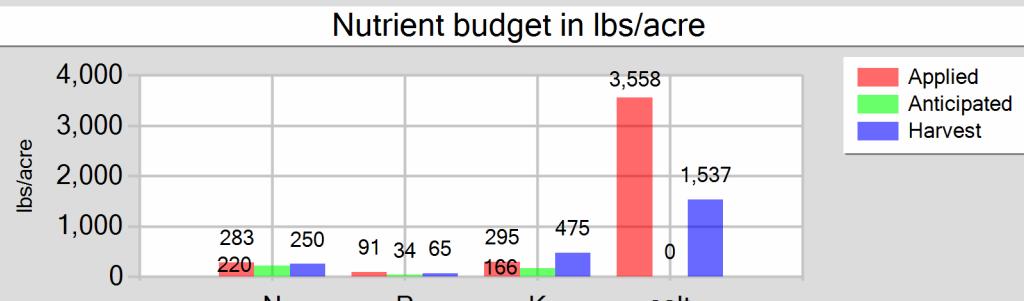
Reporting period 01/01/2023 to 12/31/2023.

Hamstra 4 - 11/15/2022: Wheat, silage, soft dough

Field name: Hamstra 4

Crop: Wheat, silage, soft dough

Plant date: 11/15/2022



	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	232.80	87.60	278.40	0.00
Process wastewater	15.43	3.79	16.56	130.12
Fresh water	27.29	0.00	0.00	3,427.77
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	282.52	91.39	294.96	3,557.89
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	249.71	64.61	474.98	1,536.70
Nutrient balance	32.80	26.77	-180.02	2,021.19
Applied to removed ratio	1.13	1.41	0.62	2.32

Fresh water applied

17,766,000.00 gallons
654.26 acre-inches
16.36 inches/acre

Process wastewater applied

1,134,000.00 gallons
41.76 acre-inches
1.04 inches/acre

Total harvests for the crop

1 harvests

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

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

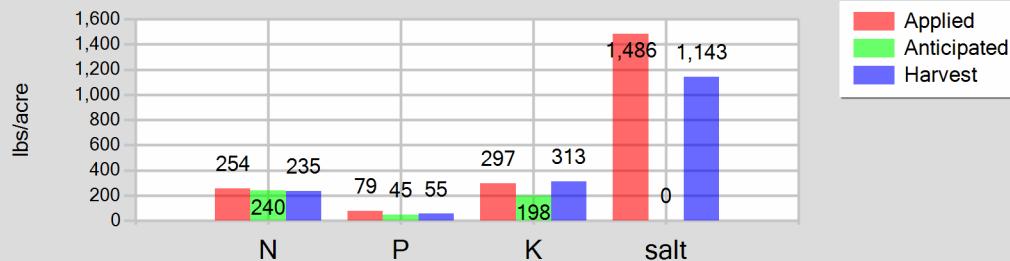
Hamstra 4 - 06/02/2023: Corn, silage

Field name: Hamstra 4

Crop: Corn, silage

Plant date: 06/02/2023

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	182.40	62.40	230.40	0.00
Process wastewater	59.18	16.76	67.05	535.50
Fresh water	5.63	0.00	0.00	950.85
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	254.22	79.16	297.45	1,486.35
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	235.44	54.86	313.16	1,142.93
Nutrient balance	18.77	24.30	-15.71	343.42
Applied to removed ratio	1.08	1.44	0.95	1.30

Fresh water applied

48,806,000.00 gallons
1,797.36 acre-inches
44.93 inches/acre

Process wastewater applied

2,232,000.00 gallons
82.20 acre-inches
2.05 inches/acre

Total harvests for the crop

1 harvests

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

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

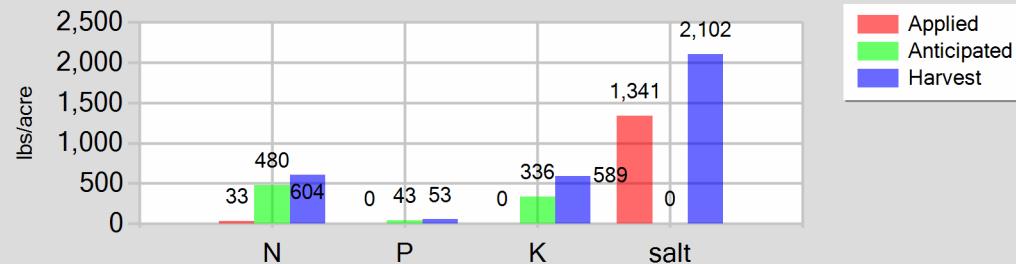
Hamstra 5 - 12/08/2022: Alfalfa, hay

Field name: Hamstra 5

Crop: Alfalfa, hay

Plant date: 12/08/2022

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	0.00	0.00	0.00	0.00
Fresh water	19.25	0.00	0.00	1,341.49
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	33.25	0.00	0.00	1,341.49
Anticipated crop nutrient removal	480.00	43.20	336.00	0.00
Actual crop nutrient removal	603.89	53.38	588.88	2,101.94
Nutrient balance	-570.64	-53.38	-588.88	-760.45
Applied to removed ratio	0.06	0.00	0.00	0.64

Fresh water applied

120,770,000.00 gallons
4,447.55 acre-inches
57.76 inches/acre

Process wastewater applied

0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop

1 harvests

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

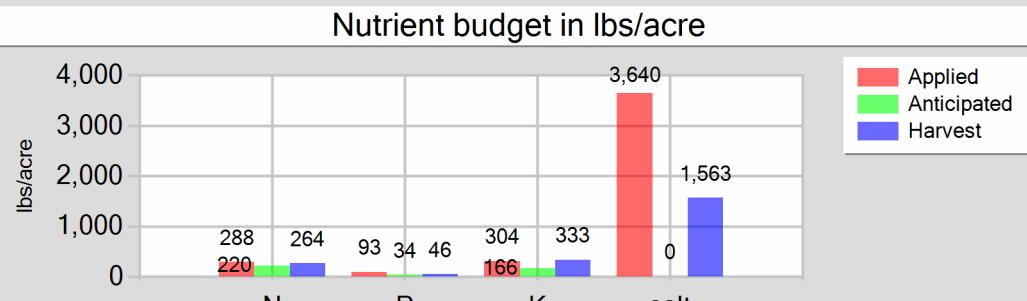
Reporting period 01/01/2023 to 12/31/2023.

Hamstra 6 - 11/16/2022: Wheat, silage, soft dough

Field name: Hamstra 6

Crop: Wheat, silage, soft dough

Plant date: 11/16/2022



	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	233.79	87.97	279.59	0.00
Process wastewater	19.43	4.76	24.05	180.50
Fresh water	27.55	0.00	0.00	3,459.86
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	287.78	92.74	303.64	3,640.36
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	263.56	45.97	332.52	1,563.00
Nutrient balance	24.21	46.77	-28.88	2,077.36
Applied to removed ratio	1.09	2.02	0.91	2.33

Fresh water applied

34,968,000.00 gallons
1,287.75 acre-inches
16.51 inches/acre

Process wastewater applied

2,232,000.00 gallons
82.20 acre-inches
1.05 inches/acre

Total harvests for the crop

1 harvests

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

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

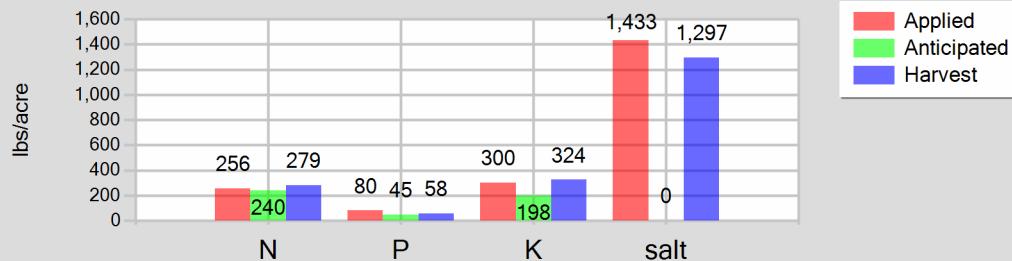
Hamstra 6 - 06/03/2023: Corn, silage

Field name: Hamstra 6

Crop: Corn, silage

Plant date: 06/03/2023

Nutrient budget in lbs/acre



	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	94,086,000.00 gallons
Plowdown credit	0.00	0.00	0.00	0.00	3,464.87 acre-inches
Commercial fertilizer / Other	0.00	0.00	0.00	0.00	44.42 inches/acre
Dry manure	183.18	62.67	231.38	0.00	
Process wastewater	60.70	17.19	68.77	549.23	
Fresh water	5.11	0.00	0.00	884.11	
Atmospheric deposition	7.00	0.00	0.00	0.00	
Total nutrients applied	255.99	79.86	300.16	1,433.34	
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00	
Actual crop nutrient removal	279.44	58.12	324.15	1,296.61	
Nutrient balance	-23.45	21.74	-24.00	136.73	
Applied to removed ratio	0.92	1.37	0.93	1.11	
Total harvests for the crop					1 harvests

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

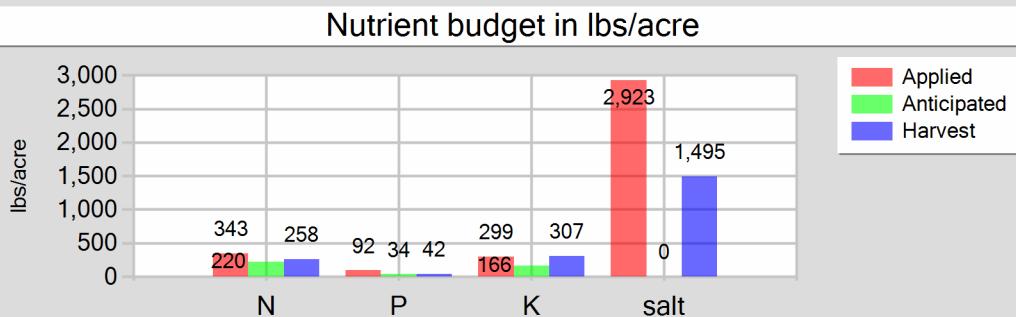
Reporting period 01/01/2023 to 12/31/2023.

Pires 1 - 11/01/2022: Wheat, silage, soft dough

Field name: Pires 1

Crop: Wheat, silage, soft dough

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	232.80	87.60	278.40	0.00
Process wastewater	19.20	4.71	20.61	161.93
Fresh water	83.89	0.00	0.00	2,760.99
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	342.88	92.31	299.01	2,922.92
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	258.32	42.24	307.05	1,494.66
Nutrient balance	84.57	50.07	-8.05	1,428.26
Applied to removed ratio	1.33	2.19	0.97	1.96

Fresh water applied

32,634,000.00 gallons
1,201.80 acre-inches
16.02 inches/acre

Process wastewater applied

2,646,000.00 gallons
97.44 acre-inches
1.30 inches/acre

Total harvests for the crop

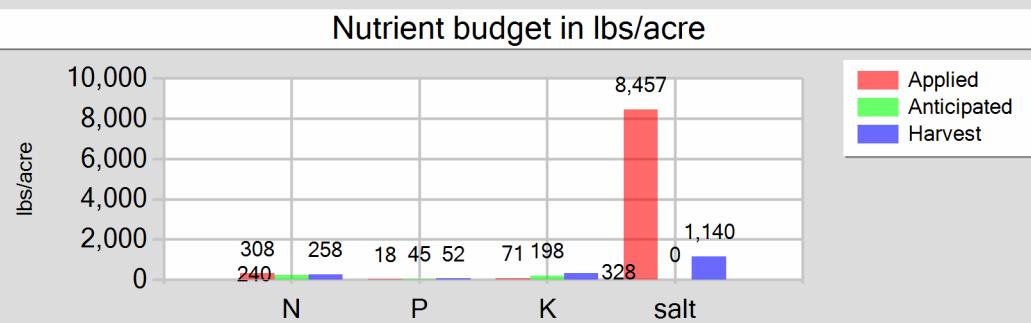
1 harvests

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

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

Pires 1 - 05/30/2023: Corn, silage

Field name: Pires 1 Crop: Corn, silage Plant date: 05/30/2023



	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	62.37	17.66	70.66	564.29
Fresh water	238.85	0.00	0.00	7,892.53
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	308.22	17.66	70.66	8,456.82
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	258.08	52.02	328.10	1,140.36
Nutrient balance	50.14	-34.35	-257.45	7,316.45
Applied to removed ratio	1.19	0.34	0.22	7.42

Fresh water applied
93,072,000.00 gallons
3,427.53 acre-inches
45.70 inches/acre

Process wastewater applied
4,410,000.00 gallons
162.41 acre-inches
2.17 inches/acre

Total harvests for the crop
1 harvests

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

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

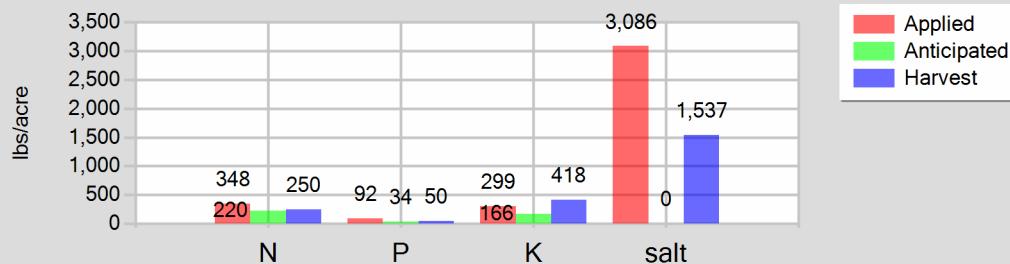
Pires 2 - 11/12/2022: Wheat, silage, soft dough

Field name: Pires 2

Crop: Wheat, silage, soft dough

Plant date: 11/12/2022

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	231.72	87.19	277.11	0.00
Process wastewater	20.27	4.97	21.76	170.97
Fresh water	88.57	0.00	0.00	2,915.16
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	347.56	92.17	298.87	3,086.13
Anticipated crop nutrient removal	220.00	34.00	166.00	0.00
Actual crop nutrient removal	250.46	50.09	418.01	1,537.30
Nutrient balance	97.10	42.08	-119.14	1,548.83
Applied to removed ratio	1.39	1.84	0.71	2.01

Fresh water applied

33,078,000.00 gallons
1,218.15 acre-inches
16.92 inches/acre

Process wastewater applied

2,682,000.00 gallons
98.77 acre-inches
1.37 inches/acre

Total harvests for the crop

1 harvests

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

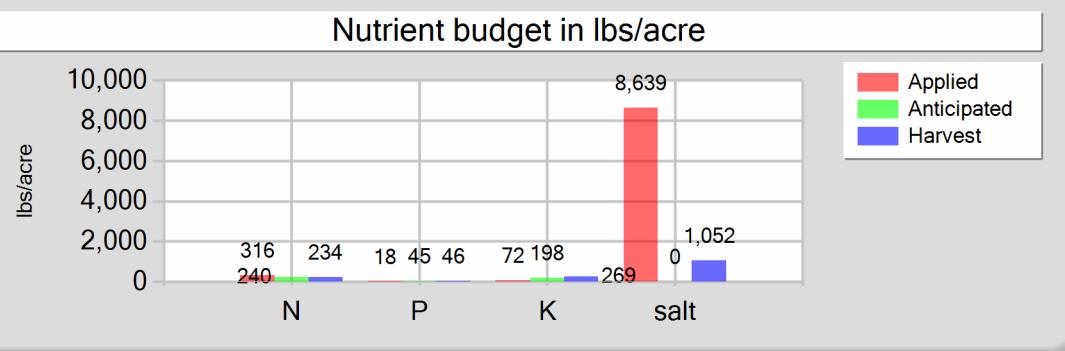
Reporting period 01/01/2023 to 12/31/2023.

Pires 2 - 05/30/2023: Corn, silage

Field name: Pires 2

Crop: Corn, silage

Plant date: 05/30/2023



	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	63.90	18.10	72.40	578.20
Fresh water	244.91	0.00	0.00	8,060.72
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	315.81	18.10	72.40	8,638.92
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	233.59	46.30	269.36	1,052.19
Nutrient balance	82.23	-28.20	-196.96	7,586.73
Applied to removed ratio	1.35	0.39	0.27	8.21

Fresh water applied

91,464,000.00 gallons
3,368.31 acre-inches
46.78 inches/acre

Process wastewater applied

4,338,000.00 gallons
159.75 acre-inches
2.22 inches/acre

Total harvests for the crop

1 harvests

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

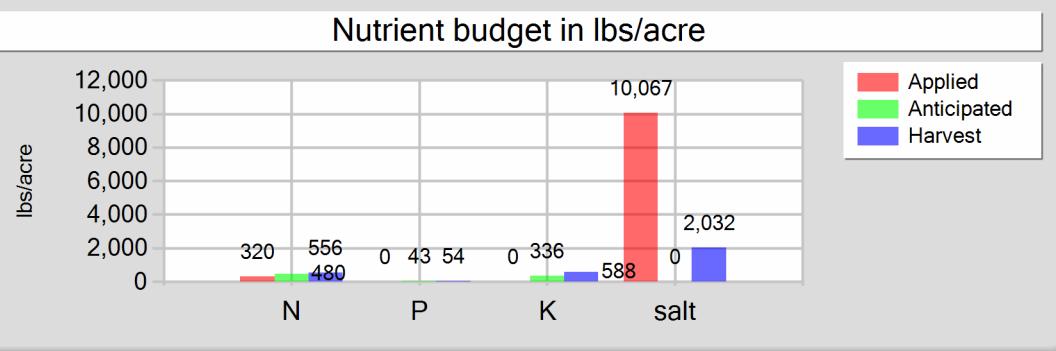
Reporting period 01/01/2023 to 12/31/2023.

Pires 3 - 12/06/2020: Alfalfa, hay

Field name: Pires 3

Crop: Alfalfa, hay

Plant date: 12/06/2020



	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	0.00	0.00	0.00	0.00
Fresh water	305.88	0.00	0.00	10,067.29
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	319.88	0.00	0.00	10,067.29
Anticipated crop nutrient removal	480.00	43.20	336.00	0.00
Actual crop nutrient removal	555.51	54.08	588.28	2,031.94
Nutrient balance	-235.63	-54.08	-588.28	8,035.35
Applied to removed ratio	0.58	0.00	0.00	4.95

Fresh water applied

118,992,000.00 gallons
4,382.07 acre-inches
58.43 inches/acre

Process wastewater applied

0.00 gallons
0.00 acre-inches
0.00 inches/acre

Total harvests for the crop

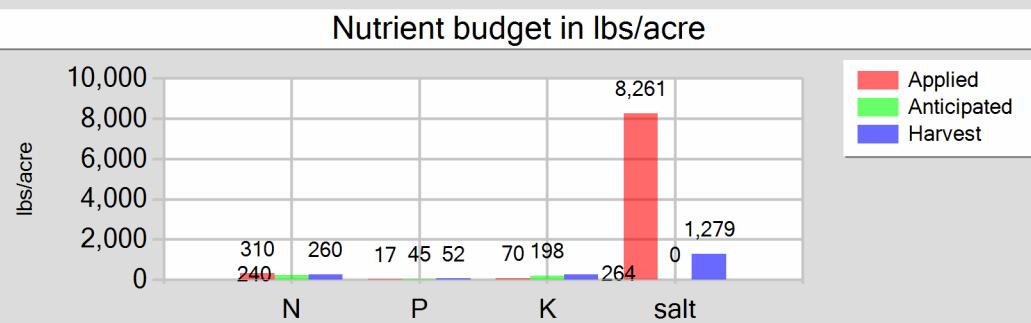
1 harvests

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

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

Pires 4 - 04/01/2023: Corn, silage

Field name: Pires 4 Crop: Corn, silage Plant date: 04/01/2023



	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	61.74	17.49	69.95	558.61
Fresh water	234.01	0.00	0.00	7,701.95
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	309.75	17.49	69.95	8,260.55
Anticipated crop nutrient removal	240.00	45.00	198.00	0.00
Actual crop nutrient removal	259.73	51.95	263.73	1,278.68
Nutrient balance	50.02	-34.46	-193.78	6,981.87
Applied to removed ratio	1.19	0.34	0.27	6.46

Fresh water applied
93,462,000.00 gallons
3,441.89 acre-inches
44.70 inches/acre

Process wastewater applied
4,482,000.00 gallons
165.06 acre-inches
2.14 inches/acre

Total harvests for the crop
1 harvests

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

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

NUTRIENT ANALYSES**A. MANURE ANALYSES****Corral Manure**

Sample and source description: Corral Manure

Sample date: 09/09/2022 Material type: Corral solids

Source of analysis: Lab analysis

Method of reporting: As-is

Moisture: 7.0 %

	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	23,400.00	7,300.00	23,200.00							0.00
DL	3.30	6.30	6.30							0.67

Corral Manure

Sample and source description: Corral Manure

Sample date: 05/08/2023 Material type: Corral solids

Source of analysis: Lab analysis

Method of reporting: As-is

Moisture: 19.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,200.00	5,200.00	19,200.00							0.00
DL	3.30	6.30	6.30							0.67

Corral Manure

Sample and source description: Corral Manure

Sample date: 09/08/2023 Material type: Corral solids

Source of analysis: Lab analysis

Method of reporting: As-is

Moisture: 6.2 %

	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	13,500.00	4,900.00	18,200.00							0.00
DL	3.30	6.30	6.30							0.67

B. PROCESS WASTEWATER ANALYSES

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

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

Wastewater

Sample and source description: Wastewater

Sample date: 12/07/2022 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.20

	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	44.30	42.90	0.00	20.90	16.00	70.00								1,080.00	550
DL	0.70	0.02	0.02	0.01	0.02	0.30								10.00	10

Wastewater

Sample and source description: Wastewater

Sample date: 02/16/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.20

	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	119.00	71.10	0.00	0.40	29.20	173.00								2,100.00	1,240
DL	0.70	0.02	0.02	0.01	0.02	0.30								10.00	10

Wastewater

Sample and source description: Wastewater

Sample date: 05/08/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.10

	Kjeldahl-N (mg/L)	NH4-N (mg/L)	NH3-N (mg/L)	Nitrate-N (mg/L)	Total P (mg/L)	Total K (mg/L)	Calcium (mg/L)	Magnes. (mg/L)	Sodium (mg/L)	Bicarb. (mg/L)	Carb. (mg/L)	Sulfate (mg/L)	Chloride (mg/L)	EC (µmhos/cm)	TDS (mg/L)
Value	127.00	103.00	0.00	0.10	36.00	144.00								2,200.00	1,150
DL	0.70	0.02	0.02	0.01	0.20	0.30								10.00	10

Wastewater

Sample and source description: Wastewater

Sample date: 09/20/2023 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	67.30	62.00	0.00	0.30	20.30	89.10								1,340.00	738
DL	0.70	0.02	0.02	0.01	0.30	0.30								10.00	10

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

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

Wastewater

Sample and source description: Wastewater

Sample date: 11/21/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.20

	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	67.30	56.10	0.00	0.30	18.90	90.20								1,240.00	717
DL	0.70	0.02	0.02	0.01	0.30	0.30								10.00	10

C. FRESH WATER ANALYSES**Domestic Well #H3****Domestic Well #H3**

Sample description: Domestic Well #H3

Sample date: 07/10/2023 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	19.80		19.80								1,250.00	
DL	0.10		0.10								10.00	

Tulare ID**Tulare ID**

Sample description: Tulare ID

Sample date: 07/10/2023 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		0.00								43.10	38
DL	0.10		0.10								10.00	10

Well #1

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

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

Well #1**Well 1**

Sample description: Well 1

Sample date: 07/10/2023 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	21.90		21.90								1,360.00	
DL	0.10		0.10								10.00	

Well #10**Well 10**

Sample description: Well 10

Sample date: 09/20/2023 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	12.70		12.70	64.70	4.50	37.00	110.00	0.00	46.90	28.40	504.00	323
DL	0.10		0.10	0.10	0.10	1.00	5.00	1.00	0.50	0.20	10.00	10

Well #11**Well 11**

Sample description: Well 11

Sample date: 07/10/2023 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	2.00		2.00								459.00	
DL	0.10		0.10								10.00	

Well #12

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

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

Well #12**Well 12**

Sample description: Well 12

Sample date: 07/10/2023 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	52.00		52.00								2,000.00	
DL	0.10		0.10								10.00	

Well #14**Well 14**

Sample description: Well 14

Sample date: 07/10/2023 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	23.40		23.40								1,270.00	
DL	0.10		0.10								10.00	

Well #15**Well 15**

Sample description: Well 15

Sample date: 07/10/2023 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	26.10		26.10								1,320.00	
DL	0.10		0.10								10.00	

Well #16

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

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

Well #16**Well 16**

Sample description: Well 16

Sample date: 07/10/2023 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	20.30		20.30								1,220.00	
DL	0.10		0.10								10.00	

Well #17**Well 17**

Sample description: Well 17

Sample date: 07/10/2023 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	0.10		0.10								287.00	
DL	0.10		0.10								10.00	

Well #18**Well 18**

Sample description: Well 18

Sample date: 07/10/2023 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		0.00								306.00	
DL	0.10		0.10								10.00	

Well #19

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

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

Well #19**Well 19**

Sample description: Well 19

Sample date: 07/10/2023 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	0.10		0.10	2.30	0.10	61.00	79.10	19.00	15.50	17.80	2,787.00	173
DL	0.10		0.10	0.10	0.10	0.10	5.00	1.00	0.50	0.20	10.00	10

Well #2**Well 2**

Sample description: Well 2

Sample date: 07/10/2023 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	43.00		43.00								1,780.00	
DL	0.10		0.10								10.00	

Well #6**Well 6**

Sample description: Well 6

Sample date: 09/20/2023 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	24.60		24.60	132.00	10.40	91.00	283.00	0.00	94.00	52.40	1,040.00	690
DL	0.10		0.10	0.10	0.10	1.00	5.00	1.00	0.50	0.20	10.00	10

Well #8

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

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

Well #8

Well #8

Sample description: Well #8

Sample date: 07/10/2023 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	12.80		12.80								762.00	
DL	0.10		0.10								10.00	

D. SOIL ANALYSES

Hamstra 3

Hamstra 3

Sample and source description: Hamstra 3

Sample date: 05/12/2023 Source of analysis: Lab analysis

	Nitrate-N (mg/kg)	Total P (mg/kg)	Soluble P (mg/kg)	K (mg/kg)	EC (µmhos/cm)	Organic matter (%)	Total salt (mg/kg)
Value				34.00			
DL				1.10			

Hamstra 4

Hamstra 4

Sample and source description: Hamstra 4

Sample date: 05/12/2023 Source of analysis: Lab analysis

	Nitrate-N (mg/kg)	Total P (mg/kg)	Soluble P (mg/kg)	K (mg/kg)	EC (µmhos/cm)	Organic matter (%)	Total salt (mg/kg)
Value				30.00			
DL				1.10			

Pires 4

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

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

Pires 4

Pires 4

Sample and source description: Pires 4

Sample date: 08/24/2022 Source of analysis: Lab analysis

	Nitrate-N (mg/kg)	Total P (mg/kg)	Soluble P (mg/kg)	K (mg/kg)	EC (μmhos/cm)	Organic matter (%)	Total salt (mg/kg)
Value			23.00				
DL			1.10				

E. PLANT TISSUE ANALYSES

Dairy East - 10/29/2022: Wheat, silage, soft dough

Dairy East

Sample and source description: Dairy East

Sample date: 04/26/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 60.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,900.00	2,200.00	17,800.00		9.90
DL	100.00	100.00	100.00		1.00

Dairy East - 05/29/2023: Corn, silage

Dairy East

Sample and source description: Dairy East

Sample date: 11/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,500.00	3,100.00	16,400.00		6.70
DL	100.00	100.00	100.00		1.00

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

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

Dairy West - 10/25/2022: Wheat, silage, soft dough

Dairy West

Sample and source description: Dairy West

Sample date: 04/26/2023 Source of analysis: Lab analysis Method of reporting: As-is

Moisture: 53.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,700.00	2,400.00	19,300.00		12.30
DL	100.00	100.00	100.00		1.00

Dairy West - 05/29/2023: Corn, silage

Dairy West

Sample and source description: Dairy West

Sample date: 11/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,900.00	2,400.00	17,900.00		6.80
DL	100.00	100.00	100.00		1.00

Hamstra 1 - 11/22/2022: Wheat, silage, soft dough

Hamstra 1

Sample and source description: Hamstra 1

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

Moisture: 56.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	16,000.00	3,100.00	20,600.00		9.70
DL	100.00	100.00	100.00		1.00

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

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

Hamstra 2 - 11/14/2022: Wheat, silage, soft dough

Hamstra 2

Sample and source description: Hamstra 2

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

Moisture: 60.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,400.00	3,200.00	24,300.00		9.20
DL	100.00	100.00	100.00		1.00

Hamstra 2 - 06/01/2023: Corn, silage

Hamstra 2

Sample and source description: Hamstra 2

Sample date: 11/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,600.00	2,700.00	12,800.00		6.10
DL	100.00	100.00	100.00		1.00

Hamstra 3 - 11/15/2022: Wheat, silage, soft dough

Hamstra 3

Sample and source description: Hamstra 3

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

Moisture: 55.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,000.00	2,300.00	14,700.00		8.60
DL	100.00	100.00	100.00		1.00

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

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

Hamstra 3 - 06/02/2023: Corn, silage

Hamstra 3 & 4

Sample and source description: Hamstra 3 & 4

Sample date: 11/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,300.00	2,400.00	13,700.00		5.00
DL	100.00	100.00	100.00		1.00

Hamstra 4 - 11/15/2022: Wheat, silage, soft dough

Hamstra 3

Sample and source description: Hamstra 3

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

Moisture: 58.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,300.00	3,700.00	27,200.00		8.80
DL	100.00	100.00	100.00		1.00

Hamstra 4 - 06/02/2023: Corn, silage

Hamstra 3 & 4

Sample and source description: Hamstra 3 & 4

Sample date: 11/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	10,300.00	2,400.00	13,700.00		5.00
DL	100.00	100.00	100.00		1.00

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

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

Hamstra 5 - 12/08/2022: Alfalfa, hay

Pires 3

Sample and source description: Pires 3

Sample date: 08/04/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 6.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	36,200.00	3,200.00	35,300.00		12.60
DL	100.00	100.00	100.00		1.00

Hamstra 6 - 11/16/2022: Wheat, silage, soft dough

Hamstra 6

Sample and source description: Hamstra 6

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

Moisture: 63.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,200.00	3,000.00	21,700.00		10.20
DL	100.00	100.00	100.00		1.00

Hamstra 6 - 06/03/2023: Corn, silage

Hamstra 6

Sample and source description: Hamstra 6

Sample date: 11/10/2023 Source of analysis: Other/estimated Method of reporting: Dry-weight

Moisture: 63.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,500.00	2,600.00	14,500.00		5.80
DL	100.00	100.00	100.00		1.00

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

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

Pires 1 - 11/01/2022: Wheat, silage, soft dough

Pires 1

Sample and source description: Pires 1

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

Moisture: 61.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,900.00	2,600.00	18,900.00		9.20
DL	100.00	100.00	100.00		1.00

Pires 1 - 05/30/2023: Corn, silage

Pires 1

Sample and source description: Pires 1

Sample date: 11/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 68.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,900.00	2,600.00	16,400.00		5.70
DL	100.00	100.00	100.00		1.00

Pires 2 - 11/12/2022: Wheat, silage, soft dough

Pires 2

Sample and source description: Pires 2

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

Moisture: 59.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,500.00	2,900.00	24,200.00		8.90
DL	100.00	100.00	100.00		1.00

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

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

Pires 2 - 05/30/2023: Corn, silage

Pires 2

Sample and source description: Pires 2

Sample date: 11/10/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.2 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,100.00	2,200.00	12,800.00		5.00
DL	100.00	100.00	100.00		1.00

Pires 3 - 12/06/2020: Alfalfa, hay

Pires 3

Sample and source description: Pires 3

Sample date: 08/04/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 7.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	33,900.00	3,300.00	35,900.00		12.40
DL	100.00	100.00	100.00		1.00

Pires 4 - 04/01/2023: Corn, silage

Pires 4

Sample and source description: Pires 4

Sample date: 08/04/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 66.5 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	13,000.00	2,600.00	13,200.00		6.40
DL	100.00	100.00	100.00		1.00

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

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

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

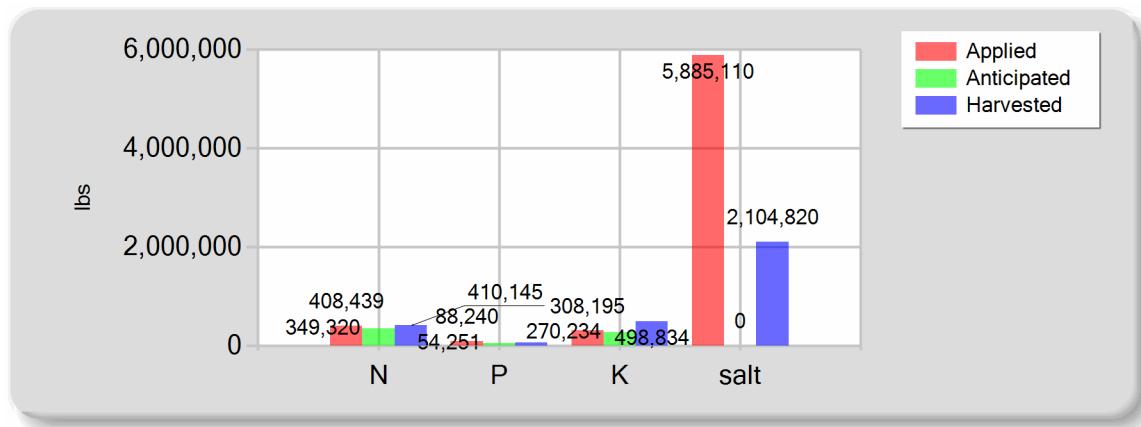
No subsurface (tile) drainage analyses entered.

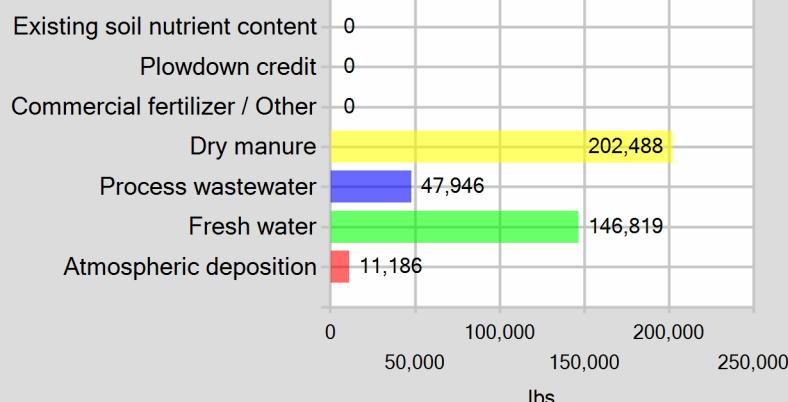
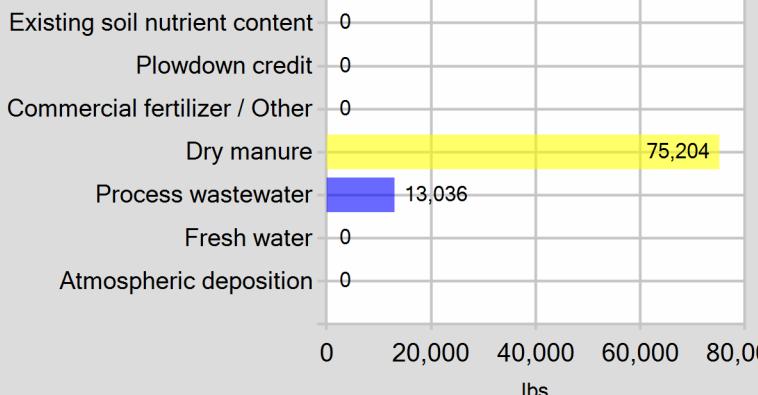
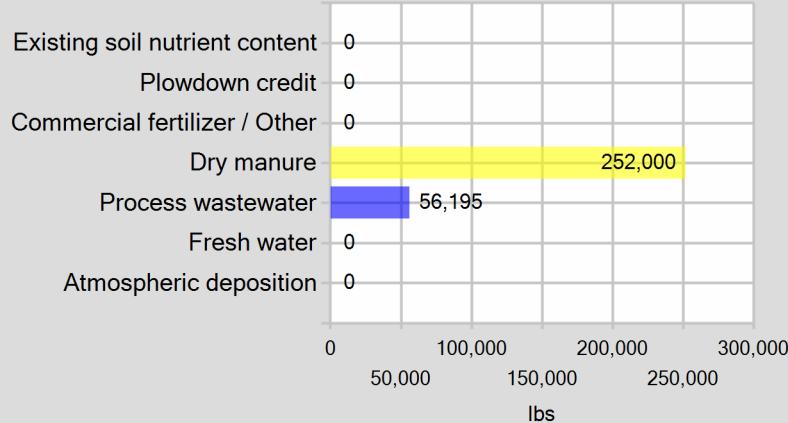
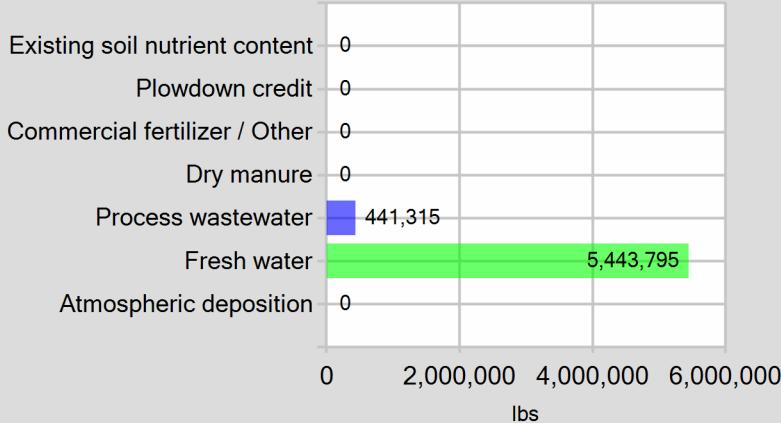
Annual Report - General Order No. R5-2007-0035

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

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

	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	202,488.00	75,204.00	252,000.00	0.00
Process wastewater	47,946.46	13,035.88	56,195.18	441,314.58
Fresh water	146,818.62	0.00	0.00	5,443,795.09
Atmospheric deposition	11,186.00	0.00	0.00	0.00
Total nutrients applied	408,439.08	88,239.88	308,195.18	5,885,109.66
Anticipated crop nutrient removal	349,320.00	54,251.40	270,234.00	0.00
Actual crop nutrient removal	410,145.09	70,917.05	498,834.25	2,104,820.39
Nutrient balance	-1,706.01	17,322.84	-190,639.07	3,780,289.27
Applied to removed ratio	1.00	1.24	0.62	2.80

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**

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

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

EXCEPTION REPORTING

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

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

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

Was the facility's NMP updated in the reporting period? 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

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

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

ADDITIONAL NOTES

A. NOTES

No notes entered for this annual report.

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

SIGNATURE OF OPERATOR OF FACILITY

Nonning Leyendekker

SAME AS OWNER

PRINT OR TYPE NAME

PRINT OR TYPE NAME

DATE

DATE

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

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

ATTACHMENTS

A. REQUIRED ATTACHMENTS

The following lists the required documents that should be attached to the Annual Report when submitted .

Annual Dairy Facility Assessment

Provide an Annual Dairy Facility Assessment (an update to the Preliminary Dairy Facility Assessment in Attachment A) for each reporting period. On the PDFA Final page, click on the ADFA Report button to generate an ADFA report after updating information as needed.

Manure/Process Wastewater Tracking Manifests

Provide copies of all manure/process wastewater tracking manifests for the reporting period, signed by both the owner/operator and the hauler.

Corrective Actions Documents

Provide records documenting any corrective actions taken to correct deficiencies noted as a result of the inspections required in the Monitoring Requirements of the General Order. Deficiencies not corrected in 30 days must be accompanied by an explanation of the factors preventing immediate correction.

Groundwater Monitoring

Dischargers that monitor supply wells or subsurface (tile) drainage systems, or that have monitoring well systems must submit monitoring results as directed in the General Order, Groundwater Reporting Section starting on page MRP-13.

Storm Water Monitoring

Dischargers that are required to monitor storm water more frequently than required in the General Order must submit monitoring results as directed in the General Order, Storm Water Reporting Section on page MRP-14.

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

Nonning Leyendekker

PRINT OR TYPE NAME

5-31-24

DATE

SIGNATURE OF OPERATOR OF FACILITY

SAME AS OWNER

PRINT OR TYPE NAME

5-31-24

DATE

DEGROOT ENVIRONMENTAL

5250 W JEFFERSON AVE, FRESNO CA 93706

PHONE: (559) 307-0690

matthew78degroot@gmail.com

2023 Groundwater Well Report

Dairy: Friesian Farms Dairy
Contact: Nonning Leyendekker

Address: 5593 Avenue 176
Tulare, CA 93274

Summary

Fourteen wells and one canal were sampled at the Friesian Farms Dairy by DeGroot Environmental personnel. Samples were collected on July 10, and September 20, 2023. The samples collected are listed below. Electrical conductivity (EC) was measured in the laboratory. Ammonium presence was measured in the field using test strips. Results were recorded on the sampling record for each sample collected. Samples were collected in bottles provided by the testing laboratory. The samples were placed in a cooler with ice packs and delivered to BSK Analytical Laboratories, an ELAP laboratory. Well samples were analyzed as defined in the MRP, updated in February 2011. The five year analysis was performed on approximately 20% of the wells sampled.

Wells Sampled	Date Sampled	Wells Sampled	Date Sampled
Well 19	7/10/2023	Well 17	7/10/2023
Well 15	7/10/2023	Well 18	7/10/2023
Well 14	7/10/2023	Well 8	7/10/2023
Well 16	7/10/2023	Domestic Well H3	7/10/2023
Well 11	7/10/2023	Tulare ID	7/10/2023
Well 1	7/10/2023	Well 10	9/20/2023
Well 12	7/10/2023	Well 6	9/20/2023
Well 2	7/10/2023		

The following wells were non operational in 2022: Well #3, Well #4, Well #5, Well #9, and Well #13. No samples could be collected from this well. Documentation is included with this report.

Attached are copies of the field records developed when samples were collected, the Chain of Custody forms, a map showing well locations, and the analytical results from BSK Analytical Laboratories.

FYI: The regulatory limit for Nitrate as NO₃N is 10 mg/L.

WATER WORK REQUEST

Acc No. 14218 Cons. 08
 Bill To:

Purchase Order No. _____ Results Needed By _____
 Client Friesian Farms Dairy
 Address 5593 Ave 176
 City, State, Zip Tulare, CA 93274
 Email: _____

Copy to: matthewdegroot@comcast.net
 Requested by/Cell: Nonning 730-1290

Facility: 5593 Ave 176 Tulare
 Date sampled 7-10-23
 Sampled by Matt DeGroot

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1.	Well 19	Sampled From	discharge fire	Date Sampled	Time Sampled	Field	Received Temp °C
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:					

Out of Temperature Compliance

Proceed: Yes No

Approved By: Matt DeGroot (Client)
 Initial and Date: _____ (DLI)

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<u>Matt DeGroot</u>	DeGroot Environmental		
Second				
Third				
Fourth	<u>K</u>	OJ	7-11-23 11:32	

I guarantee that as the client, or on behalf of the client named, I have the authority to contract the above required 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 attorney's 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 \$2.00 per month whichever is greater.

If payment is not made when due and a legitimate dispute exists concerning the products 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 attorney's fees of DellaValle Laboratory.

Invoicing Information:

Contract 2020

Shipping		
Sampling Hrs	Miles	Consulting
\$	in	
\$	out	
Amt Paid	Roc By	Check No.
Date		

Signature _____

Sample received in cooler with ice?

[] Yes [] No

WATER WORK REQUEST

Bill To: Acct No. Cons.

Purchase Order No. _____ Results Needed By _____

Client **Friesian Farms Dairy**
 Address **5593 Ave 176**
 City, State, Zip **Tulare, CA 93274**
 Email: _____

Copy to: **matthewdegroot@comcast.net**

Requested by/Cell: **Nonning 730-1290**

Facility: **5593 Ave 176 Tulare**

Date sampled: **7-10-23**

Sampled by: **Matthew Degrout**

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1. Well 15	Sampled From: discharge pipe	7-10-23	1220	Absent	12.9
2. Well 14	Sampled From: 1		1232		12.7
3. Well 16	Sampled From: 1		1241		13.0
4. Well 11	Sampled From: spigot off discharge pipe		1256		14.0
5. Well 1	Sampled From: discharge pipe		1305		11.8
6. Well 12	Sampled From: 1		1316		13.4
7. Well 2	Sampled From: 1		1323		11.8
8. Well 17	Sampled From: 1		1329		12.5
9. Well 18	Sampled From: Spigot off discharge pipe		1339		12.1
10. Well 19	Sampled From: discharge pipe		1352		

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<i>Matthew Degrout</i>	DeGroot Environmental		
Second				
Third				
Fourth	<i>XBS</i>	OCZ	7-11 11:26	

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 attorney's 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 attorney's fees of DellaValle Laboratory.

Invoicing Information:

Contract 2020

Sampling Hrs _____ Miles _____ Consulting _____
 Amt Paid _____ Rec By _____ Check No. _____ Date _____

Shipping

\$ _____ In
 \$ _____ Out

Signature _____

Sample received in cooler with ice?

Out of Temperature Compliance
 Proceed: Yes No

Approved By: *Matthew Degrout* (Client)
 Initial and Date: *(initials)* / *(date)*

WATER WORK REQUEST

Bill To: Acct No. Cons.

Purchase Order No. _____ Results Needed By _____

Client **Friesian Farms Dairy**
 Address 5593 Ave 176
 City, State, Zip Tulare, CA 93274
 Email: _____

Copy to:

Requested by/Cell:

Facility: 5593 Ave 176 Tulare

Date sampled **7-10-23**

Sampled by **Matthew DeGroot**

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1.	Well 8	Sampled From:	Discharge pipe	7-10-23	1410	Absent	12.5
2.	Domestic Well H3	Sampled From:	Spigot at tank	+	1427	+	11.6
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		DeGroot Environmental		
Second				
Third				
Fourth		DCI	7-11-23 11:33	

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 actions 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:

Contract 2020

Sampling Hrs	Miles	Consulting	Shipping
\$			In
\$			Out
Amt Paid	Roc By	Check No.	Date

Signature _____

Sample received in cooler with ice?

[] Yes [] No

exel 12/17

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	
<input type="checkbox"/> Water Type:	<input type="checkbox"/> Drinking	<input type="checkbox"/> Wastewater
<input checked="" type="checkbox"/> Ag Water	<input type="checkbox"/> Ground Water	<input type="checkbox"/> Mon. Well
<input type="checkbox"/> Supply Water	<input type="checkbox"/> Other	

A nalysis and Bottles Required: (Please Indicate Analysis)

- 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 NH₄-N (mg/L) Received Temp °C

1410	Absent	12.5
1427	+	11.6

Out of Temperature Compliance
 Proceed: [] Yes [] No

Approved By: (Client)
 Initial and Date: _____ (DLI)

WATER WORK REQUEST

Bill To:	Acct No. 14218	Cons. 08
Purchase Order No.	Results Needed By	
Client Friesian Farms Dairy		
Address 5593 Ave 176		
City, State, Zip Tulare, CA 93274		
Email:		
Copy to: matthewdegroot@comcast.net		
Requested by/Cell: Nonning 730-1290		
Facility: 5593 Ave 176 Tulare		
Date sampled 7-10-23		
Sampled by Matthew D. Groot		

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1. Tulare ID

Sampled From: LP8 discharge pipe.

7-10-23 1403 NA 13.8

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: _____

Out of Temperature Compliance

Proceed: Yes No

Approved By: Matthew D. Groot (Client)
Initial and Date: _____ (DLI)

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<u>Matthew D. Groot</u>	DeGroot Environmental		
Second				
Third				
Fourth	<u>KG</u>	DCI	7-11-23 11:52	

I guarantee that 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 attorney's fees. It is understood that payment is expected to be made with samples unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a dated damage fee of 2 1/2% per month (annually 34%) 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 attorney's fees of Dellavalle Laboratory.

Invoicing Information:

Contract 2020

			Shipping	
Sampling Hrs	Miles	Consulting	\$ _____	In
			\$ _____	Out
Amt Paid	Rec By	Check No.	Date	

Signature _____

Sample received in cooler with ice?

Yes No

WATER WORK REQUEST

Bill To: Acct No. Cons.

Purchase Order No. _____ Results Needed By _____

Client: **Friesian Farms Dairy**
 Address: 5593 Ave 176
 City, State, Zip: Tulare, CA 93274
 Email: _____

Copy to: matthewdegroot@comcast.net

Requested by/Cell: Nonning 730-1290

Facility: 5593 Ave 176 Tulare

Date sampled _____

Sampled by: *Matt Degroot*

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1. Well 10 Sampled From: *discharge pipe* 9-20-23 0812 Absent 9.41
2. Well 6 Sampled From: *discharge pipe* L 0826 Absent 9.40
3. Sampled From: _____
4. Sampled From: _____
5. Sampled From: _____
6. Sampled From: _____
7. Sampled From: _____
8. Sampled From: _____
9. Sampled From: _____
10. Sampled From: _____

Out of Temperature Compliance

Proceed: Yes No

Approved By: *Matt D* (Client)
 Initial and Date: _____

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<i>Matt D</i>	DeGroot Environmental	9-20-23 1545	
Second				
Third				
Fourth	<i>PS</i>	<i>DZ</i>	9-20-23 1547	

I guarantee that as the client, or on behalf of the clients named, I have the authority to contract the above required 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 attorney's 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.

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Invoicing Information:

Contract 2020

Sampling Hrs _____ Miles _____ Consulting _____

Shipping

\$ _____ In
\$ _____ Out

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

Signature _____

Sample received in cooler with ice?

Yes No

DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms Date: 7-10-23
Source ID: Well 19 Time: 1352
Source Location: SE Corner of Hanstra 2

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

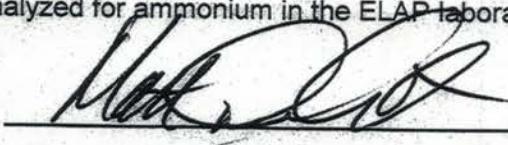
EC _____ (μS or mS)
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR. KINGSBURG, CA 93631

PHONE: (559) 307-0690

matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Well 15

Time: 1220

Source Location: NE Corner of Tract 4

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μS or mS)

Circle the correct units for EC.

Ammonium: Field measurement.
 Not Applicable.

Present Absent

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR. KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms Dairy Date: 7-10-23
Source ID: Well 14 Time: 1232
Source Location: E side of Pines 3

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory. Field measurement. EC _____ (μS or mS)
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Well 16

Time: 1241

Source Location: NE Corner of Pines 1

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μS or mS)

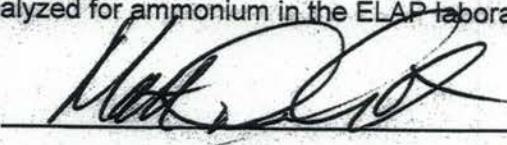
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631

PHONE: (559) 307-0690

matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.

Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Well 11

Time: 1256

Source Location:

S Side of Ave 176 N of milk Barn.

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μS or mS)

Circle the correct units for EC.

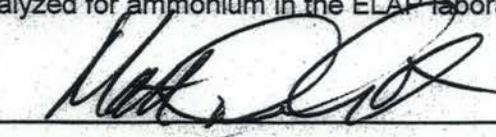
Ammonium: Field measurement.
 Not Applicable.

Present Absent

Notes: Took from Discharge pipe . Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection. Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631

PHONE: (559) 307-0690

matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.

Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Well 1

Time: 1305

Source Location:

NE Corner of dairy

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μS or mS)

Circle the correct units for EC.

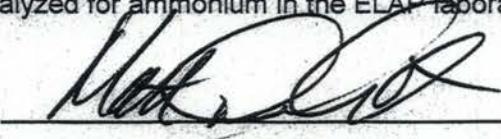
Ammonium: Field measurement.
 Not Applicable.

Present Absent

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection. Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Well 12

Time: 1316

Source Location: N side between Dairy West and East

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μ S or mS)

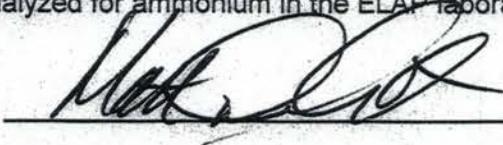
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR. KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms Dairy

Date: 7-010-23

Source ID: Well 2

Time: 1323

Source Location: NE Corner of Dairy East.

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μ S or mS)

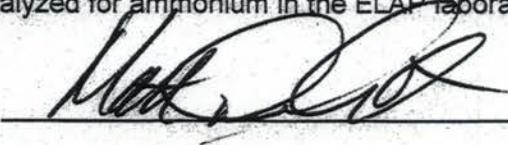
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from Discharge pipe . Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR. KINGSBURG, CA 93631

PHONE: (559) 307-0690

matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Well 17

Time: 1329

Source Location:

E Side of Dairy East

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μS or mS)

Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from Discharge Pipe . Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms Date: 7-10-23
Source ID: Well 18 Time: 1339
Source Location: Just north of Milk Barn.

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

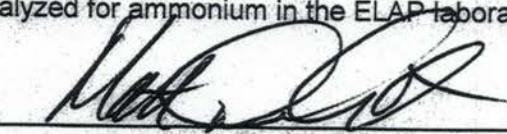
EC _____ (μS or mS)
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631

PHONE: (559) 307-0690

matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Well S

Time: 1410

Source Location: NE Corner of Hametra 3

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μ S or mS)

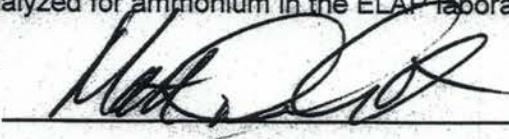
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR. KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms

Date: 7-10-23

Source ID: Domestic well #3

Time: 1427

Source Location: NW Corner of Hamstra 5.

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μ S or mS)

Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from spigot off tank. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

2705 8TH AVENUE DR, KINGSBURG, CA 93631
PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms Dairy

Date: 7-10-23

Source ID: Tulare ID

Time: 1403

Source Location:

Lift Pump LP8, next to Well 8

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (µS or mS)

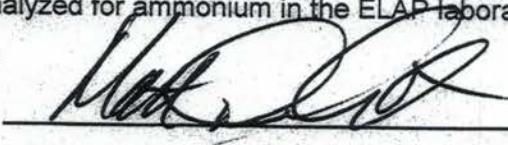
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe of LP8. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

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FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms Dairy Date: 9-20-23
Source ID: Well 10 Time: 0812
Source Location: NE Corner of Haasstra 4

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μ S or mS)

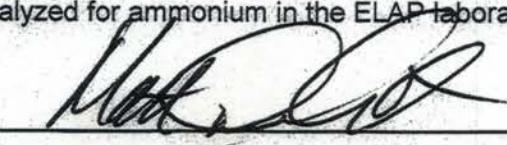
Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



DEGROOT ENVIRONMENTAL

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PHONE: (559) 307-0690
matthewdegroot@comcast.net

FRESH WATER SAMPLING RECORD

For any fresh water source, such as domestic wells, irrigation wells or canal water used for irrigation.
Refer to the Sampling and Analysis Plan for details of how the sample should be collected.

Facility: Friesian Farms Date: 9-20-23
Source ID: Well b Time: 0826
Source Location: NE Corner of Hamstra 2

Sample Properties at Time of Sampling

Sample Type: Groundwater Well Surface Water

EC: Measured in laboratory.
 Field measurement.

EC _____ (μ S or mS)

Circle the correct units for EC.

Ammonium: Field measurement. Present Absent
 Not Applicable.

Notes: Took from discharge pipe. Sample clear and no smell.

Sample should be delivered to an ELAP Certified Laboratory for testing within 48 hours of collection.
Field testing for ammonium is only required for groundwater wells. If ammonium is present, sample must
also be analyzed for ammonium in the ELAP laboratory.

Sampler Signature:



2023 Well Water Summary

#REF!

Well/Canal Name	Sample Name	Date	Lab	analysis units	EC	EC	NO ₃ -N mg/L	Field NH ₄ -N mg/L	Total NH ₄ -N mg/L	CO ₃		HCO ₃		pH at 25°C			
										D.L.	1	0.001	0.01				
Well 19 (Discharge Pipe)	23G0763	7/10/23	278	µhos/cm	23G0764	1.32	26.1	ND	173	19.0	79.1	17.8	15.5	2.3	0.1	61	9.2
Well 15 (Discharge Pipe)		7/10/23			23G0764	1.27	23.4	ND									7.4
Well 14 (Discharge Pipe)		7/10/23			23G0764	1.27	23.4	ND									7.7
Well 16 (Discharge Pipe)		7/10/23			23G0764	1.22	20.3	ND									7.4
Well 11 (Spiget Off Discharge Pipe)		7/10/23			23G0764	0.46	2.0	ND									8.3
Well 1 (Discharge Pipe)		7/10/23			23G0764	1.36	21.9	ND									7.4
Well 12 (Discharge Pipe)		7/10/23			23G0764	2.00	52.0	ND									7.2
Well 2 (Discharge Pipe)		7/10/23			23G0764	1.78	43.0	ND									7.4
Well 17 (Discharge Pipe)		7/10/23			23G0764	0.29	0.1	ND									9.3
Well 18 (Spiget Off Discharge Pipe)		7/10/23			23G0764	0.31	ND	ND									9.4
Tulare ID (LPB Discharge Pipe)		7/10/23			23G0765	43.1	0.04	ND									
Well 8 (Discharge Pipe)		7/10/23			23G0766	762	0.76	12.8	ND								7.6
Domestic Well H3 (Spiget Off Tank)		7/10/23			23G0766	1.25	19.8	ND									7.5
Well 10 (Discharge Pipe)		9/20/23	2311338	504	0.5	12.7	ND	323	ND	110	28.4	46.9	64.7	4.5	37	7.9	
Well 6 (Discharge Pipe)		9/20/23	2311338	1040	1.04	24.6	ND	690	ND	283	52.4	94	132	10.4	91	7.8	

DELLAVALLE™ LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:32
Reported: 07/17/2023 12:41

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23G0763-01	Well 19 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 13:52

Default Cooler Temperature on Receipt °C: 14.0
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

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1910 W. McKinley Ave Suite 110 Fresno, CA 93728 559-233-6129 www.dellavallelab.com

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Sample Results

**Sample: Well 19 (Discharge Pipe)
23G0763-01 (Water)**

Sampled: 7/10/2023 13:52

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Alkalinity as CaCO ₃	97.8	mg/L	10.0	1		07/13/23 13:29	SM 2320 B		BEG0220
Calcium	2.3	mg/L	0.1	1		07/13/23 09:57	EPA 200.7		BEG0109
Chloride	17.8	mg/L	0.2	1	250	07/11/23 21:34	EPA 300.0		BEG0177
Carbonate as CaCO ₃	19	mg/L	1	1		07/13/23 13:29	SM 2320 B		BEG0220
Electrical Conductivity	0.28	mmhos/cm	0.01	1		07/13/23 13:29	SM 2510 B		BEG0220
Electrical Conductivity umhos	278	umhos/cm	10.0	1		07/13/23 13:29	SM 2510 B		BEG0220
Bicarbonate as CaCO ₃	79.1	mg/L	5.00	1		07/13/23 13:29	SM 2320 B		BEG0220
Potassium	ND	mg/L	0.500	1		07/13/23 09:57	EPA 200.7		BEG0109
Magnesium	0.1	mg/L	0.1	1		07/13/23 09:57	EPA 200.7		BEG0109
Sodium	61	mg/L	1	1		07/13/23 09:57	EPA 200.7		BEG0109
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 13:52	Field		BEG0517
Nitrate Nitrogen as NO ₃ N	0.1	mg/L	0.1	1	10	07/11/23 21:34	EPA 300.0		BEG0177
Hydroxide as CaCO ₃	ND	mg/L	1.00	1		07/13/23 13:29	SM 2320 B		BEG0220
pH	9.2	units	1.0	1		07/13/23 13:29	SM 4500-H+	H	BEG0220
Sulfate (SO ₄)	15.5	mg/L	0.5	1	250	07/11/23 21:34	EPA 300.0		BEG0177
Total Filterable Solids (TDS)	173	mg/L	10.0	1		07/14/23 15:18	SM 2540 C		BEG0225

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Reported: 07/17/2023 12:41

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0109									
Blank (BEG0109-BLK1)									
Calcium	ND	0.1	mg/L						
Sodium	ND	1	mg/L						
Potassium	ND	0.500	mg/L						
Magnesium	ND	0.1	mg/L						
Blank (BEG0109-BLK2)									
Sodium	ND	1	mg/L						
Calcium	ND	0.1	mg/L						
Potassium	ND	0.500	mg/L						
Magnesium	ND	0.1	mg/L						
LCS (BEG0109-BS1)									
Sodium	38	1	mg/L	35.71	107	90-110			
Potassium	38.1	0.500	mg/L	35.71	107	90-110			
Calcium	38.3	0.1	mg/L	35.71	107	90-110			
Magnesium	38.9	0.1	mg/L	35.71	109	90-110			
LCS (BEG0109-BS2)									
Potassium	38.6	0.500	mg/L	35.71	108	90-110			
Sodium	39	1	mg/L	35.71	108	90-110			
Calcium	38.8	0.1	mg/L	35.71	108	90-110			
Magnesium	39.3	0.1	mg/L	35.71	110	90-110			
Duplicate (BEG0109-DUP1)									
		Source: 23G0522-02			Prepared & Analyzed: 7/13/2023				
Potassium	2.96	0.500	mg/L		2.84		4.21	15	
Sodium	28	1	mg/L		28		1.08	15	
Calcium	36.5	0.1	mg/L		37.3		2.01	15	
Magnesium	10.4	0.1	mg/L		10.5		1.72	15	
Matrix Spike (BEG0109-MS1)									
Sodium	68	1	mg/L	35.71	28	112	90-110		
Potassium	42.0	0.500	mg/L	35.71	2.84	110	90-110		
Calcium	76.8	0.1	mg/L	35.71	37.3	111	90-110		
Magnesium	50.3	0.1	mg/L	35.71	10.5	111	90-110		
Matrix Spike (BEG0109-MS2)									
Sodium	88	1	mg/L	35.71	47	115	90-110		
Calcium	82.7	0.1	mg/L	35.71	42.2	114	90-110		
Potassium	41.7	0.500	mg/L	35.71	2.27	110	90-110		
Magnesium	70.1	0.1	mg/L	35.71	29.2	115	90-110		
Reference (BEG0109-SRM2)									
Sodium	93		mg/L	91.50		102	90-110		
Prepared & Analyzed: 7/13/2023									

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0109 (Continued)									
Reference (BEG0109-SRM2)									
Potassium	21.6		mg/L	21.90	98.7	90-110			
Reference (BEG0109-SRM3)									
Calcium	86.3		mg/L	79.00	109	90-110			
Magnesium	32.7		mg/L	30.60	107	90-110			

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEG0177									
Blank (BEG0177-BLK1)									
Chloride	ND	0.2	mg/L						
Nitrate Nitrogen as NO3N	ND	0.1	mg/L						
Sulfate (SO4)	ND	0.5	mg/L						
Blank (BEG0177-BLK2)									
Chloride	ND	0.2	mg/L						
Nitrate Nitrogen as NO3N	ND	0.1	mg/L						
Sulfate (SO4)	ND	0.5	mg/L						
Blank (BEG0177-BLK3)									
Chloride	ND	0.2	mg/L						
Nitrate Nitrogen as NO3N	ND	0.1	mg/L						
Sulfate (SO4)	ND	0.5	mg/L						
LCS (BEG0177-BS1)									
Chloride	4.8	0.2	mg/L	5.000	96.0	90-110			
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	99.0	90-110			
Sulfate (SO4)	4.6	0.5	mg/L	5.000	92.0	90-110			
LCS (BEG0177-BS2)									
Chloride	4.8	0.2	mg/L	5.000	96.7	90-110			
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	99.6	90-110			
Sulfate (SO4)	4.6	0.5	mg/L	5.000	92.5	90-110			
Duplicate (BEG0177-DUP1)									
	Source: 23G0761-01			Prepared & Analyzed: 7/11/2023					
Chloride	4.4	0.2	mg/L	4.3		1.37	10		
Nitrate Nitrogen as NO3N	0.03	0.1	mg/L	0.03		3.77	10		
Sulfate (SO4)	9.5	0.5	mg/L	9.4		1.63	10		
Duplicate (BEG0177-DUP2)									
	Source: 23G0862-01			Prepared & Analyzed: 7/12/2023					
Chloride	47.3	0.2	mg/L	47.5		0.460	10		
Nitrate Nitrogen as NO3N	1.7	0.1	mg/L	1.7		0.0585	10		
Sulfate (SO4)	72.3	0.5	mg/L	72.7		0.600	10		
Matrix Spike (BEG0177-MS1)									
	Source: 23G0761-01			Prepared & Analyzed: 7/11/2023					
Chloride	9.3	0.2	mg/L	5.000	4.3	99.2	90-110		
Nitrate Nitrogen as NO3N	4.9	0.1	mg/L	5.000	0.03	98.2	90-110		
Sulfate (SO4)	14.3	0.5	mg/L	5.000	9.4	99.2	90-110		
Matrix Spike (BEG0177-MS2)									
	Source: 23G0862-01			Prepared & Analyzed: 7/12/2023					
Chloride	51.9	0.2	mg/L	5.000	47.5	87.9	90-110		
Nitrate Nitrogen as NO3N	6.7	0.1	mg/L	5.000	1.7	99.8	90-110		
Sulfate (SO4)	76.7	0.5	mg/L	5.000	72.7	80.1	90-110		

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEG0177 (Continued)									
Reference (BEG0177-SRM1)									
Prepared & Analyzed: 7/11/2023									
Chloride	12.5		mg/L	12.51	100	90-110			
Nitrate Nitrogen as NO ₃ N	10.1		mg/L	10.00	101	90-110			
Sulfate (SO ₄)	9.9		mg/L	10.01	98.5	90-110			
Reference (BEG0177-SRM2)									
Prepared & Analyzed: 7/12/2023									
Chloride	12.5		mg/L	12.51	100	90-110			
Nitrate Nitrogen as NO ₃ N	10.1		mg/L	10.00	101	90-110			
Sulfate (SO ₄)	9.8		mg/L	10.01	97.8	90-110			
Reference (BEG0177-SRM3)									
Prepared & Analyzed: 7/12/2023									
Chloride	12.5		mg/L	12.51	100	90-110			
Nitrate Nitrogen as NO ₃ N	10.1		mg/L	10.00	101	90-110			
Sulfate (SO ₄)	9.9		mg/L	10.01	98.6	90-110			

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEG0220									
Blank (BEG0220-BLK1)									
pH	5.2	1.0	units						
Carbonate as CaCO ₃	ND	1	mg/L						
Electrical Conductivity	ND	0.01	mmhos/cm						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Hydroxide as CaCO ₃	ND	1.00	mg/L						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
Prepared & Analyzed: 7/13/2023									
Blank (BEG0220-BLK2)									
Carbonate as CaCO ₃	ND	1	mg/L						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Electrical Conductivity	ND	0.01	mmhos/cm						
Hydroxide as CaCO ₃	ND	1.00	mg/L						
pH	5.6	1.0	units						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Prepared & Analyzed: 7/13/2023									
Blank (BEG0220-BLK3)									
pH	5.8	1.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Hydroxide as CaCO ₃	ND	1.00	mg/L						
Carbonate as CaCO ₃	ND	1	mg/L						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Prepared & Analyzed: 7/13/2023									
Duplicate (BEG0220-DUP1)									
	Source: 23G0763-01			Prepared & Analyzed: 7/13/2023					
pH	9.2	1.0	units		9.2		0.00	10	
Hydroxide as CaCO ₃	ND	1.00	mg/L		ND			10	
Electrical Conductivity	0.28	0.01	mmhos/cm		0.28		0.288	10	
Alkalinity as CaCO ₃	104	10.0	mg/L		97.8		5.93	10	
Carbonate as CaCO ₃	19	1	mg/L		19		0.532	10	
Electrical Conductivity umhos	278	10.0	umhos/cm		278		0.288	10	
Duplicate (BEG0220-DUP2)									
	Source: 23G0905-01			Prepared & Analyzed: 7/13/2023					
pH	8.3	1.0	units		8.3		0.00	10	
Alkalinity as CaCO ₃	249	10.0	mg/L		253		1.58	10	
Carbonate as CaCO ₃	ND	1	mg/L		ND			10	
Hydroxide as CaCO ₃	ND	1.00	mg/L		ND			10	
Electrical Conductivity	0.61	0.01	mmhos/cm		0.61		0.131	10	
Electrical Conductivity umhos	608	10.0	umhos/cm		609		0.131	10	
Reference (BEG0220-SRM1)									
	Prepared & Analyzed: 7/13/2023								

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0220 (Continued)									
Reference (BEG0220-SRM1)									
Alkalinity as CaCO ₃	39.2		mg/L	40.60	96.6	90-110			
Electrical Conductivity	552		umhos/cm	538.0	103	90-110			
Reference (BEG0220-SRM2)									
Electrical Conductivity	545		umhos/cm	538.0	101	90-110			
Alkalinity as CaCO ₃	40.2		mg/L	40.60	99.0	90-110			
Reference (BEG0220-SRM3)									
Electrical Conductivity	546		umhos/cm	538.0	102	90-110			
Alkalinity as CaCO ₃	39.7		mg/L	40.60	97.8	90-110			
Reference (BEG0220-SRM4)									
pH	4.0		units	4.000	100	97.5-102.5			
Reference (BEG0220-SRM5)									
pH	4.0		units	4.000	100	97.5-102.5			
Reference (BEG0220-SRM6)									
pH	4.0		units	4.000	99.8	97.5-102.5			
Reference (BEG0220-SRM7)									
pH	7.8		units	7.790	100	.7163-101.28			

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:32
Reported: 07/17/2023 12:41

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0225									
Blank (BEG0225-BLK1)									
Total Filterable Solids (TDS)	ND	10.0	mg/L		Prepared: 7/12/2023 Analyzed: 7/14/2023				
LCS (BEG0225-BS1)									
Total Filterable Solids (TDS)	22.5	10.0	mg/L	2000	Prepared: 7/12/2023 Analyzed: 7/14/2023	1.12	0-200		
Duplicate (BEG0225-DUP1)									
Total Filterable Solids (TDS)	3080	10.0	mg/L		Source: 23G0715-03 Prepared: 7/12/2023 Analyzed: 7/14/2023	3160		2.56	5
Reference (BEG0225-SRM1)									
Total Filterable Solids (TDS)	313		mg/L	325.0	Prepared: 7/12/2023 Analyzed: 7/14/2023	96.4	90-110		
Reference (BEG0225-SRM2)									
Total Filterable Solids (TDS)	490		mg/L	495.0	Prepared: 7/12/2023 Analyzed: 7/14/2023	99.0	90-110		

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23G0763

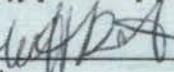
07/11/23 11:32

SCA

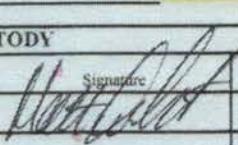
WATER WORK REQUEST

Bill To:	Acct No.	Cost:				
	14218	08				
Purchase Order No:	Results Needed By:					
Client:	Friesian Farms Dairy					
Address:	5593 Ave 176					
City, State, Zip:	Tulare, CA 93274					
Email:						
Copy to:	matthewdegroot@comcast.net					
Requested by/Cell:	Nonning 730-1290					
Facility:	5593 Ave 176 Tulare					
Date sampled:	7-10-23					
Sampled by:	Matt DeGroot					
<input checked="" type="checkbox"/> QA/QC Document	<input checked="" type="checkbox"/> Copy of Chain	<input type="checkbox"/> RWQCB				
DESCRIPTION OF SAMPLES						
1. Well 19	Sampled From:	discharge pipe	7-10-23	1352	Absent	10.0
2.	Sampled From:					
3.	Sampled From:					
4.	Sampled From:					
5.	Sampled From:					
6.	Sampled From:					
7.	Sampled From:					
8. pH Strips Lot 10BDH4501 Exp. Jan. 2025	Sampled From:					
9.	Sampled From:					
10.	Sampled From:					

Out of Temperature Compliance
 Proceed: Yes No

Approved By: 
 Initial and Date: _____ (Client)
 _____ (DLI)

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First		DeGroot Environmental		
Second				
Third				
Fourth		OT	7-11-23 11:32	

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, reasonably attorney's fees. It is understood that payment is expected to be made with samples unless terms have been previously arranged. Terms are net 30 days, overdue accounts will be charged a daily damage fee of 2% per month (normally 24%) or \$5.00 per month whichever is greater.

If payment is not made within due and a legitimate dispute exists concerning the products or services of DellaValle Laboratory, Inc., it will be submitted to mediation under the Rules and Procedures of Creative Alternatives to Litigation, Inc. If the dispute is not resolved in mediation, then the dispute will be submitted to binding arbitration through said 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 client will pay all mediation and arbitration costs, and in the event of arbitration, reasonable attorney's fees of DellaValle Laboratory.

Invoicing Information:			Shipping
Contract 2020			
Sampling Hrs	Miles	Consulting	\$ _____ In
			\$ _____ Out
Amt Paid	Rec By	Check No.	Date

Signature: _____
 Sample received in cooler with ice?
 Yes No

on excel 12/17



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 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 checked="" 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									
	HAAS - 250mL AG Ammonium Chlorite									
	DO KIT									
Other:										
Other:										



Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23G0764-01	Well 15 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 12:20
23G0764-02	Well 14 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 12:32
23G0764-03	Well 16 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 12:41
23G0764-04	Well 11 (Spiget Off Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 12:56
23G0764-05	Well 1 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 13:05
23G0764-06	Well 12 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 13:16
23G0764-07	Well 2 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 13:23
23G0764-08	Well 17 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 13:29
23G0764-09	Well 18 (Spiget Off Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 13:39

Default Cooler Temperature on Receipt °C: 12.9
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

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

Sample: Well 15 (Discharge Pipe)
23G0764-01 (Water)

Sampled: 7/10/2023 12:20

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	1.32	mmhos/cm	0.01	1		07/20/23 13:15	SM 2510 B		BEG0400
Electrical Conductivity umhos	1320	umhos/cm	10.0	1		07/20/23 13:15	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 12:20	Field		BEG0248
Nitrate Nitrogen as NO3N	26.1	mg/L	0.1	1	10	07/11/23 17:45	EPA 300.0		BEG0226
pH	7.4	units	1.0	1		07/20/23 13:15	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:15	SM 2510 B		BEG0400

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

(Continued)

**Sample: Well 14 (Discharge Pipe)
23G0764-02 (Water)**

Sampled: 7/10/2023 12:32

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	1.27	mmhos/cm	0.01	1		07/20/23 13:16	SM 2510 B		BEG0400
Electrical Conductivity umhos	1270	umhos/cm	10.0	1		07/20/23 13:16	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 12:32	Field		BEG0248
Nitrate Nitrogen as NO3N	23.4	mg/L	0.1	1	10	07/11/23 18:05	EPA 300.0		BEG0226
pH	7.7	units	1.0	1		07/20/23 13:16	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:16	SM 2510 B		BEG0400

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

(Continued)

**Sample: Well 16 (Discharge Pipe)
23G0764-03 (Water)**

Sampled: 7/10/2023 12:41

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	1.22	mmhos/cm	0.01	1		07/20/23 13:18	SM 2510 B		BEG0400
Electrical Conductivity umhos	1220	umhos/cm	10.0	1		07/20/23 13:18	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 12:41	Field		BEG0248
Nitrate Nitrogen as NO3N	20.3	mg/L	0.1	1	10	07/11/23 18:25	EPA 300.0		BEG0226
pH	7.4	units	1.0	1		07/20/23 13:18	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:18	SM 2510 B		BEG0400

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

(Continued)

Sample: Well 11 (Spiget Off Discharge Pipe)
23G0764-04 (Water)

Sampled: 7/10/2023 12:56

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.46	mmhos/cm	0.01	1		07/20/23 13:19	SM 2510 B		BEG0400
Electrical Conductivity umhos	459	umhos/cm	10.0	1		07/20/23 13:19	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 12:56	Field		BEG0248
Nitrate Nitrogen as NO3N	2.0	mg/L	0.1	1	10	07/11/23 18:44	EPA 300.0		BEG0226
pH	8.3	units	1.0	1		07/20/23 13:19	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:19	SM 2510 B		BEG0400

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DELLAVALLE™

LABORATORY INC

Friesian Farms Dairy
 5593 Avenue 176
 Tulare, CA 93274

Account# 00-0014218
 Account Manager: Ben Nydam
 Submitted By: Nonning
 Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
 Reported: 07/20/2023 15:09

Sample Results

(Continued)

**Sample: Well 1 (Discharge Pipe)
 23G0764-05 (Water)**

Sampled: 7/10/2023 13:05

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	1.36	mmhos/cm	0.01	1		07/20/23 13:20	SM 2510 B		BEG0400
Electrical Conductivity umhos	1360	umhos/cm	10.0	1		07/20/23 13:20	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 13:05	Field		BEG0248
Nitrate Nitrogen as NO3N	21.9	mg/L	0.1	1	10	07/11/23 19:04	EPA 300.0		BEG0226
pH	7.4	units	1.0	1		07/20/23 13:20	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:20	SM 2510 B		BEG0400

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DELLAVALLE™ LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

(Continued)

**Sample: Well 12 (Discharge Pipe)
23G0764-06 (Water)**

Sampled: 7/10/2023 13:16

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	2.00	mmhos/cm	0.01	1		07/20/23 13:22	SM 2510 B		BEG0400
Electrical Conductivity umhos	2000	umhos/cm	10.0	1		07/20/23 13:22	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 13:16	Field		BEG0248
Nitrate Nitrogen as NO3N	52.0	mg/L	0.1	1	10	07/11/23 19:24	EPA 300.0		BEG0226
pH	7.2	units	1.0	1		07/20/23 13:22	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:22	SM 2510 B		BEG0400

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DELLAVALLE™

LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

(Continued)

Sample: Well 2 (Discharge Pipe)
23G0764-07 (Water)

Sampled: 7/10/2023 13:23

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	1.78	mmhos/cm	0.01	1		07/20/23 13:23	SM 2510 B		BEG0400
Electrical Conductivity umhos	1780	umhos/cm	10.0	1		07/20/23 13:23	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 13:23	Field		BEG0248
Nitrate Nitrogen as NO3N	43.0	mg/L	0.1	1	10	07/11/23 22:03	EPA 300.0		BEG0226
pH	7.4	units	1.0	1		07/20/23 13:23	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:23	SM 2510 B		BEG0400

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1910 W. McKinley Ave Suite 110 Fresno, CA 93728 559-233-6129 www.dellavallelab.com



Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

(Continued)

**Sample: Well 17 (Discharge Pipe)
23G0764-08 (Water)**

Sampled: 7/10/2023 13:29

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.29	mmhos/cm	0.01	1		07/20/23 13:31	SM 2510 B		BEG0400
Electrical Conductivity umhos	287	umhos/cm	10.0	1		07/20/23 13:31	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 13:29	Field		BEG0248
Nitrate Nitrogen as NO3N	0.1	mg/L	0.1	1	10	07/11/23 22:22	EPA 300.0		BEG0226
pH	9.3	units	1.0	1		07/20/23 13:31	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:31	SM 2510 B		BEG0400

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DELLAVALLE™

LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Sample Results

(Continued)

**Sample: Well 18 (Spiget Off Discharge Pipe)
23G0764-09 (Water)**

Sampled: 7/10/2023 13:39

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.31	mmhos/cm	0.01	1		07/20/23 13:32	SM 2510 B		BEG0400
Electrical Conductivity umhos	306	umhos/cm	10.0	1		07/20/23 13:32	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 13:39	Field		BEG0248
Nitrate Nitrogen as NO3N	ND	mg/L	0.1	1	10	07/11/23 22:42	EPA 300.0		BEG0226
pH	9.4	units	1.0	1		07/20/23 13:32	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:32	SM 2510 B		BEG0400

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0226									
Blank (BEG0226-BLK1)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 7/11/2023				
Blank (BEG0226-BLK2)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared & Analyzed: 7/11/2023				
Blank (BEG0226-BLK3)									
Nitrate Nitrogen as NO3N	ND	0.1	mg/L		Prepared: 7/11/2023 Analyzed: 7/12/2023				
LCS (BEG0226-BS1)									
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	99.2	90-110			
LCS (BEG0226-BS2)									
Nitrate Nitrogen as NO3N	5.0	0.1	mg/L	5.000	99.9	90-110			
Duplicate (BEG0226-DUP1)									
Nitrate Nitrogen as NO3N	1.0	0.1	mg/L	1.0			1.11	10	
Duplicate (BEG0226-DUP2)									
Nitrate Nitrogen as NO3N	0.1	0.1	mg/L	0.1			0.797	10	
Matrix Spike (BEG0226-MS1)									
Nitrate Nitrogen as NO3N	6.1	0.1	mg/L	5.000	1.0	102	90-110		
Matrix Spike (BEG0226-MS2)									
Nitrate Nitrogen as NO3N	5.2	0.1	mg/L	5.000	0.1	101	90-110		
Reference (BEG0226-SRM1)									
Nitrate Nitrogen as NO3N	9.9		mg/L	10.00	99.4	90-110			
Reference (BEG0226-SRM2)									
Nitrate Nitrogen as NO3N	10.1		mg/L	10.00	101	90-110			
Reference (BEG0226-SRM3)									
Nitrate Nitrogen as NO3N	10.1		mg/L	10.00	101	90-110			

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEG0400									
Blank (BEG0400-BLK1)									
pH	5.5	1.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Blank (BEG0400-BLK2)									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	5.9	1.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Blank (BEG0400-BLK3)									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	6.0	1.0	units						
Temperature	25.0	0.0	°C						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Duplicate (BEG0400-DUP1)									
Source: 23G0764-07					Prepared: 7/13/2023 Analyzed: 7/20/2023				
Electrical Conductivity	1.78	0.01	mmhos/cm		1.78		0.349	10	
pH	7.4	1.0	units		7.4		0.135	10	
Electrical Conductivity umhos	1780	10.0	umhos/cm		1780		0.349	10	
Duplicate (BEG0400-DUP2)									
Source: 23G0908-02					Prepared: 7/13/2023 Analyzed: 7/20/2023				
Electrical Conductivity	0.28	0.01	mmhos/cm		0.28		0.247	10	
pH	9.0	1.0	units		9.0		0.223	10	
Electrical Conductivity umhos	283	10.0	umhos/cm		284		0.247	10	
Reference (BEG0400-SRM1)									
Electrical Conductivity	564		umhos/cm	538.0		105	90-110		
Reference (BEG0400-SRM2)									
pH	7.9		units	7.790		101	.7163-101.28		
Reference (BEG0400-SRM3)									
Electrical Conductivity	1060		umhos/cm	1000		106	90-110		
Electrical Conductivity umhos	1060		umhos/cm	1000		106	90-110		
Reference (BEG0400-SRM4)									
Electrical Conductivity	1050		umhos/cm	1000		105	90-110		
Electrical Conductivity umhos	1050		umhos/cm	1000		105	90-110		
Reference (BEG0400-SRM5)									
Electrical Conductivity	1060		umhos/cm	1000		106	90-110		

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DELLAVALLE™ LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:26
Reported: 07/20/2023 15:09

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0400 (Continued)									
Reference (BEG0400-SRM5)									
Electrical Conductivity umhos	1060		umhos/cm	1000		106	90-110		
Reference (BEG0400-SRM6)									
pH	4.0		units	4.000		101	97.5-102.5		
Reference (BEG0400-SRM7)									
pH	4.1		units	4.000		102	97.5-102.5		
Reference (BEG0400-SRM8)									
pH	4.0		units	4.000		101	97.5-102.5		

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07/11/23 11:26

23G0764



WATER WORK REQUEST

Bill To: Acct No. Cons.

Purchase Order No. _____ Results Needed By _____

Client: **Friesian Farms Dairy**
Address: 5593 Ave 176
City, State, Zip: Tulare, CA 93274
Email: _____Copy to:

Requested by/Ceil: Nonning 730-1290

Facility: 5593 Ave 176 Tulare

Date sampled: **7-10-23**Sampled by: **Matthew Degrout** QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

1. Well 15 Sampled From: **Discharge pipe**
2. Well 14 Sampled From: **1**
3. Well 16 Sampled From: **1**
4. Well 11 Sampled From: **Spigot off discharge pipe**
5. Well 1 Sampled From: **discharge pipe**
6. Well 12 Sampled From: **1**
7. Well 2 Sampled From: **1**
8. Well 17 Sampled From: **1**
9. Well 18 Sampled From: **Spigot off discharge pipe**
10. **15** Sampled From: **discharge pipe**

0764
JG
DELLAVALLE LABORATORY, INC.

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

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

No. Samples **9**

No. Bottles _____

Water Type: Drinking Wastewater Ag Water Ground Water Mon. Well Supply Water Other

A nalysis and Bottles Required: (Please Indicate Analysis)

 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
1. Well 15	7-10-23	1220	Absent	12.9
2. Well 14		1232		12.7
3. Well 16		1241		13.0
4. Well 11		1256		14.0
5. Well 1		1305		11.8
6. Well 12		1316		13.4
7. Well 2		1323		11.8
8. Well 17		1329		12.5
9. Well 18		1339		12.1
10. 15		1352		

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First:	<i>Matthew Degrout</i>	DeGroot Environmental		pH Strips Lot 10BDH4501 Exp. Jan. 2025
Second				
Third				
Fourth	<i>OS</i>	DCZ	7-11 11:26	

I, **Matthew Degrout**, 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 actions against me for false breach, non-delivery or other, it is understood that payment is expected to be made with samples unless terms have been previously arranged. Dates are not 30 days; invoice accounts will be charged a daily damage fee of 2% per month (maximum 24%) or \$3.00 per month whichever is greater.

If payment is not made when due and a legitimate dispute exists concerning the product or service 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 decides that no ultimate dispute exists, then either will pay all mediation and arbitration costs, and in the event of arbitration, reasonable attorney's fees of Dellavalle Laboratory.

Invoicing Information:

Contract 2020

Sampling Hrs	Miles	Consulting	\$	In	Shipping
			\$	Out	
Amt Paid	Rcv By	Check No.	Date		

Signature _____

Sample received in cooler with ice?

Out of Temperature Compliance
Proceed: Yes NoApproved By: *Matthew Degrout*
Initial and Date: _____ (DL)



07/11/23 11:26

23G0764

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 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 checked="" type="checkbox"/> Preserved Upon Receipt at Laboratory				
Type of Container(s) Received					Sample Number						
					1	2	3	4	5	6	7
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	1	1	1	1	1	1	1	1	1	1
1 L unpreserved (BOD) (Purple) Plastic											
Special	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)										
Glass	40 mL VOA, Na ₂ S ₂ O ₃ (Green) (Set of 3)										
	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)										
Special	1 L AG HCl (Blue)										
	Cr ⁶⁺ - 50mL Plastic w/Borate/HCO ₃ /CO ₃										
	Cyanide - 500 mL NaOH										
	Asbestos - 1L P wrapped in foil (Set of 2)										
	Sulfide - 1 L AG or P NaOH + ZnAc										
	Chlorite/Bromate - 250 mL AG with EDA										
	HAA5 - 250mL AG Ammonium Chlorite										
	DO KIT										
Other:											
Other:											



Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:52
Reported: 07/20/2023 15:18

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23G0765-01	Tulare ID (LP8 Discharge Pipe)	Canal Water	Matt DeGroot		07/10/2023 14:03

Default Cooler Temperature on Receipt °C: 13.8
Containers Intact
COC/Labels Agree
Received On Ice

Notes and Definitions

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

Laboratory Director/Technical Manager

ELAP Certification #1595
A2LA Certification #6440.02

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1910 W. McKinley Ave Suite 110 Fresno, CA 93728 559-233-6129 www.dellavallelab.com



Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:52
Reported: 07/20/2023 15:18

Sample Results

Sample: Tulare ID (LP8 Discharge Pipe)
23G0765-01 (Water)

Sampled: 7/10/2023 14:03

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.04	mmhos/cm	0.01	1		07/20/23 13:33	SM 2510 B		BEG0400
Electrical Conductivity umhos	43.1	umhos/cm	10.0	1		07/20/23 13:33	SM 2510 B		BEG0400
Nitrate Nitrogen as NO3N	ND	mg/L	0.1	1	10	07/11/23 23:02	EPA 300.0		BEG0226
pH	7.2	units	1.0	1		07/20/23 13:33	SM 4500-H+	H	BEG0400
Total Filterable Solids (TDS)	37.5	mg/L	10.0	1		07/14/23 15:18	SM 2540 C		BEG0225
Temperature	25.0	°C	0.0	1		07/20/23 13:33	SM 2510 B		BEG0400

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LABORATORY INC

Friesian Farms Dairy
 5593 Avenue 176
 Tulare, CA 93274

Account# 00-0014218
 Account Manager: Ben Nydam
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 Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:52
 Reported: 07/20/2023 15:18

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0225									
Blank (BEG0225-BLK1)									
Total Filterable Solids (TDS)	ND	10.0	mg/L		Prepared: 7/12/2023 Analyzed: 7/14/2023				
LCS (BEG0225-BS1)									
Total Filterable Solids (TDS)	22.5	10.0	mg/L	2000	Prepared: 7/12/2023 Analyzed: 7/14/2023	1.12	0-200		
Duplicate (BEG0225-DUP1)									
Total Filterable Solids (TDS)	3080	10.0	mg/L	3160	Prepared: 7/12/2023 Analyzed: 7/14/2023			2.56	5
Reference (BEG0225-SRM1)									
Total Filterable Solids (TDS)	313		mg/L	325.0	Prepared: 7/12/2023 Analyzed: 7/14/2023	96.4	90-110		
Reference (BEG0225-SRM2)									
Total Filterable Solids (TDS)	490		mg/L	495.0	Prepared: 7/12/2023 Analyzed: 7/14/2023	99.0	90-110		

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DELLAVALLE™ LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
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Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:52
Reported: 07/20/2023 15:18

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0226									
Blank (BEG0226-BLK1) Nitrate Nitrogen as NO ₃ N	ND	0.1	mg/L		Prepared & Analyzed: 7/11/2023				
Blank (BEG0226-BLK2) Nitrate Nitrogen as NO ₃ N	ND	0.1	mg/L		Prepared & Analyzed: 7/11/2023				
Blank (BEG0226-BLK3) Nitrate Nitrogen as NO ₃ N	ND	0.1	mg/L		Prepared: 7/11/2023 Analyzed: 7/12/2023				
LCS (BEG0226-BS1) Nitrate Nitrogen as NO ₃ N	5.0	0.1	mg/L	5.000	99.2	90-110			
LCS (BEG0226-BS2) Nitrate Nitrogen as NO ₃ N	5.0	0.1	mg/L	5.000	99.9	90-110			
Duplicate (BEG0226-DUP1) Nitrate Nitrogen as NO ₃ N	1.0	0.1	mg/L	1.0			1.11	10	
Duplicate (BEG0226-DUP2) Nitrate Nitrogen as NO ₃ N	0.1	0.1	mg/L	0.1			0.797	10	
Matrix Spike (BEG0226-MS1) Nitrate Nitrogen as NO ₃ N	6.1	0.1	mg/L	5.000	1.0	102	90-110		
Matrix Spike (BEG0226-MS2) Nitrate Nitrogen as NO ₃ N	5.2	0.1	mg/L	5.000	0.1	101	90-110		
Reference (BEG0226-SRM1) Nitrate Nitrogen as NO ₃ N	9.9		mg/L	10.00	99.4	90-110			
Reference (BEG0226-SRM2) Nitrate Nitrogen as NO ₃ N	10.1		mg/L	10.00	101	90-110			
Reference (BEG0226-SRM3) Nitrate Nitrogen as NO ₃ N	10.1		mg/L	10.00	101	90-110			

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LABORATORY INC

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5593 Avenue 176
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Received: 07/11/2023 11:52
Reported: 07/20/2023 15:18

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0400									
Blank (BEG0400-BLK1)									
pH	5.5	1.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Temperature	25.0	0.0	°C						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Blank (BEG0400-BLK2)									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	5.9	1.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Blank (BEG0400-BLK3)									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	6.0	1.0	units						
Temperature	25.0	0.0	°C						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Duplicate (BEG0400-DUP1)									
Source: 23G0764-07									
Electrical Conductivity	1.78	0.01	mmhos/cm		1.78			0.349	10
pH	7.4	1.0	units		7.4			0.135	10
Electrical Conductivity umhos	1780	10.0	umhos/cm		1780			0.349	10
Duplicate (BEG0400-DUP2)									
Source: 23G0908-02									
Electrical Conductivity	0.28	0.01	mmhos/cm		0.28			0.247	10
pH	9.0	1.0	units		9.0			0.223	10
Electrical Conductivity umhos	283	10.0	umhos/cm		284			0.247	10
Reference (BEG0400-SRM1)									
Electrical Conductivity	564		umhos/cm		538.0		105	90-110	
Reference (BEG0400-SRM2)									
pH	7.9		units		7.790		101	.7163-101.28	
Reference (BEG0400-SRM3)									
Electrical Conductivity	1060		umhos/cm		1000		106	90-110	
Electrical Conductivity umhos	1060		umhos/cm		1000		106	90-110	
Reference (BEG0400-SRM4)									
Electrical Conductivity	1050		umhos/cm		1000		105	90-110	
Electrical Conductivity umhos	1050		umhos/cm		1000		105	90-110	
Reference (BEG0400-SRM5)									
Electrical Conductivity	1060		umhos/cm		1000		106	90-110	

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DELLAVALLE™ LABORATORY INC

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5593 Avenue 176
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Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:52
Reported: 07/20/2023 15:18

Quality Control (Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0400 (Continued)									
Reference (BEG0400-SRM5)									
Electrical Conductivity umhos	1060		umhos/cm	1000		106	90-110		
Reference (BEG0400-SRM6)									
pH	4.0		units	4.000		101	97.5-102.5		
Reference (BEG0400-SRM7)									
pH	4.1		units	4.000		102	97.5-102.5		
Reference (BEG0400-SRM8)									
pH	4.0		units	4.000		101	97.5-102.5		

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07/11/23 11:52

23G0765

5/6

WATER WORK REQUEST

Bill To:	Acct No.	Cnts.								
	14218	08								
Purchase Order No.	Results Needed By									
Client	Friesian Farms Dairy									
Address	5593 Ave 176									
City, State, Zip	Tulare, CA 93274									
Email:										
Copy to:	matthewdegroot@comcast.net									
Requested by/Cell:	Nonning 730-1290									
Facility	5593 Ave 176 Tulare									
Date sampled	7-10-23									
Sampled by	Matt D. D.									
<input checked="" type="checkbox"/> QA/QC Document	<input checked="" type="checkbox"/> Copy of Chain	<input type="checkbox"/> RWQCB								
DESCRIPTION OF SAMPLES										
1. Tulare ID	Sampled From	LP8 discharge jpe	Date Sampled	7-10-23	Time Sampled	1403	Field	NA	Received Temp °C	13.8
2.	Sampled From:									
3.	Sampled From:									
4.	Sampled From:									
5.	Sampled From:									
6.	Sampled From:									
7. pH Strips Lot 10BDH4501 Exp. Jan. 2025	Sampled From:									
8.	Sampled From:									
9.	Sampled From:									
10.	Sampled From:									
Out of Temperature Compliance										
Proceed: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No										
Approved By: <u>Matt D. D.</u> (Client) Initial and Date: _____ (DLI) _____										

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	<u>Matt D. D.</u>	DeGroot Environmental		
Second				
Third				
Fourth	<u>KS</u>	DCI	7-11-23 11:52	

I, generally DeGroot Environmental, on behalf of the client named, I have the authority to contract the above required 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, personally assume "fault". It is understood that payment is expected to be made with sample unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a daily damage fee of 2% per month (currently 7% to 10%) or \$5.00 per month whichever is greater.

If payment is not made within this and a legitimate dispute exists concerning the products or services of DeLavalley 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 decides that no legitimate dispute exists, then DeLavalley will bear all mediation and arbitration costs, and in the event of arbitration, reasonable attorney fees of DeLavalley Laboratory.

Invoicing Information:
Contract 2020

Shipping			
Sampling Hrs	Miles	Consulting	\$ _____
			\$ _____
Amt Paid	Rec By	Check No.	Date

Signature _____

Sample received in cooler with ice?

 Yes No

07/11/23



Shipping Information: Shipped In Picked-Up Walk In DLI Sampler Other

Samples refrigerated before pick up Picked up samples placed in Ice chest

Container: Ice Chest Box None

Refrigerant: Wet Ice Blue Ice None

Samples Preserved with HNO₃ or H₂SO₄ were: Received Preserved Preserved Upon Receipt at Laboratory

Type of Container(s) Received	Sample Number									
	1	2	3	4	5	6	7	8	9	10

Sample Containers for Internal (DLI) Use

(Containers that go into the Lab)

Plastics	100 mL sterile plastic Na 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	1								
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)									
Special	1 L AG Na ₂ S ₂ O ₃ (Green)									
	1 L AG HCl (Blue)									
	Cr ⁶⁺ - 50mL Plastic w/Borate/HCO ₃ /CO ₃									
	Cyanide - 500 mL NaOH									
	Asbestos - 1L P wrapped in foil (Set of 2)									
Special	Sulfide - 1 L AG or P NaOH + ZnAc									
	Chlorite/Bromate - 250 mL AG with EDA									
	HAA5 - 250mL AG Ammonium Chlorite									
	DO KIT									
	Other:									
Special	Other:									
	Other:									

DELLAVALLE™ LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:33
Reported: 07/21/2023 10:08

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23G0766-01	Well 8 (Discharge Pipe)	Well Water	Matt DeGroot		07/10/2023 14:10
23G0766-02	Domestic Well H3 (Spiget Off Tank)	Well Water	Matt DeGroot		07/10/2023 14:27

Default Cooler Temperature on Receipt °C: 12.5
 Containers Intact
 COC/Labels Agree

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

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:33
Reported: 07/21/2023 10:08

Sample Results

Sample: Well 8 (Discharge Pipe)
23G0766-01 (Water)

Sampled: 7/10/2023 14:10

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	0.76	mmhos/cm	0.01	1		07/20/23 13:35	SM 2510 B		BEG0400
Electrical Conductivity umhos	762	umhos/cm	10.0	1		07/20/23 13:35	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 14:10	Field		BEG0759
Nitrate Nitrogen as NO3N	12.8	mg/L	0.1	1	10	07/11/23 23:22	EPA 300.0		BEG0226
pH	7.6	units	1.0	1		07/20/23 13:35	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:35	SM 2510 B		BEG0400

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:33
Reported: 07/21/2023 10:08

Sample Results

(Continued)

Sample: Domestic Well H3 (Spiget Off Tank)
23G0766-02 (Water)

Sampled: 7/10/2023 14:27

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Electrical Conductivity	1.25	mmhos/cm	0.01	1		07/20/23 13:36	SM 2510 B		BEG0400
Electrical Conductivity umhos	1250	umhos/cm	10.0	1		07/20/23 13:36	SM 2510 B		BEG0400
Ammonia (as N)	ND	mg/L	0.00	1		07/10/23 14:27	Field		BEG0759
Nitrate Nitrogen as NO3N	19.8	mg/L	0.1	1	10	07/11/23 23:42	EPA 300.0		BEG0226
pH	7.5	units	1.0	1		07/20/23 13:36	SM 4500-H+	H	BEG0400
Temperature	25.0	°C	0.0	1		07/20/23 13:36	SM 2510 B		BEG0400

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DELLAVALLE™ LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:33
Reported: 07/21/2023 10:08

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0226									
Blank (BEG0226-BLK1)					Prepared & Analyzed: 7/11/2023				
Nitrate Nitrogen as NO ₃ N	ND	0.1	mg/L						
Blank (BEG0226-BLK2)					Prepared & Analyzed: 7/11/2023				
Nitrate Nitrogen as NO ₃ N	ND	0.1	mg/L						
Blank (BEG0226-BLK3)					Prepared: 7/11/2023 Analyzed: 7/12/2023				
Nitrate Nitrogen as NO ₃ N	ND	0.1	mg/L						
LCS (BEG0226-BS1)					Prepared & Analyzed: 7/11/2023				
Nitrate Nitrogen as NO ₃ N	5.0	0.1	mg/L	5.000	99.2	90-110			
LCS (BEG0226-BS2)					Prepared: 7/11/2023 Analyzed: 7/12/2023				
Nitrate Nitrogen as NO ₃ N	5.0	0.1	mg/L	5.000	99.9	90-110			
Duplicate (BEG0226-DUP1)		Source: 23G0727-01			Prepared & Analyzed: 7/11/2023				
Nitrate Nitrogen as NO ₃ N	1.0	0.1	mg/L	1.0				1.11	10
Duplicate (BEG0226-DUP2)		Source: 23G0764-08			Prepared: 7/11/2023 Analyzed: 7/12/2023				
Nitrate Nitrogen as NO ₃ N	0.1	0.1	mg/L	0.1				0.797	10
Matrix Spike (BEG0226-MS1)		Source: 23G0727-01			Prepared & Analyzed: 7/11/2023				
Nitrate Nitrogen as NO ₃ N	6.1	0.1	mg/L	5.000	1.0	102	90-110		
Matrix Spike (BEG0226-MS2)		Source: 23G0764-08			Prepared: 7/11/2023 Analyzed: 7/12/2023				
Nitrate Nitrogen as NO ₃ N	5.2	0.1	mg/L	5.000	0.1	101	90-110		
Reference (BEG0226-SRM1)					Prepared & Analyzed: 7/11/2023				
Nitrate Nitrogen as NO ₃ N	9.9		mg/L	10.00	99.4	90-110			
Reference (BEG0226-SRM2)					Prepared & Analyzed: 7/11/2023				
Nitrate Nitrogen as NO ₃ N	10.1		mg/L	10.00	101	90-110			
Reference (BEG0226-SRM3)					Prepared: 7/11/2023 Analyzed: 7/12/2023				
Nitrate Nitrogen as NO ₃ N	10.1		mg/L	10.00	101	90-110			

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:33
Reported: 07/21/2023 10:08

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEG0400									
Blank (BEG0400-BLK1)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	5.5	1.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Blank (BEG0400-BLK2)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	5.9	1.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Temperature	25.0	0.0	°C						
Blank (BEG0400-BLK3)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	ND	0.01	mmhos/cm						
pH	6.0	1.0	units						
Temperature	25.0	0.0	°C						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Duplicate (BEG0400-DUP1)									
Source: 23G0764-07 Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	1.78	0.01	mmhos/cm		1.78		0.349	10	
pH	7.4	1.0	units		7.4		0.135	10	
Electrical Conductivity umhos	1780	10.0	umhos/cm		1780		0.349	10	
Duplicate (BEG0400-DUP2)									
Source: 23G0908-02 Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	0.28	0.01	mmhos/cm		0.28		0.247	10	
pH	9.0	1.0	units		9.0		0.223	10	
Electrical Conductivity umhos	283	10.0	umhos/cm		284		-0.247	10	
Reference (BEG0400-SRM1)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	564		umhos/cm		538.0		105	90-110	
Reference (BEG0400-SRM2)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
pH	7.9		units		7.790		101	.7163-101.28	
Reference (BEG0400-SRM3)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	1060		umhos/cm		1000		106	90-110	
Electrical Conductivity umhos	1060		umhos/cm		1000		106	90-110	
Reference (BEG0400-SRM4)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	1050		umhos/cm		1000		105	90-110	
Electrical Conductivity umhos	1050		umhos/cm		1000		105	90-110	
Reference (BEG0400-SRM5)									
Prepared: 7/13/2023 Analyzed: 7/20/2023									
Electrical Conductivity	1060		umhos/cm		1000		106	90-110	

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 07/11/2023 11:33
Reported: 07/21/2023 10:08

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEG0400 (Continued)									
Reference (BEG0400-SRM5)					Prepared: 7/13/2023 Analyzed: 7/20/2023				
Electrical Conductivity umhos	1060		umhos/cm	1000		106	90-110		
Reference (BEG0400-SRM6)					Prepared: 7/13/2023 Analyzed: 7/20/2023				
pH	4.0		units	4.000		101	97.5-102.5		
Reference (BEG0400-SRM7)					Prepared: 7/13/2023 Analyzed: 7/20/2023				
pH	4.1		units	4.000		102	97.5-102.5		
Reference (BEG0400-SRM8)					Prepared: 7/13/2023 Analyzed: 7/20/2023				
pH	4.0		units	4.000		101	97.5-102.5		

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07/11/23 11:33

23G0766

S6

WATER WORK REQUEST

Bill To:	Acct No:	Cost:
	14218	08

Purchase Order No. _____ Results Needed By _____

Client **Friesian Farms Dairy**
 Address **5593 Ave 176**
 City, State, Zip **Tulare, CA 93274**
 Email: _____

Copy to: **matthewdegroot@comcast.net**Requested by/Cell: **Nonning 730-1290**Facility **5593 Ave 176 Tulare**Date sampled **7-10-23**Sampled by **Matt Degroot**

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

DESCRIPTION OF SAMPLES

1.	Well 8	Sampled From: discharge pipe	Date Sampled: 7-10-23	Time Sampled: 1410	Field: Absent	Received Temp °C: 12.5
2.	Domestic Well H3	Sampled From: Spigot/tank		1427	1	11.6
3.		Sampled From: _____				
4.		Sampled From: _____				
5.		Sampled From: _____				
6.		Sampled From: _____				
7.		Sampled From: _____				
8.		Sampled From: _____				
9.		Sampled From: _____				
10.		Sampled From: _____				

pH Strips
Lot 10BDH4501
Exp. Jan. 2025Out of Temperature Compliance
Proceed: [] Yes [] NoApproved By: **Matt Degroot** (Client)
Initial and Date: _____ (DLI) _____

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First	Matt Degroot	DeGroot Environmental		
Second				
Third				
Fourth	CS	DXJ	7/11/23 11:33	

I, **Matt Degroot**, or on behalf of the client named, 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 attorney's fees. It is understood that payment is expected in cash with sample return terms to be previously arranged. Terms are net 30 days; overdue accounts will be charged a stated damage fee of 2% per month (maximum 24%) or \$5.00 per month whichever is greater.

If payment is not made within due date and a legitimate dispute exists concerning the product or services of DELLALVALLE 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 dismisses due to legitimate dispute exists, then DELLALVALLE LABORATORY, INC. will pay all mediation and arbitration costs, and in the event of a decision, reasonable attorney's fees of DELLALVALLE LABORATORY, INC.

Billing Information:

Contract 2020

Shipping			
Sampling Hrs.	Miles	Consulting	\$ _____
Am/Paid	Roc By	Check No.	\$ _____ In \$ _____ Out Date: _____

Signature _____

Sample received in cooler with ice?

[] Yes [] No

on excel 12/17



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 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 checked="" type="checkbox"/> Preserved Upon Receipt at Laboratory			
Type of Container(s) Received					Sample Number					
					1	2	3	4	5	6
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)									
Special	1 L AG Na ₂ S ₂ O ₃ (Green)									
	1 L AG HCl (Blue)									
	Cr ⁶⁺ - 50mL Plastic w/Borate/HCO ₃ /CO ₃									
	Cyanide - 500 mL NaOH									
	Asbestos - 1L P wrapped in foil (Set of 2)									
	Sulfide - 1 L AG or P NaOH + ZnAc									
	Chlorite/Bromate - 250 mL AG with EDA									
HAA5 - 250mL AG Ammonium Chlorite										
DO KIT										
Other:										
Other:										



Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 09/20/2023 15:47
Reported: 09/27/2023 15:52

Samples in this Report

Lab ID	Sample	Matrix	Sampled By	Crop	Date Sampled
23I1338-01	Well 10 (Discharge Pipe)	Well Water	Matt DeGroot		09/20/2023 8:12
23I1338-02	Well 6 (Discharge Pipe)	Well Water	Matt DeGroot		09/20/2023 8:26

Default Cooler Temperature on Receipt °C: 9.4
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

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Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 09/20/2023 15:47
Reported: 09/27/2023 15:52

Sample Results

Sample: Well 10 (Discharge Pipe)
23I1338-01 (Water)

Sampled: 9/20/2023 8:12

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Alkalinity as CaCO ₃	110	mg/L	10.0	1		09/22/23 14:58	SM 2320 B		BEI0763
Calcium	64.7	mg/L	0.1	1		09/25/23 14:23	EPA 200.7		BEI0786
Chloride	28.4	mg/L	0.2	1	250	09/21/23 04:03	EPA 300.0		BEI0719
Carbonate as CaCO ₃	ND	mg/L	1	1		09/22/23 14:58	SM 2320 B		BEI0763
Electrical Conductivity	0.50	mmhos/cm	0.01	1		09/22/23 14:58	SM 2510 B		BEI0763
Electrical Conductivity umhos	504	umhos/cm	10.0	1		09/22/23 14:58	SM 2510 B		BEI0763
Bicarbonate as CaCO ₃	110	mg/L	5.00	1		09/22/23 14:58	SM 2320 B		BEI0763
Potassium	ND	mg/L	0.500	1		09/25/23 14:23	EPA 200.7		BEI0786
Magnesium	4.5	mg/L	0.1	1		09/25/23 14:23	EPA 200.7		BEI0786
Sodium	37	mg/L	1	1		09/25/23 14:23	EPA 200.7		BEI0786
Ammonia (as N)	ND	mg/L	0.00	1		09/20/23 08:12	Field		BEI1015
Nitrate Nitrogen as NO ₃ N	12.7	mg/L	0.1	1	10	09/21/23 04:03	EPA 300.0		BEI0719
Hydroxide as CaCO ₃	ND	mg/L	1.00	1		09/22/23 14:58	SM 2320 B		BEI0763
Temperature	25.0	units	0.0	1		09/22/23 14:58	SM 4500-H+	H	BEI0763
pH	7.9	units	1.0	1		09/22/23 14:58	SM 4500-H+	H	BEI0763
Sulfate (SO ₄)	46.9	mg/L	0.5	1	250	09/21/23 04:03	EPA 300.0		BEI0719
Total Filterable Solids (TDS)	323	mg/L	10.0	1		09/22/23 15:41	SM 2540 C		BEI0764

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DELLAVALLE™

LABORATORY INC

Friesian Farms Dairy
5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 09/20/2023 15:47
Reported: 09/27/2023 15:52

Sample Results

(Continued)

**Sample: Well 6 (Discharge Pipe)
23I1338-02 (Water)**

Sampled: 9/20/2023 8:26

Sampled By: Matt DeGroot

Analyte	Result	Units	Reporting Limit	DIL	DW MCL	Date/Time Analyzed	Method	Notes	Batch
Alkalinity as CaCO ₃	283	mg/L	10.0	1		09/22/23 15:02	SM 2320 B		BEI0763
Calcium	132	mg/L	0.1	1		09/25/23 14:24	EPA 200.7		BEI0786
Chloride	52.4	mg/L	0.2	1	250	09/21/23 04:23	EPA 300.0		BEI0719
Carbonate as CaCO ₃	ND	mg/L	1	1		09/22/23 15:02	SM 2320 B		BEI0763
Electrical Conductivity	1.04	mmhos/cm	0.01	1		09/22/23 15:02	SM 2510 B		BEI0763
Electrical Conductivity umhos	1040	umhos/cm	10.0	1		09/22/23 15:02	SM 2510 B		BEI0763
Bicarbonate as CaCO ₃	283	mg/L	5.00	1		09/22/23 15:02	SM 2320 B		BEI0763
Potassium	ND	mg/L	0.500	1		09/25/23 14:24	EPA 200.7		BEI0786
Magnesium	10.4	mg/L	0.1	1		09/25/23 14:24	EPA 200.7		BEI0786
Sodium	91	mg/L	1	1		09/25/23 14:24	EPA 200.7		BEI0786
Ammonia (as N)	ND	mg/L	0.00	1		09/20/23 08:12	Field		BEI1015
Nitrate Nitrogen as NO ₃ N	24.6	mg/L	0.1	1	10	09/21/23 04:23	EPA 300.0		BEI0719
Hydroxide as CaCO ₃	ND	mg/L	1.00	1		09/22/23 15:02	SM 2320 B		BEI0763
Temperature	25.0	units	0.0	1		09/22/23 15:02	SM 4500-H+	H	BEI0763
pH	7.8	units	1.0	1		09/22/23 15:02	SM 4500-H+	H	BEI0763
Sulfate (SO ₄)	94.0	mg/L	0.5	1	250	09/21/23 04:23	EPA 300.0		BEI0719
Total Filterable Solids (TDS)	690	mg/L	10.0	1		09/22/23 15:41	SM 2540 C		BEI0764

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5593 Avenue 176
Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 09/20/2023 15:47
Reported: 09/27/2023 15:52

Quality Control

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BEI0719									
Blank (BEI0719-BLK1)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 9/20/2023									
Nitrate Nitrogen as NO3N ND 0.1 mg/L									
Sulfate (SO4) ND 0.5 mg/L									
Blank (BEI0719-BLK2)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 9/21/2023									
Nitrate Nitrogen as NO3N ND 0.1 mg/L									
Sulfate (SO4) ND 0.5 mg/L									
Blank (BEI0719-BLK3)									
Chloride ND 0.2 mg/L Prepared & Analyzed: 9/21/2023									
Nitrate Nitrogen as NO3N ND 0.1 mg/L									
Sulfate (SO4) ND 0.5 mg/L									
LCS (BEI0719-BS1)									
Chloride 4.8 0.2 mg/L Prepared & Analyzed: 9/21/2023									
Nitrate Nitrogen as NO3N 5.0 0.1 mg/L									
Sulfate (SO4) 4.6 0.5 mg/L									
LCS (BEI0719-BS2)									
Chloride 4.8 0.2 mg/L Prepared & Analyzed: 9/21/2023									
Nitrate Nitrogen as NO3N 4.9 0.1 mg/L									
Sulfate (SO4) 4.6 0.5 mg/L									
Duplicate (BEI0719-DUP1)									
Source: 23I1295-01 Prepared & Analyzed: 9/21/2023									
Chloride 22.2 0.2 mg/L									
Nitrate Nitrogen as NO3N 0.2 0.1 mg/L									
Sulfate (SO4) 2.9 0.5 mg/L									
Duplicate (BEI0719-DUP2)									
Source: 23I0164-01 Prepared & Analyzed: 9/21/2023									
Chloride 12.1 0.2 mg/L									
Nitrate Nitrogen as NO3N 10.9 0.1 mg/L									
Sulfate (SO4) 20.3 0.5 mg/L									
Matrix Spike (BEI0719-MS1)									
Source: 23I1295-01 Prepared & Analyzed: 9/21/2023									
Chloride 26.7 0.2 mg/L									
Nitrate Nitrogen as NO3N 5.2 0.1 mg/L									
Sulfate (SO4) 7.7 0.5 mg/L									
Matrix Spike (BEI0719-MS2)									
Source: 23I0164-01 Prepared & Analyzed: 9/21/2023									
Chloride 17.2 0.2 mg/L									
Nitrate Nitrogen as NO3N 16.0 0.1 mg/L									
Sulfate (SO4) 25.3 0.5 mg/L									

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Tulare, CA 93274

Account# 00-0014218
Account Manager: Ben Nydam
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Ranch: 5593 Ave 176 Tulare

Received: 09/20/2023 15:47
Reported: 09/27/2023 15:52

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEI0719 (Continued)									
Reference (BEI0719-SRM1)									
Chloride 12.6 mg/L 12.50 101 90-110									
Nitrate Nitrogen as NO ₃ N 10.1 mg/L 10.00 101 90-110									
Sulfate (SO ₄) 9.8 mg/L 10.00 98.0 90-110									
Reference (BEI0719-SRM2)									
Chloride 12.8 mg/L 12.50 102 90-110									
Nitrate Nitrogen as NO ₃ N 10.2 mg/L 10.00 102 90-110									
Sulfate (SO ₄) 9.8 mg/L 10.00 98.4 90-110									
Reference (BEI0719-SRM3)									
Chloride 12.8 mg/L 12.50 102 90-110									
Nitrate Nitrogen as NO ₃ N 10.2 mg/L 10.00 102 90-110									
Sulfate (SO ₄) 9.8 mg/L 10.00 98.4 90-110									

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEI0763									
Blank (BEI0763-BLK1)									
Electrical Conductivity	ND	0.01	mmhos/cm						
Temperature	25.0	0.0	units						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Hydroxide as CaCO ₃	ND	1.00	mg/L						
Carbonate as CaCO ₃	ND	1	mg/L						
pH	4.8	1.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
Blank (BEI0763-BLK2)									
Hydroxide as CaCO ₃	ND	1.00	mg/L						
Temperature	25.0	0.0	units						
Electrical Conductivity	ND	0.01	mmhos/cm						
Carbonate as CaCO ₃	ND	1	mg/L						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
pH	4.6	1.0	units						
Blank (BEI0763-BLK3)									
Carbonate as CaCO ₃	ND	1	mg/L						
Alkalinity as CaCO ₃	ND	10.0	mg/L						
Electrical Conductivity	ND	0.01	mmhos/cm						
Hydroxide as CaCO ₃	ND	1.00	mg/L						
Temperature	25.0	0.0	units						
Electrical Conductivity umhos	ND	10.0	umhos/cm						
Bicarbonate as CaCO ₃	ND	5.00	mg/L						
pH	5.1	1.0	units						
Duplicate (BEI0763-DUP1)									
	Source: 23I1338-01			Prepared: 9/21/2023 Analyzed: 9/22/2023					
Alkalinity as CaCO ₃	109	10.0	mg/L		110		0.742	10	
Hydroxide as CaCO ₃	ND	1.00	mg/L		ND			10	
Electrical Conductivity	0.50	0.01	mmhos/cm		0.50		1.28	10	
Carbonate as CaCO ₃	ND	1	mg/L		ND			10	
pH	7.9	1.0	units		7.9		0.00	10	
Electrical Conductivity umhos	498	10.0	umhos/cm		504		1.28	10	
Duplicate (BEI0763-DUP2)									
	Source: 23I1421-01			Prepared: 9/21/2023 Analyzed: 9/22/2023					
Hydroxide as CaCO ₃	ND	1.00	mg/L		ND			10	
Alkalinity as CaCO ₃	77.8	10.0	mg/L		75.3		3.26	10	
Electrical Conductivity	0.22	0.01	mmhos/cm		0.22		0.0452	10	
Carbonate as CaCO ₃	ND	1	mg/L		ND			10	
pH	7.4	1.0	units		7.4		0.271	10	

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEI0763 (Continued)									
Duplicate (BEI0763-DUP2)									
Electrical Conductivity umhos	221	10.0	umhos/cm		221			0.0452	10
Reference (BEI0763-SRM1)									
Electrical Conductivity	533		umhos/cm	538.0		99.0	90-110		
Alkalinity as CaCO3	39.7		mg/L	40.60		97.8	90-110		
Reference (BEI0763-SRM2)									
Electrical Conductivity	533		umhos/cm	538.0		99.0	90-110		
Alkalinity as CaCO3	38.6		mg/L	40.60		95.0	90-110		
Reference (BEI0763-SRM3)									
Alkalinity as CaCO3	39.6		mg/L	40.60		97.5	90-110		
Electrical Conductivity	532		umhos/cm	538.0		98.8	90-110		
Reference (BEI0763-SRM4)									
pH	4.0		units	4.000		101	97.5-102.5		
Reference (BEI0763-SRM5)									
pH	4.0		units	4.000		101	97.5-102.5		
Reference (BEI0763-SRM6)									
pH	4.0		units	4.000		100	97.5-102.5		
Reference (BEI0763-SRM7)									
pH	5.8		units	5.820		100	28178-101.7		

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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEI0764									
Blank (BEI0764-BLK1)									
Total Filterable Solids (TDS)	ND	10.0	mg/L		Prepared: 9/21/2023 Analyzed: 9/22/2023				
LCS (BEI0764-BS1)									
Total Filterable Solids (TDS)	22.5	10.0	mg/L	2000	Prepared: 9/21/2023 Analyzed: 9/22/2023	1.12	0-200		
Duplicate (BEI0764-DUP1)									
Total Filterable Solids (TDS)	3550	10.0	mg/L	3480	Prepared: 9/21/2023 Analyzed: 9/22/2023			2.14	10
Duplicate (BEI0764-DUP2)									
Total Filterable Solids (TDS)	712	10.0	mg/L	738	Prepared: 9/21/2023 Analyzed: 9/22/2023			3.45	10
Reference (BEI0764-SRM1)									
Total Filterable Solids (TDS)	307		mg/L	325.0	Prepared: 9/21/2023 Analyzed: 9/22/2023	94.4	90-110		

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Reported: 09/27/2023 15:52

Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEI0786									
Blank (BEI0786-BLK1)									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Potassium	ND	0.500	mg/L						
Calcium	ND	0.1	mg/L						
Sodium	ND	1	mg/L						
Magnesium	ND	0.1	mg/L						
Blank (BEI0786-BLK2)									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Sodium	ND	1	mg/L						
Potassium	ND	0.500	mg/L						
Calcium	ND	0.1	mg/L						
Magnesium	ND	0.1	mg/L						
LCS (BEI0786-BS1)									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Sodium	38	1	mg/L	35.71	106	90-110			
Potassium	37.3	0.500	mg/L	35.71	104	90-110			
Calcium	37.6	0.1	mg/L	35.71	105	90-110			
Magnesium	38.4	0.1	mg/L	35.71	108	90-110			
LCS (BEI0786-BS2)									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Sodium	37	1	mg/L	35.71	105	90-110			
Calcium	37.5	0.1	mg/L	35.71	105	90-110			
Potassium	37.0	0.500	mg/L	35.71	104	90-110			
Magnesium	38.2	0.1	mg/L	35.71	107	90-110			
Duplicate (BEI0786-DUP1)									
Source: 23I1338-01									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Calcium	65.8	0.1	mg/L	64.7			1.56	15	
Potassium	ND	0.500	mg/L	ND				15	
Sodium	37	1	mg/L	37			0.927	15	
Magnesium	4.6	0.1	mg/L	4.5			1.32	15	
Matrix Spike (BEI0786-MS1)									
Source: 23I1338-01									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Potassium	38.4	0.500	mg/L	35.71	ND	108	90-110		
Sodium	75	1	mg/L	35.71	37	107	90-110		
Calcium	103	0.1	mg/L	35.71	64.7	108	90-110		
Magnesium	43.5	0.1	mg/L	35.71	4.5	109	90-110		
Matrix Spike (BEI0786-MS2)									
Source: 23I1505-03									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Sodium	115	1	mg/L	35.71	76	111	90-110		
Calcium	209	0.1	mg/L	35.71	168	115	90-110		
Potassium	45.4	0.500	mg/L	35.71	6.05	110	90-110		
Magnesium	82.4	0.1	mg/L	35.71	42.0	113	90-110		
Reference (BEI0786-SRM2)									
Prepared: 9/22/2023 Analyzed: 9/25/2023									
Sodium	96		mg/L	91.50		105	90-110		

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5593 Avenue 176
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Account Manager: Ben Nydam
Submitted By: Nonning
Ranch: 5593 Ave 176 Tulare

Received: 09/20/2023 15:47
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Quality Control
(Continued)

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit
Batch: BEI0786 (Continued)									
Reference (BEI0786-SRM2)									
Potassium	22.9		mg/L	21.90		104	90-110		
Reference (BEI0786-SRM3)									
Calcium	48.7		mg/L	45.90		106	90-110		
Magnesium	37.8		mg/L	35.60		106	90-110		

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09/20/23 15:47

23I1338

WATER WORK REQUEST

Bill To:	Acc No	Cards
	14218	08

Purchase Order No. _____ Results Needed By _____

Results Needed By

Friesian Farms Dairy
5593 Ave 176
Tulare, CA 93274

Copy to: matthewdegroot@comcast.net

Requested by/Cell: Nonning 730-1290

Facility: 5593 Ave 176 Tulare

Date sampled _____

Sampled by Matt Delwart

QA/QC Document Copy of Chain RWQCB

DESCRIPTION OF SAMPLES

- | | | |
|-----|--|------------------------------------|
| 1. | <u>Well 10</u> | Sampled From <u>discharge pipe</u> |
| 2. | <u>Well 6</u> | Sampled From <u>discharge pipe</u> |
| 3. | | Sampled From _____ |
| 4. | | Sampled From _____ |
| 5. | | Sampled From _____ |
| 6. | | Sampled From _____ |
| 7. | | Sampled From _____ |
| 8. | IR Thermometer SN: 200560723 | Sampled From _____ |
| 9. | Correction Factor: 0°C | Sampled From _____ |
| 10. | Calibration Due: 9/26/2023
Location: Laboratory | Sampled From _____ |

CHAIN OF CUSTODY

Carrier	Signature	Company	Received (Date/Time)	Relinquished (Date/Time)
First		DeGroot Environmental	9-20-23 1545	
Second				
Third				
Fourth	PS	DeZ	9-20-23 1547	

I guarantee that as the client, or on behalf of the client named, I have the authority to contract the above-referenced services. Should it be found that I do not have such authority, I agree to be personally liable for all costs and, if these should be action against me for this breach, reasonable attorney's fees. It is understood that payment is required to be in cash with samples unless terms have been previously arranged. Terms are net 30 days; overdue accounts will be charged a late damage fee of 2% per month (maximum 24%) or \$50 per month whichever is

If payment is not made while due and a legitimate dispute exists concerning the products or services of Deloitte Laboratories, 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 by 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 decides that no legitimate dispute exists, then Deloitte will pay all mediation and arbitration costs, and in the event of arbitration, reasonable attorney's fees for Deloitte Laboratories.

<i>Invoicing Information:</i>	<i>Shipping</i>		
Contract 2020	\$ _____ In Sampling Hrs. _____ Miles _____ Consulting _____ \$ _____ Out		
<i>Amt Paid</i>	<i>Rec Rx.</i>	<i>Check No.</i>	<i>Date</i>

Sample received in contact with soil

13 Yes 14 No

environ 1700

09/20/23 15:47

23I1338



Shipping Information: Shipped In <input type="checkbox"/> Pickup Up <input type="checkbox"/> Walk In <input checked="" type="checkbox"/> DLI Sampler <input 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 type="checkbox"/> Box <input type="checkbox"/> None <input type="checkbox"/>					Refrigerant: Wet Ice <input 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
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	1	1							
1 L unpreserved (BOD) (Purple) Plastic									
Special	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								
VOA Vials	100 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:									
Other:									

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

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

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
Dairy East	85	85	2	both	X200-0150-X006-0000
Dairy West	85	85	2	both	X200-0150-X006-0000
Hamstra 1	18	18	1	both	X200-0130-X007-0000
Hamstra 2	79	79	2	both	X200-0130-X007-0000
Hamstra 3	38	38	2	both	X200-0130-X007-0000
Hamstra 4	40	40	2	both	X200-0130-X007-0000
Hamstra 5	77	77	1	none	X200-0130-X007-0000
Hamstra 6	78	78	2	both	X200-0130-X007-0000
Pires 1	75	75	2	both	X200-0120-X010-0000
Pires 2	72	72	2	both	X200-0120-X009-0000 X200-0120-X010-0000
Pires 3	75	75	1	none	X200-0120-X008-0000 X200-0120-X009-0000
Pires 4	77	77	1	process wastewater	X200-0120-X008-0000
Totals for areas that were used for application	647	647	18		
Totals for areas that were not used for application	152	152	2		
Land application area totals	799	799	20		

B. CROPS AND HARVESTS

Dairy East

Field name: Dairy East

10/29/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 85 Plant date: 10/29/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
04/26/2023	1,800.30 ton	Dry-weight		60.0	15,900.00	2,200.00	17,800.00		9.90

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	20.00	220.00	34.00	166.00	0.00
Total actual harvest content	21.18	269.41	37.28	301.60	1,677.46

GROUNDWATER MONITORING PROGRAM

GROUNDWATER MONITORING REPORT

2023

Prepared for

FRIESIAN FARMS DAIRY

TULARE COUNTY

Site Address:

5593 Avenue 176
Tulare, CA

Mailing Address:

Mr. Nonning Leyendekker
5593 Avenue 176
Tulare, CA 93294

June 2024



Prepared by
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3213-07V1-GMP

TABLE OF CONTENTS

I. INTRODUCTION	1
II. GROUNDWATER SAMPLING AND MEASUREMENT DATA	1
A. Monitoring Well Sampling Procedures	1
B. Groundwater Elevation Map.....	1
III. GROUNDWATER QUALITY SUMMARY.....	2

Appendix A:

Figure 1 Groundwater Elevation Map, March 08, and September 06, 2023
Tables Annual Report, Groundwater Reporting Section, Monitoring Wells
Groundwater Data Summary

Appendix B:

Monitoring Well Purging and Sampling Records

I. INTRODUCTION

The following is the 2023 Groundwater Monitoring Report for the Friesian Farms Dairy facility located at 5593 Avenue 176, Tulare, Tulare County, California (Site). The Site is located west of Road 56, and south of Avenue 176, approximately five and one-half miles east of the City of Corcoran. The dairy site is within Sections 10 and 14, Township 21 South, Range 23 East, Mount Diablo Baseline and Meridian.

II. GROUNDWATER SAMPLING AND MEASUREMENT DATA

A. Monitoring Well Sampling Procedures

Provost & Pritchard Consulting Group (**Provost & Pritchard**) personnel attempted to sample groundwater monitoring wells MW-1 through MW-3 on March 08 and September 06, 2023. Monitoring well MW-1 through MW-3 were dry during the March 08, 2023, sampling event. Monitoring wells MW-1 and MW-3 were dry during the September 06, 2023, sampling event. Monitoring well MW-2 had sufficient water to allow for sampling.

When sufficient groundwater is available for sampling or measurement, static water level is measured from the top of each PVC casing and recorded to the nearest 0.01 foot with respect to the established casing elevation, as possible. Each sampled monitoring well is purged a minimum of three well volumes, as possible. Purged water is monitored for pH, electrical conductivity (**EC**), and temperature.

Each monitoring well is equipped with a dedicated Waterra inertia pump and Waterra tubing. The use of dedicated sampling equipment prevents cross-contamination between samples and eliminates the need for field decontamination of the equipment. Sample containers are sterilized and transported to the field under conditions to preserve their sterility.

Groundwater samples collected from monitoring wells are placed into laboratory prepared containers, sealed with tight fitting caps, labeled, and stored in a cooled ice chest while awaiting delivery to Agriculture & Priority Pollutants Laboratories (APPL), a California-certified Environmental Laboratory Accreditation Program (**ELAP**) laboratory in Clovis, California. The samples are analyzed for EC, nitrate as nitrogen (**NO₃-N**), and ammonium as nitrogen (**NH₄-N**).

B. Groundwater Elevation Map

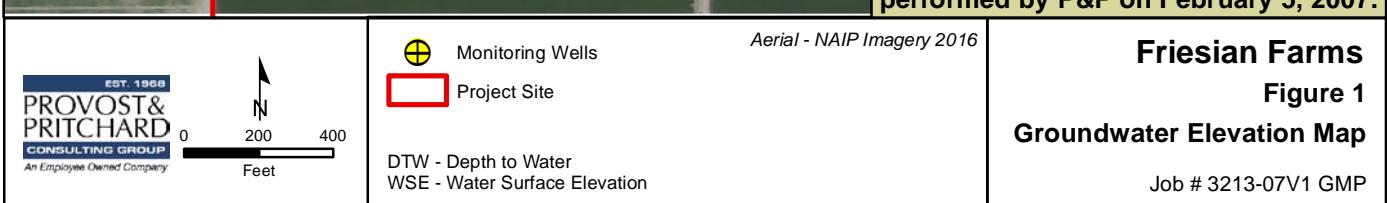
A Groundwater Elevation Map, based on available information, was prepared for the March 08 and September 06, 2023, sampling events. Well locations, depth to groundwater, and groundwater elevations for the events, as applicable, are illustrated in **Appendix A: Figure 1**.

III. GROUNDWATER QUALITY SUMMARY

A tabulated historical summary of the monitoring well groundwater measurements is presented in **Appendix A**. Monitoring well purging and sampling records are presented in **Appendix B**.

Appendix A:

- Figure 1 Groundwater Elevation Map, March 08 and September 06, 2023
Tables Annual Report, Groundwater Reporting Section, Monitoring Wells
 Groundwater Data Summary



Annual Report
Groundwater Reporting Section
Monitoring Wells

Dairy Name: Friesian Farms Dairy

Dairy Address: 5593 Ave 176

Tulare, CA 93274

Report Period: Jan 1, 2009 through Dec 31, 2018

Well ID	Status	Sample Date	Depth to Water (feet)	Groundwater Elevation (ft above MSL)	pH Field (pH units)	Electrical Conductivity (EC) Field (umhos/cm)	Electrical Conductivity (EC) Lab (umhos/cm)	Nitrate as Nitrogen (NO ₃ -N) (mg/L)	Ammonia as Nitrogen (NH ₄ -N) (mg/L)
MW-1	Active	11/02/2018	N/A Dry	N/A					
	Active	05/09/2018	N/A Dry	N/A					
	Active	11/16/2017	N/A Dry	N/A					
	Active	05/18/2017	N/A Dry	N/A					
	Active	10/24/2016	N/A Dry	N/A					
	Active	04/19/2016	N/A Dry	N/A					
	Active	10/21/2015	N/A Dry	N/A					
	Active	04/30/2015	N/A Dry	N/A					

Notes: Laboratory detection limit listed below each result.

NSW = Not Sufficient Water to sample.

Page 1 of 7

Friesian Farms Dairy
Monitoring Well Samples

Well ID	Status	Sample Date	Depth to Water (feet)	Groundwater Elevation (ft above MSL)	pH Field (pH units)	Electrical Conductivity (EC) Field (umhos/cm)	Electrical Conductivity (EC) Lab (umhos/cm)	Nitrate as Nitrogen (NO3-N) (mg/L)	Ammonia as Nitrogen (NH4-N) (mg/L)
	Active	10/08/2014	N/A	N/A					
			Dry						
	Active	03/11/2014	N/A	N/A					
			Dry						
	Active	09/11/2013	N/A	N/A					
			Dry						
	Active	06/19/2013	N/A	N/A					
			Dry						
	Active	03/06/2013	121.75	102.98	7.25	1,604	1,610	32.2	< 0.5
			Wet				10	0.10	0.50
	Active	12/04/2012	122.07	102.66					
			Wet						
	Active	09/20/2012	N/A	N/A					
			Dry				10	0.10	0.50
	Active	03/20/2012	119.40	105.33	7.69	1,336	1,360	24.0	< 0.5
			Wet				10	0.10	0.50
	Active	12/16/2011	121.08	103.65					
			Wet						
	Active	09/19/2011	N/A	N/A					
			Dry						
	Active	03/03/2011	N/A	N/A					
			Dry						
	Active	10/05/2010	N/A	N/A					
			Dry						

Notes: Laboratory detection limit listed below each result.

NSW = Not Sufficient Water to sample.

Well ID	Status	Sample Date	Depth to Water (feet)	Groundwater Elevation (ft above MSL)	pH Field (pH units)	Electrical Conductivity (EC) Field (umhos/cm)	Electrical Conductivity (EC) Lab (umhos/cm)	Nitrate as Nitrogen (NO3-N) (mg/L)	Ammonia as Nitrogen (NH4-N) (mg/L)
	Active	03/15/2010	N/A	N/A					
			Dry						
	Active	09/17/2009	N/A	N/A					
			Dry						
	Active	03/18/2009	120.22	104.51	7.26	1,628	1,530	35.0	< 0.5
			Wet				10	0.10	0.50
MW-2	Active	11/02/2018	125.55	98.09					
			NSW						
	Active	05/09/2018	N/A	N/A					
			Dry						
	Active	11/16/2017	N/A	N/A					
			Dry						
	Active	05/18/2017	N/A	N/A					
			Dry						
	Active	10/24/2016	N/A	N/A					
			Dry						
	Active	04/19/2016	N/A	N/A					
			Dry						
	Active	10/21/2015	N/A	N/A					
			Dry						
	Active	04/30/2015	N/A	N/A					
			Dry						
	Active	10/08/2014	126.42	97.22					
			NSW						

Notes: Laboratory detection limit listed below each result.

NSW = Not Sufficient Water to sample.

Well ID	Status	Sample Date	Depth to Water (feet)	Groundwater Elevation (ft above MSL)	pH Field (pH units)	Electrical Conductivity (EC) Field (umhos/cm)	Electrical Conductivity (EC) Lab (umhos/cm)	Nitrate as Nitrogen (NO3-N) (mg/L)	Ammonia as Nitrogen (NH4-N) (mg/L)
	Active	03/11/2014	N/A	N/A					
			Dry						
	Active	09/11/2013	125.65	97.99					
			NSW						
	Active	06/19/2013	127.00	96.64					
			Wet						
	Active	03/06/2013	121.87	101.77	7.29	1,840	1,890	67.2	< 0.5
			Wet				10	0.10	0.50
	Active	12/04/2012	120.37	103.27					
			Wet						
	Active	09/20/2012	121.87	101.77	7.35	1,840	1,980	77.0	< 0.5
			Wet				10	0.10	0.50
	Active	03/20/2012	120.80	102.84	7.73	1,840	1,910	64.1	< 0.5
			Wet				10	0.10	0.50
	Active	12/16/2011	120.84	102.80					
			Wet						
	Active	09/19/2011	126.47	97.17					
			NSW						
	Active	03/03/2011	N/A	N/A					
			Dry						
	Active	10/05/2010	125.11	98.53					
			NSW						
	Active	03/15/2010	N/A	N/A					
			Dry						

Notes: Laboratory detection limit listed below each result.

NSW = Not Sufficient Water to sample.

Well ID	Status	Sample Date	Depth to Water (feet)	Groundwater Elevation (ft above MSL)	pH Field (pH units)	Electrical Conductivity (EC) Field (umhos/cm)	Electrical Conductivity (EC) Lab (umhos/cm)	Nitrate as Nitrogen (NO3-N) (mg/L)	Ammonia as Nitrogen (NH4-N) (mg/L)
MW-3	Active	09/17/2009	126.35	97.29					
			NSW						
	Active	03/18/2009	124.05	99.59	7.15	1,645	1,220	29.1	< 0.5
			Wet					10	0.10
	Active	11/02/2018	N/A	N/A					0.50
			Dry						
	Active	05/09/2018	N/A	N/A					
			Dry						
	Active	11/17/2017	N/A	N/A					
			Dry						
	Active	05/18/2017	N/A	N/A					
			Dry						
	Active	10/24/2016	N/A	N/A					
			Dry						
	Active	04/19/2016	N/A	N/A					
			Dry						
	Active	10/21/2015	N/A	N/A					
			Dry						
	Active	04/30/2015	N/A	N/A					
			Dry						
	Active	10/08/2014	N/A	N/A					
			Dry						
	Active	03/11/2014	N/A	N/A					
			Dry						

Notes: Laboratory detection limit listed below each result.

NSW = Not Sufficient Water to sample.

Well ID	Status	Sample Date	Depth to Water (feet)	Groundwater Elevation (ft above MSL)	pH Field (pH units)	Electrical Conductivity (EC) Field (umhos/cm)	Electrical Conductivity (EC) Lab (umhos/cm)	Nitrate as Nitrogen (NO3-N) (mg/L)	Ammonia as Nitrogen (NH4-N) (mg/L)
	Active	09/11/2013	N/A	N/A					
			Dry						
	Active	06/19/2013	N/A	N/A					
			Dry						
	Active	03/06/2013	121.99	102.00				<	
			NSW				10	0.10	0.50
	Active	12/04/2012	121.59	102.40					
			Wet						
	Active	09/20/2012	122.67	101.32					
			NSW						
	Active	03/20/2012	119.23	104.76	8.15	745	758	14.8	< 0.5
			Wet				10	0.10	0.50
	Active	12/19/2011	121.81	102.18					
			Wet						
	Active	09/19/2011	N/A	N/A					
			Dry						
	Active	03/03/2011	N/A	N/A					
			Dry						
	Active	10/05/2010	N/A	N/A					
			Dry						
	Active	03/15/2010	N/A	N/A					
			Dry						
	Active	09/17/2009	N/A	N/A					
			Dry						

Notes: Laboratory detection limit listed below each result.

NSW = Not Sufficient Water to sample.

Well ID	Status	Sample Date	Depth to Water (feet)	Groundwater Elevation (ft above MSL)	pH Field (pH units)	Electrical Conductivity (EC) Field (umhos/cm)	Electrical Conductivity (EC) Lab (umhos/cm)	Nitrate as Nitrogen (NO3-N) (mg/L)	Ammonia as Nitrogen (NH4-N) (mg/L)
	Active	03/18/2009	123.39	100.60	NSW				

Notes: Laboratory detection limit listed below each result.

NSW = Not Sufficient Water to sample.

Table 1
Report Period January 01, 2019 through December 31, 2022
Groundwater Data Summary
Friesian Farms

Well ID	Status	Sample Date	Depth to Water	GW Surface Elevation		Field pH	Field EC	NO ₃ -N	NH ₄ -N
				feet	feet				
Units				Good	900	10	none		
MCL									
6.5 to 8.5									
MW-1	Active	4/17/2019	N/A (Dry)	N/A	--	--	--	--	--
	Active	10/9/2019	N/A (Dry)	N/A	--	--	--	--	--
	Active	3/17/2020	N/A (Dry)	N/A	--	--	--	--	--
	Active	9/15/2020	N/A (Dry)	N/A	--	--	--	--	--
	Active	3/3/2021	N/A (Dry)	N/A	--	--	--	--	--
	Active	9/8/2021	N/A (Dry)	N/A	--	--	--	--	--
	Active	3/2/2022	N/A (Dry)	N/A	--	--	--	--	--
	Active	8/18/2022	N/A (Dry)	N/A	--	--	--	--	--
	Active	3/8/2023	N/A (Dry)	N/A	--	--	--	--	--
	Active	9/6/2023	N/A (Dry)	N/A	--	--	--	--	--
MW-2	Active	4/17/2019	N/A (Dry)	N/A	--	--	--	--	--
	Active	10/9/2019	125.65	97.99	7.46	1767	--	--	--
	Active	3/17/2020	125.76	97.88	7.44	1818	70.1	<0.5	
	Active	9/15/2020	N/A (Dry)	N/A	--	--	--	--	
	Active	3/3/2021	122.64	101.00	7.3	1833	87.4	<0.5	
	Active	9/8/2021	125.39	98.25	7.30	1255	99	<0.5	
	Active	3/2/2022	126.38	97.26	7.14	2010	76	<0.5	
	Active	8/18/2022	N/A (Dry)	N/A	--	--	--	--	
	Active	3/8/2023	N/A (Dry)	N/A	--	--	--	--	
	Active	9/6/2023	124.54	96.1	7.09	2280	94.00	<0.5	
MW-3	Active	4/17/2019	N/A (Dry)	N/A	--	--	--	--	--
	Active	10/9/2019	N/A (Dry)	N/A	--	--	--	--	--
	Active	3/17/2020	N/A (Dry)	N/A	--	--	--	--	--
	Active	9/15/2020	N/A (Dry)	N/A	--	--	--	--	--
	Active	3/3/2021	123.1	100.89	8.07	780.00	15.7	<0.5	
	Active	9/8/2021	N/A (Dry)	N/A	--	--	--	--	
	Active	3/2/2022	N/A (Dry)	N/A	--	--	--	--	
	Active	8/18/2022	N/A (Dry)	N/A	--	--	--	--	
	Active	3/8/2023	N/A (Dry)	N/A	--	--	--	--	
	Active	9/6/2023	N/A (Dry)	N/A	--	--	--	--	

Appendix B:

Monitoring Well Purging and Sampling Records



Monitoring Well Purging and Sampling Record

Client:	Nonning Leyendekker	Date:	63-08-23		
Project Name:	Fresian Farms Dairy	County:	Tulare		
Project Address:	5593 Ave 176, Tulare, Ca 93274				
Project Manager:	Steven Boommelje	Job No:	3213-07V1		
Regulatory Contact:	Nonning Leyendekker	Telephone:	686-4283/ 730-1290 cell		
Sample Containers:	2	Air Temp (F):	74°F		
Preservatives:	neat / H ₂ SO ₄	Precipitation:	none		
Instrumentation:		Wind (dir/speed):	3 mph NW		
Date Last Calibrated/By:	03-08-23 / M(2)	Sampler Signature:	M. Leyendekker		
Well Number	MW-1	MW-2	MW-3		
Well Elevation (ft)	224.73	223.64	223.99		
Well Diameter (in)	2	2	2		
Slotted Interval (ft)	95-125	95-130	95-125		
DTW (ft)	Dry	127.13 / Dry	Dry		
GW Elevation (ft)					
Total Depth (ft)	125.42	127.55	124.41		
Well Volumes (gal)					
Notes:					
Well Volume Purged (1 st)					
Time					
Temp (C°)		0			
pH					
EC		F			
Volume Removed (gal)					
Well Volume Purged (2nd)					
Time					
Temp (C°)		5			
pH		5			
EC		F			
Volume Removed (gal)		F			
Well Volume Purged (3rd)					
Time					
Temp (C°)		5			
pH		5			
EC		F			
Volume Removed (gal)		F			
Sample Time					

Equipment used: Solinst water level meter; Waterra PowerLift III actuator, and Honda generator.

Remarks:

EST. 1968



Monitoring Well Purging and Sampling Record

Client:	Nonning Leyendekker	Date:	09-06-23
Project Name:	Fresian Farms Dairy	County:	Tulare
Project Address:	5593 Ave 176, Tulare, Ca 93274		
Project Manager:	Steven Boommelje	Job No:	3213-07V10
Regulatory Contact:	Nonning Leyendekker	Telephone:	686-4283/ 730-1290 cell
Sample Containers:	2	Air Temp (F):	88°F
Preservatives:	neat / H ₂ SO ₄	Precipitation:	none
Instrumentation:	Apera PC 60	Wind (dir/speed):	
Date Last Calibrated/By:	09-06-23 / Moines (Quintero)	Sampler Signature:	M. Quintero

Well Number	MW-1	MW-2	MW-3			
Well Elevation (ft)	224.73	223.64	223.99			
Well Diameter (in)	2	2	2			
Slotted Interval (ft)	95-125	95-130	95-125			
DTW (ft)	Dry	124.13	Dry			
GW Elevation (ft)						
Total Depth (ft)	125.42	127.54	124.48			
Well Volumes (gal)	+3	1.68				
Notes:						

Well Volume Purged (1st)			
Time	MW-1	MW-2	MW-3
Temp (C°)	122.6	15.4	
pH		7.12	
EC	2.380		
Volume Removed (gal)	0.75		

Well Volume Purged (2nd)			
Time	MW-1	MW-2	MW-3
Temp (C°)	123.4	15.8	
pH	7.09		
EC	2.380		
Volume Removed (gal)	0.75		

Well Volume Purged (3rd)			
Time	MW-1	MW-2	MW-3
Temp (C°)	124.1	16.4	
pH	7.09		
EC	2.280		
Volume Removed (gal)	0.75		
Sample Time	124.5		

Equipment used: Solinst water level meter; Waterra PowerLift III actuator, and Honda generator.

Remarks:

September 12, 2023

Jon Vander Schuur
Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

RE: Fresian Dairy
23I0018

Enclosed are the results of analyses for samples received by our laboratory on 9/6/2023. If you have any questions concerning this report, please feel free to contact me.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. These test results meet all requirements of NELAC and DoD QSM. Release of the hard copy has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Sincerely,



Chue Moua
Project Manager

cmoua@applinc.com
559-862-2155

Table of Contents

Cover Letter	1
Sample Results	4
Quality Assurance Results	8
Qualifiers and Definitions	9
Login Summary	10
Chain of Custody	11

Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

Project: Fresian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Jon Vander Schuur

Reported: 09/12/2023 20:05

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
23I0018-01	MW-2	Water	09/06/2023 12:45	09/06/2023

Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

Project: Friesian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Jon Vander Schuur

Reported: 09/12/2023 20:05

Sample Results

Sample: MW-2

23I0018-01 (Water)

Analyte	Result/Qual	PQL	MDL	Units	Date Analyzed	DF	Method	Prep Batch
WetLab								
NITRATE-N	94		4.0	0.20	mg/L	09/07/23	20	EPA 300.0
AMMONIA AS N	0.18	J	0.50	0.12	mg/L	09/07/23	1	EPA 350.1
SPECIFIC CONDUCTANCE	2100		3.0	1.1	umhos/cm @ 25C	09/07/23	1	SM2510B

Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

Project: Fresian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Jon Vander Schuur

Reported: 09/12/2023 20:05

PREPARATION BATCH SUMMARY

SM2510B

Laboratory: APPL, LLC

Client: Provost and Pritchard

Batch: BCI0092 Batch Matrix: Water Preparation: SM2510B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT mL	FINAL VOL. mL
MW-2	23I0018-01	09/07/23 08:58	40.00	40.00
Blank	BCI0092-BLK1	09/07/23 08:51	40.00	40.00
LCS	BCI0092-BS1	09/07/23 08:53	40.00	40.00
LCS Dup	BCI0092-BSD1	09/07/23 08:55	40.00	40.00

Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

Project: Fresian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Jon Vander Schuur

Reported: 09/12/2023 20:05

PREPARATION BATCH SUMMARY

EPA 350.1

Laboratory: APPL, LLC

Client: Provost and Pritchard

Batch: BCI0100 Batch Matrix: Water Preparation: EPA 350.1

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT mL	FINAL VOL. mL
MW-2	23I0018-01	09/07/23 07:35	25.00	25.00
Blank	BCI0100-BLK1	09/07/23 07:35	25.00	25.00
LCS	BCI0100-BS1	09/07/23 07:35	25.00	25.00

Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

Project: Fresian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Jon Vander Schuur

Reported: 09/12/2023 20:05

PREPARATION BATCH SUMMARY

EPA 300.0

Laboratory: APPL, LLC

Client: Provost and Pritchard

Batch: BCI0126 Batch Matrix: Water Preparation: EPA 300.0

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT mL	FINAL VOL. mL
MW-2	23I0018-01	09/07/23 11:43	1.00	1.00
Blank	BCI0126-BLK1	09/07/23 09:09	1.00	1.00
LCS	BCI0126-BS1	09/07/23 08:52	1.00	1.00
LCS Dup	BCI0126-BSD1	09/07/23 14:20	1.00	1.00

Provost and Pritchard Visalia 130 N. Garden Visalia, CA 93291	Project: Fresian Dairy Project Number: 3213-07V10/GMP Project Manager: Jon Vander Schuur	Reported: 09/12/2023 20:05
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Quality Control

WetLab

Analyte	Result/ Qual	PQL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Method: SM2510B

Batch: BCI0092 - SM2510B

Blank (BCI0092-BLK1)

SPECIFIC CONDUCTANCE	ND	3.0	1.1 umhos/cm @ 25C	Prepared & Analyzed: 09/07/23 08:51				
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LCS (BCI0092-BS1)

SPECIFIC CONDUCTANCE	1050		umhos/cm @ 25C	1000	105	80-120	Prepared & Analyzed: 09/07/23 08:53		
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LCS Dup (BCI0092-BSD1)

SPECIFIC CONDUCTANCE	1050		umhos/cm @ 25C	1000	105	80-120	0.191	20	Prepared & Analyzed: 09/07/23 08:55
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Method: EPA 350.1

Batch: BCI0100 - EPA 350.1

Blank (BCI0100-BLK1)

AMMONIA AS N	ND	0.50	0.12 mg/L	Prepared & Analyzed: 09/07/23 11:49				
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LCS (BCI0100-BS1)

AMMONIA AS N	5.06		mg/L	5.00	101	90-110	Prepared & Analyzed: 09/07/23 11:53		
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Method: EPA 300.0

Batch: BCI0126 - EPA 300.0

Blank (BCI0126-BLK1)

NITRATE-N	ND	0.20	0.010 mg/L	Prepared & Analyzed: 09/07/23 09:09				
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LCS (BCI0126-BS1)

NITRATE-N	5.22		mg/L	5.00	104	90-110	Prepared & Analyzed: 09/07/23 08:52		
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LCS Dup (BCI0126-BSD1)

NITRATE-N	5.30		mg/L	5.00	106	90-110	1.64	20	Prepared & Analyzed: 09/07/23 14:20
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Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

Project: Friesian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Jon Vander Schuur

Reported: 09/12/2023 20:05

Notes and Definitions

Item	Definition
J	Estimated value
U	Not detected
Dry	Sample results reported on a dry weight basis.
MDL	Method Detection Limit (only displays if reported to the MDL)
ND	Analyte NOT DETECTED at or above the reporting limit.
DF	Dilution Factor
DL	Detection Limit
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
PQL	Practical Quantitation Limit = Method Reporting Limit (MRL).

Provost and Pritchard Visalia
130 N. Garden
Visalia, CA 93291

Project: Fresian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Jon Vander Schuur

Reported: 09/12/2023 20:05



WORK ORDER

23I0018

Printed: 09/12/2023 8:05 pm

Project: Fresian Dairy
Project Number: 3213-07V10/GMP
Project Manager: Chue Moua

PO Number:**Report To:**

Provost and Pritchard Visalia
Jon Vander Schuur
130 N. Garden
Visalia, CA 93291
Phone: (559) 636-1166
Fax: (559) 636-1177

Invoice To:

Provost and Pritchard Visalia
Lisa Binz
130 N. Garden
Visalia, CA 93291
Phone: (559) 449-2700
Fax: (559) 449-2715

Date Received: 09/06/2023 03:00 PM

Logged In By: Sophia Herrera

Date Due: 09/20/2023 (10.00 day TAT)

Received By: Jake Henige

Analysis**Comments****23I0018-01 MW-2 [Water] Sampled 9/6/2023 12:45:00PM**

300.0 Nitrate/N	NONE
350.1	NONE
SM 2510B	NONE

23I0018**Sample Receipt Log**

Default Cooler

Samples Received at: **-2.3°C**

Custody Seals	No	Were all containers sealed in separate bags?	Yes
Containers Intact	Yes	Did all containers arrive in good condition?	Yes
COC/Labels Agree	Yes	Correct containers/preserv. for tests indicated?	Yes
Preservation Confirmed	Yes	Sufficient volume sent for tests requested?	Yes
Received On Ice	Yes	Were bubbles absent in volatile samples?	No
Was a chain of custody received?	Yes	Sufficient remaining holding time for analyses?	Yes
COCs complete/signed in the appropriate places?	Yes	pH of non-VOA preserved containers documented?	No
Sample labels complete? Sample ID, date/time, etc.	Yes	Unpreserved vials received for VOA analysis?	No
Did all container labels agree with COCs?	Yes	If "yes", are unpreserved VOA vials noted on Work	No



APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
www.applinc.com

23I0018

CHAIN OF CUSTODY RECORD

Phone: (559) 275-2175

Fax: (559) 275-4422

coc@applinc.com

C.O.C

61478

Report to: PLEASE PRINT
Company Name: Provost & Pritchard Phone: 559-449-2700
Address: 455 W. Fir Ave Fax: 559-449-2715
Clovis, CA 93611
Attn: Jon Vander Schuur
Email: JVANDERSCHUUR@PPENG.COM

Invoice to: **PLEASE PRINT**
Company Name: Same as "Report To" Phone: _____
Address: _____ Fax: _____
Attn: Lisa Binz
Email: lbinz@ppeng.com