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: Joaquim Mattos & Family Dairy

Physical address of dairy:

4790 Kansas AVE	Hanford	Kings	93230
Number and Street	City	County	Zip Code

Street and nearest cross street (if no address):

Date facility was originally placed in operation: 08/01/1971

Regional Water Quality Control Board Basin Plan designation: Tulare Basin

County Assessor Parcel Number(s) for dairy facility:

0028-0190-0063-0000 0028-0190-0064-0000

B. OPERATORS

Mattos, Joaquim

Operator name: Mattos, Joaquim Telephone no.: (559) 685-0193 (Landline) (Cellular)

4790 Kansas AVE	Handford	CA	93230
Mailing Address Number and Street	City	State	Zip Code

Mattos, Mark

Operator name: Mattos, Mark Telephone no.: (Landline) (559) 303-2512 (Cellular)

4790 Kansas AVE	Handford	CA	93230
Mailing Address Number and Street	City	State	Zip Code

This operator is responsible for paying permit fees.

C. OWNERS

Mattos, Joaquim

Legal owner name: Mattos, Joaquim Telephone no.: (559) 685-0193 (Landline) (Cellular)

4790 Kansas AVE	Handford	CA	93230
Mailing Address Number and Street	City	State	Zip Code

Mattos, Mark

Legal owner name:	Mattos, Mark	Telephone no.:	Landline	(559) 303-2512 Cellular
4790 Kansas AVE	Handford		CA	93230
Mailing Address Number and Street	City		State	Zip Code

This owner is responsible for paying permit fees.

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AVAILABLE NUTRIENTS

A. HERD INFORMATION

	Milk Cows	Dry Cows	Bred Heifers (15-24 mo.)	Heifers (7-14 mo. to breeding)	Calves (4-6 mo.)	Calves (0-3 mo.)
Number open confinement	0	80	420	180	420	0
Number under roof	1,040	0	0	0	0	0
Maximum number	1,055	99	450	200	450	0
Average number	1,041	80	420	180	420	0
Avg live weight (lbs)	1,200	1,300	800	700		

Predominant milk cow breed: Holstein

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

B. MANURE GENERATED

Total manure excreted by the herd: 35,713.62 *tons per reporting period*

Total nitrogen from manure: 450,119.55 *lbs per reporting period*

After ammonia losses (30% loss applied): 315,083.69 *lbs per reporting period*

Total phosphorus from manure: 73,655.16 *lbs per reporting period*

Total potassium from manure: 202,780.79 *lbs per reporting period*

Total salt from manure: 508,550.85 *lbs per reporting period*

C. PROCESS WASTEWATER GENERATED

Process wastewater generated: 21,536,000 *gallons*

Total nitrogen generated: 80,837.00 *lbs*

Total phosphorus generated: 14,161.32 *lbs*

Total potassium generated: 115,564.36 *lbs*

Total salt generated: 734,166.00 *lbs*

	21,536,000	*gallons applied*
+	0	*gallons exported*
-	0	*gallons imported*
=	21,536,000	*gallons generated*

D. FRESH WATER SOURCES

Source Description	Type
BV Well #1	Ground water
BV Well #3 (Domestic Well)	Ground water
Milk Barn	Ground water
Reid Ditch	Surface water
Well 2	Ground water

Source Description	Type
Well 3	Ground water
Well 4	Ground water

E. SUBSURFACE (TILE) DRAINAGE SOURCES

No subsurface (tile) drainage sources entered.

F. NUTRIENT IMPORTS

No dry manure nutrient imports entered.

No process wastewater nutrient imports entered.

No commercial or other nutrient imports entered.

G. NUTRIENT EXPORTS

No solid nutrient exports entered.

No liquid nutrient exports entered.

APPLICATION AREA

A. LIST OF LAND APPLICATION AREAS

Field name	Controlled acres	Cropable acres	Total harvests	Type of waste applied	Parcel number
1	72	72	2	both	0028-0190-0063-0000
2	55	55	2	process wastewater	0028-0190-0064-0000
3	45	45	2	both	0028-0190-0063-0000
BV	155	152	1	manure	0158-0100-0017-0000
Totals for areas that were used for application	327	324	7		
Totals for areas that were not used for application					
Land application area totals	327	324	7		

B. CROPS AND HARVESTS

1

Field name: 1

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

Crop: Wheat, silage, soft dough Acres planted: 72 Plant date: 11/13/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/23/2023	1,200.00 *ton*	Dry-weight		62.1	28,320.00	4,320.00	40,400.00		14.30

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	15.00	165.00	25.50	124.50	0.00
Total actual harvest content	16.67	357.78	54.58	510.39	1,806.57

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 (%)
10/16/2023	1,950.00 *ton*	Dry-weight		57.1	23,200.00	2,710.00	15,600.00		5.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	200.00	37.50	165.00	0.00
Total actual harvest content	27.08	539.11	62.97	362.51	1,324.54

2

Field name: 2

11/17/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 55 Plant date: 11/17/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/23/2023	900.00 *ton*	Dry-weight		61.6	14,260.00	2,930.00	24,000.00		9.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	15.00	165.00	25.50	124.50	0.00
Total actual harvest content	16.36	179.21	36.82	301.61	1,131.05

05/30/2023: Corn, silage

Crop: Corn, silage Acres planted: 55 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 (%)
10/16/2023	1,650.00 *ton*	Dry-weight		72.9	17,500.00	3,000.00	18,500.00		5.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	200.00	37.50	165.00	0.00
Total actual harvest content	30.00	284.55	48.78	300.81	926.82

3

Field name: 3

11/08/2022: Wheat, silage, soft dough

Crop: Wheat, silage, soft dough Acres planted: 45 Plant date: 11/08/2022

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
05/23/2023	990.00 *ton*	Dry-weight		60.3	14,060.00	2,760.00	19,300.00		8.70

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	15.00	165.00	25.50	124.50	0.00
Total actual harvest content	22.00	245.60	48.21	337.13	1,519.72

3

06/04/2023: Corn, silage

Crop: Corn, silage Acres planted: 45 Plant date: 06/04/2023

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/16/2023	1,305.00 *ton*	Dry-weight		60.4	11,490.00	2,530.00	17,200.00		6.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	25.00	200.00	37.50	165.00	0.00
Total actual harvest content	29.00	263.90	58.11	395.05	1,378.08

BV

Field name: BV

01/01/2014: Almond, in shell

Crop: Almond, in shell Acres planted: 152 Plant date: 01/01/2014

Harvest date	Yield	Reporting basis	Density (lbs/cu ft)	Moisture (%)	N (mg/kg)	P (mg/kg)	K (mg/kg)	Salt (mg/kg)	TFS (%)
10/05/2023	225.00 *ton*	Dry-weight		15.0	65,000.00	3,500.00	35,000.00		9.00

	Yield (tons/acre)	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Salt (lbs/acre)
Anticipated harvest content	1.30	169.00	26.00	130.00	0.00
Total actual harvest content	1.48	163.57	8.81	88.08	226.48

NUTRIENT BUDGET

A. LAND APPLICATIONS

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

Field name: 1

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

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/19/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	110.21	16.64	118.17	630.72	1,440,000.00 *gal*
Well 3	Ground water	21.83	0.00	0.00	365.51	4,380,000.00 *gal*
Application event totals		132.04	16.64	118.17	996.23	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/15/2022	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
Dry Manure	Corral solids	227.24	56.81	203.07	6,177.47	432.00 *ton*
Application event totals		227.24	56.81	203.07	6,177.47	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/20/2023	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	89.05	17.45	143.70	949.11	1,968,000.00 *gal*
Well 3	Ground water	41.76	0.00	0.00	699.31	8,380,000.00 *gal*
Application event totals		130.82	17.45	143.70	1,648.42	

1 - 05/30/2023: Corn, silage

Field name: 1

Crop: Corn, silage — Plant date: 05/30/2023

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

1 - 05/30/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/20/2023	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
Dry Manure	Corral solids	227.24	56.81	203.07	6,177.47	432.00 *ton*
Application event totals		227.24	56.81	203.07	6,177.47	

06/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	130.32	25.54	210.29	1,388.94	2,880,000.00 *gal*
Reid Ditch	Surface water	0.00	0.00	0.00	77.44	11,520,000.00 *gal*
Application event totals		130.32	25.54	210.29	1,466.38	

06/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	178.10	34.90	287.40	1,898.22	3,936,000.00 *gal*
Reid Ditch	Surface water	0.00	0.00	0.00	105.84	15,744,000.00 *gal*
Application event totals		178.10	34.90	287.40	2,004.06	

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
Reid Ditch	Surface water	0.00	0.00	0.00	135.52	20,160,000.00 *gal*
Application event totals		0.00	0.00	0.00	135.52	

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
Reid Ditch	Surface water	0.00	0.00	0.00	135.52	20,160,000.00 *gal*
Application event totals		0.00	0.00	0.00	135.52	

09/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Reid Ditch	Surface water	0.00	0.00	0.00	105.84	15,744,000.00 *gal*
Application event totals		0.00	0.00	0.00	105.84	

2 - 11/17/2022: Wheat, silage, soft dough

Field name: 2

Crop: Wheat, silage, soft dough

Plant date: 11/17/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/23/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	158.70	23.96	170.16	908.23	1,584,000.00 *gal*
Well 3	Ground water	38.75	0.00	0.00	648.91	5,940,000.00 *gal*
Application event totals		197.45	23.96	170.16	1,557.14	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/20/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well 3	Ground water	38.75	0.00	0.00	648.91	5,940,000.00 *gal*
Application event totals		38.75	0.00	0.00	648.91	

2 - 05/30/2023: Corn, silage

Field name: 2

Crop: Corn, silage

Plant date: 05/30/2023

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

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	142.17	27.86	229.41	1,515.21	2,400,000.00 *gal*
Reid Ditch	Surface water	0.00	0.00	0.00	82.79	9,408,000.00 *gal*
Application event totals		142.17	27.86	229.41	1,598.00	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/25/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	142.17	27.86	229.41	1,515.21	2,400,000.00 *gal*
Reid Ditch	Surface water	0.00	0.00	0.00	77.44	8,800,000.00 *gal*
Application event totals		142.17	27.86	229.41	1,592.65	

2 - 05/30/2023: 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
Reid Ditch	Surface water	0.00	0.00	0.00	141.93	16,128,000.00 *gal*
Application event totals		0.00	0.00	0.00	141.93	

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
Wastewater	Process wastewater	82.93	16.25	133.82	883.87	1,400,000.00 *gal*
Reid Ditch	Surface water	0.00	0.00	0.00	141.93	16,128,000.00 *gal*
Application event totals		82.93	16.25	133.82	1,025.80	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/10/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Reid Ditch	Surface water	0.00	0.00	0.00	111.52	12,672,000.00 *gal*
Application event totals		0.00	0.00	0.00	111.52	

3 - 11/08/2022: Wheat, silage, soft dough

Field name: 3

Crop: Wheat, silage, soft dough

Plant date: 11/08/2022

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/05/2022	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
Dry Manure	Corral solids	176.74	44.18	157.95	4,804.70	210.00 *ton*
Application event totals		176.74	44.18	157.95	4,804.70	

3 - 11/08/2022: Wheat, silage, soft dough

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
11/14/2022	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Wastewater	Process wastewater	79.35	11.98	85.08	454.11	648,000.00 *gal*
Well 3	Ground water	37.32	0.00	0.00	624.87	4,680,000.00 *gal*
Application event totals		116.67	11.98	85.08	1,078.99	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/23/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Well 3	Ground water	37.32	0.00	0.00	624.87	4,680,000.00 *gal*
Application event totals		37.32	0.00	0.00	624.87	

3 - 06/04/2023: Corn, silage

Field name: 3

Crop: Corn, silage

Plant date: 06/04/2023

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/02/2023	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
Dry Manure	Corral solids	92.26	29.13	100.82	2,243.98	216.00 *ton*
Application event totals		92.26	29.13	100.82	2,243.98	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/10/2023	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	104.26	20.43	168.24	1,111.15	1,440,000.00 *gal*
Reid Ditch	Surface water	0.00	0.00	0.00	80.54	7,488,000.00 *gal*
Application event totals		104.26	20.43	168.24	1,191.69	

3 - 06/04/2023: Corn, silage

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/07/2023	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
Wastewater	Process wastewater	157.64	13.81	167.17	1,068.16	1,440,000.00 *gal*
Reid Ditch	Surface water	0.00	0.00	0.00	105.32	9,792,000.00 *gal*
Application event totals		157.64	13.81	167.17	1,173.48	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/03/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Reid Ditch	Surface water	0.00	0.00	0.00	132.17	12,288,000.00 *gal*
Application event totals		0.00	0.00	0.00	132.17	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
08/27/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
Reid Ditch	Surface water	0.00	0.00	0.00	132.17	12,288,000.00 *gal*
Application event totals		0.00	0.00	0.00	132.17	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/22/2023	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
Reid Ditch	Surface water	0.00	0.00	0.00	105.32	9,792,000.00 *gal*
Application event totals		0.00	0.00	0.00	105.32	

BV - 01/01/2014: Almond, in shell

Field name: BV

Crop: Almond, in shell

Plant date: 01/01/2014

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
01/10/2023	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
Dry Manure	Corral solids	62.29	15.57	55.67	1,693.38	250.00 *ton*
Application event totals		62.29	15.57	55.67	1,693.38	

BV - 01/01/2014: Almond, in shell

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
03/30/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	0.97	0.00	0.00	13.76	1,044,000.00 *gal*
Application event totals		0.97	0.00	0.00	13.76	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/06/2023	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
BV Well #1	Ground water	0.97	0.00	0.00	13.76	1,044,000.00 *gal*
Application event totals		0.97	0.00	0.00	13.76	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/12/2023	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
BV Well #1	Ground water	1.95	0.00	0.00	27.51	2,088,000.00 *gal*
Application event totals		1.95	0.00	0.00	27.51	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/19/2023	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
BV Well #1	Ground water	1.95	0.00	0.00	27.51	2,088,000.00 *gal*
Application event totals		1.95	0.00	0.00	27.51	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
04/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	1.95	0.00	0.00	27.51	2,088,000.00 *gal*
Application event totals		1.95	0.00	0.00	27.51	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	2.92	0.00	0.00	41.27	3,132,000.00 *gal*
Application event totals		2.92	0.00	0.00	41.27	

BV - 01/01/2014: Almond, in shell

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
05/09/2023	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
BV Well #1	Ground water	2.92	0.00	0.00	41.27	3,132,000.00 *gal*
Application event totals		2.92	0.00	0.00	41.27	

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
BV Well #1	Ground water	2.92	0.00	0.00	41.27	3,132,000.00 *gal*
Application event totals		2.92	0.00	0.00	41.27	

05/22/2023	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
BV Well #1	Ground water	3.90	0.00	0.00	55.02	4,176,000.00 *gal*
Application event totals		3.90	0.00	0.00	55.02	

05/29/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	3.90	0.00	0.00	55.02	4,176,000.00 *gal*
Application event totals		3.90	0.00	0.00	55.02	

06/05/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	3.90	0.00	0.00	55.02	4,176,000.00 *gal*
Application event totals		3.90	0.00	0.00	55.02	

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
BV Well #1	Ground water	3.90	0.00	0.00	55.02	4,176,000.00 *gal*
Application event totals		3.90	0.00	0.00	55.02	

BV - 01/01/2014: Almond, in shell

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/19/2023	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
BV Well #1	Ground water	3.90	0.00	0.00	55.02	4,176,000.00 *gal*
Application event totals		3.90	0.00	0.00	55.02	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
06/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	3.90	0.00	0.00	55.02	4,176,000.00 *gal*
Application event totals		3.90	0.00	0.00	55.02	

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
BV Well #1	Ground water	3.90	0.00	0.00	55.02	4,176,000.00 *gal*
Application event totals		3.90	0.00	0.00	55.02	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/08/2023	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
BV Well #1	Ground water	5.85	0.00	0.00	82.54	6,264,000.00 *gal*
Application event totals		5.85	0.00	0.00	82.54	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
07/15/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	5.85	0.00	0.00	82.54	6,264,000.00 *gal*
Application event totals		5.85	0.00	0.00	82.54	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	108.15	

BV - 01/01/2014: Almond, in shell

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

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	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
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	108.15	

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
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	108.15	

08/19/2023	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
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	108.15	

08/26/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	108.15	

09/02/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	108.15	

BV - 01/01/2014: Almond, in shell

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

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	7.66	0.00	0.00	108.15	8,208,000.00 *gal*
Application event totals		7.66	0.00	0.00	108.15	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
09/17/2023	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
BV Well #1	Ground water	5.75	0.00	0.00	81.11	6,156,000.00 *gal*
Application event totals		5.75	0.00	0.00	81.11	

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

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	5.75	0.00	0.00	81.11	6,156,000.00 *gal*
Application event totals		5.75	0.00	0.00	81.11	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/03/2023	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
BV Well #1	Ground water	3.83	0.00	0.00	54.08	4,104,000.00 *gal*
Application event totals		3.83	0.00	0.00	54.08	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
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
BV Well #1	Ground water	1.92	0.00	0.00	27.04	2,052,000.00 *gal*
Application event totals		1.92	0.00	0.00	27.04	

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/18/2023	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
BV Well #1	Ground water	1.92	0.00	0.00	27.04	2,052,000.00 *gal*
Application event totals		1.92	0.00	0.00	27.04	

BV - 01/01/2014: Almond, in shell

Application date	Application method	Precipitation 24 hours prior	Precipitation during application	Precipitation 24 hours following
10/25/2023	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
BV Well #1	Ground water	1.95	0.00	0.00	27.51	2,088,000.00 *gal*
Application event totals		1.95	0.00	0.00	27.51	

11/01/2023	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
BV Well #1	Ground water	1.95	0.00	0.00	27.51	2,088,000.00 *gal*
Application event totals		1.95	0.00	0.00	27.51	

11/08/2023	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
BV Well #1	Ground water	1.95	0.00	0.00	27.51	2,088,000.00 *gal*
Application event totals		1.95	0.00	0.00	27.51	

11/16/2023	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
BV Well #1	Ground water	0.97	0.00	0.00	13.76	1,044,000.00 *gal*
Application event totals		0.97	0.00	0.00	13.76	

11/23/2023	Surface (irrigation)	No precipitation	No precipitation	No precipitation

Source description	Material type	N (lbs/acre)	P (lbs/acre)	K (lbs/acre)	Salt (lbs/acre)	Amount
BV Well #1	Ground water	0.97	0.00	0.00	13.76	1,044,000.00 *gal*
Application event totals		0.97	0.00	0.00	13.76	

B. NUTRIENT BUDGET

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

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

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	227.24	56.81	203.07	6,177.47
Process wastewater	199.26	34.09	261.87	1,579.83
Fresh water	63.59	0.00	0.00	1,064.82
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	497.09	90.89	464.94	8,822.12
Anticipated crop nutrient removal	165.00	25.50	124.50	0.00
Actual crop nutrient removal	357.78	54.58	510.39	1,806.57
Nutrient balance	139.32	36.32	-45.45	7,015.55
Applied to removed ratio	1.39	1.67	0.91	4.88

Fresh water applied	
12,760,000.00	*gallons*
469.91	*acre-inches*
6.53	*inches/acre*

Process wastewater applied	
3,408,000.00	*gallons*
125.51	*acre-inches*
1.74	*inches/acre*

Total harvests for the crop	
1	*harvests*

1 - 05/30/2023: Corn, silage

Field name: 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	227.24	56.81	203.07	6,177.47
Process wastewater	308.42	60.43	497.70	3,287.16
Fresh water	0.00	0.00	0.00	560.16
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	542.66	117.24	700.77	10,024.79
Anticipated crop nutrient removal	200.00	37.50	165.00	0.00
Actual crop nutrient removal	539.11	62.97	362.51	1,324.54
Nutrient balance	3.55	54.27	338.26	8,700.25
Applied to removed ratio	1.01	1.86	1.93	7.57

Fresh water applied	
83,328,000.00	*gallons*
3,068.69	*acre-inches*
42.62	*inches/acre*

Process wastewater applied	
6,816,000.00	*gallons*
251.01	*acre-inches*
3.49	*inches/acre*

Total harvests for the crop	
1	*harvests*

2 - 11/17/2022: Wheat, silage, soft dough

Field name: 2 Crop: Wheat, silage, soft dough Plant date: 11/17/2022

	Total N (lbs/acre)	Total P (lbs/acre)	Total K (lbs/acre)	Total salt (lbs/acre)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	0.00	0.00	0.00	0.00
Process wastewater	158.70	23.96	170.16	908.23
Fresh water	77.51	0.00	0.00	1,297.81
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	243.21	23.96	170.16	2,206.04
Anticipated crop nutrient removal	165.00	25.50	124.50	0.00
Actual crop nutrient removal	179.21	36.82	301.61	1,131.05
Nutrient balance	64.00	-12.86	-131.46	1,074.99
Applied to removed ratio	1.36	0.65	0.56	1.95

Fresh water applied	
11,880,000.00	*gallons*
437.50	*acre-inches*
7.95	*inches/acre*

Process wastewater applied	
1,584,000.00	*gallons*
58.33	*acre-inches*
1.06	*inches/acre*

Total harvests for the crop	
1	*harvests*

2 - 05/30/2023: Corn, silage

Field name: 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	367.26	71.96	592.65	3,914.29
Fresh water	0.00	0.00	0.00	555.61
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	374.26	71.96	592.65	4,469.90
Anticipated crop nutrient removal	200.00	37.50	165.00	0.00
Actual crop nutrient removal	284.55	48.78	300.81	926.82
Nutrient balance	89.71	23.18	291.84	3,543.08
Applied to removed ratio	1.32	1.48	1.97	4.82

Fresh water applied	
63,136,000.00	*gallons*
2,325.08	*acre-inches*
42.27	*inches/acre*

Process wastewater applied	
6,200,000.00	*gallons*
228.32	*acre-inches*
4.15	*inches/acre*

Total harvests for the crop	
1	*harvests*

3 - 11/08/2022: Wheat, silage, soft dough

Field name: 3 Crop: Wheat, silage, soft dough Plant date: 11/08/2022

	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	176.74	44.18	157.95	4,804.70
Process wastewater	79.35	11.98	85.08	454.11
Fresh water	74.64	0.00	0.00	1,249.75
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	337.73	56.16	243.02	6,508.56
Anticipated crop nutrient removal	165.00	25.50	124.50	0.00
Actual crop nutrient removal	245.60	48.21	337.13	1,519.72
Nutrient balance	92.13	7.95	-94.11	4,988.84
Applied to removed ratio	1.38	1.16	0.72	4.28

Fresh water applied	
9,360,000.00	*gallons*
344.70	*acre-inches*
7.66	*inches/acre*

Process wastewater applied	
648,000.00	*gallons*
23.86	*acre-inches*
0.53	*inches/acre*

Total harvests for the crop	
1	*harvests*

3 - 06/04/2023: Corn, silage

Field name: 3 Crop: Corn, silage Plant date: 06/04/2023

	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	92.26	29.13	100.82	2,243.98
Process wastewater	261.90	34.23	335.40	2,179.31
Fresh water	0.00	0.00	0.00	555.51
Atmospheric deposition	7.00	0.00	0.00	0.00
Total nutrients applied	361.16	63.36	436.22	4,978.81
Anticipated crop nutrient removal	200.00	37.50	165.00	0.00
Actual crop nutrient removal	263.90	58.11	395.05	1,378.08
Nutrient balance	97.26	5.25	41.17	3,600.73
Applied to removed ratio	1.37	1.09	1.10	3.61

Fresh water applied	
51,648,000.00	*gallons*
1,902.02	*acre-inches*
42.27	*inches/acre*

Process wastewater applied	
2,880,000.00	*gallons*
106.06	*acre-inches*
2.36	*inches/acre*

Total harvests for the crop	
1	*harvests*

BV - 01/01/2014: Almond, in shell

Field name: BV | Crop: Almond, in shell | Plant date: 01/01/2014

	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	62.29	15.57	55.67	1,693.38
Process wastewater	0.00	0.00	0.00	0.00
Fresh water	143.77	0.00	0.00	2,029.73
Atmospheric deposition	14.00	0.00	0.00	0.00
Total nutrients applied	220.06	15.57	55.67	3,723.12
Anticipated crop nutrient removal	169.00	26.00	130.00	0.00
Actual crop nutrient removal	163.57	8.81	88.08	226.48
Nutrient balance	56.50	6.76	-32.41	3,496.64
Applied to removed ratio	1.35	1.77	0.63	16.44

Fresh water applied	
154,044,000.00	*gallons*
5,672.92	*acre-inches*
37.32	*inches/acre*

Process wastewater applied	
0.00	*gallons*
0.00	*acre-inches*
0.00	*inches/acre*

Total harvests for the crop	
1	*harvests*

NUTRIENT ANALYSES

A. MANURE ANALYSES

Manure Sample

Sample and source description: Manure Sample
Sample date: 05/12/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight
Moisture: 11.7 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	21,446.00	5,361.00	19,165.00							58.30
DL	500.00	100.00	200.00							0.67

Manure 10/11/23 9AM

Sample and source description: Manure 10/11/23 9AM
Sample date: 10/11/2023 Material type: Corral solids Source of analysis: Lab analysis Method of reporting: Dry-weight
Moisture: 39.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Calcium (mg/kg)	Magnesium (mg/kg)	Sodium (mg/kg)	Sulfur (mg/kg)	Chloride (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	15,911.00	5,023.00	17,387.00							38.70
DL	500.00	100.00	200.00							0.67

B. PROCESS WASTEWATER ANALYSES

1st Qtr WW

Sample and source description: 1st Qtr WW
Sample date: 03/24/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.58

	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	660.00	249.00	4.10	0.32	99.70	708.00								5,905.00	3,779
DL	76.00	2.60	2.60	0.01	0.62	4.30								10.00	19

2nd Qtr WW

Sample and source description: 2nd Qtr WW

Sample date: 05/12/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.44

	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	390.00	331.50	4.50	0.41	76.50	630.00								6,502.00	4,161
DL	76.00	2.60	2.60	0.01	0.62	4.30								10.00	19

3rd Qtr WW

Sample and source description: 3rd Qtr WW

Sample date: 08/31/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.79

	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	590.00	217.60	6.60	0.34	51.70	626.00								6,250.00	4,000
DL	76.00	2.60	2.60	0.01	0.62	4.30								10.00	19

4th Qtr WW

Sample and source description: 4th Qtr WW

Sample date: 10/11/2023 Material type: Process wastewater Source of analysis: Lab analysis pH: 7.62

	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	630.00	285.10	5.90	0.26	62.90	610.00								6,072.00	3,886
DL	76.00	2.60	2.60	0.01	0.62	4.30								10.00	19

C. FRESH WATER ANALYSES

BV Well #1

BV Well #1

BV Well #1

Sample description: BV Well #1

Sample date: 10/16/2023 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	17.00		17.00								400.00	
DL	0.23		0.23								1.00	

BV Well #3 (Domestic Well)

BV Well #3 (Domestic Well)

Sample description: BV Well #3 (Domestic Well)

Sample date: 10/16/2023 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	7.90		7.90								250.00	
DL	0.23		0.23								1.00	

Milk Barn

Milk Barn

Sample description: Milk Barn

Sample date: 10/16/2023 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	23.00		23.00								510.00	
DL	0.23		0.23								1.00	

Reid Ditch

Reid Ditch

Reid Ditch

Sample description: Reid Ditch

Sample date: 07/07/2023 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								71.00	58
DL	1.00		0.23								1.00	5

Well 2

Well 2 / Ag Well

Sample description: Well 2 / Ag Well

Sample date: 09/13/2023 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	15.00		15.00								330.00	
DL	0.23		0.23								1.00	

Well 3

Well 3 / Ag Well

Sample description: Well 3 / Ag Well

Sample date: 09/13/2023 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								1,200.00	
DL	0.23		0.23								1.00	

Well 4

Well 4

Well 4 / Ag Well

Sample description: Well 4 / Ag Well

Sample date: 09/13/2023 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	24.00		24.00								650.00	
DL	0.23		0.23								1.00	

D. SOIL ANALYSES

No soil analyses entered.

E. PLANT TISSUE ANALYSES

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

#1A

Sample and source description: #1A

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 62.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	28,320.00	4,320.00	40,400.00		14.30
DL	500.00	100.00	200.00		0.67

#1B

Sample and source description: #1B

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 63.8 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,110.00	3,380.00	23,300.00		11.60
DL	500.00	100.00	200.00		0.67

1 - 05/30/2023: Corn, silage

Fld 1A

Sample and source description: Fld 1A

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

Moisture: 56.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	12,610.00	2,710.00	14,300.00		5.80
DL	500.00	100.00	200.00		0.67

Fld 1B

Sample and source description: Fld 1B

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

Moisture: 57.1 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	23,200.00	2,710.00	15,600.00		5.70
DL	500.00	100.00	200.00		0.67

2 - 11/17/2022: Wheat, silage, soft dough

#2

Sample and source description: #2

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 61.6 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,260.00	2,930.00	24,000.00		9.00
DL	500.00	100.00	200.00		0.67

2 - 05/30/2023: Corn, silage

2 - 05/30/2023: Corn, silage

Fld 2

Sample and source description: Fld 2

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

Moisture: 72.9 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	17,500.00	3,000.00	18,500.00		5.70
DL	500.00	100.00	200.00		0.67

3 - 11/08/2022: Wheat, silage, soft dough

#3

Sample and source description: #3

Sample date: 05/23/2023 Source of analysis: Lab analysis Method of reporting: Dry-weight

Moisture: 60.3 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	14,060.00	2,760.00	19,300.00		8.70
DL	500.00	100.00	200.00		0.67

3 - 06/04/2023: Corn, silage

Fld 3

Sample and source description: Fld 3

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

Moisture: 60.4 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	11,490.00	2,530.00	17,200.00		6.00
DL	500.00	100.00	200.00		0.67

BV - 01/01/2014: Almond, in shell

Almond

Sample and source description: Almond

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

Moisture: 15.0 %

	Total N (mg/kg)	Total P (mg/kg)	Total K (mg/kg)	Total salt (mg/kg)	TFS (%)
Value	65,000.00	3,500.00	35,000.00		9.00
DL	10.00	100.00	200.00		0.67

F. SUBSURFACE (TILE) DRAINAGE ANALYSES

No subsurface (tile) drainage analyses entered.

NUTRIENT APPLICATIONS, POTENTIAL REMOVAL, AND BALANCE

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

	Total N (lbs)	Total P (lbs)	Total K (lbs)	Total salt (lbs)
Existing soil nutrient content	0.00	0.00	0.00	0.00
Plowdown credit	0.00	0.00	0.00	0.00
Commercial fertilizer / Other	0.00	0.00	0.00	0.00
Dry manure	54,296.32	13,845.65	49,348.05	1,464,140.41
Process wastewater	80,837.00	14,161.32	115,564.36	734,166.00
Fresh water	34,053.84	0.00	0.00	608,693.11
Atmospheric deposition	4,536.00	0.00	0.00	0.00
Total nutrients applied	173,723.16	28,006.96	164,912.42	2,806,999.52
Anticipated crop nutrient removal	88,468.00	14,788.00	69,554.00	0.00
Actual crop nutrient removal	137,872.66	19,294.87	142,317.24	503,448.42
Nutrient balance	35,850.50	8,712.09	22,595.18	2,303,551.10
Applied to removed ratio	1.26	1.45	1.16	5.58

B. POUNDS OF NUTRIENT APPLIED VS. CROP REMOVAL

C. POUNDS OF NUTRIENT APPLIED BY MATERIAL TYPE

EXCEPTION REPORTING

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

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

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

B. STORM WATER DISCHARGES

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

No stormwater discharges occurred during the reporting period.

C. LAND APPLICATION AREA TO SURFACE WATER DISCHARGES

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

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

NUTRIENT MANAGEMENT PLAN AND EXPORT AGREEMENT STATEMENTS

A. NUTRIENT MANAGEMENT PLAN STATEMENTS

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

ADDITIONAL NOTES

A. NOTES

Almonds received dry manure, prior to bloom
Due to extremely wet year, was able to receive ditch water.
Corn tissue sample for field 2 was artificially low, suspect sampling error, the yield was good and the stand of corn looked good. Sample was estimated to approximately what field 1 values.

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
Joaquim Mattos	Mark Mattos
PRINT OR TYPE NAME	PRINT OR TYPE NAME
6/26/2024	6/26/2024
DATE	DATE

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.

JMLORD, INC.

4184 N. KNOLL DRIVE, FRESNO, CA 93722
PHONE: (559) 268-9755 FAX: (559) 486-6504
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2023 Groundwater Well Report

Dairy: Joaquim Mattos & Family Dairy **Address:** 4790 Kansas Ave.
Contact: Mark Mattos Hanford, CA 93230

Summary

Six wells were sampled at the Joaquim Mattos & Family Dairy by JMLord, Inc. personnel. Samples were collected on September 13th and October 16th of 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 2013. The five year analysis was performed on approximately 20% of the wells sampled.

Wells Sampled	Date
Well 2	9/13/2023
Well 3	9/13/2023
Well 4	9/13/2023
B. V. Well 1	10/16/2023
B.V. Well 3 (domestic)	10/16/2023
Milk Barn	10/16/2023
Lucio Ditch	7/17/2023

Well 5 was not sampled, due to being inopperable during part of the season when samples were collected. 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.

JMLORD, INC.

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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: Joaquin Mattos + Family Dairy **Date:** 7/7/23

Source ID: Lucio Ditch **Time:** 9:30

Source Location: South East of BV almonds

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 sample from canal. sample clear + 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: MB/[illegible]

JMLORD, INC.

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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: Joaquim Mattos & Family Dairy **Date:** 9/13/23

Source ID: Well 2 **Time:** 10:36

Source Location: West of Milk Barn & Shop

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 spigot on standpipe
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: [signature]

JMLORD, INC.

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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: Joaquim Mattos & Family Dairy **Date:** 9/13/23

Source ID: Well 3 **Time:** 10:34

Source Location: East of field 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: Peter Clt

JMLORD, INC.

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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: Joaquim Mattos & Family Dairy **Date:** 9/13/23

Source ID: Well 4 **Time:** 10:40

Source Location: NE corner of field 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 sample port on 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: Ruth Clift

JMLORD, INC.

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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: Joaquim Mattos & Family **Date:** 10/16/23

Source ID: Milk Barn **Time:** 12:30

Source Location: South end of Dairy. East of the Shop.

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 spigot on the west side of Milk Barn. 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: [signature]

JMLORD, INC.

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WWW.JMLORDINC.COM

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: Joaquim Mattos & Family Dairy **Date:** 10/16/23

Source ID: ~~Bo~~ well #1 **Time:** 12:45

Source Location: North of Ave 21½.

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 & 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: [signature]

JMLORD, INC.

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WWW.JMLORDINC.COM

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: Joaquim Mattos & Family Dairy **Date:** 10/16/23

Source ID: BV well #3 (Domestic well) **Time:** 12:55

Source Location: Behind house, west of Road 60.

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 spigot off tank. Sample clear & 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: [signature]

BSK Associates Laboratory Fresno
687 N. Laverne Avenue
Fresno, CA 93727
559-497-2888 (Main)

AGG2089
7/31/2023
Invoice: AG17520

Mark Mattos
Joaquim Mattos Family Dairy
4790 Kansas Avenue
Hanford, CA 93230

RE: Report for AGG2089 RB5 Surface

Dear Mark Mattos,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 7/17/2023. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2016 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

This certificate of analysis shall not be reproduced except in full, without written approval of the laboratory.

If additional clarification of any information is required, please contact your Project Manager, Michelle Croft , at 559-497-2888.

Thank you again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michelle Croft

Michelle Croft, Project Manager

Accredited in Accordance with NELAP
ORELAP #4021

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK ASSOCIATES

Case Narrative

Project and Report Details

Client: Joaquim Mattos Family Dairy
Report To: Mark Mattos
Project #: -
Received: 7/17/2023 - 16:00
Report Due: 7/31/2023

Invoice Details

Invoice To: Joaquim Mattos Family Dairy
Invoice Attn: Mark Mattos
Project PO#: -

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt °C: 27.8

Custody Seals
Containers Intact
COC/Labels Agree
Preservation Confirmed
Received On Blue Ice
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MS1.0 Matrix spike recoveries exceed control limits.

Report Distribution

Recipient(s)	Report Format	CC:
Mark Mattos	FINAL.RPT	
Madison Looper	FINAL.RPT	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Certificate of Analysis

Sample ID: AGG2089-01
Sampled By: Madison Looper
Sample Description: Reid Ditch

Sample Date - Time: 07/17/2023 - 09:30
Matrix: Surface Water
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**71**	1.0	umhos/cm	1	AGG1088	07/18/23	07/18/23	
Nitrate as N	EPA 300.0	ND	0.23	mg/L	1	AGG1038	07/18/23 04:55	07/18/23	
Nitrite as N	EPA 300.0	ND	0.050	mg/L	1	AGG1038	07/18/23 04:55	07/18/23	
Total Dissolved Solids	SM 2540C	**58**	5.0	mg/L	1	AGG1131	07/18/23	07/18/23	
Total Kjeldahl Nitrogen	EPA 351.2	ND	1.0	mg/L	1	AGG1253	07/20/23	07/21/23	
Total Nitrogen, IC	CALC	ND	1.0	mg/L					

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BSK Associates Laboratory Fresno

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control											
Batch: AGG1038										Prepared: 7/17/2023	
Prep Method: Method Specific Preparation										Analyst: DXR	
Blank (AGG1038-BLK1)											
Nitrate as N	ND	0.23	mg/L							07/17/23	
Nitrite as N	ND	0.050	mg/L							07/17/23	
Blank Spike (AGG1038-BS1)											
Nitrate as N	22	0.23	mg/L	23	ND	97	90-110			07/17/23	
Nitrite as N	1.0	0.050	mg/L	1.0	ND	101	90-110			07/17/23	
Matrix Spike (AGG1038-MS1), Source: AGG1995-02											
Nitrate as N	10	0.23	mg/L	11	ND	91	80-120			07/17/23	
Nitrite as N	0.49	0.050	mg/L	0.50	ND	98	80-120			07/17/23	
Matrix Spike (AGG1038-MS2), Source: AGG2016-02											
Nitrate as N	12	0.23	mg/L	11	1.2	94	80-120			07/18/23	
Nitrite as N	0.49	0.050	mg/L	0.50	ND	97	80-120			07/18/23	
Matrix Spike Dup (AGG1038-MSD1), Source: AGG1995-02											
Nitrate as N	10	0.23	mg/L	11	ND	92	80-120	2	20	07/17/23	
Nitrite as N	0.50	0.050	mg/L	0.50	ND	100	80-120	2	20	07/17/23	
Matrix Spike Dup (AGG1038-MSD2), Source: AGG2016-02											
Nitrate as N	12	0.23	mg/L	11	1.2	97	80-120	2	20	07/18/23	
Nitrite as N	0.50	0.050	mg/L	0.50	ND	100	80-120	3	20	07/18/23	
EPA 351.2 - Quality Control											
Batch: AGG1253										Prepared: 7/20/2023	
Prep Method: Method Specific Preparation										Analyst: ERA	
Blank (AGG1253-BLK1)											
Total Kjeldahl Nitrogen	ND	1.0	mg/L							07/21/23	
Blank Spike (AGG1253-BS1)											
Total Kjeldahl Nitrogen	9.4	1.0	mg/L	10	ND	94	90-110			07/21/23	
Blank Spike Dup (AGG1253-BSD1)											
Total Kjeldahl Nitrogen	9.4	1.0	mg/L	10	ND	94	90-110	1	10	07/21/23	
Matrix Spike (AGG1253-MS1), Source: AGG1691-02											
Total Kjeldahl Nitrogen	8.0	1.0	mg/L	10	ND	80	90-110			07/21/23	MS1.0 ***Low***
Matrix Spike (AGG1253-MS2), Source: AGG2148-04											
Total Kjeldahl Nitrogen	67	5.0	mg/L	10	62	44	90-110			07/21/23	MS1.0 ***Low***
Matrix Spike Dup (AGG1253-MSD1), Source: AGG1691-02											
Total Kjeldahl Nitrogen	7.9	1.0	mg/L	10	ND	79	90-110	1	10	07/21/23	MS1.0 ***Low***

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK Associates Laboratory Fresno

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 351.2 - Quality Control											
Batch: AGG1253										Prepared: 7/20/2023	
Prep Method: Method Specific Preparation										Analyst: ERA	
Matrix Spike Dup (AGG1253-MSD2), Source: AGG2148-04											
Total Kjeldahl Nitrogen	70	5.0	mg/L	10	62	76	90-110	5	10	07/21/23	MS1.0 ***Low***
SM 2510B - Quality Control											
Batch: AGG1088										Prepared: 7/18/2023	
Prep Method: Method Specific Preparation										Analyst: EFG	
Blank Spike (AGG1088-BS1)											
Conductivity @ 25C	1400	1.0	umhos/cm	1400	ND	99	90-110			07/18/23	
Blank Spike Dup (AGG1088-BSD1)											
Conductivity @ 25C	1400	1.0	umhos/cm	1400	ND	99	90-110	1	5	07/18/23	
Duplicate (AGG1088-DUP1), Source: AGG1977-01											
Conductivity @ 25C	210	1.0	umhos/cm		210			1	5	07/18/23	
SM 2540C - Quality Control											
Batch: AGG1131										Prepared: 7/18/2023	
Prep Method: Method Specific Preparation										Analyst: SYY	
Blank (AGG1131-BLK1)											
Total Dissolved Solids	ND	5.0	mg/L							07/18/23	
Blank Spike (AGG1131-BS1)											
Total Dissolved Solids	1000		mg/L	1000		103	70-130			07/18/23	
Duplicate (AGG1131-DUP1), Source: AGG2116-01											
Total Dissolved Solids	350	5.0	mg/L		340			1	10	07/18/23	
Duplicate (AGG1131-DUP2), Source: AGG2116-02											
Total Dissolved Solids	330	5.0	mg/L		330			2	10	07/18/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Field tests are outside the scope of laboratory accreditation and there is no certification available for field testing.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.
- (2) - Formerly known as Bis(2-Chloroisopropyl) ether.

  Unless otherwise noted, TOC results by SM 5310C method do not include purgeable organic carbon, which is removed along with the inorganic carbon interference. The POC contribution to TOC is considered to be negligible.

Certificate of Analysis

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected below MRL/MDL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	PicoCuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit	U:	The analyte was not detected at or above the reported sample quantitation limit.

Please see the individual Subcontract Lab's report for applicable certifications.

The following parameters are not available for certification through CA ELAP:

Odor Diisopropyl ether (DIPE) by EPA 524.2

The following parameters are calculated values and are outside the scope of our NELAP accreditation:

Total Nitrogen Aggressive Index Trivalent Chromium

BSK is not accredited under the NELAP program for the following additional parameters: **NA**

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certification.**

Fresno

State of California - ELAP	1180	State of Hawaii	4021
Los Angeles CSD	9254479	NELAP certified	4021-021
State of Nevada	CA000792022-1	State of Oregon - NELAP	4021-021
EPA UCMR5	CA00079	State of Washington	C997-23

Sacramento

State of California - ELAP	1180-S1

San Bernardino

State of California - ELAP	1180-S2	Los Angeles CSD	9254478
NELAP certified	4119-007	State of Oregon - NELAP	4119-007

Vancouver

NELAP certified	WA100008-016	State of Oregon - NELAP	WA100008-016
State of Washington	C824-22		

Sample Integrity

BSK Bottles: Yes No Page 1 of 1

10

COC Info

Was temperature within range? Chemistry ≤ 6°C Micro < 8°C	Yes No NA	Were correct containers and preservatives received for the tests requested?	Yes No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No NA	Bubbles Present VOAs (524.2/TTHM/TCP)? TB Received? (Check Method Below)	Yes No NA Yes No NA
Did all bottles arrive unbroken and intact?	Yes No	Was a sufficient amount of sample received?	Yes No
Did all bottle labels agree with COC?	Yes No	Do samples have a hold time <72 hours?	Yes No
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes NA	Was PM notified of discrepancies? PM: By/Time:	Yes No NA

Bottles Received

"—" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40mlVOA(V) 125ml(D)	Checks*	Passed?	1				
Bacti $Na_2S_2O_3$	—	—					
None (P) White Cap	—	—	1C				
Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 DW	Cl, pH > 8	P F					
Cr6 (P) Pink Label/Blue Cap NH4OH(NH4)2SO4 WW	pH 9.3-9.7	P F					
Cr6 (P) Black Label/Blue Cap NH4OH(NH4)2SO4 7199 ***24 HOUR HOLD TIME***	pH 9.0-9.5	P F					
HNO_3 (P) Red Cap or HCl (P) Purple Cap/Lt. Blue Label	—	—					
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	P F	1A				
NaOH (P) Green Cap	Cl, pH >10	P F					
NaOH + ZnAc (P)	pH > 9	P F					
Dissolved Oxygen 300ml (g)	—	—					
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—					
HCl (AG) Lt. Blue Label O&G, Diesel, TCP	—	—					
Ascorbic, EDTA, KH_2Cr (AG) Pink Label 525	—	—					
Na_2SO_3 250mL (AG) Neon Green Label 515	—	—					
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—					
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—	—					
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—	—					
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	P F					
NH_4Cl (AG) Purple Label 552	—	—					
EDA (P) or (AG) Brown Label DBPs	—	—					
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—					
Buffer pH 4 (CG)	—	—					
H_3PO_4 (CG) Salmon Label	—	—					
Trizma – EPA 537.1 Light Blue Label FB	---	---					
Ammonia Acetate - EPA 533 Purple Label FB	---	---					
Bottled Water	—	—					
Asbestos 1L (P) w/ Foil / LL Metals Bottle	—	—					
Clear Glass	—	—					
OTHER:	—	—					

NH 7-17-23

Split

	Container	Preservative	Lot #	Initials	Date/Time
S P					
S P					

Preservation Check
pH Lot # AG04945
Cl Lot #

Comments

*Preservation check completed by lab performing analysis.

✓ Indicates Blanks Received

504 ___ 524.2 ___ TTHM ___ 537/533 ___ TCP___

✓ MS/MSD Received Method: _____

Labeled by: Labels Checked by:

Scanned: ___ Rush/Short HT Page: _____ Time: _____

BSK ASSOCIATES
1414 Stanislaus St., Fresno, CA 93706
(559) 497-2888 · Fax (559) 497-2893
www.bskassociates.com

Turnaround Time Request
- [ ] Standard - 10 business days
- [ ] Rush (Surcharge may apply)
- Date needed:

AGG2089 Joaqu0193 07/17/2023 10 Y

*Required fields

Temp 21.8° #77

Company/Client Name*: Joaquim Mattos & Family Dairy
Report Attention*: Mark Mattos
Additional cc's: madison@jmlordinc.com
Invoice To*:
PO#:
Phone*:
Fax:
E-mail*:
Address*: 4790 Kansas Ave
City*: Hanford
State*: Ca
Zip*: 93230
Project:
Project #:
How would you like to receive your completed results?* [ ] E-Mail [ ] Fax [ ] Mail
Reporting Options: [ ] Trace (J-Flag) [ ] Swamp [ ] EDD Type _____
Sampler Name (Printed/Signature)*:
Regulatory Carbon Copies: [ ] SWRCB (Drinking Water) [ ] Merced Co [ ] Fresno Co [ ] Madera Co [ ] Tulare Co [ ] Other: _____
Regulatory Compliance: [ ] EDT to California SWRCB (Drinking Water) System Number*: _____ [ ] Geotracker #: _____

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled* Date	Sampled* Time	Matrix*	Comments / Station Code / WTRAX	RB5-Well	RB5 Well-5 Year Well test	RB5-Surface						
1	Reid Ditch	7/17	9:30	SW				X						

NH 7-17-23

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Madison Lopez	JM Lord Inc	7/17	1600		
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Received for Lab by: (Signature and Printed Name)		Date	Time	Payment Received at Delivery. Date: Amount: PIA#:	Check / Cash Init.
N Hammond		7-17-23	1600		

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier _____
Cooling Method: Wet Blue None
Custody Seal: Y / N
Chilling Process Begun: Y / N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

BSK Associates Laboratory Fresno
687 N. Laverne Avenue
Fresno, CA 93727
559-497-2888 (Main)

AGI1670
9/27/2023
Invoice: AG22720

Mark Mattos
Joaquim Mattos Family Dairy
4790 Kansas Avenue
Hanford, CA 93230

RE: Report for AGI1670 RB5 Well

Dear Mark Mattos,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 9/13/2023. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2016 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

This certificate of analysis shall not be reproduced except in full, without written approval of the laboratory.

If additional clarification of any information is required, please contact your Project Manager, Michelle Croft , at 559-497-2888.

Thank you again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Stephane Maupas, Project Manager

Accredited in Accordance with NELAP
ORELAP #4021

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK ASSOCIATES

Case Narrative

Project and Report Details		Invoice Details	
Client:	Joaquim Mattos Family Dairy	**Invoice To:**	Joaquim Mattos Family Dairy
Report To:	Mark Mattos	**Invoice Attn:**	Mark Mattos
Project #:	RB5 Well	**Project PO#:**	-
Received:	9/13/2023 - 14:05		
Report Due:	9/27/2023		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt °C: 27.4

Containers Intact
COC/Labels Agree
Received On Blue Ice
Sample(s) arrived at lab on same day sampled.
Packing Material - Other
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

None applied

Report Distribution

Recipient(s)	Report Format	CC:
Mark Mattos	FINAL.RPT	
Madison Looper	FINAL.RPT	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Certificate of Analysis

Sample ID: AGI1670-01
Sampled By: Madison Hall
Sample Description: Well 3 // Ag Well

Sample Date - Time: 09/13/2023 - 10:34
Matrix: Ground Water
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**1200**	1.0	umhos/cm	1	AGI0823	09/14/23	09/14/23	
Nitrate as N	EPA 300.0	**43**	0.23	mg/L	1	AGI0786	09/14/23 00:45	09/14/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK ASSOCIATES

AGI1670

RB5 Well

RB5 Well

Certificate of Analysis

Sample ID: AGI1670-02
Sampled By: Madison Hall
Sample Description: Well 2 // Ag Well

Sample Date - Time: 09/13/2023 - 10:36
Matrix: Ground Water
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**330**	1.0	umhos/cm	1	AGI0823	09/14/23	09/14/23	
Nitrate as N	EPA 300.0	**15**	0.23	mg/L	1	AGI0786	09/14/23 01:30	09/14/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

AGI1670 FINAL 09272023 1230

Certificate of Analysis

Sample ID: AGI1670-03
Sampled By: Madison Hall
Sample Description: Well 4 // Ag Well

Sample Date - Time: 09/13/2023 - 10:40
Matrix: Ground Water
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**650**	1.0	umhos/cm	1	AGI0823	09/14/23	09/14/23	
Nitrate as N	EPA 300.0	**24**	0.23	mg/L	1	AGI0785	09/14/23 01:55	09/14/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK Associates Laboratory Fresno

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control											
Batch: AGI0785										Prepared: 9/13/2023	
Prep Method: Method Specific Preparation										Analyst: AAS	
Blank (AGI0785-BLK1)											
Nitrate as N	ND	0.23	mg/L							09/13/23	
Blank Spike (AGI0785-BS1)											
Nitrate as N	22	0.23	mg/L	23	ND	99	90-110			09/13/23	
Matrix Spike (AGI0785-MS1), Source: AGI1523-01											
Nitrate as N	13	0.23	mg/L	11	1.7	97	80-120			09/13/23	
Matrix Spike Dup (AGI0785-MSD1), Source: AGI1523-01											
Nitrate as N	13	0.23	mg/L	11	1.7	100	80-120	3	20	09/14/23	
EPA 300.0 - Quality Control											
Batch: AGI0786										Prepared: 9/13/2023	
Prep Method: Method Specific Preparation										Analyst: AAS	
Blank (AGI0786-BLK1)											
Nitrate as N	ND	0.23	mg/L							09/13/23	
Blank Spike (AGI0786-BS1)											
Nitrate as N	23	0.23	mg/L	23	ND	102	90-110			09/13/23	
Matrix Spike (AGI0786-MS1), Source: AGI1662-01											
Nitrate as N	19	0.23	mg/L	11	6.8	106	80-120			09/13/23	
Matrix Spike Dup (AGI0786-MSD1), Source: AGI1662-01											
Nitrate as N	19	0.23	mg/L	11	6.8	107	80-120	1	20	09/13/23	
SM 2510B - Quality Control											
Batch: AGI0823										Prepared: 9/14/2023	
Prep Method: Method Specific Preparation										Analyst: BAG	
Blank Spike (AGI0823-BS1)											
Conductivity @ 25C	1400	1.0	umhos/cm	1400	ND	101	90-110			09/14/23	
Blank Spike Dup (AGI0823-BSD1)											
Conductivity @ 25C	1400	1.0	umhos/cm	1400	ND	101	90-110	0	5	09/14/23	
Duplicate (AGI0823-DUP1), Source: SGI0011-01RE1											
Conductivity @ 25C	420	1.0	umhos/cm		420			0	5	09/14/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Field tests are outside the scope of laboratory accreditation and there is no certification available for field testing.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.
- (2) - Formerly known as Bis(2-Chloroisopropyl) ether.

  Unless otherwise noted, TOC results by SM 5310C method do not include purgeable organic carbon, which is removed along with the inorganic carbon interference. The POC contribution to TOC is considered to be negligible.

Certificate of Analysis

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected below MRL/MDL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	PicoCuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit	U:	The analyte was not detected at or above the reported sample quantitation limit.

Please see the individual Subcontract Lab's report for applicable certifications.

The following parameters are not available for certification through CA ELAP:

Odor Diisopropyl ether (DIPE) by EPA 524.2

The following parameters are calculated values and are outside the scope of our NELAP accreditation:

Total Nitrogen Aggressive Index Trivalent Chromium

BSK is not accredited under the NELAP program for the following additional parameters: **NA**

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certification.**

Fresno

State of California - ELAP	1180	State of Hawaii	4021
Los Angeles CSD	9254479	NELAP certified	4021-022
State of Nevada	CA000792022-1	State of Oregon - NELAP	4021-022
EPA UCMR5	CA00079	State of Washington	C997-23

Sacramento

State of California - ELAP	1180-S1

San Bernardino

State of California - ELAP	1180-S2	Los Angeles CSD	9254478
NELAP certified	4119-008	State of Oregon - NELAP	4119-008

Vancouver

NELAP certified	WA100008-016	State of Oregon - NELAP	WA100008-016
State of Washington	C824-23		

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10

Sample Integrity

BSK Bottles Yes No Page 1 of 1

COC Info				
Was temperature within range? Chemistry ≤ 6°C Micro < 8°C	Yes No NA	Were correct containers and preservatives received for the tests requested?	Yes No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No NA	Bubbles Present VOAs (524.2/TTHM/TCP)? TB Received? (Check Method Below)	Yes No NA Yes No NA
Did all bottles arrive unbroken and intact?	Yes No	Was a sufficient amount of sample received?	Yes No
Did all bottle labels agree with COC?	Yes No	Do samples have a hold time <72 hours?	Yes No
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes NA	Was PM notified of discrepancies? PM: By/Time:	Yes No NA

Bottles Received — "—" means preservation/chlorine checks are either N/A or are performed in the lab

250ml(A) 500ml(B) 1Liter(C) 40mlVOA(V) 125ml(D)	Checks*	Passed?	1-3				
Bacti $Na_2S_2O_3$	—	—					
None (P) White Cap	—	—	1G				
Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 DW	Cl, pH > 8	P F					
Cr6 (P) Pink Label/Blue Cap NH4OH(NH4)2SO4 WW	pH 9.3-9.7	P F					
Cr6 (P) Black Label/Blue Cap NH4OH(NH4)2SO4 7199 ***24 HOUR HOLD TIME***	pH 9.0-9.5	P F					
HNO_3 (P) Red Cap or HCl (P) Purple Cap/Lt. Blue Label	—	—					
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	P F					
NaOH (P) Green Cap	Cl, pH >10	P F					
NaOH + ZnAc (P)	pH > 9	P F					
Dissolved Oxygen 300ml (g)	—	—					
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—					
HCl (AG) Lt. Blue Label O&G, Diesel, TCP	—	—					
Ascorbic, EDTA, KH_2Ct (AG) Pink Label 525	—	—					
Na_2SO_3 250mL (AG) Neon Green Label 515	—	—					
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—					
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—	—					
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—	—					
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	P F					
NH_4Cl (AG) Purple Label 552	—	—					
EDA (P) or (AG) Brown Label DBPs	—	—					
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—					
Buffer pH 4 (CG)	—	—					
H_3PO_4 (CG) Salmon Label	—	—					
Trizma – EPA 537.1 Light Blue Label FB	---	---					
Ammonia Acetate - EPA 533 Purple Label FB	---	---					
Bottled Water	—	—					
Asbestos 1L (P) w/ Foil / LL Metals Bottle	—	—					
Clear Glass	—	—					
OTHER:	—	—					

GJ 9/13/23

Split

	Container	Preservative	Lot #	Initials	Date/Time
S P					
S P					

Preservation Check
pH Lot #
Cl Lot #

Comments

*Preservation check completed by lab performing analysis.

✓ Indicates Blanks Received

504 ___ 524.2 ___ TTHM ___ 537/533 ___ TCP___

✓ MS/MSD Received Method: _____

Labeled by: Labels Checked by:

Scanned: _____ Rush/Short HT Page: _____ Time: _____

BSK ASSOCIATES
687 N. Laverne Ave., Fresno, CA 93727
(559) 497-2888 CA ELAP No. 1180
www.bskassociates.com

T-1

Turnaround Time Request
- [ ] Standard - 10 business days
- [ ] Rush (Surcharge may apply)
- Date needed:

AGI1670 Joaqu0193 09/13/2023 10

Temp: 27.4 °C Thermometer ID: 77

*Required Fields

Company/Client Name*:	Report Attention*:	Invoice To*:	Phone*:	Fax:
Joaquim Mattos + Family Dairy	Mark Mattos Additional cc's: madison@jmlard inc.com	PO#:	E-mail*:	

Address*:	City*:	State*:	Zip*:
4790 Kansas Ave	Hanford	Ca	

Project:	Project #:	Phase #	Task #:

Reporting Options: [ ] Trace (J-Flag) [ ] Swamp [ ] EDD Type: _____

Sampler Name (Printed/Signature)*: Madison Looper MBLooper

Regulatory Carbon Copies: [ ] SWRCB (Drinking Water) [ ] Merced Co [ ] Fresno Co [ ] Madera Co [ ] Tulare Co [ ] Other: _____

Regulatory Compliance: [ ] EDT to California SWRCB (Drinking Water) System Number*: _____ [ ] Geotracker #: _____

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled* Date	Sampled* Time	Matrix*	Comments / Station Code / WTRAX	RB5-Well
1	well 5	9/13	10:34	GW	Ag well	X
2	⊥ 2	⊥	10:36	⊥	⊥	⊥
3	⊥ 4	⊥	10:40	⊥	⊥	⊥

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
MBLooper Madison Looper	JMLard INC.	9/13	2:05		
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Received for Lab by: (Signature and Printed Name)		Date	Time	Payment Received at Delivery: Date: Amount: PIA#:	Check / Cash Init.
[illegible] BSCC		9/13/23	1:40		

Shipping Method: GLS UPS WALK-IN FED EX PMS Courier: _____ Custody Seal: Y / N

Cooling Method: Wet Blue None Chilling Process Begun: Y / N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

BSK Associates Laboratory Fresno
687 N. Laverne Avenue
Fresno, CA 93727
559-497-2888 (Main)

AGJ2289
10/31/2023
Invoice: AG25803

Mark Mattos
Joaquim Mattos Family Dairy
4790 Kansas Avenue
Hanford, CA 93230

RE: Report for AGJ2289 RB5 Well

Dear Mark Mattos,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 10/16/2023. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2016 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

This certificate of analysis shall not be reproduced except in full, without written approval of the laboratory.

If additional clarification of any information is required, please contact your Project Manager, Michelle Croft , at 559-497-2888.

Thank you again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Michelle Croft

Michelle Croft, Project Manager

Accredited in Accordance with NELAP
ORELAP #4021

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK ASSOCIATES

Case Narrative

Project and Report Details		Invoice Details	
Client:	Joaquim Mattos Family Dairy	**Invoice To:**	Joaquim Mattos Family Dairy
Report To:	Mark Mattos	**Invoice Attn:**	Mark Mattos
Project #:	RB5 Well	**Project PO#:**	-
Received:	10/16/2023 - 14:37		
Report Due:	10/30/2023		

Sample Receipt Conditions

Cooler: Default Cooler
Temperature on Receipt °C: 20.5

Containers Intact
COC/Labels Agree
Received On Blue Ice
Sample(s) arrived at lab on same day sampled.
Sample(s) were received in temperature range.
Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

None applied

Report Distribution

Recipient(s)	Report Format	CC:
Mark Mattos	FINAL.RPT	
Dustie Christensen	FINAL.RPT	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Certificate of Analysis

Sample ID: AGJ2289-01
Sampled By: Dustie Christensen
Sample Description: Milk Barn

Sample Date - Time: 10/16/2023 - 12:30
Matrix: Ground Water
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**510**	1.0	umhos/cm	1	AGJ1098	10/17/23	10/17/23	
Nitrate as N	EPA 300.0	**23**	0.23	mg/L	1	AGJ1069	10/17/23 02:59	10/17/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Certificate of Analysis

Sample ID: AGJ2289-02
Sampled By: Dustie Christensen
Sample Description: BV Well #1

Sample Date - Time: 10/16/2023 - 12:45
Matrix: Ground Water
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**400**	1.0	umhos/cm	1	AGJ1098	10/17/23	10/17/23	
Nitrate as N	EPA 300.0	**17**	0.23	mg/L	1	AGJ1069	10/17/23 03:14	10/17/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK ASSOCIATES

AGJ2289

RB5 Well

RB5 Well

Certificate of Analysis

Sample ID: AGJ2289-03
Sampled By: Dustie Christensen
Sample Description: BV Well #3 (Domestic Well)

Sample Date - Time: 10/16/2023 - 12:55
Matrix: Ground Water
Sample Type: Grab

BSK Associates Laboratory Fresno

General Chemistry

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Conductivity @ 25C	SM 2510B	**250**	1.0	umhos/cm	1	AGJ1098	10/17/23	10/17/23	
Nitrate as N	EPA 300.0	**7.9**	0.23	mg/L	1	AGJ1070	10/17/23 07:06	10/17/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK Associates Laboratory Fresno

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
EPA 300.0 - Quality Control											
Batch: AGJ1069										Prepared: 10/16/2023	
Prep Method: Method Specific Preparation										Analyst: AAS	
Blank (AGJ1069-BLK1)											
Nitrate as N	ND	0.23	mg/L							10/16/23	
Blank Spike (AGJ1069-BS1)											
Nitrate as N	23	0.23	mg/L	23	ND	101	90-110			10/16/23	
Matrix Spike (AGJ1069-MS1), Source: AGJ2251-01											
Nitrate as N	16	0.23	mg/L	11	4.1	105	80-120			10/16/23	
Matrix Spike (AGJ1069-MS2), Source: AGJ2260-02											
Nitrate as N	14	0.23	mg/L	11	1.8	105	80-120			10/17/23	
Matrix Spike Dup (AGJ1069-MSD1), Source: AGJ2251-01											
Nitrate as N	16	0.23	mg/L	11	4.1	107	80-120	1	20	10/16/23	
Matrix Spike Dup (AGJ1069-MSD2), Source: AGJ2260-02											
Nitrate as N	14	0.23	mg/L	11	1.8	104	80-120	1	20	10/17/23	
EPA 300.0 - Quality Control											
Batch: AGJ1070										Prepared: 10/17/2023	
Prep Method: Method Specific Preparation										Analyst: AAS	
Blank (AGJ1070-BLK1)											
Nitrate as N	ND	0.23	mg/L							10/17/23	
Blank Spike (AGJ1070-BS1)											
Nitrate as N	23	0.23	mg/L	23	ND	103	90-110			10/17/23	
Matrix Spike (AGJ1070-MS1), Source: AGJ2276-02											
Nitrate as N	21	0.23	mg/L	11	9.2	101	80-120			10/17/23	
Matrix Spike Dup (AGJ1070-MSD1), Source: AGJ2276-02											
Nitrate as N	21	0.23	mg/L	11	9.2	101	80-120	0	20	10/17/23	
SM 2510B - Quality Control											
Batch: AGJ1098										Prepared: 10/17/2023	
Prep Method: Method Specific Preparation										Analyst: BAG	
Blank Spike (AGJ1098-BS1)											
Conductivity @ 25C	1400	1.0	umhos/cm	1400	ND	100	90-110			10/17/23	
Blank Spike Dup (AGJ1098-BSD1)											
Conductivity @ 25C	1400	1.0	umhos/cm	1400	ND	100	90-110	0	5	10/17/23	
Duplicate (AGJ1098-DUP1), Source: AGJ2290-03											

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BSK Associates Laboratory Fresno

General Chemistry Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
SM 2510B - Quality Control											
Batch: AGJ1098										Prepared: 10/17/2023	
Prep Method: Method Specific Preparation										Analyst: BAG	
Duplicate (AGJ1098-DUP1), Source: AGJ2290-03											
Conductivity @ 25C	1700	1.0	umhos/cm		1700			0	5	10/17/23	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) - Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- Field tests are outside the scope of laboratory accreditation and there is no certification available for field testing.
- Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.
- (2) - Formerly known as Bis(2-Chloroisopropyl) ether.

  Unless otherwise noted, TOC results by SM 5310C method do not include purgeable organic carbon, which is removed along with the inorganic carbon interference. The POC contribution to TOC is considered to be negligible.

Certificate of Analysis

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
µg/L:	Micrograms/Liter (ppb)	ND:	None Detected below MRL/MDL	CFU:	Colony Forming Unit
µg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	PicoCuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit	U:	The analyte was not detected at or above the reported sample quantitation limit.

Please see the individual Subcontract Lab's report for applicable certifications.

The following parameters are not available for certification through CA ELAP:

Odor Diisopropyl ether (DIPE) by EPA 524.2

The following parameters are calculated values and are outside the scope of our NELAP accreditation:

Total Nitrogen Aggressive Index Trivalent Chromium

BSK is not accredited under the NELAP program for the following additional parameters: **NA**

Certifications: **Please refer to our website for a copy of our Accredited Fields of Testing under each certification.**

Fresno

State of California - ELAP	1180	State of Hawaii	4021
Los Angeles CSD	9254479	NELAP certified	4021-022
State of Nevada	CA000792024-03	State of Oregon - NELAP	4021-022
EPA UCMR5	CA00079	State of Washington	C997-23

Sacramento

State of California - ELAP	1180-S1

San Bernardino

State of California - ELAP	1180-S2	Los Angeles CSD	9254478
NELAP certified	4119-008	State of Oregon - NELAP	4119-008

Vancouver

NELAP certified	WA100008-016	State of Oregon - NELAP	WA100008-016
State of Washington	C824-23		

AGJ2289 Joaqu0193 10/16/2023

BSK Associates SR-FL-0002-24

Sample Integrity

BSK Bottles: Yes No Page 1 of 1

COC Info				
Was temperature within range? Chemistry ≤ 6°C Micro < 8°C	Yes No NA	Were correct containers and preservatives received for the tests requested?	Yes No NA
If samples were taken today, is there evidence that chilling has begun?	Yes No NA	Bubbles Present VOAs (524.2/TTHM/TCP)? TB Received? (Check Method Below)	Yes No NA Yes No NA
Did all bottles arrive unbroken and intact?	Yes No	Was a sufficient amount of sample received?	Yes No
Did all bottle labels agree with COC?	Yes No	Do samples have a hold time <72 hours?	Yes No
Was sodium thiosulfate added to CN sample(s) until chlorine was no longer present?	Yes NA	Was PM notified of discrepancies? PM: By/Time:	Yes No NA

Bottles Received (_ means preservation/chlorine checks are either N/A or are performed in the lab)								
250ml(A) 500ml(B) 1Liter(C) 40mlVOA(V) 125ml(D)	Checks*	Passed?	1-3					
Bacti $Na_2S_2O_3$	—	—						
None (P) White Cap	—	—	1A					
Cr6 (P) Lt. Green Label/Blue Cap NH4OH(NH4)2SO4 **DW**	Cl, pH > 8	P F						
Cr6 (P) Pink Label/Blue Cap NH4OH(NH4)2SO4 **WW**	pH 9.3-9.7	P F						
Cr6 (P) Black Label/Blue Cap NH4OH(NH4)2SO4 **7199** ***24 HOUR HOLD TIME***	pH 9.0-9.5	P F						
HNO_3 (P) Red Cap or HCl (P) Purple Cap/Lt. Blue Label	—	—						
H_2SO_4 (P) or (AG) Yellow Cap/Label	pH < 2	P F						
NaOH (P) Green Cap	Cl, pH >10	P F						
NaOH + ZnAc (P)	pH > 9	P F						
Dissolved Oxygen 300ml (g)	—	—						
None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	—	—						
HCl (AG) LL Blue Label O&G, Diesel, **TCP**	—	—						
Ascorbic, EDTA, KH_2Ct (AG) Pink Label 525	—	—						
Na_2SO_3 250mL (AG) Neon Green Label 515	—	—						
$Na_2S_2O_3$ 1 Liter (Brown P) 549	—	—						
$Na_2S_2O_3$ (AG) Blue Label 548, THM, 524	—	—						
$Na_2S_2O_3$ (CG) Blue Label 504, 505, 547	—	—						
$Na_2S_2O_3$ + MCAA (CG) Orange Label 531	pH < 3	P F						
NH_4Cl (AG) Purple Label 552	—	—						
EDA (P) or (AG) Brown Label DBPs	—	—						
HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	—	—						
Buffer pH 4 (CG)	—	—						
H_3PO_4 (CG) Salmon Label	—	—						
Trizma – EPA 537.1 Light Blue Label **FB**	—	—						
Ammonia Acetate - EPA 533 Purple Label **FB**	—	—						
Bottled Water	—	—						
Asbestos 1L (P) w/ Foil / LL Metals Bottle	—	—						
Clear Glass	—	—						
OTHER:	—	—						

JV 10/16/23

Split	Container	Preservative	Lot #	Initials	Date/Time
S P					
S P					

Preservation Check
pH Lot #
Cl Lot #

Comments

***Preservation check completed by lab performing analysis.**

✓ **Indicates Blanks Received**

504 ___ 524.2 ___ TTHM ___ 537/533 ___ TCP___

✓ **MS/MSD Received Method:** _____

Labeled by: **Labels Checked by:**

Scanned: ___ Rush/Short HT Page: _____ Time:_____

AGJ2289 Joaqu0193 10/16/2023 10

ASSOCIATES
1414 Stanislaus St., Fresno, CA 93706
(559) 497-2888 · Fax (559) 497-2893
www.bskassociates.com

Turnaround Time Request
- [ ] Standard - 10 business days
- [ ] Rush (Surcharge may apply)
- Date needed:

*Required Fields

Temp 20.5 #77

Company/Client Name*: Joaquin Matts & Family Dairy	Report Attention*: Dustie Additional cc's: dustie@jmlordinc.com	Invoice To*: PO#:	Phone*: E-mail*:
Address*: 4790 Kansas Ave.	City*: Hanford	State*: CA	Zip*: 93230
Project:	Project #:	How would you like to receive your completed results?* [ ] E-Mail [ ] Fax [ ] Mail	
Reporting Options: [ ] Trace (J-Flag) [ ] Swamp [ ] EDD Type.	Regulatory Carbon Copies: [ ] SWRCB (Drinking Water) [ ] Merced Co [ ] Fresno Co [ ] Madera Co [ ] Tulare Co [ ] Other:	Regulatory Compliance: [ ] EDT to California SWRCB (Drinking Water) System Number*: [ ] Geotracker #	
Sampler Name (Printed/Signature)*: Dustie Christensen			

Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid

#	Sample Description*	Sampled* Date	Sampled* Time	Matrix*	Comments / Station Code / WTRAX	RB5-Well	RB5 Well-5 Year Well test	RB5-Surface						
1	Milk Barn	10/16/23	12:30	GW		X								
2	BV Well #1	↓	12:45	↓		↓								
3	BV Well #3 (Domestic Well)	↓	12:55	↓		↓								

JV 10/16

Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Dustie Christensen	JM Lord Inc	10/16/23	2:30pm		
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Signature and Printed Name)	Company
Received for Lab by: (Signature and Printed Name) Jonny Ve		Date 10/16/23	Time 19:33	Payment Received at Delivery Date: Amount: PIA#	Check / Cash Init.

Shipping Method: ONTRAC UPS GSO WALK-IN FED EX Courier: _____ Custody Seal: Y / N

Cooling Method: Wet Blue None Chilling Process Begun: Y / N

Payment for services rendered as noted herein are due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions can be found at www.bskassociates.com/BSKLabTermsConditions.pdf

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