

April 1, 2019



Part IV of V

# Central Valley Dairy Representative Monitoring Program Year 7 Annual Report (2018)

*Prepared for the Central Valley Dairy Representative Monitoring Program*

*Prepared by*





# Attachment B2

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Laboratory Reports, 2018Q1



2018Q1

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## North Area

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Date of Report: 03/02/2018

Jeanette Kinzie

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Brentwood Farms

BCL Project: Dairy Rep MP - Expanded Suite

BCL Work Order: 1804889

Invoice ID: B295880

Enclosed are the results of analyses for samples received by the laboratory on 2/13/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1804889

Samples were filtered through a 0.45 micron filter for requested analysis.





Sample Numbering Completed By: Date/Time: 2-13-18 10:51 AM

Table with columns for Sample Numbers (1-10) and various test parameters including: INORGANIC CHEMICAL METALS, PT CYANIDE, PT NITROGEN FORMS, PT TOTAL SULFIDE, PT TOTAL ORGANIC CARBON, PT CHEMICAL OXYGEN DEMAND, PIA PHENOLICS, 40ml VOA VIAL TRAVEL BLANK, 40ml VOA VIAL, QT EPA 1661, PT ODOB, RADIOLOGICAL, BACTERIOLOGICAL, 40 ml VOA VIAL, 504, QT EPA 508/509/505, QT EPA 515.1/515, QT EPA 525, QT EPA 525 TRAVEL BLANK, 40ml EPA 547, 40ml EPA 531.1, 8oz EPA 548, QT EPA 549, QT EPA 8015M, QT EPA 8270, 8oz / 16oz / 32oz AMBER, 8oz / 16oz / 32oz JAR, SOIL STRIVE, PCB VIAL, PLASTIC BAG, TETRAH BAG, PERVIOUS IRON, ENCORE, SMART KIT, SUMMA CANTISTER

COOLER RECEIPT FORM. Submission #: 1804889. Shipping Information: Fed Ex, UPS, BC Lab Field Service. Shipping Container: Ice Chest, Other. Refrigerant: Ice, Blue Ice. Custody Seals: Ice Chest, Containers. All samples received? Yes. All samples containers intact? Yes. COC Received: YES. Description match COC? Yes. Date/Time: 2-13-18. Analyst Int: [Signature]

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/02/2018 14:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1804889-01</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/13/2018 09:13
	<b>Project Number:</b> Brentwood Farms	<b>Sampling Date:</b> 02/12/2018 10:25
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BRE-MW1s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Water
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1804889-02</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/13/2018 09:13
	<b>Project Number:</b> Brentwood Farms	<b>Sampling Date:</b> 02/12/2018 12:02
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BRE-MW2s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Water
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1804889-03</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/13/2018 09:13
	<b>Project Number:</b> Brentwood Farms	<b>Sampling Date:</b> 02/12/2018 13:04
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BRE-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Water
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1804889-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/13/2018 09:13
	<b>Project Number:</b> Brentwood Farms	<b>Sampling Date:</b> 02/12/2018 12:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Dup4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Water
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Woodland, CA 95695

**Reported:** 03/02/2018 14:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804889-01		Client Sample Name: Brentwood Farms, BRE-MW1s, 2/12/2018 10:25:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	33	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	32	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	30	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.69	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	140	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	23	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	8.3	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	79	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	350	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.15	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.036	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.86	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:50	03/01/18 11:03	JCC	PE-OP2	1	B006305
2	SM-2320B	02/16/18 08:00	02/16/18 12:05	MC1	MET-1	1	B003260
3	EPA-300.0	02/13/18 13:00	02/13/18 19:41	SAV	IC2	1	B004891
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	2	B005202
5	EPA-351.2	02/23/18 21:30	02/26/18 09:26	JMH	SC-1	1	B005887
6	EPA-350.1	02/23/18 08:00	02/23/18 13:25	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:33	JNC	KONE-1	1	B004910
8	EPA-365.4	02/23/18 21:30	02/26/18 12:37	JMH	SC-1	1	B005888

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Woodland, CA 95695

**Reported:** 03/02/2018 14:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1804889-02	<b>Client Sample Name:</b> Brentwood Farms, BRE-MW2s, 2/12/2018 12:02:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	25	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	16	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	22	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.55	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	130	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	22	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	3.3	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	13	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	220	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.42	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:50	02/22/18 17:40	JCC	PE-OP2	1	B005102
2	SM-2320B	02/16/18 08:00	02/16/18 12:13	MC1	MET-1	1	B003260
3	EPA-300.0	02/13/18 13:00	02/13/18 20:22	SAV	IC2	1	B004891
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	2	B005202
5	EPA-351.2	02/23/18 21:30	02/26/18 09:26	JMH	SC-1	1	B005887
6	EPA-350.1	02/23/18 08:00	02/23/18 13:30	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:33	JNC	KONE-1	1	B004910
8	EPA-365.4	02/23/18 21:30	02/26/18 12:39	JMH	SC-1	1	B005888

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Woodland, CA 95695

Reported: 03/02/2018 14:59  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Brentwood Farms  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1804889-03	<b>Client Sample Name:</b> Brentwood Farms, BRE-MW3s, 2/12/2018 1:04:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	22	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	13	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	20	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.58	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	120	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	11	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	2.6	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	9.3	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	210	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:50	02/22/18 17:51	JCC	PE-OP2	1	B005102
2	SM-2320B	02/16/18 08:00	02/16/18 12:21	MC1	MET-1	1	B003260
3	EPA-300.0	02/13/18 13:00	02/14/18 02:44	OLH	IC2	1	B004891
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	2	B005202
5	EPA-351.2	02/23/18 21:30	02/26/18 09:28	JMH	SC-1	1	B005887
6	EPA-350.1	02/23/18 08:00	02/23/18 13:30	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:38	JNC	KONE-1	1	B004910
8	EPA-365.4	02/23/18 21:30	02/26/18 12:40	JMH	SC-1	1	B005888

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Woodland, CA 95695

**Reported:** 03/02/2018 14:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1804889-04	<b>Client Sample Name:</b> Brentwood Farms, Dup4, 2/12/2018 12:00:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	22	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	13	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	20	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.50	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	120	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	11	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	2.7	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	9.3	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	210	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.15	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:50	02/22/18 17:54	JCC	PE-OP2	1	B005102
2	SM-2320B	02/16/18 08:00	02/16/18 12:28	MC1	MET-1	1	B003260
3	EPA-300.0	02/13/18 13:00	02/14/18 03:04	OLH	IC2	1	B004891
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	2	B005202
5	EPA-351.2	02/23/18 21:30	02/26/18 09:30	JMH	SC-1	1	B005887
6	EPA-350.1	02/23/18 08:00	02/23/18 13:32	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:38	JNC	KONE-1	1	B004910
8	EPA-365.4	02/23/18 21:30	02/26/18 12:40	JMH	SC-1	1	B005888

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003260</b>						
Bicarbonate Alkalinity as CaCO3	B003260-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003260-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003260-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004891</b>						
Chloride	B004891-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004891-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004891-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004910</b>						
Nitrite as N	B004910-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005102</b>						
Dissolved Calcium	B005102-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005102-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005102-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005102-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005202</b>						
Total Dissolved Solids @ 180 C	B005202-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005775</b>						
Ammonia as N	B005775-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B005887</b>						
Total Kjeldahl Nitrogen	B005887-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B005888</b>						
Total Phosphate	B005888-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006305</b>						
Dissolved Calcium	B006305-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B006305-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B006305-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B006305-BLK1	ND	mg/L	0.50	0.10	

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**Reported:** 03/02/2018 14:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004891</b>										
Chloride	B004891-BS1	LCS	50.348	50.000	mg/L	101		90 - 110		
Nitrate as N	B004891-BS1	LCS	5.0490	5.0000	mg/L	101		90 - 110		
Sulfate	B004891-BS1	LCS	100.43	100.00	mg/L	100		90 - 110		
<b>QC Batch ID: B004910</b>										
Nitrite as N	B004910-BS1	LCS	0.48507	0.50000	mg/L	97.0		90 - 110		
<b>QC Batch ID: B005102</b>										
Dissolved Calcium	B005102-BS1	LCS	9.8565	10.000	mg/L	98.6		85 - 115		
Dissolved Magnesium	B005102-BS1	LCS	10.069	10.000	mg/L	101		85 - 115		
Dissolved Sodium	B005102-BS1	LCS	9.9869	10.000	mg/L	99.9		85 - 115		
Dissolved Potassium	B005102-BS1	LCS	9.7130	10.000	mg/L	97.1		85 - 115		
<b>QC Batch ID: B005202</b>										
Total Dissolved Solids @ 180 C	B005202-BS1	LCS	570.00	586.00	mg/L	97.3		90 - 110		
<b>QC Batch ID: B005775</b>										
Ammonia as N	B005775-BS1	LCS	0.94610	1.0000	mg/L	94.6		90 - 110		
<b>QC Batch ID: B005887</b>										
Total Kjeldahl Nitrogen	B005887-BS1	LCS	1.8572	2.0000	mg/L	92.9		90 - 110		
<b>QC Batch ID: B005888</b>										
Total Phosphate	B005888-BS1	LCS	3.2692	3.0660	mg/L	107		85 - 115		
<b>QC Batch ID: B006305</b>										
Dissolved Calcium	B006305-BS1	LCS	10.299	10.000	mg/L	103		85 - 115		
Dissolved Magnesium	B006305-BS1	LCS	10.246	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B006305-BS1	LCS	10.314	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B006305-BS1	LCS	10.066	10.000	mg/L	101		85 - 115		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 03/02/2018 14:59
Project: Dairy Rep MP - Expanded Suite
Project Number: Brentwood Farms
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)
Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch IDs B003260, B004891, B004910, B005102, B005202, and B005775.

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/02/2018 14:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B005887</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1804838-01	ND	ND		mg/L			20	
	MS	1804838-01	ND	1.9260	2.0000	mg/L		96.3		90 - 110
	MSD	1804838-01	ND	1.9051	2.0000	mg/L	1.1	95.3	20	90 - 110
<b>QC Batch ID: B005888</b>		Used client sample: N								
Total Phosphate	DUP	1804838-01	ND	0.083401		mg/L			20	J
	MS	1804838-01	ND	3.4148	3.0660	mg/L		111		80 - 120
	MSD	1804838-01	ND	3.5519	3.0660	mg/L	3.9	116	20	80 - 120
<b>QC Batch ID: B006305</b>		Used client sample: N								
Dissolved Calcium	DUP	1805980-02	63.878	64.793		mg/L	1.4		20	
	MS	1805980-02	63.878	74.507	10.204	mg/L		104		85 - 115
	MSD	1805980-02	63.878	74.880	10.204	mg/L	0.5	108	20	85 - 115
Dissolved Magnesium	DUP	1805980-02	65.862	66.935		mg/L	1.6		20	
	MS	1805980-02	65.862	76.075	10.204	mg/L		100		85 - 115
	MSD	1805980-02	65.862	76.607	10.204	mg/L	0.7	105	20	85 - 115
<b>Dissolved Sodium</b>	DUP	<b>1805980-02</b>	<b>406.04</b>	<b>393.45</b>		<b>mg/L</b>	<b>3.1</b>		<b>20</b>	
	MS	<b>1805980-02</b>	<b>406.04</b>	<b>403.91</b>	<b>10.204</b>	<b>mg/L</b>		<b>-20.9</b>		<b>85 - 115</b>
	MSD	<b>1805980-02</b>	<b>406.04</b>	<b>410.10</b>	<b>10.204</b>	<b>mg/L</b>	<b>1.5</b>	<b>39.8</b>	<b>20</b>	<b>85 - 115</b>
Dissolved Potassium	DUP	1805980-02	12.511	12.772		mg/L	2.1		20	
	MS	1805980-02	12.511	22.596	10.204	mg/L		98.8		85 - 115
	MSD	1805980-02	12.511	22.725	10.204	mg/L	0.6	100	20	85 - 115

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/02/2018 14:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Brentwood Farms  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.



Date of Report: 03/01/2018

Jeanette Kinzie

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Creekside Silveira Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1804891  
Invoice ID: B295656

Enclosed are the results of analyses for samples received by the laboratory on 2/13/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1804891

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				18-04891			
Report to:				Analysis Requested			
Name: Luldhoff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann Global ID - WDR100039297				Project: Dairy Representative Monitoring Program Site: Creekside Silveira Dairy Samplers Name: Global ID - WDR100039297			
From Filtered Sample: Na, K, Mg, Ca, Cl, SO <sub>4</sub> (as SO <sub>4</sub> ), Total Dissolved Solids				From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO <sub>4</sub> ), Alkalinity (HCO <sub>3</sub> , CO <sub>3</sub> & OH) as CaCO <sub>3</sub>			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ch Pe Unpreserved	From Filtered Sample: Ammonia-N, NO <sub>3</sub> -N, NO <sub>2</sub> -N	From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO <sub>4</sub> ), Alkalinity (HCO <sub>3</sub> , CO <sub>3</sub> & OH) as CaCO <sub>3</sub>
1	CRE-MW1s, CRE-MW1d	02/17/2014	1035	W	X	X	X
2	CRE-MW2s, CRE-MW2d	1005		W	X	X	X
3	CRE-MW3s, CRE-MW3d	0930		W	X	X	X
4	-Field Duplicate-				X	X	X
5					X	X	X
6							
7							
8							
9							
10							

Relinquished by: (Signature) 	Received By: 	Date & Time 2/17/18 1538
Relinquished by: (Signature) 	Received by: 	Date & Time 2/17/18 1600
Relinquished by: (Signature) 	Received By: 	Date & Time 2/13/18 09:13

**Comments:**

- Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luldhoff and Scalmanini Consulting Engineers via email: [lvagnino@lsce.com](mailto:lvagnino@lsce.com), [rbrayson@lsce.com](mailto:rbrayson@lsce.com), [pdhallen@lsce.com](mailto:pdhallen@lsce.com), [jlovelis@lsce.com](mailto:jlovelis@lsce.com)
- Send invoices to Jeanette Lovelis ([jlovelis@lsce.com](mailto:jlovelis@lsce.com)).

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Comments: Sample Numbering Completed By: Date/Time: 2-18-12 10:01 AM

Table with columns for Sample Numbers (1-10) and various test categories including METALS, NITROGEN FORMS, and CHEMICAL METALS.

Shipping Information section including fields for Refrigerant, Custody Seals, and Shipping Container type.

COOLER RECEIPT FORM section with fields for Submission #, Page, and Date/Time.

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Creekside Silveira Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1804891-01</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/13/2018 09:13
	<b>Project Number:</b> Creekside Silveira Dairy	<b>Sampling Date:</b> 02/12/2018 10:35
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> CRE-MW1s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Water
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1804891-02</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/13/2018 09:13
	<b>Project Number:</b> Creekside Silveira Dairy	<b>Sampling Date:</b> 02/12/2018 10:05
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> CRE-MW2s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Water
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1804891-03</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/13/2018 09:13
	<b>Project Number:</b> Creekside Silveira Dairy	<b>Sampling Date:</b> 02/12/2018 09:30
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> CRE-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Water
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/01/2018 9:35  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Creekside Silveira Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1804891-01	Client Sample Name:	Creekside Silveira Dairy, CRE-MW1s, 2/12/2018 10:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	91	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	98	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	83	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	1.4	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	520	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	140	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	14	mg/L	0.20	0.042	EPA-300.0	ND	A07	3	
Sulfate	110	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.76	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6	
Nitrite as N	0.015	mg/L	0.050	0.010	EPA-353.2	ND	J	7	
Total Phosphate	0.12	mg/L	0.15	0.060	EPA-365.4	ND	J	8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:50	02/22/18 17:59	JCC	PE-OP2	1	B005102
2	SM-2320B	02/16/18 08:00	02/16/18 12:35	MC1	MET-1	2	B003260
3	EPA-300.0	02/13/18 18:00	02/13/18 19:40	SAV	IC1	2	B004889
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	5	B005203
5	EPA-351.2	02/23/18 21:30	02/26/18 09:32	JMH	SC-1	1	B005887
6	EPA-350.1	02/23/18 08:00	02/23/18 13:32	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:33	JNC	KONE-1	1	B004910
8	EPA-365.4	02/23/18 21:30	02/26/18 12:41	JMH	SC-1	1	B005888

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/01/2018 9:35  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Creekside Silveira Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1804891-02	Client Sample Name:	Creekside Silveira Dairy, CRE-MW2s, 2/12/2018 10:05:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	47	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	46	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	64	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	0.57	mg/L	1.0	0.10	EPA-200.7	ND	J	1	
Bicarbonate Alkalinity as CaCO3	230	mg/L	4.1	4.1	SM-2320B	ND		2	
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	85	mg/L	0.50	0.077	EPA-300.0	ND		3	
Nitrate as N	17	mg/L	0.20	0.042	EPA-300.0	ND	A07	4	
Sulfate	78	mg/L	1.0	0.13	EPA-300.0	ND		3	
Total Dissolved Solids @ 180 C	560	mg/L	33	33	SM-2540C	ND		5	
Total Kjeldahl Nitrogen	0.20	mg/L	0.20	0.084	EPA-351.2	ND		6	
Ammonia as N	0.032	mg/L	0.10	0.020	EPA-350.1	ND	J	7	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8	
Total Phosphate	0.38	mg/L	0.15	0.060	EPA-365.4	ND		9	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:50	02/22/18 18:02	JCC	PE-OP2	1	B005102
2	SM-2320B	02/16/18 08:00	02/16/18 12:42	MC1	MET-1	1	B003260
3	EPA-300.0	02/13/18 18:00	02/14/18 11:14	OLH	IC1	1	B004889
4	EPA-300.0	02/13/18 18:00	02/14/18 02:40	OLH	IC1	2	B004889
5	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	3.333	B005203
6	EPA-351.2	02/23/18 21:30	02/26/18 09:32	JMH	SC-1	1	B005887
7	EPA-350.1	02/23/18 08:00	02/23/18 13:34	JMH	SC-1	1	B005775
8	EPA-353.2	02/13/18 16:33	02/13/18 16:33	JNC	KONE-1	1	B004910
9	EPA-365.4	02/23/18 21:30	02/26/18 12:41	JMH	SC-1	1	B005888

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500 First Street  
Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Creekside Silveira Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804891-03		Client Sample Name: Creekside Silveira Dairy, CRE-MW3s, 2/12/2018 9:30:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	98	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	67	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.86	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	650	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	110	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	1.9	mg/L	0.20	0.042	EPA-300.0	ND	A07	4
Sulfate	47	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	860	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.52	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.029	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	3.1	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:50	02/22/18 18:04	JCC	PE-OP2	1	B005102
2	SM-2320B	02/16/18 08:00	02/16/18 12:50	MC1	MET-1	2	B003260
3	EPA-300.0	02/13/18 18:00	02/14/18 11:33	OLH	IC1	1	B004889
4	EPA-300.0	02/13/18 18:00	02/14/18 02:59	OLH	IC1	2	B004889
5	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	5	B005203
6	EPA-351.2	02/23/18 21:30	02/26/18 09:33	JMH	SC-1	1	B005887
7	EPA-350.1	02/23/18 08:00	02/23/18 13:34	JMH	SC-1	1	B005775
8	EPA-353.2	02/13/18 16:33	02/13/18 16:33	JNC	KONE-1	1	B004910
9	EPA-365.4	02/23/18 21:30	02/26/18 12:42	JMH	SC-1	1	B005888

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500 First Street  
Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Creekside Silveira Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003260</b>						
Bicarbonate Alkalinity as CaCO3	B003260-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003260-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003260-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004889</b>						
Chloride	B004889-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004889-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004889-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004910</b>						
Nitrite as N	B004910-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005102</b>						
Dissolved Calcium	B005102-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005102-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005102-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005102-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005203</b>						
Total Dissolved Solids @ 180 C	B005203-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005775</b>						
Ammonia as N	B005775-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B005887</b>						
Total Kjeldahl Nitrogen	B005887-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B005888</b>						
Total Phosphate	B005888-BLK1	ND	mg/L	0.15	0.060	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Creekside Silveira Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004889</b>										
Chloride	B004889-BS1	LCS	50.325	50.000	mg/L	101		90 - 110		
Nitrate as N	B004889-BS1	LCS	4.9740	5.0000	mg/L	99.5		90 - 110		
Sulfate	B004889-BS1	LCS	98.215	100.00	mg/L	98.2		90 - 110		
<b>QC Batch ID: B004910</b>										
Nitrite as N	B004910-BS1	LCS	0.48507	0.50000	mg/L	97.0		90 - 110		
<b>QC Batch ID: B005102</b>										
Dissolved Calcium	B005102-BS1	LCS	9.8565	10.000	mg/L	98.6		85 - 115		
Dissolved Magnesium	B005102-BS1	LCS	10.069	10.000	mg/L	101		85 - 115		
Dissolved Sodium	B005102-BS1	LCS	9.9869	10.000	mg/L	99.9		85 - 115		
Dissolved Potassium	B005102-BS1	LCS	9.7130	10.000	mg/L	97.1		85 - 115		
<b>QC Batch ID: B005203</b>										
Total Dissolved Solids @ 180 C	B005203-BS1	LCS	555.00	586.00	mg/L	94.7		90 - 110		
<b>QC Batch ID: B005775</b>										
Ammonia as N	B005775-BS1	LCS	0.94610	1.0000	mg/L	94.6		90 - 110		
<b>QC Batch ID: B005887</b>										
Total Kjeldahl Nitrogen	B005887-BS1	LCS	1.8572	2.0000	mg/L	92.9		90 - 110		
<b>QC Batch ID: B005888</b>										
Total Phosphate	B005888-BS1	LCS	3.2692	3.0660	mg/L	107		85 - 115		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/01/2018 9:35  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Creekside Silveira Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B003260</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805105-03	165.52	167.19		mg/L	1.0		10	
Carbonate Alkalinity as CaCO3	DUP	1805105-03	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805105-03	ND	ND		mg/L			10	
<b>QC Batch ID: B004889</b>		Used client sample: Y - Description: CRE-MW1s, 02/12/2018 10:35								
Chloride	DUP	1804891-01	135.75	135.91		mg/L	0.1		10	
	MS	1804891-01	135.75	240.93	101.01	mg/L		104		80 - 120
	MSD	1804891-01	135.75	239.77	101.01	mg/L	0.5	103	10	80 - 120
Nitrate as N	DUP	1804891-01	14.054	14.082		mg/L	0.2		10	
	MS	1804891-01	14.054	24.444	10.101	mg/L		103		80 - 120
	MSD	1804891-01	14.054	24.523	10.101	mg/L	0.3	104	10	80 - 120
Sulfate	DUP	1804891-01	113.77	113.70		mg/L	0.1		10	
	MS	1804891-01	113.77	324.93	202.02	mg/L		105		80 - 120
	MSD	1804891-01	113.77	325.86	202.02	mg/L	0.3	105	10	80 - 120
<b>QC Batch ID: B004910</b>		Used client sample: Y - Description: CRE-MW1s, 02/12/2018 10:35								
Nitrite as N	DUP	1804891-01	0.014562	0.014892		mg/L	2.2		10	J
	MS	1804891-01	0.014562	0.52399	0.52632	mg/L		96.8		90 - 110
	MSD	1804891-01	0.014562	0.52419	0.52632	mg/L	0.0	96.8	10	90 - 110
<b>QC Batch ID: B005102</b>		Used client sample: Y - Description: BRE-MW1s, 02/12/2018 10:25								
Dissolved Calcium	DUP	1804889-01	29.891	30.059		mg/L	0.6		20	
	MS	1804889-01	29.891	39.630	10.204	mg/L		95.4		85 - 115
	MSD	1804889-01	29.891	39.651	10.204	mg/L	0.1	95.6	20	85 - 115
Dissolved Magnesium	DUP	1804889-01	29.019	29.059		mg/L	0.1		20	
	MS	1804889-01	29.019	38.614	10.204	mg/L		94.0		85 - 115
	MSD	1804889-01	29.019	38.854	10.204	mg/L	0.6	96.4	20	85 - 115
Dissolved Sodium	DUP	1804889-01	27.333	27.228		mg/L	0.4		20	
	MS	1804889-01	27.333	37.025	10.204	mg/L		95.0		85 - 115
	MSD	1804889-01	27.333	37.387	10.204	mg/L	1.0	98.5	20	85 - 115
Dissolved Potassium	DUP	1804889-01	0.50920	0.60637		mg/L	17.4		20	J
	MS	1804889-01	0.50920	10.297	10.204	mg/L		95.9		85 - 115
	MSD	1804889-01	0.50920	10.314	10.204	mg/L	0.2	96.1	20	85 - 115
<b>QC Batch ID: B005203</b>		Used client sample: Y - Description: CRE-MW1s, 02/12/2018 10:35								
Total Dissolved Solids @ 180 C	DUP	1804891-01	995.00	970.00		mg/L	2.5		10	
<b>QC Batch ID: B005775</b>		Used client sample: Y - Description: BRE-MW1s, 02/12/2018 10:25								
Ammonia as N	DUP	1804889-01	0.036200	0.022200		mg/L	47.9		10	J,A02
	MS	1804889-01	0.036200	1.1217	1.1111	mg/L		97.7		90 - 110
	MSD	1804889-01	0.036200	1.0853	1.1111	mg/L	3.3	94.4	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Creekside Silveira Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005887</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1804838-01	ND	ND		mg/L			20	
	MS	1804838-01	ND	1.9260	2.0000	mg/L		96.3		90 - 110
	MSD	1804838-01	ND	1.9051	2.0000	mg/L	1.1	95.3	20	90 - 110
<b>QC Batch ID: B005888</b>		Used client sample: N								
Total Phosphate	DUP	1804838-01	ND	0.083401		mg/L			20	J
	MS	1804838-01	ND	3.4148	3.0660	mg/L		111		80 - 120
	MSD	1804838-01	ND	3.5519	3.0660	mg/L	3.9	116	20	80 - 120

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Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Creekside Silveira Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/01/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: MTSJ Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1804892  
Invoice ID: B295657

Enclosed are the results of analyses for samples received by the laboratory on 2/13/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Quality Control Reports

#### Water Analysis (General Chemistry)

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## Case Narratives

### Case Narrative for Work Order 1804892

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested					
<b>Report to:</b> Expanded Constituent Suite Project: Dairy Representative Monitoring Program Site: MTSJ Dairy Samplers Name: Global ID - WDR100039114							
<b>Name:</b> Luhdorff and Scalmanini <b>Address:</b> 500 First Street <b>City:</b> Woodland <b>State:</b> 95695 <b>CA</b> <b>Attn:</b> Till Angermann		<b>From Filtered Sample:</b> Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids					
<b>From Filtered Sample:</b> Ammonia-N, NO3-N, NO2-N		<b>From Unfiltered Sample:</b> Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved	Analysis Requested	
1	MTS-MW1	02/17/2018	12:25	W	X	X	
2	MTS-MW2s, MTS-MW2d	02/17/2018	1:50	W	X	X	
3	MTS-MW3s, MTS-MW3d	02/17/2018	1:55	W	X	X	
4	Field Duplicate				X	X	
5							
6							
7							
8							
9							
10							
<b>Comments:</b> 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnne@lscce.com, rbyson@lscce.com, pdhalwal@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeanette Lovells (jlovelis@lscce.com).						<b>Relinquished by: (Signature)</b> <i>[Signature]</i>	<b>Date &amp; Time</b> 2/17/18 15:53
<b>Relinquished by: (Signature)</b> <i>[Signature]</i>						<b>Date &amp; Time</b> 2/17/18 16:00	
<b>Relinquished by: (Signature)</b> <i>[Signature]</i>						<b>Date &amp; Time</b> 2-13-18 09:13	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-04892

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) GSO

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S \_\_\_\_\_

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No  IDL 21317

COC Received: YES  NO  Emissivity: 95 Container: Qtp Thermometer ID: 274 Date/Time: 2-13-18

Temperature: (A) 0.0 °C / (C) 0.7 °C Analyst Init: MSD09:18

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES										
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBR										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FEDLAR BAG										
FEROUS IRON										
INCORE										
MART KIT										
UMMA CANISTER										

Comments: Description - I don't match.

Sample Numbering Completed By: ML Date/Time: 2-13-18 12:57

= Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** MTSJ Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1804892-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/13/2018 09:13
	<b>Project Number:</b>	MTSJ Dairy	<b>Sampling Date:</b>	02/12/2018 12:25
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MTS-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804892-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/13/2018 09:13
	<b>Project Number:</b>	MTSJ Dairy	<b>Sampling Date:</b>	02/12/2018 11:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MTS-MW2d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804892-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/13/2018 09:13
	<b>Project Number:</b>	MTSJ Dairy	<b>Sampling Date:</b>	02/12/2018 12:55
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MTS-MW3d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** MTSJ Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804892-01		Client Sample Name: MTSJ Dairy, MTS-MW1, 2/12/2018 12:25:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	77	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	37	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	27	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	210	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	39	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	26	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	58	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	480	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.21	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.41	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:48	02/22/18 18:56	JCC	PE-OP2	1	B005100
2	SM-2320B	02/16/18 08:00	02/16/18 13:17	MC1	MET-1	1	B003261
3	EPA-300.0	02/13/18 18:00	02/14/18 03:18	OLH	IC1	2	B004889
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	3.333	B005203
5	EPA-351.2	02/26/18 10:45	02/27/18 10:47	JMH	SC-1	1	B005975
6	EPA-350.1	02/23/18 08:00	02/23/18 13:36	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:42	JNC	KONE-1	1	B004914
8	EPA-365.4	02/26/18 10:45	02/28/18 08:43	JMH	SC-1	1	B005979

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Reported: 03/01/2018 9:35  
Project: Dairy Rep MP - Expanded Suite  
Project Number: MTSJ Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804892-02		Client Sample Name: MTSJ Dairy, MTS-MW2d, 2/12/2018 11:50:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	65	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	34	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	34	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	230	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	29	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	24	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	40	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	470	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.45	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.038	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.5	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:48	02/22/18 18:59	JCC	PE-OP2	1	B005100
2	SM-2320B	02/16/18 08:00	02/16/18 13:30	MC1	MET-1	1	B003261
3	EPA-300.0	02/13/18 18:00	02/14/18 03:37	OLH	IC1	2	B004889
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	3.333	B005203
5	EPA-351.2	02/26/18 10:45	02/27/18 10:48	JMH	SC-1	1	B005975
6	EPA-350.1	02/23/18 08:00	02/23/18 13:38	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:42	JNC	KONE-1	1	B004914
8	EPA-365.4	02/26/18 10:45	02/28/18 08:44	JMH	SC-1	1	B005979

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Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** MTSJ Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804892-03		Client Sample Name: MTSJ Dairy, MTS-MW3d, 2/12/2018 12:55:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	74	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	38	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	32	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	230	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	39	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	35	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	41	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	520	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.91	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.031	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.93	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:48	02/22/18 19:02	JCC	PE-OP2	1	B005100
2	SM-2320B	02/16/18 08:00	02/16/18 13:39	MC1	MET-1	1	B003261
3	EPA-300.0	02/13/18 18:00	02/14/18 03:56	OLH	IC1	2	B004889
4	SM-2540C	02/16/18 13:00	02/16/18 13:00	JP1	MANUAL	3.333	B005203
5	EPA-351.2	02/26/18 10:45	02/27/18 10:48	JMH	SC-1	1	B005975
6	EPA-350.1	02/23/18 08:00	02/23/18 13:39	JMH	SC-1	1	B005775
7	EPA-353.2	02/13/18 16:33	02/13/18 16:42	JNC	KONE-1	1	B004914
8	EPA-365.4	02/26/18 10:45	02/28/18 08:45	JMH	SC-1	1	B005979

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** MTSJ Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003261</b>						
Bicarbonate Alkalinity as CaCO3	B003261-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003261-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003261-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004889</b>						
Chloride	B004889-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004889-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004889-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004914</b>						
Nitrite as N	B004914-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005100</b>						
Dissolved Calcium	B005100-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005100-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005100-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005100-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005203</b>						
Total Dissolved Solids @ 180 C	B005203-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005775</b>						
Ammonia as N	B005775-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B005975</b>						
Total Kjeldahl Nitrogen	B005975-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B005979</b>						
Total Phosphate	B005979-BLK1	ND	mg/L	0.15	0.060	

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**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** MTSJ Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004889</b>										
Chloride	B004889-BS1	LCS	50.325	50.000	mg/L	101		90 - 110		
Nitrate as N	B004889-BS1	LCS	4.9740	5.0000	mg/L	99.5		90 - 110		
Sulfate	B004889-BS1	LCS	98.215	100.00	mg/L	98.2		90 - 110		
<b>QC Batch ID: B004914</b>										
Nitrite as N	B004914-BS1	LCS	0.49670	0.50000	mg/L	99.3		90 - 110		
<b>QC Batch ID: B005100</b>										
Dissolved Calcium	B005100-BS1	LCS	9.9105	10.000	mg/L	99.1		85 - 115		
Dissolved Magnesium	B005100-BS1	LCS	10.169	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B005100-BS1	LCS	10.087	10.000	mg/L	101		85 - 115		
Dissolved Potassium	B005100-BS1	LCS	9.7564	10.000	mg/L	97.6		85 - 115		
<b>QC Batch ID: B005203</b>										
Total Dissolved Solids @ 180 C	B005203-BS1	LCS	555.00	586.00	mg/L	94.7		90 - 110		
<b>QC Batch ID: B005775</b>										
Ammonia as N	B005775-BS1	LCS	0.94610	1.0000	mg/L	94.6		90 - 110		
<b>QC Batch ID: B005975</b>										
Total Kjeldahl Nitrogen	B005975-BS1	LCS	2.0580	2.0000	mg/L	103		90 - 110		
<b>QC Batch ID: B005979</b>										
Total Phosphate	B005979-BS1	LCS	3.0736	3.0660	mg/L	100		85 - 115		

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Woodland, CA 95695

Reported: 03/01/2018 9:35
Project: Dairy Rep MP - Expanded Suite
Project Number: MTSJ Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch IDs B003261, B004889, B004914, B005100, B005203, and B005775.

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Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** MTSJ Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005975</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1805116-01	4.0366	3.9556		mg/L	2.0		20	
	MS	1805116-01	4.0366	5.9820	2.0000	mg/L		97.3		90 - 110
	MSD	1805116-01	4.0366	6.0012	2.0000	mg/L	0.3	98.2	20	90 - 110
<b>QC Batch ID: B005979</b>		Used client sample: N								
Total Phosphate	DUP	1805116-01	5.0844	5.0715		mg/L	0.3		20	
	MS	1805116-01	5.0844	8.1058	3.0660	mg/L		98.5		80 - 120
	MSD	1805116-01	5.0844	8.1454	3.0660	mg/L	0.5	99.8	20	80 - 120

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Woodland, CA 95695

**Reported:** 03/01/2018 9:35  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** MTSJ Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

## South Area

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Date of Report: 03/06/2018

Jeanette Kinzie

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Aukeman Farms  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805170  
Invoice ID: B296124

Enclosed are the results of analyses for samples received by the laboratory on 2/14/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805170

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas CL Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Name: Lohdorff and Scalmanini		Expanded Constituent Suite		From Unfiltered Sample:	
Address: 800 First Street		Project: Dairy Representative Monitoring Program		Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
City: Woodland		Site: Aukeman Farms		From Filtered Sample:	
State: CA		Samplers Name:		Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	
Attn: Till Angermann		Global ID - WDR100038978		From Filtered Sample:	
				Ammonia-N, NO3-N, NO2-N	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ch Pb Unpreserved
1	AUK-MW1	2/13/18	1536	6W	x
2	AUK-MW2	2/13/18	1428	↓	x
3	AUK-MW3	2/13/18	1321	↓	x
4	Field Duplicate	2/13/18	1327	↓	x
5					
6					
7					
8					
9					
10					

Relinquished by: (Signature) <i>John Chong</i>	Date & Time 2/14/18 @ 4:15 PM
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 2/14/18 1220
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 2/14/18 1220

**Comments:**

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: [lsc@lsc.com](mailto:lsc@lsc.com), [robyson@lsc.com](mailto:robyson@lsc.com), [pohalwal@lsc.com](mailto:pohalwal@lsc.com).
- Send invoices to Jeanette Lovelis ([jlovelis@lsc.com](mailto:jlovelis@lsc.com)).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1805170

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / S
--	--	--	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.95 Container: VE Thermometer ID: 208 Date/Time: 2/14/2015  
 Temperature: (A) 3.0 °C / (C) 2.7 °C Analyst Init: OR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AB	AB	AB	AB						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C	C	C						
PT TOTAL SULFIDE										
2oz NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/6080										
QT EPA 515.1/6150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 8015M										
QT EPA 8279										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FEDLAR BAG										
FERROUS IRON										
SCORE										
SMART KIT										
UMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: God Date/Time: 2/14 2231

= Actual / C = Corrected

Rev 21 05/23/2016  
 S:\IT\WP\del\Ward\Perfect\LAB\_DOC\FORMS\SAVREC\cwr 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1805170-01</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/14/2018 22:20
	<b>Project Number:</b> Aukeman Farms	<b>Sampling Date:</b> 02/13/2018 15:36
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> AUK-MW1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805170-02</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/14/2018 22:20
	<b>Project Number:</b> Aukeman Farms	<b>Sampling Date:</b> 02/13/2018 14:28
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> AUK-MW2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805170-03</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/14/2018 22:20
	<b>Project Number:</b> Aukeman Farms	<b>Sampling Date:</b> 02/13/2018 13:21
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> AUK-MW3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805170-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/14/2018 22:20
	<b>Project Number:</b> Aukeman Farms	<b>Sampling Date:</b> 02/13/2018 13:27
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Field Duplicate	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> BTSS	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805170-01		Client Sample Name: Aukeman Farms, AUK-MW1, 2/13/2018 3:36:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	190	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	19	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	160	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.95	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	390	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	51	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	58	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	330	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.81	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.055	mg/L	0.10	0.020	EPA-350.1	0.023	J	7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	6.7	mg/L	0.75	0.30	EPA-365.4	ND	A07	9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:48	02/22/18 18:21	JCC	PE-OP2	1	B005100
2	SM-2320B	02/20/18 07:30	02/20/18 12:51	MEV	MET-1	2	B003267
3	EPA-300.0	02/14/18 23:30	02/15/18 06:38	OLH	IC8	2	B005069
4	EPA-300.0	02/14/18 23:30	02/15/18 13:47	OLH	IC8	5	B005069
5	SM-2540C	02/16/18 13:30	02/16/18 13:30	JP1	MANUAL	5	B005198
6	EPA-351.2	02/26/18 10:45	02/27/18 10:53	JMH	SC-1	1	B005975
7	EPA-350.1	02/28/18 07:22	03/01/18 12:51	JMH	SC-1	1	B006209
8	EPA-353.2	02/15/18 01:34	02/15/18 01:34	JNC	KONE-1	1	B005123
9	EPA-365.4	02/26/18 10:45	02/28/18 09:25	JMH	SC-1	5	B005979

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500 First Street  
Woodland, CA 95695

Reported: 03/06/2018 8:59  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Aukeman Farms  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805170-02	Client Sample Name:	Aukeman Farms, AUK-MW2, 2/13/2018 2:28:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	220	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	24	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	160	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	0.72	mg/L	1.0	0.10	EPA-200.7	ND	J	1	
Bicarbonate Alkalinity as CaCO3	460	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	61	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	65	mg/L	0.20	0.042	EPA-300.0	ND	A07,S01	4	
Sulfate	280	mg/L	2.0	0.26	EPA-300.0	ND	A07	4	
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		5	
Total Kjeldahl Nitrogen	0.30	mg/L	0.20	0.084	EPA-351.2	ND		6	
Ammonia as N	0.030	mg/L	0.10	0.020	EPA-350.1	0.023	J	7	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8	
Total Phosphate	1.2	mg/L	0.15	0.060	EPA-365.4	ND		9	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:48	02/22/18 18:34	JCC	PE-OP2	1	B005100
2	SM-2320B	02/20/18 07:30	02/20/18 12:57	MEV	MET-1	2	B003267
3	EPA-300.0	02/14/18 23:30	02/15/18 06:57	OLH	IC8	2	B005069
4	EPA-300.0	02/14/18 23:30	02/15/18 13:27	OLH	IC8	2	B005069
5	SM-2540C	02/16/18 13:30	02/16/18 13:30	JP1	MANUAL	5	B005198
6	EPA-351.2	02/26/18 10:45	02/27/18 10:54	JMH	SC-1	1	B005975
7	EPA-350.1	02/28/18 07:22	03/01/18 12:54	JMH	SC-1	1	B006209
8	EPA-353.2	02/15/18 01:34	02/15/18 01:34	JNC	KONE-1	1	B005123
9	EPA-365.4	02/26/18 10:45	02/28/18 08:48	JMH	SC-1	1	B005979

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805170-03		Client Sample Name: Aukeman Farms, AUK-MW3, 2/13/2018 1:21:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	250	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.67	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	680	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	45	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	48	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	150	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.46	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	0.023		7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	1.2	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:48	02/22/18 18:45	JCC	PE-OP2	1	B005100
2	SM-2320B	02/20/18 07:30	02/20/18 13:05	MEV	MET-1	2	B003267
3	EPA-300.0	02/14/18 23:30	02/15/18 07:16	OLH	IC8	2	B005069
4	EPA-300.0	02/14/18 23:30	02/15/18 12:49	OLH	IC8	5	B005069
5	SM-2540C	02/16/18 13:30	02/16/18 13:30	JP1	MANUAL	5	B005198
6	EPA-351.2	02/26/18 10:45	02/27/18 10:55	JMH	SC-1	1	B005975
7	EPA-350.1	02/28/18 07:22	03/01/18 12:56	JMH	SC-1	1	B006209
8	EPA-353.2	02/15/18 01:34	02/15/18 01:34	JNC	KONE-1	1	B005123
9	EPA-365.4	02/26/18 10:45	02/28/18 08:48	JMH	SC-1	1	B005979

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Luhdorf & Scalmanini  
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Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805170-04		Client Sample Name: Aukeman Farms, Field Duplicate, 2/13/2018 1:27:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	240	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.63	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	650	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	44	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	150	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.56	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	0.023		7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	1.2	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/15/18 14:48	02/22/18 18:48	JCC	PE-OP2	1	B005100
2	SM-2320B	02/20/18 07:30	02/20/18 13:12	MEV	MET-1	2	B003267
3	EPA-300.0	02/14/18 23:30	02/15/18 08:13	OLH	IC8	2	B005069
4	EPA-300.0	02/14/18 23:30	02/15/18 13:08	OLH	IC8	5	B005069
5	SM-2540C	02/16/18 13:30	02/16/18 13:30	JP1	MANUAL	5	B005198
6	EPA-351.2	02/26/18 10:45	02/27/18 10:56	JMH	SC-1	1	B005975
7	EPA-350.1	02/28/18 07:22	03/01/18 12:58	JMH	SC-1	1	B006209
8	EPA-353.2	02/15/18 01:34	02/15/18 01:34	JNC	KONE-1	1	B005123
9	EPA-365.4	02/26/18 10:45	02/28/18 08:49	JMH	SC-1	1	B005979

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500 First Street  
Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003267</b>						
Bicarbonate Alkalinity as CaCO3	B003267-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003267-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003267-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005069</b>						
Chloride	B005069-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005069-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005069-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005100</b>						
Dissolved Calcium	B005100-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005100-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005100-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005100-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005123</b>						
Nitrite as N	B005123-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005198</b>						
Total Dissolved Solids @ 180 C	B005198-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005975</b>						
Total Kjeldahl Nitrogen	B005975-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B005979</b>						
Total Phosphate	B005979-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006209</b>						
Ammonia as N	B006209-BLK1	0.022600	mg/L	0.10	0.020	J

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Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005069</b>										
Chloride	B005069-BS1	LCS	51.654	50.000	mg/L	103		90 - 110		
Nitrate as N	B005069-BS1	LCS	5.0520	5.0000	mg/L	101		90 - 110		
Sulfate	B005069-BS1	LCS	103.29	100.00	mg/L	103		90 - 110		
<b>QC Batch ID: B005100</b>										
Dissolved Calcium	B005100-BS1	LCS	9.9105	10.000	mg/L	99.1		85 - 115		
Dissolved Magnesium	B005100-BS1	LCS	10.169	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B005100-BS1	LCS	10.087	10.000	mg/L	101		85 - 115		
Dissolved Potassium	B005100-BS1	LCS	9.7564	10.000	mg/L	97.6		85 - 115		
<b>QC Batch ID: B005123</b>										
Nitrite as N	B005123-BS1	LCS	0.50054	0.50000	mg/L	100		90 - 110		
<b>QC Batch ID: B005198</b>										
Total Dissolved Solids @ 180 C	B005198-BS1	LCS	550.00	586.00	mg/L	93.9		90 - 110		
<b>QC Batch ID: B005975</b>										
Total Kjeldahl Nitrogen	B005975-BS1	LCS	2.0580	2.0000	mg/L	103		90 - 110		
<b>QC Batch ID: B005979</b>										
Total Phosphate	B005979-BS1	LCS	3.0736	3.0660	mg/L	100		85 - 115		
<b>QC Batch ID: B006209</b>										
Ammonia as N	B006209-BS1	LCS	0.94500	1.0000	mg/L	94.5		90 - 110		

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Reported: 03/06/2018 8:59
Project: Dairy Rep MP - Expanded Suite
Project Number: Aukeman Farms
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch IDs B003267, B005069, B005100, B005123, and B005198.

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500 First Street  
Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005979</b>		Used client sample: N								
Total Phosphate	DUP	1805116-01	5.0844	5.0715		mg/L	0.3		20	
	MS	1805116-01	5.0844	8.1058	3.0660	mg/L		98.5		80 - 120
	MSD	1805116-01	5.0844	8.1454	3.0660	mg/L	0.5	99.8	20	80 - 120
<b>QC Batch ID: B006209</b>		Used client sample: Y - Description: AUK-MW1, 02/13/2018 15:36								
Ammonia as N	DUP	1805170-01	0.054900	0.054300		mg/L	1.1		10	J
	MS	1805170-01	0.054900	1.1234	1.1111	mg/L		96.2		90 - 110
	MSD	1805170-01	0.054900	1.0639	1.1111	mg/L	5.4	90.8	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 03/06/2018 8:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Aukeman Farms  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- S01 Sample result is not within the quantitation range of the method.



Date of Report: 02/23/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Dairyland Farms  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1804152  
Invoice ID: B295077

Enclosed are the results of analyses for samples received by the laboratory on 2/6/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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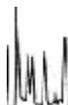
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## Case Narratives

### Case Narrative for Work Order 1804152

Samples were filtered through a 0.45 micron filter for requested analysis.



18-04152

BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Lundoiff and Scalimanni		Expanded Constituent Suite		From Filtered Sample:	
Address: 600 First Street		Project: Dairy Representative Monitoring Program		Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	
City: Woodland		Site: Dairyland Farms		From Unfiltered Sample:	
State: 95695		Samplers Name:		Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
Attn: Till Angermann		Global ID - WDR100039173			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pb Unpreserved
1	DLF-MW1				x
2	DLF-MW2				x
3	DLF-MW3				x
4	DLF-MW4A, DLF-MW4B DLF-MW4C, DLF-MW4C				x
5	DLF-MW5A, DLF-MW5B DLF-MW5C				x
6	DLF-MW6A, DLF-MW6B DLF-MW6C, DLF-MW6D	02/06/18	0920	W	x
7	Field-Duplicate				x
8					x
9					x
10					x
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Lundoiff and Scalimanni Consulting Engineers via email: llavagnino@lsc.com, rryson@lsc.com, pdhall@lsc.com. 4) Send invoices to Jeanette Lovells (jlovells@lsc.com)				Retinquished by: (Signature) <i>[Signature]</i> Date & Time 2/6/18 20:30 Retinquished by: (Signature) <i>[Signature]</i> Date & Time 2/6/18 22:30 Retinquished by: (Signature) <i>[Signature]</i> Date & Time	

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BC LABORATORIES INC.		COOLER RECEIPT FORM		Page 2 of 2							
Submission #: 1804152											
SHIPPING INFORMATION			SHIPPING CONTAINER		FREE LIQUID						
Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/>			Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/>		YES <input type="checkbox"/> NO <input type="checkbox"/>						
BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			Other <input type="checkbox"/> (Specify) _____		W / S						
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments:											
Custody Seals: <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> None <input checked="" type="checkbox"/> Comments:											
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>											
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.98 Container: PE Thermometer ID: 1080		Date/Time: 2/16/16 12:30							
		Temperature: (A) 1.2 °C / (C) 0.9 °C		Analyst Init: RAR							
SAMPLE CONTAINERS		SAMPLE NUMBERS									
		1	2	3	4	5	6	7	8	9	10
QT PE UNPRES		A/B									
4oz / 8oz / 16oz PE UNPRES											
2oz Cr <sup>6</sup>											
QT INORGANIC CHEMICAL METALS											
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz											
PT CYANIDE											
PT NITROGEN FORMS		C									
PT TOTAL SULFIDE											
2oz NITRATE/NITRITE											
PT TOTAL ORGANIC CARBON											
PT CHEMICAL OXYGEN DEMAND											
PLA PHENOLICS											
40ml VOA VIAL TRAVEL BLANK											
40ml VOA VIAL											
QT EPA 1664											
PT ODOR											
RADIOLOGICAL											
BACTERIOLOGICAL											
40 ml VOA VIAL- 504											
QT EPA 503/618/8180											
QT EPA 515.1/8150											
QT EPA 525											
QT EPA 525 TRAVEL BLANK											
40ml EPA 547											
40ml EPA 531.1											
8oz EPA 548											
QT EPA 549											
QT EPA 8015M											
QT EPA 8270											
8oz / 16oz / 32oz AMBER											
8oz / 16oz / 32oz JAR											
SOIL SLEEVE											
PCB VIAL											
PLASTIC BAG											
TEDLAR BAG											
FERROUS IRON											
ENCORE											
SMART KIT											
SUMMA CANISTER											
Comments:											
Sample Numbering Completed By: JA		Date/Time: 2-16-16 (15)		REV 21 06/23/2016							
A = Actual / C = Corrected		[5:WPFDefectWoodPesticideLAB_COCSIFORPHSISAMRECrev 231]									

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 23:44  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Dairyland Farms  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1804152-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/06/2018 22:30
	<b>Project Number:</b>	Dairyland Farm	<b>Sampling Date:</b>	02/06/2018 09:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DLF-MW6B	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 23:44  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Dairyland Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804152-01		Client Sample Name: Dairyland Farm, DLF-MW6B, 2/6/2018 9:20:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	190	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	71	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	340	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	43	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	66	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	120	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	900	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	0.016	J	8
Total Phosphate	0.25	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:10	02/09/18 14:37	JCC	PE-OP2	1	B004494
2	SM-2320B	02/09/18 07:00	02/09/18 12:09	MEV	MET-1	2	B003234
3	EPA-300.0	02/07/18 22:00	02/08/18 01:36	OLH	IC1	2	B004355
4	EPA-300.0	02/07/18 22:00	02/08/18 09:21	OLH	IC1	5	B004355
5	SM-2540C	02/10/18 11:30	02/10/18 11:30	CAD	MANUAL	5	B004545
6	EPA-351.2	02/14/18 20:00	02/20/18 14:59	JMH	SC-1	1	B004967
7	EPA-350.1	02/21/18 07:37	02/22/18 15:50	JMH	SC-1	1	B005497
8	EPA-353.2	02/08/18 07:13	02/08/18 07:13	JNC	KONE-1	1	B004413
9	EPA-365.4	02/14/18 20:00	02/21/18 13:31	JMH	SC-1	1	B004968

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 23:44  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Dairyland Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003234</b>						
Bicarbonate Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004355</b>						
Chloride	B004355-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004355-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004355-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004413</b>						
Nitrite as N	B004413-BLK1	0.016143	mg/L	0.050	0.010	J
<b>QC Batch ID: B004494</b>						
Dissolved Calcium	B004494-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B004494-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B004494-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B004494-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B004545</b>						
Total Dissolved Solids @ 180 C	B004545-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B004967</b>						
Total Kjeldahl Nitrogen	B004967-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B004968</b>						
Total Phosphate	B004968-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B005497</b>						
Ammonia as N	B005497-BLK1	ND	mg/L	0.10	0.020	

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Woodland, CA 95695

**Reported:** 02/23/2018 23:44  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Dairyland Farms  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004355</b>										
Chloride	B004355-BS1	LCS	51.223	50.000	mg/L	102		90 - 110		
Nitrate as N	B004355-BS1	LCS	4.9560	5.0000	mg/L	99.1		90 - 110		
Sulfate	B004355-BS1	LCS	102.42	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B004413</b>										
Nitrite as N	B004413-BS1	LCS	0.52575	0.50000	mg/L	105		90 - 110		
<b>QC Batch ID: B004494</b>										
Dissolved Calcium	B004494-BS1	LCS	10.366	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B004494-BS1	LCS	10.408	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B004494-BS1	LCS	9.2297	10.000	mg/L	92.3		85 - 115		
Dissolved Potassium	B004494-BS1	LCS	9.5005	10.000	mg/L	95.0		85 - 115		
<b>QC Batch ID: B004545</b>										
Total Dissolved Solids @ 180 C	B004545-BS1	LCS	570.00	586.00	mg/L	97.3		90 - 110		
<b>QC Batch ID: B004967</b>										
Total Kjeldahl Nitrogen	B004967-BS1	LCS	2.0781	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B004968</b>										
Total Phosphate	B004968-BS1	LCS	3.1376	3.0660	mg/L	102		85 - 115		
<b>QC Batch ID: B005497</b>										
Ammonia as N	B005497-BS1	LCS	1.0247	1.0000	mg/L	102		90 - 110		

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Woodland, CA 95695

Reported: 02/23/2018 23:44  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Dairyland Farms  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B003234</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1804126-08	215.88	215.57		mg/L	0.1		10	
Carbonate Alkalinity as CaCO3	DUP	1804126-08	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1804126-08	ND	ND		mg/L			10	
<b>QC Batch ID: B004355</b>		Used client sample: N								
Chloride	DUP	1804150-04	82.414	83.463		mg/L	1.3		10	
	MS	1804150-04	82.414	135.14	50.505	mg/L		104		80 - 120
	MSD	1804150-04	82.414	135.19	50.505	mg/L	0.0	104	10	80 - 120
Nitrate as N	DUP	1804150-04	3.0980	3.1330		mg/L	1.1		10	
	MS	1804150-04	3.0980	8.1818	5.0505	mg/L		101		80 - 120
	MSD	1804150-04	3.0980	8.2354	5.0505	mg/L	0.7	102	10	80 - 120
Sulfate	DUP	1804150-04	153.31	155.52		mg/L	1.4		10	
	MS	1804150-04	153.31	259.54	101.01	mg/L		105		80 - 120
	MSD	1804150-04	153.31	258.37	101.01	mg/L	0.4	104	10	80 - 120
<b>QC Batch ID: B004413</b>		Used client sample: Y - Description: DLF-MW6B, 02/06/2018 09:20								
Nitrite as N	DUP	1804152-01	0.015556	0.015247		mg/L	2.0		10	J
	MS	1804152-01	0.015556	0.54988	0.52632	mg/L		102		90 - 110
	MSD	1804152-01	0.015556	0.53904	0.52632	mg/L	2.0	99.5	10	90 - 110
<b>QC Batch ID: B004494</b>		Used client sample: Y - Description: SIE-MW1, 02/06/2018 15:05								
Dissolved Calcium	DUP	1804151-01	102.24	102.40		mg/L	0.2		20	
	MS	1804151-01	102.24	112.68	10.204	mg/L		102		85 - 115
	MSD	1804151-01	102.24	112.86	10.204	mg/L	0.2	104	20	85 - 115
Dissolved Magnesium	DUP	1804151-01	20.011	20.287		mg/L	1.4		20	
	MS	1804151-01	20.011	30.472	10.204	mg/L		103		85 - 115
	MSD	1804151-01	20.011	30.801	10.204	mg/L	1.1	106	20	85 - 115
Dissolved Sodium	DUP	1804151-01	28.730	28.734		mg/L	0.0		20	
	MS	1804151-01	28.730	37.739	10.204	mg/L		88.3		85 - 115
	MSD	1804151-01	28.730	37.886	10.204	mg/L	0.4	89.7	20	85 - 115
Dissolved Potassium	DUP	1804151-01	1.2328	1.1514		mg/L	6.8		20	
	MS	1804151-01	1.2328	11.097	10.204	mg/L		96.7		85 - 115
	MSD	1804151-01	1.2328	11.045	10.204	mg/L	0.5	96.2	20	85 - 115
<b>QC Batch ID: B004545</b>		Used client sample: Y - Description: DLF-MW6B, 02/06/2018 09:20								
Total Dissolved Solids @ 180 C	DUP	1804152-01	905.00	920.00		mg/L	1.6		10	
<b>QC Batch ID: B004967</b>		Used client sample: Y - Description: JAD-MW4d, 02/06/2018 11:35								
Total Kjeldahl Nitrogen	DUP	1804153-01	0.27700	0.27540		mg/L	0.6		20	
	MS	1804153-01	0.27700	2.2749	2.0000	mg/L		99.9		90 - 110
	MSD	1804153-01	0.27700	2.1588	2.0000	mg/L	5.2	94.1	20	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 23:44  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Dairyland Farms  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B004968</b>		Used client sample: Y - Description: JAD-MW4d, 02/06/2018 11:35									
Total Phosphate	DUP	1804153-01	0.47005	0.46422		mg/L	1.2		20		
	MS	1804153-01	0.47005	3.6224	3.0660	mg/L		103		80 - 120	
	MSD	1804153-01	0.47005	3.6255	3.0660	mg/L	0.1	103	20	80 - 120	
<b>QC Batch ID: B005497</b>		Used client sample: Y - Description: SIE-MW1, 02/06/2018 15:05									
Ammonia as N	DUP	1804151-01	0.027800	0.029900		mg/L	7.3		10		J
	MS	1804151-01	0.027800	1.1256	1.1111	mg/L		98.8		90 - 110	
	MSD	1804151-01	0.027800	1.1248	1.1111	mg/L	0.1	98.7	10	90 - 110	

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**Reported:** 02/23/2018 23:44  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Dairyland Farms  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/16/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Giacomazzi Dary  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805983  
Invoice ID: B297293

Enclosed are the results of analyses for samples received by the laboratory on 2/22/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805983

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Expanded Constituent Suite		From Filtered Sample:	From Filtered Sample:	From Filtered Sample:	From Unfiltered Sample:
Project: Dairy Representative Monitoring Program		Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Ammonia-N, NO3-N, NO2-N	Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
Site: Glacomazzi Dairy					
Samplers Name:					
Global ID - WDR100037884					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q/Pe Unpreserved
1	ZZ-MW5A, ZZ-MW4B ZZ-MW1C, ZZ-MW5D	02/24/18	1333	GW	x
2	ZZ-MW7A, ZZ-MW6B ZZ-MW2C, ZZ-MW6D		1108		x
3	ZZ-MW9A, ZZ-MW3A ZZ-MW3B		1142		x
4	ZZ-MW5A, ZZ-MW5B ZZ-MW5C, ZZ-MW5D		1233		x
5	ZZ-MW6A, ZZ-MW6B ZZ-MW6C, ZZ-MW6D		1259		x
6	ZZ-MW7A, ZZ-MW7B ZZ-MW7C, ZZ-MW7D		1210		x
7	ZZ-MW9A, ZZ-MW9B ZZ-MW9C, ZZ-MW9D		1036		x
8	Field Duplicate				x
9					
10					
11					

Relinquished by: (Signature) *[Signature]* Date & Time 02/24/18 @ 2015

Relinquished by: (Signature) *[Signature]* Date & Time 2/22/18 2245

Relinquished by: (Signature) *[Signature]* Date & Time

SHOULDER HOLDING TIME: 0-6 HOURS @ 0-5 SS

Comments:  
 1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lufcoff and Scalmanini Consulting Engineers via email: llawagnino@lscce.com, roryjen@lscce.com, pdhalvax@lscce.com, jlovelis@lscce.com  
 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1805983

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify):

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify):

FREE LIQUID: YES  NO  (W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals: Ice Chest  Containers  None  Intact? Yes  No  Intact? Yes  No  Comments:

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.98 Container: PE Thermometer ID: 108 Date/Time: 12/18/2015 Analyst Init: PNL

Temperature: (A) 2.3 °C / (C) 20 °C

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AB	AB	AB	AB	AB	AB	AB			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C	C	C	C	C	C			
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GA Date/Time: 12/18/2015

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805983-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Giacomazzi Dairy	<b>Sampling Date:</b>	02/22/2018 13:33
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZZI-MW1C	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805983-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Giacomazzi Dairy	<b>Sampling Date:</b>	02/22/2018 11:08
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZZI-MW2C	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805983-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Giacomazzi Dairy	<b>Sampling Date:</b>	02/22/2018 11:42
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZZI-MW3B	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805983-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Giacomazzi Dairy	<b>Sampling Date:</b>	02/22/2018 12:33
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZZI-MW5D	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805983-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Giacomazzi Dairy	<b>Sampling Date:</b>	02/22/2018 12:59
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZZI-MW6D	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805983-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Giacomazzi Dairy	<b>Sampling Date:</b>	02/22/2018 12:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZZI-MW7D	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805983-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Giacomazzi Dairy	<b>Sampling Date:</b>	02/22/2018 10:36
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZZI-MW9D	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805983-01		Client Sample Name: Giacomazzi Dairy, ZZI-MW1C, 2/22/2018 1:33:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	9.7	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	1.3	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	78	mg/L	0.50	0.051	EPA-200.7	0.14		1
Dissolved Potassium	0.69	mg/L	1.0	0.10	EPA-200.7	0.10	J	1
Bicarbonate Alkalinity as CaCO3	160	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	12	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	1.9	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	13	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	280	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.17	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.051	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.51	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:32	02/27/18 00:14	JCC	PE-OP2	1	B005968
2	SM-2320B	03/01/18 08:00	03/01/18 09:16	MEV	MET-1	1	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 01:36	OLH	IC5	1	B006047
4	SM-2540C	02/28/18 14:30	02/28/18 14:30	CAD	MANUAL	2	B006290
5	EPA-351.2	03/08/18 19:40	03/10/18 12:33	JMH	SC-1	1	B007086
6	EPA-350.1	03/12/18 07:43	03/14/18 11:30	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 07:47	JNC	KONE-1	1	B005921
8	EPA-365.4	03/08/18 19:40	03/12/18 10:08	JMH	SC-1	1	B007087

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**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805983-02		Client Sample Name: Giacomazzi Dairy, ZZI-MW2C, 2/22/2018 11:08:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	16	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	2.2	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	93	mg/L	0.50	0.051	EPA-200.7	0.14		1
Dissolved Potassium	0.36	mg/L	1.0	0.10	EPA-200.7	0.10	J	1
Bicarbonate Alkalinity as CaCO3	160	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	31	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	1.4	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	37	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	370	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.035	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.083	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.16	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:32	02/27/18 00:25	JCC	PE-OP2	1	B005968
2	SM-2320B	03/01/18 08:00	03/01/18 09:24	MEV	MET-1	1	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 01:54	OLH	IC5	1	B006047
4	SM-2540C	02/28/18 14:30	02/28/18 14:30	CAD	MANUAL	2	B006290
5	EPA-351.2	03/08/18 19:40	03/10/18 12:33	JMH	SC-1	1	B007086
6	EPA-350.1	03/12/18 07:43	03/14/18 11:33	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 07:47	JNC	KONE-1	1	B005921
8	EPA-365.4	03/08/18 19:40	03/12/18 10:09	JMH	SC-1	1	B007087

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**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805983-03		Client Sample Name: Giacomazzi Dairy, ZZI-MW3B, 2/22/2018 11:42:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	14	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	2.3	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	82	mg/L	0.50	0.051	EPA-200.7	0.14		1
Dissolved Potassium	0.26	mg/L	1.0	0.10	EPA-200.7	0.10	J	1
Bicarbonate Alkalinity as CaCO3	160	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	17	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	3.1	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	20	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	330	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.13	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.020	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.018	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.14	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:32	02/27/18 00:36	JCC	PE-OP2	1	B005968
2	SM-2320B	03/01/18 08:00	03/01/18 09:29	MEV	MET-1	1	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 02:12	OLH	IC5	1	B006047
4	SM-2540C	02/28/18 14:30	02/28/18 14:30	CAD	MANUAL	2	B006290
5	EPA-351.2	03/08/18 23:00	03/10/18 11:02	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:35	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 07:47	JNC	KONE-1	1	B005921
8	EPA-365.4	03/08/18 23:00	03/12/18 09:54	JMH	SC-1	1	B007094

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**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805983-04		Client Sample Name: Giacomazzi Dairy, ZZI-MW5D, 2/22/2018 12:33:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	46	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	11	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	320	mg/L	0.50	0.051	EPA-200.7	0.14		1
Dissolved Potassium	0.65	mg/L	1.0	0.10	EPA-200.7	0.10	J	1
Bicarbonate Alkalinity as CaCO3	470	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	95	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	40	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	95	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.61	mg/L	0.20	0.084	EPA-351.2	ND	A07	5
Ammonia as N	0.040	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.086	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:32	02/27/18 00:39	JCC	PE-OP2	1	B005968
2	SM-2320B	03/01/18 08:00	03/01/18 09:36	MEV	MET-1	2	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 03:41	OLH	IC5	5	B006047
4	SM-2540C	02/28/18 14:30	02/28/18 14:30	CAD	MANUAL	5	B006290
5	EPA-351.2	03/08/18 23:00	03/10/18 11:05	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:37	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 07:47	JNC	KONE-1	1	B005921
8	EPA-365.4	03/08/18 23:00	03/12/18 09:57	JMH	SC-1	1	B007094

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Reported: 03/16/2018 15:39  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Giacomazzi Dariy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805983-05		Client Sample Name: Giacomazzi Dairy, ZZI-MW6D, 2/22/2018 12:59:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	96	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	21	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	380	mg/L	0.50	0.051	EPA-200.7	0.14		1
Dissolved Potassium	0.91	mg/L	1.0	0.10	EPA-200.7	0.10	J	1
Bicarbonate Alkalinity as CaCO3	680	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	140	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	46	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	140	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND	A07	5
Ammonia as N	0.024	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.13	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:32	02/27/18 00:41	JCC	PE-OP2	1	B005968
2	SM-2320B	03/01/18 08:00	03/01/18 09:43	MEV	MET-1	2	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 03:59	OLH	IC5	5	B006047
4	SM-2540C	02/28/18 14:30	02/28/18 14:30	CAD	MANUAL	5	B006290
5	EPA-351.2	03/08/18 23:00	03/10/18 11:07	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:39	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 07:49	JNC	KONE-1	1	B005921
8	EPA-365.4	03/08/18 23:00	03/12/18 09:58	JMH	SC-1	1	B007094

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**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805983-06		Client Sample Name: Giacomazzi Dairy, ZZI-MW7D, 2/22/2018 12:10:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	50	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	7.4	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	280	mg/L	0.50	0.051	EPA-200.7	0.14		1
Dissolved Potassium	0.64	mg/L	1.0	0.10	EPA-200.7	0.10	J	1
Bicarbonate Alkalinity as CaCO3	470	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	93	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	83	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	910	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.39	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.043	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.53	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.61	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:32	02/27/18 00:44	JCC	PE-OP2	1	B005968
2	SM-2320B	03/01/18 08:00	03/01/18 09:50	MEV	MET-1	2	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 04:17	OLH	IC5	2	B006047
4	SM-2540C	02/28/18 14:30	02/28/18 14:30	CAD	MANUAL	5	B006290
5	EPA-351.2	03/08/18 23:00	03/10/18 11:09	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:39	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 07:49	JNC	KONE-1	1	B005921
8	EPA-365.4	03/08/18 23:00	03/12/18 09:59	JMH	SC-1	1	B007094

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**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805983-07		Client Sample Name: Giacomazzi Dairy, ZZI-MW9D, 2/22/2018 10:36:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	19	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	3.2	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	95	mg/L	0.50	0.051	EPA-200.7	0.14		1
Dissolved Potassium	0.33	mg/L	1.0	0.10	EPA-200.7	0.10	J	1
Bicarbonate Alkalinity as CaCO3	160	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	27	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	8.3	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	27	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	350	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.18	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.031	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.029	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.27	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:32	02/27/18 00:47	JCC	PE-OP2	1	B005968
2	SM-2320B	03/01/18 08:00	03/01/18 09:56	MEV	MET-1	1	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 04:35	OLH	IC5	1	B006047
4	SM-2540C	02/28/18 14:30	02/28/18 14:30	CAD	MANUAL	2	B006290
5	EPA-351.2	03/08/18 23:00	03/10/18 11:10	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:40	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 07:49	JNC	KONE-1	1	B005921
8	EPA-365.4	03/08/18 23:00	03/12/18 10:00	JMH	SC-1	1	B007094

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005354</b>						
Bicarbonate Alkalinity as CaCO3	B005354-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005354-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005354-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005921</b>						
Nitrite as N	B005921-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005968</b>						
Dissolved Calcium	B005968-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005968-BLK1	ND	mg/L	0.050	0.019	
<b>Dissolved Sodium</b>	<b>B005968-BLK1</b>	<b>0.14088</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
<b>Dissolved Potassium</b>	<b>B005968-BLK1</b>	<b>0.10363</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B006047</b>						
Chloride	B006047-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006047-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006047-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006290</b>						
Total Dissolved Solids @ 180 C	B006290-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007086</b>						
Total Kjeldahl Nitrogen	B007086-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007087</b>						
Total Phosphate	B007087-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007093</b>						
Total Kjeldahl Nitrogen	B007093-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007094</b>						
Total Phosphate	B007094-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007267</b>						
Ammonia as N	B007267-BLK1	ND	mg/L	0.10	0.020	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005921</b>										
Nitrite as N	B005921-BS1	LCS	0.51167	0.50000	mg/L	102		90 - 110		
<b>QC Batch ID: B005968</b>										
Dissolved Calcium	B005968-BS1	LCS	10.440	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B005968-BS1	LCS	10.078	10.000	mg/L	101		85 - 115		
Dissolved Sodium	B005968-BS1	LCS	11.123	10.000	mg/L	111		85 - 115		
Dissolved Potassium	B005968-BS1	LCS	10.362	10.000	mg/L	104		85 - 115		
<b>QC Batch ID: B006047</b>										
Chloride	B006047-BS1	LCS	50.681	50.000	mg/L	101		90 - 110		
Nitrate as N	B006047-BS1	LCS	4.9430	5.0000	mg/L	98.9		90 - 110		
Sulfate	B006047-BS1	LCS	99.040	100.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B006290</b>										
Total Dissolved Solids @ 180 C	B006290-BS1	LCS	600.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B007086</b>										
Total Kjeldahl Nitrogen	B007086-BS1	LCS	1.9858	2.0000	mg/L	99.3		90 - 110		
<b>QC Batch ID: B007087</b>										
Total Phosphate	B007087-BS1	LCS	3.1876	3.0660	mg/L	104		85 - 115		
<b>QC Batch ID: B007093</b>										
Total Kjeldahl Nitrogen	B007093-BS1	LCS	1.9877	2.0000	mg/L	99.4		90 - 110		
<b>QC Batch ID: B007094</b>										
Total Phosphate	B007094-BS1	LCS	3.3928	3.0660	mg/L	111		85 - 115		
<b>QC Batch ID: B007267</b>										
Ammonia as N	B007267-BS1	LCS	0.95950	1.0000	mg/L	96.0		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 03/16/2018 15:39
Project: Dairy Rep MP - Expanded Suite
Project Number: Giacomazzi Dariy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Qualls. Includes multiple QC batches (B005354, B005921, B005968, B006047, B006290, B007086) and their respective test results.

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B007087</b>		Used client sample: N								
Total Phosphate	DUP	1805982-01	0.10793	0.23426		mg/L	73.8		20	A02
	MS	1805982-01	0.10793	3.4513	3.0660	mg/L		109	80 - 120	
	MSD	1805982-01	0.10793	3.4605	3.0660	mg/L	0.3	109	20 80 - 120	
<b>QC Batch ID: B007093</b>		Used client sample: Y - Description: ZZI-MW3B, 02/22/2018 11:42								
Total Kjeldahl Nitrogen	DUP	1805983-03	0.13070	0.11190		mg/L	15.5		20	J
	MS	1805983-03	0.13070	2.1465	2.0000	mg/L		101	90 - 110	
	MSD	1805983-03	0.13070	2.3783	2.0000	mg/L	10.2	112	20 90 - 110	Q03
<b>QC Batch ID: B007094</b>		Used client sample: Y - Description: ZZI-MW3B, 02/22/2018 11:42								
Total Phosphate	DUP	1805983-03	0.13798	ND		mg/L			20	
	MS	1805983-03	0.13798	3.4062	3.0660	mg/L		107	80 - 120	
	MSD	1805983-03	0.13798	3.3238	3.0660	mg/L	2.5	104	20 80 - 120	
<b>QC Batch ID: B007267</b>		Used client sample: Y - Description: ZZI-MW1C, 02/22/2018 13:33								
Ammonia as N	DUP	1805983-01	0.051300	0.045600		mg/L	11.8		10	J,A02
	MS	1805983-01	0.051300	1.1219	1.1111	mg/L		96.4	90 - 110	
	MSD	1805983-01	0.051300	1.0980	1.1111	mg/L	2.2	94.2	10 90 - 110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 15:39  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Giacomazzi Dariy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 11/05/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: J & A Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1804153  
Invoice ID: B295078

Enclosed are the results of analyses for samples received by the laboratory on 2/6/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000711001

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1804153

Samples were filtered through a 0.45 micron filter for requested analysis.



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Case Narrative

#### Sample Receipt

COC Number:

Samples received refrigerated to 0.9 °C

#### Sample List

<u>Lab Number</u>	<u>Date/Time Sampled</u>	<u>Sample Name</u>
1804153-01	02/06/2018 11:35	JAD-MW4d
1804153-02	02/06/2018 12:20	JAD-MW6d
1804153-03	02/06/2018 12:50	JAD-MW5s

#### Requested Analysis

Calc, EPA-200.7 (Diss), EPA-300.0, EPA-350.1, EPA-351.2, EPA-353.2, EPA-365.4, SM-2320B, SM-2540C

<u>Sample</u>	<u>Analyte</u>	<u>Flag</u>
---------------	----------------	-------------

#### Sample Qualifier Summary

There are no qualifiers for the samples.

#### Holding Times

All holding time requirements were met.

#### Method Blanks

B004413-BLK1	EPA-353.2	Nitrite as N	0.016143 mg/L
--------------	-----------	--------------	---------------

#### Matrix Spikes

Precision and accuracy requirements are within QC limits.

#### LCS

The LCS recoveries are within QC limits.

#### Discussion

Report revision requested. Sample name revised on 1804153-03 to JAD-MW5s.



18-04153

BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Luidorff and Scalmanini		Expanded Constituent Suite		From Filtered Sample:	
Address: 500 First Street		Project: Dairy Representative Monitoring Program		From Filtered Sample:	
City: Woodland		Site: J & A Dairy		Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	
State: 95695		Samplers Name:		From Unfiltered Sample:	
Att: Till Angermann		Global ID - WDR10003668		Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ca Pe Unpreserved
1	JAD-MW1				x
2	JAD-MW2				x
3	JAD-MW3				x
4	JAD-MW4s, JAD-MW4d	02/06/18	1135	W	x
5	JAD-MW5s, JAD-MW5d				x
6	JAD-MW6s, JAD-MW6d	02/06/18	1230	W	x
7	JAD-MW7s, JAD-MW7d				x
8	Field Duplicate				x
9	JAD-MW-SD-3	02/06/18	1250	W	x
10					
11					

Relinquished by: (Signature)	Received By: (Signature)	Date & Time
<i>[Signature]</i>	<i>[Signature]</i>	2/6/18 20:30
Relinquished by: (Signature)	Received By: (Signature)	Date & Time
<i>[Signature]</i>	<i>[Signature]</i>	2/6/18 22:30
Relinquished by: (Signature)	Received By: (Signature)	Date & Time
<i>[Signature]</i>	<i>[Signature]</i>	

**Comments:**  
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rnyson@lscce.com, pethalwell@lscce.com, jlvelis@lscce.com  
4) Send invoices to Jeanette Lovells (jlovells@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-04153

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S \_\_\_\_\_

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.98 Container: PE Thermometer ID: 1058 Date/Time: 2/16/16 12:30

Temperature: (A) 1.2 °C / (C) 0.9 °C Analyst Init: RRE

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A <sub>1</sub> B	A <sub>1</sub> B	A <sub>1</sub> B							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 518/05/0180										
QT EPA 515.1/0150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

CHK BY: [Signature] DISTRIBUTION SUB OUT

SHORT HOLDING TIME  
Cr<sup>6</sup> NO<sub>2</sub> NO<sub>3</sub> OP SS  
DO C<sub>2</sub> H<sub>2</sub>O<sub>2</sub> MBAS COT

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: JR Date/Time: 2-16-16 12:30  
 A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1804153-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/06/2018 22:30
	<b>Project Number:</b>	J & A Dairy	<b>Sampling Date:</b>	02/06/2018 11:35
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	JAD-MW4d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804153-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/06/2018 22:30
	<b>Project Number:</b>	J & A Dairy	<b>Sampling Date:</b>	02/06/2018 12:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	JAD-MW6d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804153-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/06/2018 22:30
	<b>Project Number:</b>	J & A Dairy	<b>Sampling Date:</b>	02/06/2018 12:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	JAD-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804153-01		Client Sample Name: J & A Dairy, JAD-MW4d, 2/6/2018 11:35:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	12	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	67	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.74	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	360	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	31	mg/L	0.50	0.077	EPA-300.0	ND	A07	3
Nitrate as N	11	mg/L	0.10	0.021	EPA-300.0	ND	A07	3
Sulfate	57	mg/L	1.0	0.13	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	530	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.28	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.028	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.017	mg/L	0.050	0.010	EPA-353.2	0.016	J	7
Total Phosphate	0.47	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:10	02/09/18 14:40	JCC	PE-OP2	1	B004494
2	SM-2320B	02/09/18 07:00	02/09/18 12:17	MEV	MET-1	1	B003234
3	EPA-300.0	02/07/18 22:00	02/08/18 09:56	OLH	IC1	1	B004355
4	SM-2540C	02/10/18 11:30	02/10/18 11:30	CAD	MANUAL	3.333	B004546
5	EPA-351.2	02/14/18 20:00	02/20/18 14:48	JMH	SC-1	1	B004967
6	EPA-350.1	02/21/18 07:37	02/22/18 15:51	JMH	SC-1	1	B005497
7	EPA-353.2	02/08/18 07:13	02/08/18 07:14	JNC	KONE-1	1	B004413
8	EPA-365.4	02/14/18 20:00	02/21/18 13:24	JMH	SC-1	1	B004968

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804153-02		Client Sample Name: J & A Dairy, JAD-MW6d, 2/6/2018 12:20:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	4.7	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	88	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	290	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	37	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	21	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	110	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	800	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.31	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.040	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	0.016	J	7
Total Phosphate	0.29	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:10	02/09/18 14:43	JCC	PE-OP2	1	B004494
2	SM-2320B	02/09/18 07:00	02/09/18 12:25	MEV	MET-1	2	B003234
3	EPA-300.0	02/07/18 22:00	02/08/18 02:33	OLH	IC1	2	B004355
4	SM-2540C	02/10/18 11:30	02/10/18 11:30	CAD	MANUAL	5	B004546
5	EPA-351.2	02/14/18 20:00	02/20/18 14:52	JMH	SC-1	1	B004967
6	EPA-350.1	02/21/18 07:37	02/22/18 15:52	JMH	SC-1	1	B005497
7	EPA-353.2	02/08/18 07:13	02/08/18 07:14	JNC	KONE-1	1	B004413
8	EPA-365.4	02/14/18 20:00	02/21/18 13:27	JMH	SC-1	1	B004968

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804153-03		Client Sample Name: J & A Dairy, JAD-MW5s, 2/6/2018 12:50:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	18	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	74	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	350	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	36	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	14	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	93	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	600	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.5	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.050	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.018	mg/L	0.050	0.010	EPA-353.2	0.016	J	7
Total Phosphate	16	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:10	02/09/18 14:45	JCC	PE-OP2	1	B004494
2	SM-2320B	02/09/18 07:00	02/09/18 12:31	MEV	MET-1	2	B003234
3	EPA-300.0	02/07/18 22:00	02/08/18 10:15	OLH	IC1	1	B004355
4	SM-2540C	02/10/18 11:30	02/10/18 11:30	CAD	MANUAL	3.333	B004546
5	EPA-351.2	02/14/18 20:00	02/20/18 14:53	JMH	SC-1	1	B004967
6	EPA-350.1	02/21/18 07:37	02/22/18 15:53	JMH	SC-1	1	B005497
7	EPA-353.2	02/08/18 07:13	02/08/18 07:14	JNC	KONE-1	1	B004413
8	EPA-365.4	02/14/18 20:00	02/21/18 13:53	JMH	SC-1	5	B004968

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003234</b>						
Bicarbonate Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004355</b>						
Chloride	B004355-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004355-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004355-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004413</b>						
Nitrite as N	B004413-BLK1	0.016143	mg/L	0.050	0.010	J
<b>QC Batch ID: B004494</b>						
Dissolved Calcium	B004494-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B004494-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B004494-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B004494-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B004546</b>						
Total Dissolved Solids @ 180 C	B004546-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B004967</b>						
Total Kjeldahl Nitrogen	B004967-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B004968</b>						
Total Phosphate	B004968-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B005497</b>						
Ammonia as N	B005497-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004355</b>										
Chloride	B004355-BS1	LCS	51.223	50.000	mg/L	102		90 - 110		
Nitrate as N	B004355-BS1	LCS	4.9560	5.0000	mg/L	99.1		90 - 110		
Sulfate	B004355-BS1	LCS	102.42	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B004413</b>										
Nitrite as N	B004413-BS1	LCS	0.52575	0.50000	mg/L	105		90 - 110		
<b>QC Batch ID: B004494</b>										
Dissolved Calcium	B004494-BS1	LCS	10.366	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B004494-BS1	LCS	10.408	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B004494-BS1	LCS	9.2297	10.000	mg/L	92.3		85 - 115		
Dissolved Potassium	B004494-BS1	LCS	9.5005	10.000	mg/L	95.0		85 - 115		
<b>QC Batch ID: B004546</b>										
Total Dissolved Solids @ 180 C	B004546-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
<b>QC Batch ID: B004967</b>										
Total Kjeldahl Nitrogen	B004967-BS1	LCS	2.0781	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B004968</b>										
Total Phosphate	B004968-BS1	LCS	3.1376	3.0660	mg/L	102		85 - 115		
<b>QC Batch ID: B005497</b>										
Ammonia as N	B005497-BS1	LCS	1.0247	1.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 11/05/2018 16:59  
Project: Dairy Rep MP - Expanded Suite  
Project Number: J & A Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B003234</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1804126-08	215.88	215.57		mg/L	0.1		10	
Carbonate Alkalinity as CaCO3	DUP	1804126-08	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1804126-08	ND	ND		mg/L			10	
<b>QC Batch ID: B004355</b>		Used client sample: N								
Chloride	DUP	1804150-04	82.414	83.463		mg/L	1.3		10	
	MS	1804150-04	82.414	135.14	50.505	mg/L		104		80 - 120
	MSD	1804150-04	82.414	135.19	50.505	mg/L	0.0	104	10	80 - 120
Nitrate as N	DUP	1804150-04	3.0980	3.1330		mg/L	1.1		10	
	MS	1804150-04	3.0980	8.1818	5.0505	mg/L		101		80 - 120
	MSD	1804150-04	3.0980	8.2354	5.0505	mg/L	0.7	102	10	80 - 120
Sulfate	DUP	1804150-04	153.31	155.52		mg/L	1.4		10	
	MS	1804150-04	153.31	259.54	101.01	mg/L		105		80 - 120
	MSD	1804150-04	153.31	258.37	101.01	mg/L	0.4	104	10	80 - 120
<b>QC Batch ID: B004413</b>		Used client sample: Y - Description: DLF-MW6B, 02/06/2018 09:20								
Nitrite as N	DUP	1804152-01	0.015556	0.015247		mg/L	2.0		10	J
	MS	1804152-01	0.015556	0.54988	0.52632	mg/L		102		90 - 110
	MSD	1804152-01	0.015556	0.53904	0.52632	mg/L	2.0	99.5	10	90 - 110
<b>QC Batch ID: B004494</b>		Used client sample: Y - Description: SIE-MW1, 02/06/2018 15:05								
Dissolved Calcium	DUP	1804151-01	102.24	102.40		mg/L	0.2		20	
	MS	1804151-01	102.24	112.68	10.204	mg/L		102		85 - 115
	MSD	1804151-01	102.24	112.86	10.204	mg/L	0.2	104	20	85 - 115
Dissolved Magnesium	DUP	1804151-01	20.011	20.287		mg/L	1.4		20	
	MS	1804151-01	20.011	30.472	10.204	mg/L		103		85 - 115
	MSD	1804151-01	20.011	30.801	10.204	mg/L	1.1	106	20	85 - 115
Dissolved Sodium	DUP	1804151-01	28.730	28.734		mg/L	0.0		20	
	MS	1804151-01	28.730	37.739	10.204	mg/L		88.3		85 - 115
	MSD	1804151-01	28.730	37.886	10.204	mg/L	0.4	89.7	20	85 - 115
Dissolved Potassium	DUP	1804151-01	1.2328	1.1514		mg/L	6.8		20	
	MS	1804151-01	1.2328	11.097	10.204	mg/L		96.7		85 - 115
	MSD	1804151-01	1.2328	11.045	10.204	mg/L	0.5	96.2	20	85 - 115
<b>QC Batch ID: B004546</b>		Used client sample: Y - Description: JAD-MW6d, 02/06/2018 12:20								
Total Dissolved Solids @ 180 C	DUP	1804153-02	800.00	810.00		mg/L	1.2		10	
<b>QC Batch ID: B004967</b>		Used client sample: Y - Description: JAD-MW4d, 02/06/2018 11:35								
Total Kjeldahl Nitrogen	DUP	1804153-01	0.27700	0.27540		mg/L	0.6		20	
	MS	1804153-01	0.27700	2.2749	2.0000	mg/L		99.9		90 - 110
	MSD	1804153-01	0.27700	2.1588	2.0000	mg/L	5.2	94.1	20	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004968</b>		Used client sample: Y - Description: JAD-MW4d, 02/06/2018 11:35								
Total Phosphate	DUP	1804153-01	0.47005	0.46422		mg/L	1.2		20	
	MS	1804153-01	0.47005	3.6224	3.0660	mg/L		103		80 - 120
	MSD	1804153-01	0.47005	3.6255	3.0660	mg/L	0.1	103	20	80 - 120
<b>QC Batch ID: B005497</b>		Used client sample: Y - Description: SIE-MW1, 02/06/2018 15:05								
Ammonia as N	DUP	1804151-01	0.027800	0.029900		mg/L	7.3		10	J
	MS	1804151-01	0.027800	1.1256	1.1111	mg/L		98.8		90 - 110
	MSD	1804151-01	0.027800	1.1248	1.1111	mg/L	0.1	98.7	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 11/05/2018 16:59  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J & A Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/21/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Longfellow Farming Co  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805984  
Invoice ID: B297778

Enclosed are the results of analyses for samples received by the laboratory on 2/22/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805984

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody	
4100 Atlas CL Bakersfield, CA 93308 (661) 327-4911		Analysis Requested	
Report to: Expanded Constituent Suite		From Filtered Sample:	From Unfiltered Sample:
Name: Luhdorff and Scalmanini		Na, K, Mg, Ca, Cl, SO <sub>4</sub> (as SO <sub>4</sub> ), Total Dissolved Solids	Total Kjeldahl Nitrogen, Total Phosphate (as PO <sub>4</sub> ), Alkalinity (HCO <sub>3</sub> , CO <sub>3</sub> & OH) as CaCO <sub>3</sub>
Address: 500 First Street		From Filtered Sample:	
City: Woodland		Ammonia-N, NO <sub>3</sub> -N, NO <sub>2</sub> -N	
State: 95695			
Attr: Till Angermann			
Global ID - WDO100006573			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled
1	LON-MW1A, LON-MW1B LON-MW1C	2/22/18	1419
2	LON-MW2A, LON-MW2B LON-MW2C		1443
3	LON-MW3A, LON-MW3B LON-MW3C		1705
4	LON-MW4A, LON-MW4B LON-MW4C, LON-MW4D		1605
5	LON-MW5A, LON-MW5B LON-MW5C		
6	LON-MW6A, LON-MW6B LON-MW6C		
7	LON-MW7A, LON-MW7B LON-MW7C, LON-MW7D		1632
8	Field Duplicate		
9			
10			
11			

Matrix: GW	Retinquinished by: (Signature)	Date & Time
	Retinquinished by: (Signature)	2-22-18 1415
	Retinquinished by: (Signature)	2-22-18 1415
	Retinquinished by: (Signature)	2-22-18 1415

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rryson@lsc.com, pdhalwal@lsc.com, pdhalwal@lsc.com, jowells@lsc.com  
 4) Send invoices to Jeanette Lovells (jlovells@lsc.com).

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1805984

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Intact? Yes  No  Intact? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.95 Container: PE Thermometer ID: 108 Date/Time: 2/22/18 12:45 Analyst Init: PXL

Temperature: (A) 1.0 °C / (C) 0.7 °C

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AB	AB	AB	AB	AB	AB				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C	C	C	C	C				
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: CSL Date/Time: 2/22/18 12:58

A = Actual / C = Corrected

Rev 21 05/23/2016  
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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805984-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Longfellow Farming Co.	<b>Sampling Date:</b>	02/22/2018 14:19
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	LON-MW1C	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805984-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Longfellow Farming Co.	<b>Sampling Date:</b>	02/22/2018 14:43
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	LON-MW2C	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805984-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Longfellow Farming Co.	<b>Sampling Date:</b>	02/22/2018 17:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	LON-MW3B	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805984-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Longfellow Farming Co.	<b>Sampling Date:</b>	02/22/2018 16:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	LON-MW4C	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805984-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Longfellow Farming Co.	<b>Sampling Date:</b>	02/22/2018 16:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	LON-MW7D	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805984-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Longfellow Farming Co.	<b>Sampling Date:</b>	02/22/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805984-01		Client Sample Name: Longfellow Farming Co., LON-MW1C, 2/22/2018 2:19:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	72	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	4.4	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	98	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.45	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	200	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	100	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	13	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	41	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	520	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.17	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.025	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.096	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 17:43	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 08:00	03/01/18 10:04	MEV	MET-1	1	B005354
3	EPA-300.0	02/23/18 22:00	02/23/18 23:48	OLH	IC5	1	B006046
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	3.333	B006346
5	EPA-351.2	03/08/18 23:00	03/10/18 11:11	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:41	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 08:03	JNC	KONE-1	1	B005923
8	EPA-365.4	03/08/18 23:00	03/12/18 10:00	JMH	SC-1	1	B007094

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Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805984-02		Client Sample Name: Longfellow Farming Co., LON-MW2C, 2/22/2018 2:43:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	9.0	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	150	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.63	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	410	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	190	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	12	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	49	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	840	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.32	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.025	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.067	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 17:57	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 08:00	03/01/18 09:02	MEV	MET-1	2	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 00:06	OLH	IC5	1	B006046
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	5	B006346
5	EPA-351.2	03/08/18 23:00	03/10/18 11:12	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:42	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 08:07	JNC	KONE-1	1	B005923
8	EPA-365.4	03/08/18 23:00	03/12/18 10:01	JMH	SC-1	1	B007094

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Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805984-03	<b>Client Sample Name:</b> Longfellow Farming Co., LON-MW3B, 2/22/2018 5:05:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	7.2	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	140	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	250	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	190	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	10	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	120	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	840	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.66	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.039	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.030	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.68	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 18:07	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 08:00	03/01/18 10:10	MEV	MET-1	2	B005354
3	EPA-300.0	02/23/18 22:00	02/24/18 00:24	OLH	IC5	1	B006046
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	5	B006346
5	EPA-351.2	03/08/18 23:00	03/10/18 11:12	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:43	03/14/18 11:42	JMH	SC-1	1	B007267
7	EPA-353.2	02/23/18 07:34	02/23/18 08:07	JNC	KONE-1	1	B005923
8	EPA-365.4	03/08/18 23:00	03/12/18 10:01	JMH	SC-1	1	B007094

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Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805984-04		Client Sample Name: Longfellow Farming Co., LON-MW4C, 2/22/2018 4:05:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	230	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	17	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	260	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.98	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	400	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	400	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	55	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	160	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.44	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.045	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.16	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 18:10	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 08:00	03/01/18 10:59	MEV	MET-1	2	B005355
3	EPA-300.0	02/23/18 22:00	02/24/18 00:42	OLH	IC5	5	B006046
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006346
5	EPA-351.2	03/08/18 23:00	03/10/18 11:14	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:44	03/14/18 11:46	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 08:07	JNC	KONE-1	1	B005923
8	EPA-365.4	03/08/18 23:00	03/12/18 10:02	JMH	SC-1	1	B007094

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Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805984-05		Client Sample Name: Longfellow Farming Co., LON-MW7D, 2/22/2018 4:32:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	220	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	24	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	290	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	300	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	580	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	47	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	160	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.30	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.026	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.54	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 18:13	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 08:00	03/01/18 14:28	MEV	MET-1	2	B005357
3	EPA-300.0	02/23/18 22:00	02/24/18 01:00	OLH	IC5	5	B006046
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006346
5	EPA-351.2	03/08/18 23:00	03/10/18 11:14	JMH	SC-1	1	B007093
6	EPA-350.1	03/12/18 07:44	03/14/18 11:51	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 08:07	JNC	KONE-1	1	B005923
8	EPA-365.4	03/08/18 23:00	03/12/18 10:03	JMH	SC-1	1	B007094

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**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805984-06		Client Sample Name: Longfellow Farming Co., Field Duplicate, 2/22/2018 12:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	9.2	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	160	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.77	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	410	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	200	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	11	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	46	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	840	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.033	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.069	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 18:15	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 08:00	03/01/18 14:37	MEV	MET-1	2	B005357
3	EPA-300.0	02/23/18 22:00	02/24/18 10:15	OLH	IC5	2	B006046
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	5	B006346
5	EPA-351.2	03/09/18 10:45	03/13/18 12:21	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:44	03/14/18 11:51	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 08:07	JNC	KONE-1	1	B005923
8	EPA-365.4	03/09/18 10:45	03/13/18 13:48	JMH	SC-1	1	B007151

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Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005354</b>						
Bicarbonate Alkalinity as CaCO3	B005354-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005354-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005354-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005355</b>						
Bicarbonate Alkalinity as CaCO3	B005355-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005355-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005355-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005357</b>						
Bicarbonate Alkalinity as CaCO3	B005357-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005357-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005357-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005923</b>						
Nitrite as N	B005923-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005966</b>						
Dissolved Calcium	B005966-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005966-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005966-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005966-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006046</b>						
Chloride	B006046-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006046-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006046-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006346</b>						
Total Dissolved Solids @ 180 C	B006346-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007093</b>						
Total Kjeldahl Nitrogen	B007093-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007094</b>						
Total Phosphate	B007094-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007151</b>						
Total Phosphate	B007151-BLK1	ND	mg/L	0.15	0.060	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007155</b>						
Total Kjeldahl Nitrogen	B007155-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007267</b>						
Ammonia as N	B007267-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B007268</b>						
Ammonia as N	B007268-BLK1	ND	mg/L	0.10	0.020	

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**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005923</b>										
Nitrite as N	B005923-BS1	LCS	0.51514	0.50000	mg/L	103		90 - 110		
<b>QC Batch ID: B005966</b>										
Dissolved Calcium	B005966-BS1	LCS	10.149	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B005966-BS1	LCS	10.597	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B005966-BS1	LCS	10.281	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B005966-BS1	LCS	9.8560	10.000	mg/L	98.6		85 - 115		
<b>QC Batch ID: B006046</b>										
Chloride	B006046-BS1	LCS	52.200	50.000	mg/L	104		90 - 110		
Nitrate as N	B006046-BS1	LCS	5.0990	5.0000	mg/L	102		90 - 110		
Sulfate	B006046-BS1	LCS	101.80	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B006346</b>										
Total Dissolved Solids @ 180 C	B006346-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
<b>QC Batch ID: B007093</b>										
Total Kjeldahl Nitrogen	B007093-BS1	LCS	1.9877	2.0000	mg/L	99.4		90 - 110		
<b>QC Batch ID: B007094</b>										
Total Phosphate	B007094-BS1	LCS	3.3928	3.0660	mg/L	111		85 - 115		
<b>QC Batch ID: B007151</b>										
Total Phosphate	B007151-BS1	LCS	3.4332	3.0660	mg/L	112		85 - 115		
<b>QC Batch ID: B007155</b>										
Total Kjeldahl Nitrogen	B007155-BS1	LCS	2.1078	2.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B007267</b>										
Ammonia as N	B007267-BS1	LCS	0.95950	1.0000	mg/L	96.0		90 - 110		
<b>QC Batch ID: B007268</b>										
Ammonia as N	B007268-BS1	LCS	0.96880	1.0000	mg/L	96.9		90 - 110		

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500 First Street
Woodland, CA 95695

Reported: 03/21/2018 14:13
Project: Dairy Rep MP - Expanded Suite
Project Number: Longfellow Farming Co
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes multiple QC batches (B005354, B005355, B005357, B005923, B005966, B006046) and various chemical constituents like Bicarbonate Alkalinity, Nitrite as N, Dissolved Calcium, etc.

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Woodland, CA 95695

Reported: 03/21/2018 14:13  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Longfellow Farming Co  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006046</b>		Used client sample: Y - Description: LON-MW1C, 02/22/2018 14:19								
Sulfate	DUP	1805984-01	41.161	41.994		mg/L	2.0		10	
	MS	1805984-01	41.161	157.66	101.01	mg/L		115	80 - 120	
	MSD	1805984-01	41.161	157.37	101.01	mg/L	0.2	115	10	80 - 120
<b>QC Batch ID: B006346</b>		Used client sample: Y - Description: LON-MW3B, 02/22/2018 17:05								
Total Dissolved Solids @ 180 C	DUP	1805984-03	835.00	815.00		mg/L	2.4		10	
<b>QC Batch ID: B007093</b>		Used client sample: Y - Description: ZZI-MW3B, 02/22/2018 11:42								
Total Kjeldahl Nitrogen	DUP	1805983-03	0.13070	0.11190		mg/L	15.5		20	J
	MS	1805983-03	0.13070	2.1465	2.0000	mg/L		101	90 - 110	
	MSD	1805983-03	0.13070	2.3783	2.0000	mg/L	10.2	112	20	90 - 110 Q03
<b>QC Batch ID: B007094</b>		Used client sample: Y - Description: ZZI-MW3B, 02/22/2018 11:42								
Total Phosphate	DUP	1805983-03	0.13798	ND		mg/L			20	
	MS	1805983-03	0.13798	3.4062	3.0660	mg/L		107	80 - 120	
	MSD	1805983-03	0.13798	3.3238	3.0660	mg/L	2.5	104	20	80 - 120
<b>QC Batch ID: B007151</b>		Used client sample: Y - Description: Field Duplicate, 02/22/2018 00:00								
Total Phosphate	DUP	1805984-06	ND	ND		mg/L			20	
	MS	1805984-06	ND	3.1579	3.0660	mg/L		103	80 - 120	
	MSD	1805984-06	ND	3.0889	3.0660	mg/L	2.2	101	20	80 - 120
<b>QC Batch ID: B007155</b>		Used client sample: Y - Description: Field Duplicate, 02/22/2018 00:00								
Total Kjeldahl Nitrogen	DUP	1805984-06	ND	ND		mg/L			20	
	MS	1805984-06	ND	0.88420	2.0000	mg/L		44.2	90 - 110	Q03
	MSD	1805984-06	ND	0.60780	2.0000	mg/L	37.1	30.4	20	90 - 110 Q02,Q03
<b>QC Batch ID: B007267</b>		Used client sample: Y - Description: ZZI-MW1C, 02/22/2018 13:33								
Ammonia as N	DUP	1805983-01	0.051300	0.045600		mg/L	11.8		10	J,A02
	MS	1805983-01	0.051300	1.1219	1.1111	mg/L		96.4	90 - 110	
	MSD	1805983-01	0.051300	1.0980	1.1111	mg/L	2.2	94.2	10	90 - 110
<b>QC Batch ID: B007268</b>		Used client sample: Y - Description: LON-MW4C, 02/22/2018 16:05								
Ammonia as N	DUP	1805984-04	0.044800	0.034800		mg/L	25.1		10	J,A02
	MS	1805984-04	0.044800	1.1506	1.1111	mg/L		99.5	90 - 110	
	MSD	1805984-04	0.044800	1.1681	1.1111	mg/L	1.5	101	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/21/2018 14:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Longfellow Farming Co  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q02 Matrix spike precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.

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Date of Report: 03/22/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Machado Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806082  
Invoice ID: B297965

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806082

Samples were filtered through a 0.45 micron filter for requested analysis.



18-06082

BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:			Analysis Requested		
Name:	Luhdorff and Scalmani	Expanded Constituent Suite	From Filtered Sample:	From Filtered Sample:	From Unfiltered Sample:
Address:	500 First Street	Project: Dairy Representative Monitoring Program	Ammonia-N, NO3-N, NO2-N	Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
City:	Woodland	Site: Machado Dairy			
State:	95695	Samplers Name:			
Attn:	Till Angermann	Global ID - WDR100038665			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Matrix
1	<del>AD0-MW1d</del>	02/23/18	0937	GW	x
2	<del>AD0-MW2d</del>	02/23/18	1107	GW	x
3	filterB.DupHight				x
4					
5					
6					
7					
8					
9					
10					
Comments:		Relinquished by: (Signature) <i>Edward Chung</i>		Received By: <i>[Signature]</i> Date & Time: 2/23/18 1330	
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this COC. 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: lsc@lsc.com, tbyrson@lsc.com, pdhalwa@lsc.com, jlovelis@lsc.com 4) Send invoices to Jeanette Lovelis (jlovelis@lsc.com).		Relinquished by: (Signature) <i>[Signature]</i>		Received By: Date & Time	
(A)= Analysis (C)= Container (P)= Preservative		Relinquished by: (Signature) <i>[Signature]</i>		Received By: Date & Time	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-06082

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Intact? Yes  No  Intact? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO Emissivity: 0.95 Container: PE Thermometer ID: TH274 Date/Time: 2/23/18 1330  
 Temperature: (A) 8.2 °C / (C) 8.9 °C Analyst Init: VMB

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	B								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C								
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: JPL Date/Time: 2-23-18 1339 Rev 21 05/23/2016  
 A = Actual / C = Corrected

IS:\WPDoc\Work\Project\LAB\_DOCS\FORMS\SAMPRE251

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Machado Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806082-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 13:30
	<b>Project Number:</b>	Machado Dairy	<b>Sampling Date:</b>	02/23/2018 09:37
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ADO-MW1d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806082-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 13:30
	<b>Project Number:</b>	Machado Dairy	<b>Sampling Date:</b>	02/23/2018 11:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ADO-MW2d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
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**Reported:** 03/22/2018 15:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Machado Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806082-01		Client Sample Name: Machado Dairy, ADO-MW1d, 2/23/2018 9:37:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	0.031		1
Dissolved Magnesium	77	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	46	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	8.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	620	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	76	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	18	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	40	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	860	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.20	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.034	mg/L	0.10	0.020	EPA-350.1	0.030	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.20	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:19	03/07/18 13:03	JCC	PE-OP2	1	B005962
2	SM-2320B	03/02/18 07:30	03/02/18 13:50	MEV	MET-1	2	B005364
3	EPA-300.0	02/23/18 22:00	02/24/18 04:53	OLH	IC5	2	B006046
4	SM-2540C	03/01/18 14:30	03/01/18 14:30	CAD	MANUAL	5	B006414
5	EPA-351.2	03/09/18 10:45	03/12/18 14:03	JMH	SC-1	1	B007152
6	EPA-350.1	03/12/18 07:45	03/14/18 12:15	JMH	SC-1	1	B007269
7	EPA-353.2	02/23/18 18:00	02/23/18 18:26	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/12/18 12:39	JMH	SC-1	1	B007148

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Machado Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806082-02		Client Sample Name: Machado Dairy, ADO-MW2d, 2/23/2018 11:07:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	89	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	47	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	41	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	7.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	370	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	75	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	18	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	39	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	600	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.16	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.040	mg/L	0.10	0.020	EPA-350.1	0.024	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	2.9	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:19	03/12/18 11:19	JCC	PE-OP2	1	B007262
2	SM-2320B	03/02/18 07:30	03/02/18 14:04	MEV	MET-1	1	B005364
3	EPA-300.0	02/23/18 22:00	02/24/18 05:11	OLH	IC5	2	B006046
4	SM-2540C	03/01/18 14:30	03/01/18 14:30	CAD	MANUAL	3.333	B006414
5	EPA-351.2	03/09/18 10:45	03/12/18 14:07	JMH	SC-1	1	B007152
6	EPA-350.1	03/12/18 07:46	03/14/18 12:18	JMH	SC-1	1	B007272
7	EPA-353.2	02/23/18 18:00	02/23/18 18:26	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/12/18 11:31	JMH	SC-1	1	B007148

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Machado Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005364</b>						
Bicarbonate Alkalinity as CaCO3	B005364-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005364-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005364-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005924</b>						
Nitrite as N	B005924-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005962</b>						
Dissolved Calcium	B005962-BLK1	0.031353	mg/L	0.10	0.016	J
Dissolved Magnesium	B005962-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005962-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005962-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006046</b>						
Chloride	B006046-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006046-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006046-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006414</b>						
Total Dissolved Solids @ 180 C	B006414-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007148</b>						
Total Phosphate	B007148-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007152</b>						
Total Kjeldahl Nitrogen	B007152-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007262</b>						
Dissolved Calcium	B007262-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B007262-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B007262-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B007262-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B007269</b>						
Ammonia as N	B007269-BLK1	0.029800	mg/L	0.10	0.020	J
<b>QC Batch ID: B007272</b>						
Ammonia as N	B007272-BLK1	0.024000	mg/L	0.10	0.020	J

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500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Machado Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005924</b>										
Nitrite as N	B005924-BS1	LCS	0.49515	0.50000	mg/L	99.0		90 - 110		
<b>QC Batch ID: B005962</b>										
Dissolved Calcium	B005962-BS1	LCS	10.487	10.000	mg/L	105		85 - 115		
Dissolved Magnesium	B005962-BS1	LCS	10.343	10.000	mg/L	103		85 - 115		
Dissolved Sodium	B005962-BS1	LCS	10.519	10.000	mg/L	105		85 - 115		
Dissolved Potassium	B005962-BS1	LCS	10.175	10.000	mg/L	102		85 - 115		
<b>QC Batch ID: B006046</b>										
Chloride	B006046-BS1	LCS	52.200	50.000	mg/L	104		90 - 110		
Nitrate as N	B006046-BS1	LCS	5.0990	5.0000	mg/L	102		90 - 110		
Sulfate	B006046-BS1	LCS	101.80	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B006414</b>										
Total Dissolved Solids @ 180 C	B006414-BS1	LCS	600.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B007148</b>										
Total Phosphate	B007148-BS1	LCS	3.2186	3.0660	mg/L	105		85 - 115		
<b>QC Batch ID: B007152</b>										
Total Kjeldahl Nitrogen	B007152-BS1	LCS	1.9201	2.0000	mg/L	96.0		90 - 110		
<b>QC Batch ID: B007262</b>										
Dissolved Calcium	B007262-BS1	LCS	10.395	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B007262-BS1	LCS	10.356	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B007262-BS1	LCS	10.508	10.000	mg/L	105		85 - 115		
Dissolved Potassium	B007262-BS1	LCS	9.9139	10.000	mg/L	99.1		85 - 115		
<b>QC Batch ID: B007269</b>										
Ammonia as N	B007269-BS1	LCS	1.0040	1.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B007272</b>										
Ammonia as N	B007272-BS1	LCS	1.0226	1.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/22/2018 15:58  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Machado Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005364</b>		Used client sample: Y - Description: ADO-MW1d, 02/23/2018 09:37								
Bicarbonate Alkalinity as CaCO3	DUP	1806082-01	624.96	619.79		mg/L	0.8		10	
Carbonate Alkalinity as CaCO3	DUP	1806082-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806082-01	ND	ND		mg/L			10	
<b>QC Batch ID: B005924</b>		Used client sample: Y - Description: BET-MW1s, 02/22/2018 11:27								
Nitrite as N	DUP	1805985-01	ND	ND		mg/L			10	
	MS	1805985-01	ND	0.52889	0.52632	mg/L		100		90 - 110
	MSD	1805985-01	ND	0.52664	0.52632	mg/L	0.4	100	10	90 - 110
<b>QC Batch ID: B005962</b>		Used client sample: Y - Description: ADO-MW1d, 02/23/2018 09:37								
Dissolved Calcium	DUP	1806082-01	152.16	152.05		mg/L	0.1		20	
	MS	1806082-01	152.16	160.18	10.204	mg/L		78.6		85 - 115 A03
	MSD	1806082-01	152.16	159.53	10.204	mg/L	0.4	72.2	20	85 - 115 A03
Dissolved Magnesium	DUP	1806082-01	77.052	76.280		mg/L	1.0		20	
	MS	1806082-01	77.052	86.442	10.204	mg/L		92.0		85 - 115
	MSD	1806082-01	77.052	86.080	10.204	mg/L	0.4	88.5	20	85 - 115
Dissolved Sodium	DUP	1806082-01	46.355	46.182		mg/L	0.4		20	
	MS	1806082-01	46.355	55.500	10.204	mg/L		89.6		85 - 115
	MSD	1806082-01	46.355	55.278	10.204	mg/L	0.4	87.4	20	85 - 115
Dissolved Potassium	DUP	1806082-01	7.9998	8.0348		mg/L	0.4		20	
	MS	1806082-01	7.9998	18.259	10.204	mg/L		101		85 - 115
	MSD	1806082-01	7.9998	18.334	10.204	mg/L	0.4	101	20	85 - 115
<b>QC Batch ID: B006046</b>		Used client sample: Y - Description: LON-MW1C, 02/22/2018 14:19								
Chloride	DUP	1805984-01	100.69	102.82		mg/L	2.1		10	
	MS	1805984-01	100.69	155.22	50.505	mg/L		108		80 - 120
	MSD	1805984-01	100.69	155.54	50.505	mg/L	0.2	109	10	80 - 120
Nitrate as N	DUP	1805984-01	12.792	12.986		mg/L	1.5		10	
	MS	1805984-01	12.792	18.154	5.0505	mg/L		106		80 - 120
	MSD	1805984-01	12.792	18.152	5.0505	mg/L	0.0	106	10	80 - 120
Sulfate	DUP	1805984-01	41.161	41.994		mg/L	2.0		10	
	MS	1805984-01	41.161	157.66	101.01	mg/L		115		80 - 120
	MSD	1805984-01	41.161	157.37	101.01	mg/L	0.2	115	10	80 - 120
<b>QC Batch ID: B006414</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1806080-01	4380.0	4480.0		mg/L	2.3		10	
<b>QC Batch ID: B007148</b>		Used client sample: Y - Description: ADO-MW1d, 02/23/2018 09:37								
Total Phosphate	DUP	1806082-01	0.19716	0.11253		mg/L	54.7		20	J,A02
	MS	1806082-01	0.19716	3.3566	3.0660	mg/L		103		80 - 120
	MSD	1806082-01	0.19716	3.3323	3.0660	mg/L	0.7	102	20	80 - 120

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500 First Street  
Woodland, CA 95695

Reported: 03/22/2018 15:58  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Machado Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B007152</b>		Used client sample: Y - Description: ADO-MW1d, 02/23/2018 09:37								
Total Kjeldahl Nitrogen	DUP	1806082-01	0.19980	0.17290		mg/L	14.4		20	J
	MS	1806082-01	0.19980	2.2041	2.0000	mg/L		100	90 - 110	
	MSD	1806082-01	0.19980	2.1820	2.0000	mg/L	1.0	99.1	20	90 - 110
<b>QC Batch ID: B007262</b>		Used client sample: N								
Dissolved Calcium	DUP	1806839-01	3.8425	3.8537		mg/L	0.3		20	
	MS	1806839-01	3.8425	14.036	10.204	mg/L		99.9	85 - 115	
	MSD	1806839-01	3.8425	14.064	10.204	mg/L	0.2	100	20	85 - 115
Dissolved Magnesium	DUP	1806839-01	ND	0.024978		mg/L			20	J
	MS	1806839-01	ND	10.427	10.204	mg/L		102	85 - 115	
	MSD	1806839-01	ND	10.422	10.204	mg/L	0.0	102	20	85 - 115
Dissolved Sodium	DUP	1806839-01	46.402	46.975		mg/L	1.2		20	
	MS	1806839-01	46.402	56.995	10.204	mg/L		104	85 - 115	
	MSD	1806839-01	46.402	56.558	10.204	mg/L	0.8	99.5	20	85 - 115
Dissolved Potassium	DUP	1806839-01	0.38909	0.28332		mg/L	31.5		20	J,A02
	MS	1806839-01	0.38909	10.377	10.204	mg/L		97.9	85 - 115	
	MSD	1806839-01	0.38909	10.220	10.204	mg/L	1.5	96.3	20	85 - 115
<b>QC Batch ID: B007269</b>		Used client sample: Y - Description: BET-MW8s, 02/22/2018 09:27								
Ammonia as N	DUP	1805985-08	0.036900	0.028300		mg/L	26.4		10	J,A02
	MS	1805985-08	0.036900	1.1267	1.1111	mg/L		98.1	90 - 110	
	MSD	1805985-08	0.036900	1.1267	1.1111	mg/L	0	98.1	10	90 - 110
<b>QC Batch ID: B007272</b>		Used client sample: Y - Description: ADO-MW2d, 02/23/2018 11:07								
Ammonia as N	DUP	1806082-02	0.040500	0.029800		mg/L	30.4		10	J,A02
	MS	1806082-02	0.040500	1.1387	1.1111	mg/L		98.8	90 - 110	
	MSD	1806082-02	0.040500	1.1307	1.1111	mg/L	0.7	98.1	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Machado Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 02/26/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: [none]

BCL Project: Dairy Rep MP - Expanded Suite

BCL Work Order: 1804360

Invoice ID: B295209

Enclosed are the results of analyses for samples received by the laboratory on 2/7/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1804360

Samples were filtered through a 0.45 micron filter for requested analysis.





LABORATORIES INC. COOLER RECEIPT FORM Page / pf

Submission #: 18-04360

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____				
Custody Seals Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____ Intact? Yes <input type="checkbox"/> No <input type="checkbox"/> Intact? Yes <input type="checkbox"/> No <input type="checkbox"/>				
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.94</u> Container: <u>PE</u> Thermometer ID: <u>1256</u> Temperature: (A) <u>0.7</u> °C / (C) <u>0.4</u> °C		
		Date/Time <u>2/16/200</u> Analyst Init <u>VE</u>		

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AB	AB	AD	AB	AB	AD	AB			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C	C	C	C	C	C			
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE	D	D	D	D	D	D	D			
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODDR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 308/608/808D										
QT EPA 515.1/815D										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.I										
5oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
5oz / 16oz / 32oz AMBER										
5oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

CHK BY DISTRIBUTION  
 MA MT  
 SUB OUT

SHORT HOLDING TIME  
 Cr<sup>6</sup> NO NO<sub>3</sub> OP SS  
 DO Cl<sub>2</sub> BOD MBAS COT

Comments: \_\_\_\_\_

Sample Numbering Completed By: JM Date/Time: 2-8-18 9:00

A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1804360-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/07/2018 22:40
	<b>Project Number:</b>	Dairy Representative Monitoring Program	<b>Sampling Date:</b>	02/07/2018 09:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804360-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/07/2018 22:40
	<b>Project Number:</b>	Dairy Representative Monitoring Program	<b>Sampling Date:</b>	02/07/2018 09:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804360-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/07/2018 22:40
	<b>Project Number:</b>	Dairy Representative Monitoring Program	<b>Sampling Date:</b>	02/07/2018 12:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804360-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/07/2018 22:40
	<b>Project Number:</b>	Dairy Representative Monitoring Program	<b>Sampling Date:</b>	02/07/2018 12:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW5	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804360-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/07/2018 22:40
	<b>Project Number:</b>	Dairy Representative Monitoring Program	<b>Sampling Date:</b>	02/07/2018 11:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW6	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1804360-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/07/2018 22:40
	<b>Project Number:</b>	Dairy Representative Monitoring Program	<b>Sampling Date:</b>	02/07/2018 10:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW7	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804360-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/07/2018 22:40
	<b>Project Number:</b>	Dairy Representative Monitoring Program	<b>Sampling Date:</b>	02/07/2018 11:35
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW8	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

BCL Sample ID: 1804360-01		Client Sample Name: Dairy Representative Monitoring Program, MAL-MW1, 2/7/2018 9:05:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	33	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	9.5	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	670	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.69	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	1200	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	60	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	32	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	290	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2200	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.81	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.047	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.092	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	7.0	mg/L	0.75	0.30	EPA-365.4	ND	A07	9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/14/18 09:04	02/15/18 09:38	JCC	PE-OP2	1	B004876
2	SM-2320B	02/14/18 08:00	02/14/18 09:13	MC1	MET-1	2	B003248
3	EPA-300.0	02/08/18 19:00	02/09/18 11:20	OLH	IC1	2	B004519
4	EPA-300.0	02/08/18 19:00	02/09/18 05:38	OLH	IC1	5	B004519
5	SM-2540C	02/13/18 07:30	02/13/18 17:30	JP1	MANUAL	10	B004926
6	EPA-351.2	02/15/18 20:30	02/20/18 19:11	JMH	SC-1	1	B005120
7	EPA-350.1	02/23/18 07:56	02/23/18 10:02	JMH	SC-1	1	B005772
8	EPA-353.2	02/08/18 14:59	02/08/18 14:59	JNC	KONE-1	1	B004428
9	EPA-365.4	02/15/18 20:30	02/21/18 11:56	JMH	SC-1	5	B005121

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

BCL Sample ID: 1804360-02		Client Sample Name: Dairy Representative Monitoring Program, MAL-MW2, 2/7/2018 9:40:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	52	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	550	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.90	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	860	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	220	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	240	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.74	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.36	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/14/18 09:04	02/15/18 10:00	JCC	PE-OP2	1	B004876
2	SM-2320B	02/14/18 08:00	02/14/18 09:34	MC1	MET-1	2	B003248
3	EPA-300.0	02/08/18 19:00	02/09/18 05:57	OLH	IC1	10	B004519
4	SM-2540C	02/13/18 07:30	02/13/18 17:30	JP1	MANUAL	10	B004926
5	EPA-351.2	02/15/18 20:30	02/20/18 19:15	JMH	SC-1	1	B005120
6	EPA-350.1	02/23/18 07:56	02/23/18 10:05	JMH	SC-1	1	B005772
7	EPA-353.2	02/08/18 14:59	02/08/18 14:59	JNC	KONE-1	1	B004428
8	EPA-365.4	02/15/18 20:30	02/21/18 11:28	JMH	SC-1	1	B005121

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1804360-03	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, MAL-MW3, 2/7/2018 12:10:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.50	0.080	EPA-200.7	ND	A07	1
Dissolved Magnesium	49	mg/L	0.25	0.095	EPA-200.7	ND	A07	1
Dissolved Sodium	1300	mg/L	2.5	0.26	EPA-200.7	ND	A07	1
Dissolved Potassium	30	mg/L	5.0	0.50	EPA-200.7	ND	A07	1
Bicarbonate Alkalinity as CaCO3	2400	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	560	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	36	mg/L	0.20	0.042	EPA-300.0	ND	A07	4
Sulfate	190	mg/L	2.0	0.26	EPA-300.0	ND	A07	4
Total Dissolved Solids @ 180 C	3900	mg/L	200	200	SM-2540C	ND		5
Total Kjeldahl Nitrogen	9.3	mg/L	0.50	0.21	EPA-351.2	ND	A07	6
Ammonia as N	0.23	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	0.45	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	7.9	mg/L	0.38	0.15	EPA-365.4	ND	A07	9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/14/18 09:04	02/15/18 10:24	JCC	PE-OP2	5	B004876
2	SM-2320B	02/14/18 08:00	02/14/18 09:43	MC1	MET-1	2	B003248
3	EPA-300.0	02/08/18 19:00	02/09/18 11:39	OLH	IC1	5	B004519
4	EPA-300.0	02/08/18 19:00	02/09/18 06:16	OLH	IC1	2	B004519
5	SM-2540C	02/13/18 07:30	02/13/18 17:30	JP1	MANUAL	20	B004926
6	EPA-351.2	02/15/18 20:30	02/20/18 19:16	JMH	SC-1	2.500	B005120
7	EPA-350.1	02/23/18 07:56	02/23/18 10:07	JMH	SC-1	1	B005772
8	EPA-353.2	02/08/18 14:59	02/08/18 14:59	JNC	KONE-1	1	B004428
9	EPA-365.4	02/15/18 20:30	02/21/18 11:29	JMH	SC-1	2.500	B005121

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1804360-04	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, MAL-MW5, 2/7/2018 12:50:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.50	0.080	EPA-200.7	ND	A07	1
Dissolved Magnesium	40	mg/L	0.25	0.095	EPA-200.7	ND	A07	1
Dissolved Sodium	1500	mg/L	2.5	0.26	EPA-200.7	ND	A07	1
Dissolved Potassium	2.2	mg/L	5.0	0.50	EPA-200.7	ND	J,A07	1
Bicarbonate Alkalinity as CaCO3	2000	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	470	mg/L	10	1.5	EPA-300.0	ND	A07	3
Nitrate as N	250	mg/L	2.0	0.42	EPA-300.0	ND	A07	3
Sulfate	440	mg/L	20	2.6	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	4900	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.9	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.075	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	2.2	mg/L	0.25	0.050	EPA-353.2	ND	A07	7
Total Phosphate	4.3	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/14/18 09:04	02/15/18 10:26	JCC	PE-OP2	5	B004876
2	SM-2320B	02/14/18 08:00	02/14/18 10:34	MC1	MET-1	2	B003248
3	EPA-300.0	02/08/18 19:00	02/09/18 11:58	OLH	IC1	20	B004519
4	SM-2540C	02/13/18 07:30	02/13/18 17:30	JP1	MANUAL	20	B004926
5	EPA-351.2	02/15/18 20:30	02/20/18 19:17	JMH	SC-1	1	B005120
6	EPA-350.1	02/23/18 07:56	02/23/18 10:09	JMH	SC-1	1	B005772
7	EPA-353.2	02/08/18 14:59	02/08/18 15:07	JNC	KONE-1	5	B004428
8	EPA-365.4	02/15/18 20:30	02/21/18 11:31	JMH	SC-1	1	B005121

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**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

BCL Sample ID: 1804360-05		Client Sample Name: Dairy Representative Monitoring Program, MAL-MW6, 2/7/2018 11:05:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	450	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	160	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	920	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	1000	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	860	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	90	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	1500	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	4500	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.9	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.043	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.30	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.1	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/14/18 09:04	02/15/18 10:08	JCC	PE-OP2	1	B004876
2	SM-2320B	02/14/18 08:00	02/14/18 10:44	MC1	MET-1	2	B003248
3	EPA-300.0	02/08/18 19:00	02/09/18 07:32	OLH	IC1	10	B004519
4	SM-2540C	02/13/18 07:30	02/13/18 17:30	JP1	MANUAL	20	B004926
5	EPA-351.2	02/15/18 20:30	02/20/18 19:18	JMH	SC-1	1	B005120
6	EPA-350.1	02/23/18 07:56	02/23/18 10:10	JMH	SC-1	1	B005772
7	EPA-353.2	02/08/18 14:59	02/08/18 14:59	JNC	KONE-1	1	B004428
8	EPA-365.4	02/15/18 20:30	02/21/18 11:31	JMH	SC-1	1	B005121

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1804360-06	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, MAL-MW7, 2/7/2018 10:30:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	390	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	110	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	380	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	720	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	260	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	110	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	810	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	3000	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.022	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.062	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.0	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/14/18 09:04	02/15/18 10:11	JCC	PE-OP2	1	B004876
2	SM-2320B	02/14/18 08:00	02/14/18 10:53	MC1	MET-1	2	B003248
3	EPA-300.0	02/08/18 19:00	02/09/18 07:51	OLH	IC1	10	B004519
4	SM-2540C	02/13/18 07:30	02/13/18 17:30	JP1	MANUAL	10	B004926
5	EPA-351.2	02/15/18 20:30	02/20/18 19:20	JMH	SC-1	1	B005120
6	EPA-350.1	02/23/18 07:56	02/23/18 10:11	JMH	SC-1	1	B005772
7	EPA-353.2	02/08/18 14:59	02/08/18 15:03	JNC	KONE-1	1	B004428
8	EPA-365.4	02/15/18 20:30	02/21/18 11:32	JMH	SC-1	1	B005121

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**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1804360-07	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, MAL-MW8, 2/7/2018 11:35:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	5.5	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	1.6	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	540	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.41	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	630	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	68	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	98	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	78	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	94	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.051	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.98	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	4.3	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/14/18 09:04	02/15/18 10:13	JCC	PE-OP2	1	B004876
2	SM-2320B	02/14/18 08:00	02/14/18 11:08	MC1	MET-1	2	B003248
3	EPA-300.0	02/08/18 19:00	02/09/18 08:10	OLH	IC1	10	B004519
4	SM-2540C	02/13/18 07:30	02/13/18 17:30	JP1	MANUAL	10	B004926
5	EPA-351.2	02/15/18 20:30	02/20/18 19:22	JMH	SC-1	1	B005120
6	EPA-350.1	02/23/18 07:56	02/23/18 10:12	JMH	SC-1	1	B005772
7	EPA-353.2	02/08/18 14:59	02/08/18 15:03	JNC	KONE-1	1	B004428
8	EPA-365.4	02/15/18 20:30	02/21/18 11:33	JMH	SC-1	1	B005121

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003248</b>						
Bicarbonate Alkalinity as CaCO3	B003248-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003248-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003248-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004428</b>						
Nitrite as N	B004428-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B004519</b>						
Chloride	B004519-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004519-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004519-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004876</b>						
Dissolved Calcium	B004876-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B004876-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B004876-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B004876-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B004926</b>						
Total Dissolved Solids @ 180 C	B004926-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005120</b>						
Total Kjeldahl Nitrogen	B005120-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B005121</b>						
Total Phosphate	B005121-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B005772</b>						
Ammonia as N	B005772-BLK1	ND	mg/L	0.10	0.020	

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Woodland, CA 95695

**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004428</b>										
Nitrite as N	B004428-BS1	LCS	0.52331	0.50000	mg/L	105		90 - 110		
<b>QC Batch ID: B004519</b>										
Chloride	B004519-BS1	LCS	51.216	50.000	mg/L	102		90 - 110		
Nitrate as N	B004519-BS1	LCS	5.0160	5.0000	mg/L	100		90 - 110		
Sulfate	B004519-BS1	LCS	101.29	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B004876</b>										
Dissolved Calcium	B004876-BS1	LCS	10.599	10.000	mg/L	106		85 - 115		
Dissolved Magnesium	B004876-BS1	LCS	10.832	10.000	mg/L	108		85 - 115		
Dissolved Sodium	B004876-BS1	LCS	10.706	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B004876-BS1	LCS	10.419	10.000	mg/L	104		85 - 115		
<b>QC Batch ID: B004926</b>										
Total Dissolved Solids @ 180 C	B004926-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
<b>QC Batch ID: B005120</b>										
Total Kjeldahl Nitrogen	B005120-BS1	LCS	1.8201	2.0000	mg/L	91.0		90 - 110		
<b>QC Batch ID: B005121</b>										
Total Phosphate	B005121-BS1	LCS	3.0110	3.0660	mg/L	98.2		85 - 115		
<b>QC Batch ID: B005772</b>										
Ammonia as N	B005772-BS1	LCS	0.99900	1.0000	mg/L	99.9		90 - 110		

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Reported: 02/26/2018 15:24  
Project: Dairy Rep MP - Expanded Suite  
Project Number: [none]  
Project Manager: Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B003248</b>		Used client sample: Y - Description: MAL-MW7, 02/07/2018 10:30								
Bicarbonate Alkalinity as CaCO3	DUP	1804360-06	724.15	720.20		mg/L	0.5		10	
Carbonate Alkalinity as CaCO3	DUP	1804360-06	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1804360-06	ND	ND		mg/L			10	
<b>QC Batch ID: B004428</b>		Used client sample: Y - Description: MAL-MW1, 02/07/2018 09:05								
Nitrite as N	DUP	1804360-01	0.092442	0.092103		mg/L	0.4		10	
	MS	1804360-01	0.092442	0.60996	0.52632	mg/L		98.3		90 - 110
	MSD	1804360-01	0.092442	0.61492	0.52632	mg/L	0.8	99.3	10	90 - 110
<b>QC Batch ID: B004519</b>		Used client sample: Y - Description: MAL-MW1, 02/07/2018 09:05								
Chloride	DUP	1804360-01	57.455	56.160		mg/L	2.3		10	
	MS	1804360-01	57.455	325.24	252.53	mg/L		106		80 - 120
	MSD	1804360-01	57.455	325.16	252.53	mg/L	0.0	106	10	80 - 120
Nitrate as N	DUP	1804360-01	31.925	30.695		mg/L	3.9		10	
	MS	1804360-01	31.925	56.293	25.253	mg/L		96.5		80 - 120
	MSD	1804360-01	31.925	56.116	25.253	mg/L	0.3	95.8	10	80 - 120
Sulfate	DUP	1804360-01	287.28	280.82		mg/L	2.3		10	
	MS	1804360-01	287.28	820.95	505.05	mg/L		106		80 - 120
	MSD	1804360-01	287.28	818.54	505.05	mg/L	0.3	105	10	80 - 120
<b>QC Batch ID: B004876</b>		Used client sample: Y - Description: MAL-MW1, 02/07/2018 09:05								
Dissolved Calcium	DUP	1804360-01	33.275	33.516		mg/L	0.7		20	
	MS	1804360-01	33.275	44.157	10.204	mg/L		107		85 - 115
	MSD	1804360-01	33.275	44.356	10.204	mg/L	0.5	109	20	85 - 115
Dissolved Magnesium	DUP	1804360-01	9.5198	9.7237		mg/L	2.1		20	
	MS	1804360-01	9.5198	19.537	10.204	mg/L		98.2		85 - 115
	MSD	1804360-01	9.5198	19.817	10.204	mg/L	1.4	101	20	85 - 115
Dissolved Sodium	DUP	1804360-01	667.82	688.33		mg/L	3.0		20	
	MS	1804360-01	667.82	685.96	10.204	mg/L		178		85 - 115 A03
	MSD	1804360-01	667.82	720.16	10.204	mg/L	4.9	513	20	85 - 115 A03
Dissolved Potassium	DUP	1804360-01	0.69042	0.79262		mg/L	13.8		20	J
	MS	1804360-01	0.69042	11.041	10.204	mg/L		101		85 - 115
	MSD	1804360-01	0.69042	11.118	10.204	mg/L	0.7	102	20	85 - 115
<b>QC Batch ID: B004926</b>		Used client sample: Y - Description: MAL-MW3, 02/07/2018 12:10								
Total Dissolved Solids @ 180 C	DUP	1804360-03	3920.0	3980.0		mg/L	1.5		10	
<b>QC Batch ID: B005120</b>		Used client sample: Y - Description: MAL-MW1, 02/07/2018 09:05								
Total Kjeldahl Nitrogen	DUP	1804360-01	0.81240	0.79790		mg/L	1.8		20	
	MS	1804360-01	0.81240	2.7265	2.0000	mg/L		95.7		90 - 110
	MSD	1804360-01	0.81240	2.7043	2.0000	mg/L	0.8	94.6	20	90 - 110

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Woodland, CA 95695

**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005121</b>		Used client sample: Y - Description: MAL-MW1, 02/07/2018 09:05								
Total Phosphate	DUP	1804360-01	7.0072	7.3163		mg/L	4.3		20	
	MS	1804360-01	7.0072	10.470	3.0660	mg/L		113		80 - 120
	MSD	1804360-01	7.0072	10.543	3.0660	mg/L	0.7	115	20	80 - 120
<b>QC Batch ID: B005772</b>		Used client sample: Y - Description: MAL-MW1, 02/07/2018 09:05								
Ammonia as N	DUP	1804360-01	0.046800	0.037700		mg/L	21.5		10	J,A02
	MS	1804360-01	0.046800	1.1913	1.1111	mg/L		103		90 - 110
	MSD	1804360-01	0.046800	1.1804	1.1111	mg/L	0.9	102	10	90 - 110

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Woodland, CA 95695

**Reported:** 02/26/2018 15:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** [none]  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/12/2018

Jeanette Kinzie

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Maple Avenue Dairy

BCL Project: Dairy Rep MP - Expanded Suite

BCL Work Order: 1805761

Invoice ID: B296626

Enclosed are the results of analyses for samples received by the laboratory on 2/21/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805761

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody				
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3				
From Filtered Sample: Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids		From Filtered Sample: Ammonia-N, NO3-N, NO2-N				
Report to:		Analysis Requested				
Name: Lohdorff and Scalmanini Address: 500 First Street City: Woodland State: CA Attn: Till Angermann		Project: Dairy Representative Monitoring Program Site: Maple Avenue Dairy Samplers Name: Global ID - WDR100038510				
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Co/Pc	Unreserved
1	MAP-MW8				X	X
2	MAP-MW9				X	X
3	MAP-MW10	2/21/18	1301	GW	X	X
4	Field Duplicate				X	X
5						
6						
7						
8						
9						
10						

Received by: <i>[Signature]</i> Date & Time: 2/21/18 1515	Received by: <i>[Signature]</i> Date & Time: 2/21/18 1515
Relinquished by: (Signature) <i>[Signature]</i>	Relinquished by: (Signature) <i>[Signature]</i>
Relinquished by: (Signature) <i>[Signature]</i>	Relinquished by: (Signature) <i>[Signature]</i>

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@lsc.com, mryson@lsc.com, pdh@lsc.com, pdh@lsc.com.  
 4) Send invoices to Jeanette Lovells (jlovels@lsc.com).

(A)= Analyst (CI)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 1805761

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input checked="" type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> W / S	
---	--	---	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO Emissivity: 95 Container: 274 Thermometer ID: 274 Date/Time: 2-21-18  
 Temperature: (A) 0.0 °C (C) 0.7 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AB									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C									
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCE VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 2/21 1700  
 A = Actual / C = Corrected Rev 21 05/23/2016  
 (S:\WPDoc\WordPerfect\LAB\_DOC\FORMS\SAWREC.CHX 20)



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Maple Avenue Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805761-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 15:15
	<b>Project Number:</b>	Maple Avenue Dairy	<b>Sampling Date:</b>	02/21/2018 13:01
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAP-MW10	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	GDTM	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 03/12/2018 12:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Maple Avenue Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805761-01	<b>Client Sample Name:</b> Maple Avenue Dairy, MAP-MW10, 2/21/2018 1:01:00PM
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	5.9	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	92	mg/L	0.50	0.051	EPA-200.7	0.059		1
Dissolved Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	260	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	35	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	39	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	73	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	610	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.44	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:45	02/26/18 21:34	JCC	PE-OP2	1	B005974
2	SM-2320B	02/26/18 12:00	02/26/18 20:13	MEV	MET-1	2	B005339
3	EPA-300.0	02/21/18 23:30	02/22/18 11:29	OLH	IC2	2	B005703
4	SM-2540C	02/26/18 13:30	02/26/18 13:30	CAD	MANUAL	3.333	B005997
5	EPA-351.2	03/05/18 23:00	03/07/18 15:46	JMH	SC-1	1	B006736
6	EPA-350.1	03/06/18 13:20	03/08/18 13:08	JMH	SC-1	1	B006800
7	EPA-353.2	02/22/18 08:03	02/22/18 08:08	JNC	KONE-1	1	B005779
8	EPA-365.4	03/05/18 23:00	03/07/18 10:42	JMH	SC-1	1	B006737

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Maple Avenue Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005339</b>						
Bicarbonate Alkalinity as CaCO3	B005339-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005339-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005339-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005703</b>						
Chloride	B005703-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005703-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005703-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005779</b>						
Nitrite as N	B005779-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005974</b>						
Dissolved Calcium	B005974-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005974-BLK1	ND	mg/L	0.050	0.019	
<b>Dissolved Sodium</b>	<b>B005974-BLK1</b>	<b>0.059077</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
<b>Dissolved Potassium</b>	<b>B005974-BLK1</b>	<b>0.12151</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B005997</b>						
Total Dissolved Solids @ 180 C	B005997-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006736</b>						
Total Kjeldahl Nitrogen	B006736-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006737</b>						
Total Phosphate	B006737-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006800</b>						
Ammonia as N	B006800-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Maple Avenue Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005703</b>										
Chloride	B005703-BS1	LCS	52.157	50.000	mg/L	104		90 - 110		
Nitrate as N	B005703-BS1	LCS	5.1490	5.0000	mg/L	103		90 - 110		
Sulfate	B005703-BS1	LCS	104.09	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B005779</b>										
Nitrite as N	B005779-BS1	LCS	0.49846	0.50000	mg/L	99.7		90 - 110		
<b>QC Batch ID: B005974</b>										
Dissolved Calcium	B005974-BS1	LCS	10.443	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B005974-BS1	LCS	10.222	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B005974-BS1	LCS	10.936	10.000	mg/L	109		85 - 115		
Dissolved Potassium	B005974-BS1	LCS	10.323	10.000	mg/L	103		85 - 115		
<b>QC Batch ID: B005997</b>										
Total Dissolved Solids @ 180 C	B005997-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B006736</b>										
Total Kjeldahl Nitrogen	B006736-BS1	LCS	1.9020	2.0000	mg/L	95.1		90 - 110		
<b>QC Batch ID: B006737</b>										
Total Phosphate	B006737-BS1	LCS	3.1916	3.0660	mg/L	104		85 - 115		
<b>QC Batch ID: B006800</b>										
Ammonia as N	B006800-BS1	LCS	0.93720	1.0000	mg/L	93.7		90 - 110		

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500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 12:27  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Maple Avenue Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005339</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805726-05	364.66	359.79		mg/L	1.3		10	
Carbonate Alkalinity as CaCO3	DUP	1805726-05	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805726-05	ND	ND		mg/L			10	
<b>QC Batch ID: B005703</b>		Used client sample: N								
Chloride	DUP	1805714-02	123.54	124.50		mg/L	0.8		10	
	MS	1805714-02	123.54	178.53	50.505	mg/L		109		80 - 120
	MSD	1805714-02	123.54	179.50	50.505	mg/L	0.5	111	10	80 - 120
Nitrate as N	DUP	1805714-02	5.7760	5.7310		mg/L	0.8		10	
	MS	1805714-02	5.7760	10.932	5.0505	mg/L		102		80 - 120
	MSD	1805714-02	5.7760	10.933	5.0505	mg/L	0.0	102	10	80 - 120
Sulfate	DUP	1805714-02	118.28	119.03		mg/L	0.6		10	
	MS	1805714-02	118.28	228.16	101.01	mg/L		109		80 - 120
	MSD	1805714-02	118.28	228.10	101.01	mg/L	0.0	109	10	80 - 120
<b>QC Batch ID: B005779</b>		Used client sample: N								
Nitrite as N	DUP	1805825-01	0.010409	0.011443		mg/L	9.5		10	J
	MS	1805825-01	0.010409	0.52567	0.52632	mg/L		97.9		90 - 110
	MSD	1805825-01	0.010409	0.52749	0.52632	mg/L	0.3	98.2	10	90 - 110
<b>QC Batch ID: B005974</b>		Used client sample: N								
Dissolved Calcium	DUP	1805724-01	5.8483	5.8926		mg/L	0.8		20	
	MS	1805724-01	5.8483	16.108	10.204	mg/L		101		85 - 115
	MSD	1805724-01	5.8483	16.145	10.204	mg/L	0.2	101	20	85 - 115
Dissolved Magnesium	DUP	1805724-01	6.8826	6.8426		mg/L	0.6		20	
	MS	1805724-01	6.8826	17.009	10.204	mg/L		99.2		85 - 115
	MSD	1805724-01	6.8826	16.729	10.204	mg/L	1.7	96.5	20	85 - 115
Dissolved Sodium	DUP	1805724-01	91.532	91.879		mg/L	0.4		20	
	MS	1805724-01	91.532	103.32	10.204	mg/L		116		85 - 115 A03
	MSD	1805724-01	91.532	103.75	10.204	mg/L	0.4	120	20	85 - 115 A03
Dissolved Potassium	DUP	1805724-01	281.40	282.32		mg/L	0.3		20	
	MS	1805724-01	281.40	294.24	10.204	mg/L		126		85 - 115 A03
	MSD	1805724-01	281.40	295.85	10.204	mg/L	0.5	142	20	85 - 115 A03
<b>QC Batch ID: B005997</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1805822-01	1820.0	1855.0		mg/L	1.9		10	
<b>QC Batch ID: B006736</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Total Kjeldahl Nitrogen	DUP	1805761-01	0.43680	0.56720		mg/L	26.0		20	A02
	MS	1805761-01	0.43680	2.3979	2.0000	mg/L		98.1		90 - 110
	MSD	1805761-01	0.43680	2.4382	2.0000	mg/L	1.7	100	20	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Maple Avenue Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006737</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Total Phosphate	DUP	1805761-01	ND	ND		mg/L			20	
	MS	1805761-01	ND	3.2851	3.0660	mg/L		107		80 - 120
	MSD	1805761-01	ND	3.2143	3.0660	mg/L	2.2	105	20	80 - 120
<b>QC Batch ID: B006800</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Ammonia as N	DUP	1805761-01	ND	ND		mg/L			10	
	MS	1805761-01	ND	1.0453	1.1111	mg/L		94.1		90 - 110
	MSD	1805761-01	ND	1.0734	1.1111	mg/L	2.7	96.6	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Maple Avenue Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 02/23/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Richmar Farms Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1803879  
Invoice ID: B294930

Enclosed are the results of analyses for samples received by the laboratory on 2/5/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Quality Control Reports

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## Case Narratives

### Case Narrative for Work Order 1803879

Samples were filtered through a 0.45 micron filter for requested analysis.



**Chain of Custody**  
18-03879

**BC Laboratories, Inc.**  
4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

**Report to:**  
Expanded Constituent Suite

Name: Luhdorff and Scalmanini  
Address: 500 First Street  
City: Woodland  
State: 95695  
Atrn: Till Angermann

Project: Dairy Representative Monitoring Program  
Site: Richmar Farms Dairy  
Samplers Name:  
Global ID - WDR100038761

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl	Pc	Unpreserved	From Filtered Sample: Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
1	RIC-MW1, RIC-MW2	02/05/19	1430	LD	x		x		
2	RIC-MW3, RIC-MW4		1525		x		x		
3	RIC-MW5, RIC-MW6		1535		x		x		
4	RIC-MW7, RIC-MW7d		1450		x		x		
5	RIC-MW8, RIC-MW8d		1510		x		x		
6	RIC-MW9, RIC-MW9d		1530		x		x		
7	Field Duplicate Dps				x		x		
8									
9									
10									
11									
12									
13									

Relinquished by: (Signature) *[Signature]* Date & Time 2/5/18 2:120  
 Relinquished by: (Signature) *[Signature]* Date & Time 2/5/18 2:315  
 Relinquished by: (Signature) *[Signature]* Date & Time

CHK BY: *[Signature]*  
 DISTRIBUTION:  PRINT  SUB-OUT

SHORT HOLDING TIME  
 Cr+6 NO2 NO3 OP SS  
 DO Cl2 BOD MBAS COT

**Comments:**  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnine@isce.com, rryson@isce.com, pdhalikel@isce.com, jlovelis@isce.com  
 4) Send invoices to Jeanette Lovelis (jlovelis@isce.com).  
 (A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1  
 Submission #: 18-03879

**SHIPPING INFORMATION** Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER** Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID** YES  NO   
 W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time 2/5 2315  
 Temperature: (A) 0.4 °C / (C) 0.1 °C Analyst Init BSP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AB	AB	AB	AB	AB	AB	AB			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C	C	C	C	C	C			
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/603/3050										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 2/5/15 0900  
 \ = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1803879-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/05/2018 23:15
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	02/05/2018 14:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1803879-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/05/2018 23:15
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	02/05/2018 13:25
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1803879-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/05/2018 23:15
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	02/05/2018 13:55
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW5	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1803879-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/05/2018 23:15
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	02/05/2018 14:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW7S	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1803879-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/05/2018 23:15
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	02/05/2018 15:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW8S	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1803879-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/05/2018 23:15
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	02/05/2018 15:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW9S	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1803879-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/05/2018 23:15
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	02/05/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Dup. 5	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1803879-01	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW1, 2/5/2018 2:30:00PM
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	70	mg/L	0.10	0.016	EPA-200.7	0.028		1
Dissolved Magnesium	12	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	300	mg/L	0.50	0.051	EPA-200.7	ND		2
Dissolved Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	380	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Chloride	140	mg/L	0.50	0.077	EPA-300.0	ND		4
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	250	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.29	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.21	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.68	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:06	02/09/18 12:01	JCC	PE-OP2	1	B004492
2	EPA-200.7	02/09/18 09:06	02/12/18 14:17	JCC	PE-OP2	1	B004492
3	SM-2320B	02/07/18 12:00	02/07/18 19:01	MEV	MET-1	2	B003223
4	EPA-300.0	02/06/18 11:00	02/06/18 13:52	OLH	IC8	1	B004124
5	SM-2540C	02/08/18 14:30	02/08/18 14:30	CAD	MANUAL	5	B004419
6	EPA-351.2	02/12/18 20:30	02/17/18 14:06	JMH	SC-1	1	B004737
7	EPA-350.1	02/20/18 07:09	02/20/18 10:54	JMH	SC-1	1	B005264
8	EPA-353.2	02/06/18 14:32	02/06/18 14:32	JNC	KONE-1	1	B004156
9	EPA-365.4	02/12/18 20:30	02/21/18 10:19	JMH	SC-1	1	B004738

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500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1803879-02	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW3, 2/5/2018 1:25:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	0.028		1
Dissolved Magnesium	31	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	290	mg/L	0.50	0.051	EPA-200.7	ND		2
Dissolved Potassium	3.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	880	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Chloride	160	mg/L	0.50	0.077	EPA-300.0	ND		4
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	140	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.58	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.25	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.77	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:06	02/09/18 12:04	JCC	PE-OP2	1	B004492
2	EPA-200.7	02/09/18 09:06	02/12/18 14:19	JCC	PE-OP2	1	B004492
3	SM-2320B	02/07/18 12:00	02/07/18 19:16	MEV	MET-1	2	B003223
4	EPA-300.0	02/06/18 11:00	02/06/18 15:08	SAV	IC8	1	B004124
5	SM-2540C	02/08/18 14:30	02/08/18 14:30	CAD	MANUAL	10	B004419
6	EPA-351.2	02/12/18 20:30	02/17/18 14:10	JMH	SC-1	1	B004737
7	EPA-350.1	02/20/18 07:09	02/20/18 09:25	JMH	SC-1	1	B005264
8	EPA-353.2	02/06/18 14:32	02/06/18 14:32	JNC	KONE-1	1	B004156
9	EPA-365.4	02/12/18 20:30	02/21/18 10:21	JMH	SC-1	1	B004738

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Woodland, CA 95695

Reported: 02/23/2018 11:32  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Richmar Farms Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1803879-03	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW5, 2/5/2018 1:55:00PM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	42	mg/L	0.10	0.016	EPA-200.7	0.028		1
Dissolved Magnesium	5.9	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	68	mg/L	0.50	0.051	EPA-200.7	ND		2
Dissolved Potassium	1.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	190	mg/L	4.1	4.1	SM-2320B	ND		3
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		3
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		3
Chloride	22	mg/L	0.50	0.077	EPA-300.0	ND		4
Nitrate as N	0.41	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	39	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	350	mg/L	20	20	SM-2540C	ND		5
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.029	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.77	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:06	02/09/18 12:07	JCC	PE-OP2	1	B004492
2	EPA-200.7	02/09/18 09:06	02/12/18 14:22	JCC	PE-OP2	1	B004492
3	SM-2320B	02/07/18 12:00	02/07/18 19:23	MEV	MET-1	1	B003223
4	EPA-300.0	02/06/18 11:00	02/06/18 15:27	SAV	IC8	1	B004124
5	SM-2540C	02/08/18 14:30	02/08/18 14:30	CAD	MANUAL	2	B004419
6	EPA-351.2	02/12/18 20:30	02/17/18 14:11	JMH	SC-1	1	B004737
7	EPA-350.1	02/20/18 07:09	02/20/18 09:26	JMH	SC-1	1	B005264
8	EPA-353.2	02/06/18 14:32	02/06/18 14:32	JNC	KONE-1	1	B004156
9	EPA-365.4	02/12/18 20:30	02/21/18 10:22	JMH	SC-1	1	B004738

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Reported: 02/23/2018 11:32  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Richmar Farms Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1803879-04		Client Sample Name: Richmar Farms Dairy, RIC-MW7S, 2/5/2018 2:50:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	0.028		1
Dissolved Magnesium	25	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	ND		2
Dissolved Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	360	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Chloride	110	mg/L	0.50	0.077	EPA-300.0	ND		4
Nitrate as N	0.70	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	200	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	800	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.13	mg/L	0.20	0.084	EPA-351.2	ND	J	6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.32	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:06	02/09/18 12:10	JCC	PE-OP2	1	B004492
2	EPA-200.7	02/09/18 09:06	02/12/18 14:25	JCC	PE-OP2	1	B004492
3	SM-2320B	02/07/18 12:00	02/07/18 19:31	MEV	MET-1	2	B003223
4	EPA-300.0	02/06/18 11:00	02/06/18 15:46	SAV	IC8	1	B004124
5	SM-2540C	02/08/18 14:30	02/08/18 14:30	CAD	MANUAL	5	B004419
6	EPA-351.2	02/12/18 20:30	02/17/18 14:12	JMH	SC-1	1	B004737
7	EPA-350.1	02/20/18 07:09	02/20/18 09:27	JMH	SC-1	1	B005264
8	EPA-353.2	02/06/18 14:32	02/06/18 14:32	JNC	KONE-1	1	B004156
9	EPA-365.4	02/12/18 20:30	02/21/18 10:24	JMH	SC-1	1	B004738

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**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1803879-05		Client Sample Name: Richmar Farms Dairy, RIC-MW8S, 2/5/2018 3:10:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	16	mg/L	0.10	0.016	EPA-200.7	0.028		1
Dissolved Magnesium	5.8	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	ND		2
Dissolved Potassium	3.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	180	mg/L	4.1	4.1	SM-2320B	ND		3
Carbonate Alkalinity as CaCO3	23	mg/L	4.1	4.1	SM-2320B	ND		3
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		3
Chloride	61	mg/L	0.50	0.077	EPA-300.0	ND		4
Nitrate as N	0.038	mg/L	0.10	0.021	EPA-300.0	ND	J	4
Sulfate	140	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	590	mg/L	33	33	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.18	mg/L	0.20	0.084	EPA-351.2	ND	J	6
Ammonia as N	0.081	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	1.7	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:06	02/09/18 14:26	JCC	PE-OP2	1	B004492
2	EPA-200.7	02/09/18 09:06	02/12/18 14:28	JCC	PE-OP2	1	B004492
3	SM-2320B	02/07/18 12:00	02/07/18 19:37	MEV	MET-1	1	B003223
4	EPA-300.0	02/06/18 11:00	02/06/18 16:05	SAV	IC8	1	B004124
5	SM-2540C	02/08/18 14:30	02/08/18 14:30	CAD	MANUAL	3.333	B004419
6	EPA-351.2	02/12/18 20:30	02/17/18 14:13	JMH	SC-1	1	B004737
7	EPA-350.1	02/20/18 07:09	02/20/18 09:28	JMH	SC-1	1	B005264
8	EPA-353.2	02/06/18 14:32	02/06/18 14:32	JNC	KONE-1	1	B004156
9	EPA-365.4	02/12/18 20:30	02/21/18 10:25	JMH	SC-1	1	B004738

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**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1803879-06		Client Sample Name: Richmar Farms Dairy, RIC-MW9S, 2/5/2018 3:30:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	99	mg/L	0.10	0.016	EPA-200.7	0.028		1
Dissolved Magnesium	55	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	120	mg/L	0.50	0.051	EPA-200.7	ND		2
Dissolved Potassium	1.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	380	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Chloride	94	mg/L	1.0	0.15	EPA-300.0	ND	A07	4
Nitrate as N	34	mg/L	0.20	0.042	EPA-300.0	ND	A07	4
Sulfate	80	mg/L	2.0	0.26	EPA-300.0	ND	A07	4
Total Dissolved Solids @ 180 C	940	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	0.027	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.38	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:06	02/09/18 14:29	JCC	PE-OP2	1	B004492
2	EPA-200.7	02/09/18 09:06	02/12/18 14:30	JCC	PE-OP2	1	B004492
3	SM-2320B	02/07/18 12:00	02/07/18 19:46	MEV	MET-1	2	B003223
4	EPA-300.0	02/06/18 11:00	02/06/18 17:02	SAV	IC8	2	B004124
5	SM-2540C	02/08/18 14:30	02/08/18 14:30	CAD	MANUAL	5	B004419
6	EPA-351.2	02/12/18 20:30	02/17/18 14:15	JMH	SC-1	1	B004737
7	EPA-350.1	02/20/18 07:09	02/20/18 09:29	JMH	SC-1	1	B005264
8	EPA-353.2	02/06/18 14:32	02/06/18 14:57	JNC	KONE-1	1	B004156
9	EPA-365.4	02/12/18 20:30	02/21/18 10:25	JMH	SC-1	1	B004738

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**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1803879-07		Client Sample Name: Richmar Farms Dairy, Dup. 5, 2/5/2018 12:00:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	0.028		1
Dissolved Magnesium	58	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	ND		2
Dissolved Potassium	1.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	380	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	3
Chloride	95	mg/L	0.50	0.077	EPA-300.0	ND		4
Nitrate as N	34	mg/L	0.20	0.042	EPA-300.0	ND	A07	5
Sulfate	86	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	950	mg/L	50	50	SM-2540C	ND		6
Total Kjeldahl Nitrogen	0.35	mg/L	0.20	0.084	EPA-351.2	ND		7
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		8
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		9
Total Phosphate	0.39	mg/L	0.15	0.060	EPA-365.4	ND		10

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:06	02/09/18 12:18	JCC	PE-OP2	1	B004492
2	EPA-200.7	02/09/18 09:06	02/12/18 14:33	JCC	PE-OP2	1	B004492
3	SM-2320B	02/07/18 12:00	02/07/18 19:52	MEV	MET-1	2	B003223
4	EPA-300.0	02/06/18 11:00	02/06/18 17:21	SAV	IC8	1	B004124
5	EPA-300.0	02/06/18 11:00	02/06/18 19:56	SAV	IC8	2	B004124
6	SM-2540C	02/08/18 14:30	02/08/18 14:30	CAD	MANUAL	5	B004419
7	EPA-351.2	02/12/18 20:30	02/17/18 14:17	JMH	SC-1	1	B004737
8	EPA-350.1	02/20/18 07:09	02/20/18 09:32	JMH	SC-1	1	B005264
9	EPA-353.2	02/06/18 14:32	02/06/18 14:38	JNC	KONE-1	1	B004156
10	EPA-365.4	02/12/18 20:30	02/21/18 10:26	JMH	SC-1	1	B004738

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**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003223</b>						
Bicarbonate Alkalinity as CaCO3	B003223-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003223-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003223-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004124</b>						
Chloride	B004124-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004124-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004124-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004156</b>						
Nitrite as N	B004156-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B004419</b>						
Total Dissolved Solids @ 180 C	B004419-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B004492</b>						
Dissolved Calcium	B004492-BLK1	0.027874	mg/L	0.10	0.016	J
Dissolved Magnesium	B004492-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B004492-BLK2	ND	mg/L	0.50	0.051	
Dissolved Potassium	B004492-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B004737</b>						
Total Kjeldahl Nitrogen	B004737-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B004738</b>						
Total Phosphate	B004738-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B005264</b>						
Ammonia as N	B005264-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004124</b>										
Chloride	B004124-BS1	LCS	51.044	50.000	mg/L	102		90 - 110		
Nitrate as N	B004124-BS1	LCS	4.9750	5.0000	mg/L	99.5		90 - 110		
Sulfate	B004124-BS1	LCS	100.27	100.00	mg/L	100		90 - 110		
<b>QC Batch ID: B004156</b>										
Nitrite as N	B004156-BS1	LCS	0.50929	0.50000	mg/L	102		90 - 110		
<b>QC Batch ID: B004419</b>										
Total Dissolved Solids @ 180 C	B004419-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B004492</b>										
Dissolved Calcium	B004492-BS1	LCS	10.064	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B004492-BS1	LCS	10.553	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B004492-BS2	LCS	10.757	10.000	mg/L	108		85 - 115		
Dissolved Potassium	B004492-BS1	LCS	9.6196	10.000	mg/L	96.2		85 - 115		
<b>QC Batch ID: B004737</b>										
Total Kjeldahl Nitrogen	B004737-BS1	LCS	2.0110	2.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B004738</b>										
Total Phosphate	B004738-BS1	LCS	3.1674	3.0660	mg/L	103		85 - 115		
<b>QC Batch ID: B005264</b>										
Ammonia as N	B005264-BS1	LCS	0.95940	1.0000	mg/L	95.9		90 - 110		

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500 First Street  
Woodland, CA 95695

Reported: 02/23/2018 11:32  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Richmar Farms Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B003223</b>		Used client sample: Y - Description: RIC-MW1, 02/05/2018 14:30								
Bicarbonate Alkalinity as CaCO3	DUP	1803879-01	379.11	384.29		mg/L	1.4		10	
Carbonate Alkalinity as CaCO3	DUP	1803879-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1803879-01	ND	ND		mg/L			10	
<b>QC Batch ID: B004124</b>		Used client sample: Y - Description: RIC-MW1, 02/05/2018 14:30								
Chloride	DUP	1803879-01	135.99	135.37		mg/L	0.5		10	
	MS	1803879-01	135.99	181.84	50.505	mg/L		90.8		80 - 120
	MSD	1803879-01	135.99	181.90	50.505	mg/L	0.0	90.9	10	80 - 120
Nitrate as N	DUP	1803879-01	ND	ND		mg/L			10	
	MS	1803879-01	ND	4.9182	5.0505	mg/L		97.4		80 - 120
	MSD	1803879-01	ND	4.8869	5.0505	mg/L	0.6	96.8	10	80 - 120
Sulfate	DUP	1803879-01	254.58	253.86		mg/L	0.3		10	
	MS	1803879-01	254.58	347.79	101.01	mg/L		92.3		80 - 120
	MSD	1803879-01	254.58	347.77	101.01	mg/L	0.0	92.3	10	80 - 120
<b>QC Batch ID: B004156</b>		Used client sample: Y - Description: RIC-MW1, 02/05/2018 14:30								
Nitrite as N	DUP	1803879-01	ND	ND		mg/L			10	
	MS	1803879-01	ND	0.52996	0.52632	mg/L		101		90 - 110
	MSD	1803879-01	ND	0.52550	0.52632	mg/L	0.8	99.8	10	90 - 110
<b>QC Batch ID: B004419</b>		Used client sample: Y - Description: RIC-MW1, 02/05/2018 14:30								
Total Dissolved Solids @ 180 C	DUP	1803879-01	1075.0	1050.0		mg/L	2.4		10	
<b>QC Batch ID: B004492</b>		Used client sample: N								
Dissolved Calcium	DUP	1803497-07	318.67	293.92		mg/L	8.1		20	
	MS	1803497-07	318.67	329.59	10.204	mg/L		107		85 - 115
	MSD	1803497-07	318.67	340.85	10.204	mg/L	3.4	217	20	85 - 115 A03
Dissolved Magnesium	DUP	1803497-07	232.62	219.88		mg/L	5.6		20	
	MS	1803497-07	232.62	254.17	10.204	mg/L		211		85 - 115 A03
	MSD	1803497-07	232.62	253.64	10.204	mg/L	0.2	206	20	85 - 115 A03
Dissolved Sodium	DUP	1803497-07	203.63	207.32		mg/L	1.8		20	
	MS	1803497-07	203.63	218.22	10.204	mg/L		143		85 - 115 A03
	MSD	1803497-07	203.63	218.15	10.204	mg/L	0.0	142	20	85 - 115 A03
Dissolved Potassium	DUP	1803497-07	7.3711	7.1067		mg/L	3.7		20	
	MS	1803497-07	7.3711	17.924	10.204	mg/L		103		85 - 115
	MSD	1803497-07	7.3711	17.924	10.204	mg/L	0.0	103	20	85 - 115
<b>QC Batch ID: B004737</b>		Used client sample: Y - Description: RIC-MW1, 02/05/2018 14:30								
Total Kjeldahl Nitrogen	DUP	1803879-01	0.29070	0.29760		mg/L	2.3		20	
	MS	1803879-01	0.29070	2.3213	2.0000	mg/L		102		90 - 110
	MSD	1803879-01	0.29070	2.3282	2.0000	mg/L	0.3	102	20	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004738</b>		Used client sample: Y - Description: RIC-MW1, 02/05/2018 14:30								
Total Phosphate	DUP	1803879-01	0.68223	0.67088		mg/L	1.7		20	
	MS	1803879-01	0.68223	3.8254	3.0660	mg/L		103		80 - 120
	MSD	1803879-01	0.68223	3.8312	3.0660	mg/L	0.2	103	20	80 - 120
<b>QC Batch ID: B005264</b>		Used client sample: Y - Description: RIC-MW1, 02/05/2018 14:30								
Ammonia as N	DUP	1803879-01	0.20880	0.15110		mg/L	32.1		10	A02
	MS	1803879-01	0.20880	1.2459	1.1111	mg/L		93.3		90 - 110
	MSD	1803879-01	0.20880	1.2273	1.1111	mg/L	1.5	91.7	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 02/23/2018 11:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Richmar Farms Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 04/04/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Sierra View Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1804151  
Invoice ID: B295076

Enclosed are the results of analyses for samples received by the laboratory on 2/6/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000710999

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1804151

Samples were filtered through a 0.45 micron filter for requested analysis.





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BC LABORATORIES INC. COOLER RECEIPT FORM

Submission #: 18-04151

<b>SHIPPING INFORMATION</b>		<b>SHIPPING CONTAINER</b>	<b>FREE LIQUID</b>
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____		Ice Chest <input checked="" type="checkbox"/>
		None <input type="checkbox"/>	Box <input type="checkbox"/>
		Other <input type="checkbox"/> (Specify) _____	
FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S			

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 2050 Date/Time: 2/16/16 12:30

Temperature: (A) 1.2 °C (C) 0.9 °C Analyst Init: RRE

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A/B	A/B	A/B							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C	C							
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 535										
QT EPA 535 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: JAK Date/Time: 2-16-16 12:30 Rev 21 05/23/2016

A = Actual / C = Corrected

(S:\WPDoc\WordPerfect\LAB\_DOCS\FORMS\ISAM\F2Crev 20)

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/04/2018 11:36  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Sierra View Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1804151-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/06/2018 22:30
	<b>Project Number:</b>	Sierra View Dairy	<b>Sampling Date:</b>	02/06/2018 15:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SIE-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804151-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/06/2018 22:30
	<b>Project Number:</b>	Sierra View Dairy	<b>Sampling Date:</b>	02/06/2018 15:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SIE-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1804151-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/06/2018 22:30
	<b>Project Number:</b>	Sierra View Dairy	<b>Sampling Date:</b>	02/06/2018 12:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Dup 2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 04/04/2018 11:36  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Sierra View Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804151-01		Client Sample Name: Sierra View Dairy, SIE-MW1, 2/6/2018 3:05:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	20	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	29	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	230	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	17	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	32	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	37	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	530	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.78	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.028	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	0.013	J	7
Total Phosphate	1.5	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:10	02/09/18 14:05	JCC	PE-OP2	1	B004494
2	SM-2320B	02/09/18 07:00	02/09/18 11:48	MEV	MET-1	1	B003234
3	EPA-300.0	02/07/18 22:00	02/08/18 03:49	OLH	IC1	2	B004355
4	SM-2540C	02/10/18 11:30	02/10/18 11:30	CAD	MANUAL	3.333	B004546
5	EPA-351.2	02/14/18 20:00	02/20/18 14:56	JMH	SC-1	1	B004967
6	EPA-350.1	02/21/18 07:37	02/22/18 15:41	JMH	SC-1	1	B005497
7	EPA-353.2	02/08/18 07:13	02/08/18 07:19	JNC	KONE-1	1	B004414
8	EPA-365.4	02/14/18 20:00	02/21/18 13:30	JMH	SC-1	1	B004968

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500 First Street  
Woodland, CA 95695

Reported: 04/04/2018 11:36  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Sierra View Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1804151-02	Client Sample Name:	Sierra View Dairy, SIE-MW3, 2/6/2018 3:45:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	78	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	24	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	37	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	2.3	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	230	mg/L	4.1	4.1	SM-2320B	ND		2	
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	16	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	22	mg/L	0.20	0.042	EPA-300.0	ND	A07	3	
Sulfate	40	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	470	mg/L	33	33	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	0.020	mg/L	0.10	0.020	EPA-350.1	ND	J	6	
Nitrite as N	0.015	mg/L	0.050	0.010	EPA-353.2	0.013	J	7	
Total Phosphate	0.68	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:10	02/09/18 14:32	JCC	PE-OP2	1	B004494
2	SM-2320B	02/09/18 07:00	02/09/18 11:56	MEV	MET-1	1	B003234
3	EPA-300.0	02/07/18 22:00	02/08/18 04:08	OLH	IC1	2	B004355
4	SM-2540C	02/10/18 11:30	02/10/18 11:30	CAD	MANUAL	3.333	B004546
5	EPA-351.2	02/14/18 20:00	02/20/18 14:57	JMH	SC-1	1	B004967
6	EPA-350.1	02/21/18 07:37	02/22/18 15:48	JMH	SC-1	1	B005497
7	EPA-353.2	02/08/18 07:13	02/08/18 07:25	JNC	KONE-1	1	B004414
8	EPA-365.4	02/14/18 20:00	02/21/18 13:30	JMH	SC-1	1	B004968

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500 First Street  
Woodland, CA 95695

**Reported:** 04/04/2018 11:36  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Sierra View Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1804151-03		Client Sample Name: Sierra View Dairy, Dup 2, 2/6/2018 12:00:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	90	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	17	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	31	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	220	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	14	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	27	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	41	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	490	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.67	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.029	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.013	mg/L	0.050	0.010	EPA-353.2	0.013	J	7
Total Phosphate	1.5	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/09/18 09:10	02/09/18 14:35	JCC	PE-OP2	1	B004494
2	SM-2320B	02/09/18 07:00	02/09/18 12:02	MEV	MET-1	1	B003234
3	EPA-300.0	02/07/18 22:00	02/08/18 04:27	OLH	IC1	2	B004355
4	SM-2540C	02/10/18 11:30	02/10/18 11:30	CAD	MANUAL	3.333	B004546
5	EPA-351.2	02/14/18 20:00	02/20/18 14:57	JMH	SC-1	1	B004967
6	EPA-350.1	02/21/18 07:37	02/22/18 15:50	JMH	SC-1	1	B005497
7	EPA-353.2	02/08/18 07:13	02/08/18 07:25	JNC	KONE-1	1	B004414
8	EPA-365.4	02/14/18 20:00	02/21/18 13:31	JMH	SC-1	1	B004968

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/04/2018 11:36  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Sierra View Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003234</b>						
Bicarbonate Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003234-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B004355</b>						
Chloride	B004355-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B004355-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B004355-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B004414</b>						
Nitrite as N	B004414-BLK1	0.013206	mg/L	0.050	0.010	J
<b>QC Batch ID: B004494</b>						
Dissolved Calcium	B004494-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B004494-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B004494-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B004494-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B004546</b>						
Total Dissolved Solids @ 180 C	B004546-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B004967</b>						
Total Kjeldahl Nitrogen	B004967-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B004968</b>						
Total Phosphate	B004968-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B005497</b>						
Ammonia as N	B005497-BLK1	ND	mg/L	0.10	0.020	

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Woodland, CA 95695

**Reported:** 04/04/2018 11:36  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Sierra View Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B004355</b>										
Chloride	B004355-BS1	LCS	51.223	50.000	mg/L	102		90 - 110		
Nitrate as N	B004355-BS1	LCS	4.9560	5.0000	mg/L	99.1		90 - 110		
Sulfate	B004355-BS1	LCS	102.42	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B004414</b>										
Nitrite as N	B004414-BS1	LCS	0.52177	0.50000	mg/L	104		90 - 110		
<b>QC Batch ID: B004494</b>										
Dissolved Calcium	B004494-BS1	LCS	10.366	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B004494-BS1	LCS	10.408	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B004494-BS1	LCS	9.2297	10.000	mg/L	92.3		85 - 115		
Dissolved Potassium	B004494-BS1	LCS	9.5005	10.000	mg/L	95.0		85 - 115		
<b>QC Batch ID: B004546</b>										
Total Dissolved Solids @ 180 C	B004546-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
<b>QC Batch ID: B004967</b>										
Total Kjeldahl Nitrogen	B004967-BS1	LCS	2.0781	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B004968</b>										
Total Phosphate	B004968-BS1	LCS	3.1376	3.0660	mg/L	102		85 - 115		
<b>QC Batch ID: B005497</b>										
Ammonia as N	B005497-BS1	LCS	1.0247	1.0000	mg/L	102		90 - 110		

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Woodland, CA 95695

Reported: 04/04/2018 11:36  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Sierra View Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B003234</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1804126-08	215.88	215.57		mg/L	0.1		10	
Carbonate Alkalinity as CaCO3	DUP	1804126-08	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1804126-08	ND	ND		mg/L			10	
<b>QC Batch ID: B004355</b>		Used client sample: N								
Chloride	DUP	1804150-04	82.414	83.463		mg/L	1.3		10	
	MS	1804150-04	82.414	135.14	50.505	mg/L		104		80 - 120
	MSD	1804150-04	82.414	135.19	50.505	mg/L	0.0	104	10	80 - 120
Nitrate as N	DUP	1804150-04	3.0980	3.1330		mg/L	1.1		10	
	MS	1804150-04	3.0980	8.1818	5.0505	mg/L		101		80 - 120
	MSD	1804150-04	3.0980	8.2354	5.0505	mg/L	0.7	102	10	80 - 120
Sulfate	DUP	1804150-04	153.31	155.52		mg/L	1.4		10	
	MS	1804150-04	153.31	259.54	101.01	mg/L		105		80 - 120
	MSD	1804150-04	153.31	258.37	101.01	mg/L	0.4	104	10	80 - 120
<b>QC Batch ID: B004414</b>		Used client sample: Y - Description: SIE-MW1, 02/06/2018 15:05								
Nitrite as N	DUP	1804151-01	0.016400	0.013879		mg/L	16.7		10	J,A02
	MS	1804151-01	0.016400	0.54257	0.52632	mg/L		100		90 - 110
	MSD	1804151-01	0.016400	0.53989	0.52632	mg/L	0.5	99.5	10	90 - 110
<b>QC Batch ID: B004494</b>		Used client sample: Y - Description: SIE-MW1, 02/06/2018 15:05								
Dissolved Calcium	DUP	1804151-01	102.24	102.40		mg/L	0.2		20	
	MS	1804151-01	102.24	112.68	10.204	mg/L		102		85 - 115
	MSD	1804151-01	102.24	112.86	10.204	mg/L	0.2	104	20	85 - 115
Dissolved Magnesium	DUP	1804151-01	20.011	20.287		mg/L	1.4		20	
	MS	1804151-01	20.011	30.472	10.204	mg/L		103		85 - 115
	MSD	1804151-01	20.011	30.801	10.204	mg/L	1.1	106	20	85 - 115
Dissolved Sodium	DUP	1804151-01	28.730	28.734		mg/L	0.0		20	
	MS	1804151-01	28.730	37.739	10.204	mg/L		88.3		85 - 115
	MSD	1804151-01	28.730	37.886	10.204	mg/L	0.4	89.7	20	85 - 115
Dissolved Potassium	DUP	1804151-01	1.2328	1.1514		mg/L	6.8		20	
	MS	1804151-01	1.2328	11.097	10.204	mg/L		96.7		85 - 115
	MSD	1804151-01	1.2328	11.045	10.204	mg/L	0.5	96.2	20	85 - 115
<b>QC Batch ID: B004546</b>		Used client sample: Y - Description: JAD-MW6d, 02/06/2018 12:20								
Total Dissolved Solids @ 180 C	DUP	1804153-02	800.00	810.00		mg/L	1.2		10	
<b>QC Batch ID: B004967</b>		Used client sample: Y - Description: JAD-MW4d, 02/06/2018 11:35								
Total Kjeldahl Nitrogen	DUP	1804153-01	0.27700	0.27540		mg/L	0.6		20	
	MS	1804153-01	0.27700	2.2749	2.0000	mg/L		99.9		90 - 110
	MSD	1804153-01	0.27700	2.1588	2.0000	mg/L	5.2	94.1	20	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/04/2018 11:36  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Sierra View Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B004968</b>		Used client sample: Y - Description: JAD-MW4d, 02/06/2018 11:35								
Total Phosphate	DUP	1804153-01	0.47005	0.46422		mg/L	1.2		20	
	MS	1804153-01	0.47005	3.6224	3.0660	mg/L		103		80 - 120
	MSD	1804153-01	0.47005	3.6255	3.0660	mg/L	0.1	103	20	80 - 120
<b>QC Batch ID: B005497</b>		Used client sample: Y - Description: SIE-MW1, 02/06/2018 15:05								
Ammonia as N	DUP	1804151-01	0.027800	0.029900		mg/L	7.3		10	J
	MS	1804151-01	0.027800	1.1256	1.1111	mg/L		98.8		90 - 110
	MSD	1804151-01	0.027800	1.1248	1.1111	mg/L	0.1	98.7	10	90 - 110

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Woodland, CA 95695

**Reported:** 04/04/2018 11:36  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Sierra View Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/08/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Zonneveld Dairy Complex  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805416  
Invoice ID: B296361

Enclosed are the results of analyses for samples received by the laboratory on 2/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805416

Samples were filtered through a 0.45 micron filter for requested analysis.



18-05416

BC Laboratories, Inc.		Chain of Custody					
Name: Lohdorff and Scalmanini Address: 500 First Street City: Woodland State: CA Airtel: Till Angermann		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Report to:		Analysis Requested					
Expanded Constituent Suite Project: Dairy Representative Monitoring Program Site: Zonneveld Dairy Complex Samplers Name: Global ID - WDR100036511		From Filtered Sample: Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3				
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1/Ps (Unreserved)	From Filtered Sample: Ammonia-N, NO3-N, NO2-N	From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
1	ZON-MW1A, ZON-MW4B <del>ZON-MW1C</del>	02/16/18	0841		x	x	x
2	ZON-MW2Z, ZON-MW2B	02/15/18	1521		x	x	x
3	ZON-MW3A, ZON-MW3B				x	x	x
4	ZON-MW4A, ZON-MW4B	02/16/18	1101		x	x	x
5	ZON-MW5A, ZON-MW5B				x	x	x
6	ZON-MW6Z				x	x	x
7	Field Duplicate				x	x	x
8							
9							
10							

SHOR HOLDING TIME Cr <sup>6</sup> (NO <sub>2</sub> ) (NO <sub>3</sub> ) OF 55 DO Cl <sub>2</sub> BOD MBAS COI	CRK BY: [Signature] DATE: 2/16/18
Relinquished by: (Signature) Edward Chaney 2/16/18	Received By: [Signature] DATE & TIME: 2-16-18 10:30
Relinquished by: (Signature)	Received By: [Signature] DATE & TIME

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llave@lsc.com, rtryson@lsc.com, pdh@lsc.com, pdh@lsc.com
- Send invoices to Jeanette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page    Of   

Submission #: 18-05416

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO  W/S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

**COC Received**  
 YES  NO

Emissivity: 0.95 Container: APP Thermometer ID: 274 Date/Time: 2/16/18  
 Temperature: (A) 0.0 °C / (C) 7 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AP	AP	AP							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	C	C	C							
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 2/16/18 1703  
 A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/08/2018 11:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805416-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 16:30
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b>	02/16/2018 08:41
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZON-MW1A	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Client of BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805416-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 16:30
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b>	02/16/2018 15:21
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZON-MW2B	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Client of BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805416-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 16:30
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b>	02/16/2018 11:01
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZON-MW4B	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Client of BTSS	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/08/2018 11:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805416-01		Client Sample Name: Zonneveld Dairy Complex, ZON-MW1A, 2/16/2018 8:41:00AM, Client						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	39	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	6.3	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	63	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	13	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	150	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	32	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	19	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	34	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	420	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.93	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.026	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.013	mg/L	0.050	0.010	EPA-353.2	0.012	J	7
Total Phosphate	8.6	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:51	JCC	PE-OP2	1	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 13:23	MEV	MET-1	1	B003274
3	EPA-300.0	02/16/18 19:00	02/16/18 23:40	SAV	IC1	1	B005252
4	SM-2540C	02/21/18 13:00	02/21/18 13:00	CAD	MANUAL	2	B005523
5	EPA-351.2	03/05/18 20:00	03/06/18 12:43	JMH	SC-1	1	B006202
6	EPA-350.1	03/05/18 08:52	03/06/18 14:23	JMH	SC-1	1	B006594
7	EPA-353.2	02/16/18 20:10	02/16/18 20:52	SAV	KONE-1	1	B005212
8	EPA-365.4	02/27/18 21:00	02/28/18 12:53	JMH	SC-1	5	B006203

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500 First Street  
Woodland, CA 95695

**Reported:** 03/08/2018 11:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805416-02		Client Sample Name: Zonneveld Dairy Complex, ZON-MW2B, 2/16/2018 3:21:00PM, Client						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	25	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	0.25	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	87	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	140	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	18	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	19	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	36	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	390	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.39	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.042	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.012	mg/L	0.050	0.010	EPA-353.2	0.012	J	7
Total Phosphate	0.32	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:12	JCC	PE-OP2	1	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 13:29	MEV	MET-1	1	B003274
3	EPA-300.0	02/16/18 19:00	02/17/18 00:56	SAV	IC1	1	B005252
4	SM-2540C	02/21/18 13:00	02/21/18 13:00	CAD	MANUAL	2	B005523
5	EPA-351.2	03/05/18 20:00	03/06/18 12:45	JMH	SC-1	1	B006202
6	EPA-350.1	03/05/18 08:52	03/06/18 14:25	JMH	SC-1	1	B006594
7	EPA-353.2	02/16/18 20:10	02/16/18 20:30	SAV	KONE-1	1	B005212
8	EPA-365.4	02/27/18 21:00	02/28/18 12:36	JMH	SC-1	1	B006203

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Reported: 03/08/2018 11:25  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Zonneveld Dairy Complex  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805416-03	Client Sample Name:	Zonneveld Dairy Complex, ZON-MW4B, 2/16/2018 11:01:00AM, Client						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	98	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	1.6	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	180	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	1.8	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	350	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	38	mg/L	0.50	0.077	EPA-300.0	ND		3	
Nitrate as N	48	mg/L	0.50	0.10	EPA-300.0	ND	A07	4	
Sulfate	40	mg/L	1.0	0.13	EPA-300.0	ND		3	
Total Dissolved Solids @ 180 C	800	mg/L	33	33	SM-2540C	ND		5	
Total Kjeldahl Nitrogen	0.50	mg/L	0.20	0.084	EPA-351.2	ND		6	
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7	
Nitrite as N	0.014	mg/L	0.050	0.010	EPA-353.2	0.012	J	8	
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		9	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	03/07/18 10:40	JCC	PE-OP2	1	B006824
2	SM-2320B	02/21/18 15:00	02/21/18 19:55	MEV	MET-1	2	B003277
3	EPA-300.0	02/16/18 19:00	02/17/18 01:15	SAV	IC1	1	B005252
4	EPA-300.0	02/16/18 19:00	02/16/18 22:43	SAV	IC1	5	B005252
5	SM-2540C	02/21/18 13:00	02/21/18 13:00	CAD	MANUAL	3.333	B005523
6	EPA-351.2	03/05/18 20:00	03/06/18 12:40	JMH	SC-1	1	B006202
7	EPA-350.1	03/05/18 08:52	03/06/18 14:27	JMH	SC-1	1	B006594
8	EPA-353.2	02/16/18 20:10	02/16/18 20:30	SAV	KONE-1	1	B005212
9	EPA-365.4	02/27/18 21:00	02/28/18 12:32	JMH	SC-1	1	B006203

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**Reported:** 03/08/2018 11:25  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Zonneveld Dairy Complex  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003274</b>						
Bicarbonate Alkalinity as CaCO3	B003274-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003274-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003274-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B003277</b>						
Bicarbonate Alkalinity as CaCO3	B003277-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003277-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003277-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005212</b>						
Nitrite as N	B005212-BLK1	0.011843	mg/L	0.050	0.010	J
<b>QC Batch ID: B005252</b>						
Chloride	B005252-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005252-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005252-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005523</b>						
Total Dissolved Solids @ 180 C	B005523-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005540</b>						
Dissolved Calcium	B005540-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005540-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005540-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005540-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006202</b>						
Total Kjeldahl Nitrogen	B006202-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006203</b>						
Total Phosphate	B006203-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006594</b>						
Ammonia as N	B006594-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006824</b>						
Dissolved Calcium	B006824-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B006824-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B006824-BLK1	ND	mg/L	0.50	0.051	

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**Reported:** 03/08/2018 11:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B006824</b>						
Dissolved Potassium	B006824-BLK1	ND	mg/L	1.0	0.10	

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**Reported:** 03/08/2018 11:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005212</b>										
Nitrite as N	B005212-BS1	LCS	0.49623	0.50000	mg/L	99.2		90 - 110		
<b>QC Batch ID: B005252</b>										
Chloride	B005252-BS1	LCS	50.684	50.000	mg/L	101		90 - 110		
Nitrate as N	B005252-BS1	LCS	5.0310	5.0000	mg/L	101		90 - 110		
Sulfate	B005252-BS1	LCS	101.64	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B005523</b>										
Total Dissolved Solids @ 180 C	B005523-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B005540</b>										
Dissolved Calcium	B005540-BS1	LCS	9.8613	10.000	mg/L	98.6		85 - 115		
Dissolved Magnesium	B005540-BS1	LCS	10.131	10.000	mg/L	101		85 - 115		
Dissolved Sodium	B005540-BS1	LCS	10.308	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B005540-BS1	LCS	9.8260	10.000	mg/L	98.3		85 - 115		
<b>QC Batch ID: B006202</b>										
Total Kjeldahl Nitrogen	B006202-BS1	LCS	2.0274	2.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B006203</b>										
Total Phosphate	B006203-BS1	LCS	2.9914	3.0660	mg/L	97.6		85 - 115		
<b>QC Batch ID: B006594</b>										
Ammonia as N	B006594-BS1	LCS	1.0072	1.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B006824</b>										
Dissolved Calcium	B006824-BS1	LCS	10.597	10.000	mg/L	106		85 - 115		
Dissolved Magnesium	B006824-BS1	LCS	10.499	10.000	mg/L	105		85 - 115		
Dissolved Sodium	B006824-BS1	LCS	10.672	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B006824-BS1	LCS	10.233	10.000	mg/L	102		85 - 115		

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Reported: 03/08/2018 11:25  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Zonneveld Dairy Complex  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B003274</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805409-01	204.16	201.27		mg/L	1.4		10	
Carbonate Alkalinity as CaCO3	DUP	1805409-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805409-01	ND	ND		mg/L			10	
<b>QC Batch ID: B003277</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805638-09	188.49	184.84		mg/L	2.0		10	
Carbonate Alkalinity as CaCO3	DUP	1805638-09	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805638-09	ND	ND		mg/L			10	
<b>QC Batch ID: B005212</b>		Used client sample: N								
Nitrite as N	DUP	1805299-01	ND	ND		mg/L			10	
	MS	1805299-01	ND	0.48147	0.52632	mg/L		91.5		90 - 110
	MSD	1805299-01	ND	0.48472	0.52632	mg/L	0.7	92.1	10	90 - 110
<b>QC Batch ID: B005252</b>		Used client sample: Y - Description: ZON-MW1A, 02/16/2018 08:41								
Chloride	DUP	805416-01RE'	31.549	31.504		mg/L	0.1		10	
	MS	805416-01RE'	31.549	87.553	50.505	mg/L		111		80 - 120
	MSD	805416-01RE'	31.549	87.579	50.505	mg/L	0.0	111	10	80 - 120
Nitrate as N	DUP	805416-01RE'	18.657	18.676		mg/L	0.1		10	
	MS	805416-01RE'	18.657	23.651	5.0505	mg/L		98.9		80 - 120
	MSD	805416-01RE'	18.657	23.577	5.0505	mg/L	0.3	97.4	10	80 - 120
Sulfate	DUP	805416-01RE'	34.169	33.975		mg/L	0.6		10	
	MS	805416-01RE'	34.169	146.64	101.01	mg/L		111		80 - 120
	MSD	805416-01RE'	34.169	145.92	101.01	mg/L	0.5	111	10	80 - 120
<b>QC Batch ID: B005523</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1805509-01	1045.0	1045.0		mg/L	0		10	
<b>QC Batch ID: B005540</b>		Used client sample: Y - Description: ZON-MW2B, 02/16/2018 15:21								
Dissolved Calcium	DUP	1805416-02	24.936	25.096		mg/L	0.6		20	
	MS	1805416-02	24.936	34.165	10.204	mg/L		90.4		85 - 115
	MSD	1805416-02	24.936	34.012	10.204	mg/L	0.4	88.9	20	85 - 115
Dissolved Magnesium	DUP	1805416-02	0.24850	0.24694		mg/L	0.6		20	
	MS	1805416-02	0.24850	10.546	10.204	mg/L		101		85 - 115
	MSD	1805416-02	0.24850	10.426	10.204	mg/L	1.2	99.7	20	85 - 115
Dissolved Sodium	DUP	1805416-02	87.233	86.694		mg/L	0.6		20	
	MS	1805416-02	87.233	100.03	10.204	mg/L		125		85 - 115 A03
	MSD	1805416-02	87.233	99.748	10.204	mg/L	0.3	123	20	85 - 115 A03
Dissolved Potassium	DUP	1805416-02	1.0010	0.91484		mg/L	9.0		20	J
	MS	1805416-02	1.0010	10.706	10.204	mg/L		95.1		85 - 115
	MSD	1805416-02	1.0010	10.706	10.204	mg/L	0.0	95.1	20	85 - 115

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**Reported:** 03/08/2018 11:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006202</b>		Used client sample: Y - Description: ZON-MW4B, 02/16/2018 11:01								
Total Kjeldahl Nitrogen	DUP	1805416-03	0.49930	0.56880		mg/L	13.0		20	
	MS	1805416-03	0.49930	2.4498	2.0000	mg/L		97.5		90 - 110
	MSD	1805416-03	0.49930	1.7600	2.0000	mg/L	32.8	63.0	20	90 - 110
										<b>Q02, Q03</b>
<b>QC Batch ID: B006203</b>		Used client sample: Y - Description: ZON-MW4B, 02/16/2018 11:01								
Total Phosphate	DUP	1805416-03	ND	ND		mg/L			20	
	MS	1805416-03	ND	3.0027	3.0660	mg/L		97.9		80 - 120
	MSD	1805416-03	ND	3.0251	3.0660	mg/L	0.7	98.7	20	80 - 120
<b>QC Batch ID: B006594</b>		Used client sample: N								
Ammonia as N	DUP	1806703-02	0.27950	0.25660		mg/L	8.5		10	
	MS	1806703-02	0.27950	1.3248	1.1111	mg/L		94.1		90 - 110
	MSD	1806703-02	0.27950	1.3292	1.1111	mg/L	0.3	94.5	10	90 - 110
<b>QC Batch ID: B006824</b>		Used client sample: N								
Dissolved Calcium	DUP	1806421-01	33.259	33.621		mg/L	1.1		20	
	MS	1806421-01	33.259	43.584	10.204	mg/L		101		85 - 115
	MSD	1806421-01	33.259	43.767	10.204	mg/L	0.4	103	20	85 - 115
Dissolved Magnesium	DUP	1806421-01	14.054	14.056		mg/L	0.0		20	
	MS	1806421-01	14.054	24.383	10.204	mg/L		101		85 - 115
	MSD	1806421-01	14.054	24.574	10.204	mg/L	0.8	103	20	85 - 115
Dissolved Sodium	DUP	1806421-01	165.16	164.31		mg/L	0.5		20	
	MS	1806421-01	165.16	172.15	10.204	mg/L		68.5		85 - 115
	MSD	1806421-01	165.16	171.70	10.204	mg/L	0.3	64.0	20	85 - 115
Dissolved Potassium	DUP	1806421-01	2.9368	2.9502		mg/L	0.5		20	
	MS	1806421-01	2.9368	13.276	10.204	mg/L		101		85 - 115
	MSD	1806421-01	2.9368	13.413	10.204	mg/L	1.0	103	20	85 - 115

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**Reported:** 03/08/2018 11:25  
**Project:** Dairy Rep MP - Expanded Suite  
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**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q02 Matrix spike precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/12/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Zonneveld Dairy Complex  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805764  
Invoice ID: B296627

Enclosed are the results of analyses for samples received by the laboratory on 2/21/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805764

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested			
Report to: Expanded Constituent Suite					
Name:	Luhdorff and Scalmani	From Filtered Sample:	From Unfiltered Sample:		
Address:	500 First Street	Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3		
City:	Woodland	From Filtered Sample:			
State:	CA	Ammonia-N, NO3-N, NO2-N			
Att:	Till Angermann				
Project:	Dairy Representative Monitoring Program				
Site:	Zonneveld Dairy Complex				
Samplers Name:					
Global ID:	WDR100038511				
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cr/Pc Unpreserved
1	<del>ZON-MW3A, ZON-MW3B, ZON-MW3C, ZON-MW3D</del>				X
2	<del>ZON-MW3A, ZON-MW3B, ZON-MW3C, ZON-MW3D</del>	2/21/18	1137	GW	X
4	<del>ZON-MW3A, ZON-MW3B, ZON-MW3C, ZON-MW3D</del>	2/21/18	1044	STW	X
6	<del>ZON-MW3A, ZON-MW3B, ZON-MW3C, ZON-MW3D</del>				X
7	<del>ZON-MW7</del>				X
8	<del>Field Duplicate</del>				X
9					
10					
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: lsc@lsc.com, rbyson@lsc.com, pohnalwal@lsc.com, jlovelis@lsc.com 4) Send invoices to Jaznette Lovell (jlovelis@lsc.com).					
Relinquished By: (Signature)		Relinquished By: (Signature)		Relinquished By: (Signature)	
Date & Time		Date & Time		Date & Time	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1805764

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Intact? Yes  No  Intact? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.9 Container: 512 Thermometer ID: 274 Date/Time: 2-21-18

Temperature: (A) 0.0 °C / (C) 0.7 °C Analyst Init: SD 15/5

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A15	A15								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	-C	C								
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: 658 Date/Time: 2/21/18

A = Actual / C = Corrected

Rev 21 05/23/2016  
 J:\WPDoc\WordPerfect\LAB\_DOCS\FORMS\SAMRECrev 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805764-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 15:15
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b>	02/21/2018 11:37
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZON-MW3B	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	GDTM	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805764-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 15:15
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b>	02/21/2018 10:44
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ZON-MW5B	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	GDTM	<b>Sample Type:</b>	Water
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 12:32  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Zonneveld Dairy Complex  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805764-01		Client Sample Name: Zonneveld Dairy Complex, ZON-MW3B, 2/21/2018 11:37:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	160	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	3.9	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	90	mg/L	0.50	0.051	EPA-200.7	0.059		1
Dissolved Potassium	1.1	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	320	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	28	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	52	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	36	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	640	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.78	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:45	02/26/18 21:45	JCC	PE-OP2	1	B005974
2	SM-2320B	02/26/18 12:00	02/26/18 20:21	MEV	MET-1	2	B005339
3	EPA-300.0	02/21/18 23:30	02/22/18 04:57	OLH	IC2	5	B005703
4	SM-2540C	02/26/18 15:30	02/26/18 15:30	CAD	MANUAL	3.333	B006019
5	EPA-351.2	03/05/18 23:00	03/07/18 15:50	JMH	SC-1	1	B006736
6	EPA-350.1	03/06/18 13:21	03/08/18 13:24	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 08:08	JNC	KONE-1	1	B005779
8	EPA-365.4	03/05/18 23:00	03/07/18 10:44	JMH	SC-1	1	B006737

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805764-02		Client Sample Name: Zonneveld Dairy Complex, ZON-MW5B, 2/21/2018 10:44:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	95	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	2.6	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	78	mg/L	0.50	0.051	EPA-200.7	0.059		1
Dissolved Potassium	1.4	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	240	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	17	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	25	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	31	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	440	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.47	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:45	02/26/18 21:48	JCC	PE-OP2	1	B005974
2	SM-2320B	02/26/18 12:00	02/26/18 20:27	MEV	MET-1	1	B005339
3	EPA-300.0	02/21/18 23:30	02/22/18 11:50	OLH	IC2	2	B005703
4	SM-2540C	02/26/18 15:30	02/26/18 15:30	CAD	MANUAL	2	B006019
5	EPA-351.2	03/05/18 23:00	03/07/18 15:51	JMH	SC-1	1	B006736
6	EPA-350.1	03/06/18 13:21	03/08/18 13:29	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 08:08	JNC	KONE-1	1	B005779
8	EPA-365.4	03/05/18 23:00	03/07/18 10:45	JMH	SC-1	1	B006737

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**Reported:** 03/12/2018 12:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005339</b>						
Bicarbonate Alkalinity as CaCO3	B005339-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005339-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005339-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005703</b>						
Chloride	B005703-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005703-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005703-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005779</b>						
Nitrite as N	B005779-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005974</b>						
Dissolved Calcium	B005974-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005974-BLK1	ND	mg/L	0.050	0.019	
<b>Dissolved Sodium</b>	<b>B005974-BLK1</b>	<b>0.059077</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
<b>Dissolved Potassium</b>	<b>B005974-BLK1</b>	<b>0.12151</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B006019</b>						
Total Dissolved Solids @ 180 C	B006019-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006736</b>						
Total Kjeldahl Nitrogen	B006736-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006737</b>						
Total Phosphate	B006737-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006801</b>						
Ammonia as N	B006801-BLK1	ND	mg/L	0.10	0.020	

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Woodland, CA 95695

**Reported:** 03/12/2018 12:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005703</b>										
Chloride	B005703-BS1	LCS	52.157	50.000	mg/L	104		90 - 110		
Nitrate as N	B005703-BS1	LCS	5.1490	5.0000	mg/L	103		90 - 110		
Sulfate	B005703-BS1	LCS	104.09	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B005779</b>										
Nitrite as N	B005779-BS1	LCS	0.49846	0.50000	mg/L	99.7		90 - 110		
<b>QC Batch ID: B005974</b>										
Dissolved Calcium	B005974-BS1	LCS	10.443	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B005974-BS1	LCS	10.222	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B005974-BS1	LCS	10.936	10.000	mg/L	109		85 - 115		
Dissolved Potassium	B005974-BS1	LCS	10.323	10.000	mg/L	103		85 - 115		
<b>QC Batch ID: B006019</b>										
Total Dissolved Solids @ 180 C	B006019-BS1	LCS	560.00	586.00	mg/L	95.6		90 - 110		
<b>QC Batch ID: B006736</b>										
Total Kjeldahl Nitrogen	B006736-BS1	LCS	1.9020	2.0000	mg/L	95.1		90 - 110		
<b>QC Batch ID: B006737</b>										
Total Phosphate	B006737-BS1	LCS	3.1916	3.0660	mg/L	104		85 - 115		
<b>QC Batch ID: B006801</b>										
Ammonia as N	B006801-BS1	LCS	0.94080	1.0000	mg/L	94.1		90 - 110		

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500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 12:32  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Zonneveld Dairy Complex  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005339</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805726-05	364.66	359.79		mg/L	1.3		10	
Carbonate Alkalinity as CaCO3	DUP	1805726-05	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805726-05	ND	ND		mg/L			10	
<b>QC Batch ID: B005703</b>		Used client sample: N								
Chloride	DUP	1805714-02	123.54	124.50		mg/L	0.8		10	
	MS	1805714-02	123.54	178.53	50.505	mg/L		109		80 - 120
	MSD	1805714-02	123.54	179.50	50.505	mg/L	0.5	111	10	80 - 120
Nitrate as N	DUP	1805714-02	5.7760	5.7310		mg/L	0.8		10	
	MS	1805714-02	5.7760	10.932	5.0505	mg/L		102		80 - 120
	MSD	1805714-02	5.7760	10.933	5.0505	mg/L	0.0	102	10	80 - 120
Sulfate	DUP	1805714-02	118.28	119.03		mg/L	0.6		10	
	MS	1805714-02	118.28	228.16	101.01	mg/L		109		80 - 120
	MSD	1805714-02	118.28	228.10	101.01	mg/L	0.0	109	10	80 - 120
<b>QC Batch ID: B005779</b>		Used client sample: N								
Nitrite as N	DUP	1805825-01	0.010409	0.011443		mg/L	9.5		10	J
	MS	1805825-01	0.010409	0.52567	0.52632	mg/L		97.9		90 - 110
	MSD	1805825-01	0.010409	0.52749	0.52632	mg/L	0.3	98.2	10	90 - 110
<b>QC Batch ID: B005974</b>		Used client sample: N								
Dissolved Calcium	DUP	1805724-01	5.8483	5.8926		mg/L	0.8		20	
	MS	1805724-01	5.8483	16.108	10.204	mg/L		101		85 - 115
	MSD	1805724-01	5.8483	16.145	10.204	mg/L	0.2	101	20	85 - 115
Dissolved Magnesium	DUP	1805724-01	6.8826	6.8426		mg/L	0.6		20	
	MS	1805724-01	6.8826	17.009	10.204	mg/L		99.2		85 - 115
	MSD	1805724-01	6.8826	16.729	10.204	mg/L	1.7	96.5	20	85 - 115
Dissolved Sodium	DUP	1805724-01	91.532	91.879		mg/L	0.4		20	
	MS	1805724-01	91.532	103.32	10.204	mg/L		116		85 - 115 A03
	MSD	1805724-01	91.532	103.75	10.204	mg/L	0.4	120	20	85 - 115 A03
Dissolved Potassium	DUP	1805724-01	281.40	282.32		mg/L	0.3		20	
	MS	1805724-01	281.40	294.24	10.204	mg/L		126		85 - 115 A03
	MSD	1805724-01	281.40	295.85	10.204	mg/L	0.5	142	20	85 - 115 A03
<b>QC Batch ID: B006019</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1805769-01	960.00	940.00		mg/L	2.1		10	
<b>QC Batch ID: B006736</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Total Kjeldahl Nitrogen	DUP	1805761-01	0.43680	0.56720		mg/L	26.0		20	A02
	MS	1805761-01	0.43680	2.3979	2.0000	mg/L		98.1		90 - 110
	MSD	1805761-01	0.43680	2.4382	2.0000	mg/L	1.7	100	20	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006737</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Total Phosphate	DUP	1805761-01	ND	ND		mg/L			20	
	MS	1805761-01	ND	3.2851	3.0660	mg/L		107		80 - 120
	MSD	1805761-01	ND	3.2143	3.0660	mg/L	2.2	105	20	80 - 120
<b>QC Batch ID: B006801</b>		Used client sample: Y - Description: ZON-MW3B, 02/21/2018 11:37								
Ammonia as N	DUP	1805764-01	ND	ND		mg/L			10	
	MS	1805764-01	ND	1.0421	1.1111	mg/L		93.8		90 - 110
	MSD	1805764-01	ND	1.0566	1.1111	mg/L	1.4	95.1	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 12:32  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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## Central Area

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Date of Report: 03/12/2018

Jeanette Kinzie

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Albert Mendes Dairy

BCL Project: Dairy Rep MP - Expanded Suite

BCL Work Order: 1805632

Invoice ID: B296696

Enclosed are the results of analyses for samples received by the laboratory on 2/20/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805632

Samples were filtered through a 0.45 micron filter for requested analysis.



1805632

Chain of Custody

4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

BC Laboratories, Inc.

Report to:

Expanded Constituent Suite

Project: Dairy Representative Monitoring Program  
Site: Alford Mendes Dairy  
Samplers Name: Antonio Del-Tech  
Global ID - GADAIR700001

Analysis Requested

From Unfiltered Sample:  
Total Kjeldahl Nitrogen,  
Total Phosphate (as PO4),  
Alkalinity (HCO3, CO3 & OH) as  
CaCO3

From Filtered Sample:  
Na, K, Mg, Ca, Cl,  
SO4 (as SO4),  
Total Dissolved Solids

From Filtered Sample:  
Ammonia-N, NO3-N,  
NO2-N

From Filtered Sample:  
Ammonia-N, NO3-N,  
NO2-N

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pt Unpreserved
- 1	MEN-MW1s, MEN-MW4d	2/20/18	1357	6W	x
- 2	MEN-MW2s, MEN-MW3d		1414		x
- 3	MEN-MW3s, MEN-MW3d		1514		x
- 4	MEN-MW4s, MEN-MW4d		1530		x
- 5	MEN-MW5s, MEN-MW5d		1457		x
- 6	MEN-MW6s, MEN-MW6d		1332		x
- 7	MEN-MW7s, MEN-MW7d		1437		x
- 8	MEN-MW8s, MEN-MW8d		1552		x
9	Field-Duplicate				x
10					
11					
12					

CHK BY: [Signature] DIS. DISTRIBUTION: [Signature] SUB-OUT: [ ]

Received By: [Signature] Date & Time: 2/20/18 17:30

Received By: [Signature] Date & Time: 2/20/18 18:30

Received By: [Signature] Date & Time: 2/20/18 23:00

Relinquished by: (Signature) Antonio H. Mendez 2/20/18 17:30

Relinquished by: (Signature) [Signature] 2/20/18 18:30

Relinquished by: (Signature) [Signature] 2/20/18 23:00

Comments:

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Lundorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbyson@lscce.com, pdh@lscce.com, jlovelis@lscce.com

4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).

(A) Analysis (C) Container (P) Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1805632

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO  W S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.95 Container: PE Thermometer ID: 1065 Date/Time: 2/20/16 13:00  
 Temperature: (A) 1.2 °C (C) 0.9 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 918/908/909										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 801SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 2/20/16 13:00 Rev 21 05/23/2016  
 A = Actual / C = Corrected [Signature]



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805632-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b>	02/20/2018 13:57
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MEN-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805632-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b>	02/20/2018 14:14
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MEN-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805632-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b>	02/20/2018 15:14
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MEN-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805632-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b>	02/20/2018 15:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MEN-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805632-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b>	02/20/2018 14:57
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MEN-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1805632-06</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/20/2018 23:00
	<b>Project Number:</b> Albert Mendes Dairy	<b>Sampling Date:</b> 02/20/2018 13:32
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MEN-MW6s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805632-07</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/20/2018 23:00
	<b>Project Number:</b> Albert Mendes Dairy	<b>Sampling Date:</b> 02/20/2018 14:37
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MEN-MW7s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805632-08</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/20/2018 23:00
	<b>Project Number:</b> Albert Mendes Dairy	<b>Sampling Date:</b> 02/20/2018 15:52
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> MEN-MW8d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 17:58  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Albert Mendes Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805632-01	Client Sample Name:	Albert Mendes Dairy, MEN-MW1s, 2/20/2018 1:57:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	370	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	180	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	730	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	160	mg/L	1.0	0.10	EPA-200.7	0.16		1	
Bicarbonate Alkalinity as CaCO3	1900	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	1000	mg/L	5.0	0.77	EPA-300.0	ND	A07	3	
Nitrate as N	25	mg/L	0.50	0.10	EPA-300.0	ND	A07	4	
Sulfate	180	mg/L	5.0	0.65	EPA-300.0	ND	A07	4	
Total Dissolved Solids @ 180 C	3500	mg/L	200	200	SM-2540C	ND		5	
Total Kjeldahl Nitrogen	40	mg/L	2.5	1.0	EPA-351.2	ND	A07	6	
Ammonia as N	30	mg/L	2.0	0.40	EPA-350.1	ND	A07	7	
Nitrite as N	0.019	mg/L	0.050	0.010	EPA-353.2	ND	J	8	
Total Phosphate	0.32	mg/L	0.38	0.15	EPA-365.4	ND	J,A07	9	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:02	02/26/18 18:41	JCC	PE-OP2	1	B005950
2	SM-2320B	02/23/18 16:00	02/23/18 22:10	MEV	MET-1	2	B005333
3	EPA-300.0	02/21/18 13:00	02/22/18 01:56	OLH	IC8	10	B005636
4	EPA-300.0	02/21/18 13:00	02/21/18 16:16	SAV	IC8	5	B005636
5	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	20	B005897
6	EPA-351.2	03/05/18 21:00	03/06/18 10:04	JMH	SC-1	12.500	B006732
7	EPA-350.1	03/06/18 13:20	03/08/18 10:53	JMH	SC-1	20	B006799
8	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
9	EPA-365.4	03/05/18 21:00	03/07/18 09:45	JMH	SC-1	2.500	B006733

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 17:58  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Albert Mendes Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805632-02		Client Sample Name: Albert Mendes Dairy, MEN-MW2s, 2/20/2018 2:14:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	340	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	120	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	450	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	170	mg/L	1.0	0.10	EPA-200.7	0.16		1
Bicarbonate Alkalinity as CaCO3	940	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	840	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	56	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	310	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	3100	mg/L	200	200	SM-2540C	ND		5
Total Kjeldahl Nitrogen	3.2	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	1.5	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	0.19	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.25	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:02	02/26/18 18:43	JCC	PE-OP2	1	B005950
2	SM-2320B	02/23/18 16:00	02/23/18 22:20	MEV	MET-1	2	B005333
3	EPA-300.0	02/21/18 13:00	02/22/18 02:15	OLH	IC8	5	B005636
4	EPA-300.0	02/21/18 13:00	02/21/18 16:35	SAV	IC8	1	B005636
5	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	20	B005897
6	EPA-351.2	03/06/18 20:00	03/07/18 12:56	JMH	SC-1	1	B006848
7	EPA-350.1	03/06/18 13:20	03/08/18 10:51	JMH	SC-1	1	B006799
8	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
9	EPA-365.4	03/06/18 20:00	03/09/18 08:19	JMH	SC-1	1	B006849

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805632-03	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW3s, 2/20/2018 3:14:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	300	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	94	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	360	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	52	mg/L	1.0	0.10	EPA-200.7	0.16		1
Bicarbonate Alkalinity as CaCO3	730	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	460	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	190	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2600	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.055	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.64	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	24	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:02	02/26/18 18:54	JCC	PE-OP2	1	B005950
2	SM-2320B	02/23/18 16:00	02/23/18 22:27	MEV	MET-1	2	B005333
3	EPA-300.0	02/21/18 13:00	02/22/18 03:31	OLH	IC8	10	B005636
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005897
5	EPA-351.2	03/05/18 21:00	03/06/18 09:34	JMH	SC-1	1	B006732
6	EPA-350.1	03/06/18 13:20	03/08/18 10:15	JMH	SC-1	1	B006799
7	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
8	EPA-365.4	03/05/18 21:00	03/07/18 09:58	JMH	SC-1	5	B006733

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805632-04	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW4s, 2/20/2018 3:30:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	300	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	81	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	300	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	11	mg/L	1.0	0.10	EPA-200.7	0.16		1
Bicarbonate Alkalinity as CaCO3	550	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	450	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	120	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	180	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.044	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.37	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	12	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:02	02/26/18 18:57	JCC	PE-OP2	1	B005950
2	SM-2320B	02/23/18 16:00	02/23/18 22:34	MEV	MET-1	2	B005333
3	EPA-300.0	02/21/18 13:00	02/21/18 17:13	SAV	IC8	10	B005636
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005897
5	EPA-351.2	03/05/18 21:00	03/06/18 09:34	JMH	SC-1	1	B006732
6	EPA-350.1	03/06/18 13:20	03/08/18 10:17	JMH	SC-1	1	B006799
7	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
8	EPA-365.4	03/05/18 21:00	03/07/18 10:00	JMH	SC-1	5	B006733

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**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805632-05		Client Sample Name: Albert Mendes Dairy, MEN-MW5s, 2/20/2018 2:57:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	40	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	180	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	70	mg/L	1.0	0.10	EPA-200.7	0.16		1
Bicarbonate Alkalinity as CaCO3	430	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	51	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	76	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.020	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.054	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.68	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:02	02/26/18 19:00	JCC	PE-OP2	1	B005950
2	SM-2320B	02/26/18 08:00	02/26/18 11:42	MEV	MET-1	2	B005334
3	EPA-300.0	02/21/18 13:00	02/21/18 17:32	SAV	IC8	5	B005636
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005897
5	EPA-351.2	03/08/18 19:40	03/09/18 14:18	JMH	SC-1	1	B006734
6	EPA-350.1	03/06/18 13:20	03/08/18 10:19	JMH	SC-1	1	B006799
7	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
8	EPA-365.4	03/05/18 21:00	03/07/18 09:30	JMH	SC-1	1	B006735

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**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805632-06	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW6s, 2/20/2018 1:32:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	210	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	48	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	320	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.9	mg/L	1.0	0.10	EPA-200.7	0.16		1
Bicarbonate Alkalinity as CaCO3	620	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	29	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	190	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.3	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.43	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.50	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:02	02/26/18 19:02	JCC	PE-OP2	1	B005950
2	SM-2320B	02/26/18 08:00	02/26/18 12:19	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/21/18 17:51	SAV	IC8	2	B005636
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005897
5	EPA-351.2	03/08/18 19:40	03/09/18 14:22	JMH	SC-1	1	B006734
6	EPA-350.1	03/06/18 13:20	03/08/18 10:19	JMH	SC-1	1	B006799
7	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
8	EPA-365.4	03/05/18 21:00	03/07/18 09:32	JMH	SC-1	1	B006735

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**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805632-07	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW7s, 2/20/2018 2:37:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	240	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	73	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	260	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	7.5	mg/L	1.0	0.10	EPA-200.7	0.16		1
Bicarbonate Alkalinity as CaCO3	570	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	340	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	87	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	160	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.2	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.24	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.31	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.85	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:02	02/26/18 19:05	JCC	PE-OP2	1	B005950
2	SM-2320B	02/26/18 08:00	02/26/18 12:28	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/21/18 18:10	SAV	IC8	5	B005636
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005897
5	EPA-351.2	03/08/18 19:40	03/09/18 14:24	JMH	SC-1	1	B006734
6	EPA-350.1	03/06/18 13:20	03/08/18 10:21	JMH	SC-1	1	B006799
7	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
8	EPA-365.4	03/05/18 21:00	03/07/18 09:33	JMH	SC-1	1	B006735

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**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805632-08	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW8d, 2/20/2018 3:52:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	32	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	620	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.2	mg/L	1.0	0.10	EPA-200.7	0.20		1
Bicarbonate Alkalinity as CaCO3	860	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	520	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	23	mg/L	0.20	0.042	EPA-300.0	ND	A07	4
Sulfate	120	mg/L	2.0	0.26	EPA-300.0	ND	A07	4
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	0.22	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.26	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:07	02/26/18 19:57	JCC	PE-OP2	1	B005955
2	SM-2320B	02/26/18 08:00	02/26/18 12:34	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/22/18 03:50	OLH	IC8	5	B005636
4	EPA-300.0	02/21/18 13:00	02/21/18 18:29	SAV	IC8	2	B005636
5	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005897
6	EPA-351.2	03/08/18 19:40	03/09/18 14:25	JMH	SC-1	1	B006734
7	EPA-350.1	03/06/18 13:20	03/08/18 14:15	JMH	SC-1	1	B006800
8	EPA-353.2	02/21/18 06:54	02/21/18 07:05	JNC	KONE-1	1	B005690
9	EPA-365.4	03/05/18 21:00	03/07/18 09:33	JMH	SC-1	1	B006735

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**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005333</b>						
Bicarbonate Alkalinity as CaCO3	B005333-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005333-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005333-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005334</b>						
Bicarbonate Alkalinity as CaCO3	B005334-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005334-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005334-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005335</b>						
Bicarbonate Alkalinity as CaCO3	B005335-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005335-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005335-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005636</b>						
Chloride	B005636-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005636-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005636-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005690</b>						
Nitrite as N	B005690-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005897</b>						
Total Dissolved Solids @ 180 C	B005897-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005950</b>						
Dissolved Calcium	B005950-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005950-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005950-BLK1	ND	mg/L	0.50	0.051	
<b>Dissolved Potassium</b>	<b>B005950-BLK1</b>	<b>0.16322</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B005955</b>						
Dissolved Calcium	B005955-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005955-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005955-BLK1	ND	mg/L	0.50	0.051	
<b>Dissolved Potassium</b>	<b>B005955-BLK1</b>	<b>0.19794</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B006732</b>						
Total Kjeldahl Nitrogen	B006732-BLK1	ND	mg/L	0.20	0.084	

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**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B006733</b>						
Total Phosphate	B006733-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006734</b>						
Total Kjeldahl Nitrogen	B006734-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006735</b>						
Total Phosphate	B006735-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006799</b>						
Ammonia as N	B006799-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006800</b>						
Ammonia as N	B006800-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006848</b>						
Total Kjeldahl Nitrogen	B006848-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006849</b>						
Total Phosphate	B006849-BLK1	ND	mg/L	0.15	0.060	

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**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005636</b>										
Chloride	B005636-BS1	LCS	50.891	50.000	mg/L	102		90 - 110		
Nitrate as N	B005636-BS1	LCS	4.9370	5.0000	mg/L	98.7		90 - 110		
Sulfate	B005636-BS1	LCS	99.688	100.00	mg/L	99.7		90 - 110		
<b>QC Batch ID: B005690</b>										
Nitrite as N	B005690-BS1	LCS	0.49609	0.50000	mg/L	99.2		90 - 110		
<b>QC Batch ID: B005897</b>										
Total Dissolved Solids @ 180 C	B005897-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B005950</b>										
Dissolved Calcium	B005950-BS1	LCS	10.588	10.000	mg/L	106		85 - 115		
Dissolved Magnesium	B005950-BS1	LCS	10.240	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B005950-BS1	LCS	10.714	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B005950-BS1	LCS	10.235	10.000	mg/L	102		85 - 115		
<b>QC Batch ID: B005955</b>										
Dissolved Calcium	B005955-BS1	LCS	10.812	10.000	mg/L	108		85 - 115		
Dissolved Magnesium	B005955-BS1	LCS	10.450	10.000	mg/L	105		85 - 115		
Dissolved Sodium	B005955-BS1	LCS	11.054	10.000	mg/L	111		85 - 115		
Dissolved Potassium	B005955-BS1	LCS	10.506	10.000	mg/L	105		85 - 115		
<b>QC Batch ID: B006732</b>										
Total Kjeldahl Nitrogen	B006732-BS1	LCS	2.0964	2.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B006733</b>										
Total Phosphate	B006733-BS1	LCS	3.0263	3.0660	mg/L	98.7		85 - 115		
<b>QC Batch ID: B006734</b>										
Total Kjeldahl Nitrogen	B006734-BS1	LCS	2.0347	2.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B006735</b>										
Total Phosphate	B006735-BS1	LCS	3.0831	3.0660	mg/L	101		85 - 115		
<b>QC Batch ID: B006799</b>										
Ammonia as N	B006799-BS1	LCS	1.0003	1.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B006800</b>										
Ammonia as N	B006800-BS1	LCS	0.93720	1.0000	mg/L	93.7		90 - 110		
<b>QC Batch ID: B006848</b>										
Total Kjeldahl Nitrogen	B006848-BS1	LCS	1.8947	2.0000	mg/L	94.7		90 - 110		
<b>QC Batch ID: B006849</b>										

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B006849</b>										
Total Phosphate	B006849-BS1	LCS	3.0457	3.0660	mg/L	99.3		85	115	

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500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 17:58  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Albert Mendes Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005333</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805615-07	237.63	231.55		mg/L	2.6		10	
Carbonate Alkalinity as CaCO3	DUP	1805615-07	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805615-07	ND	ND		mg/L			10	
<b>QC Batch ID: B005334</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1806097-01	118.51	114.71		mg/L	3.3		10	
Carbonate Alkalinity as CaCO3	DUP	1806097-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806097-01	ND	ND		mg/L			10	
<b>QC Batch ID: B005335</b>		Used client sample: Y - Description: ROB-MW7s, 02/20/2018 10:32								
Bicarbonate Alkalinity as CaCO3	DUP	1805633-07	272.01	266.54		mg/L	2.0		10	
Carbonate Alkalinity as CaCO3	DUP	1805633-07	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805633-07	ND	ND		mg/L			10	
<b>QC Batch ID: B005636</b>		Used client sample: Y - Description: MEN-MW1s, 02/20/2018 13:57								
Chloride	DUP	805632-01RE'	1032.9	1054.3		mg/L	2.0		10	
	MS	805632-01RE'	1032.9	1550.9	505.05	mg/L		103		80 - 120
	MSD	805632-01RE'	1032.9	1553.2	505.05	mg/L	0.1	103	10	80 - 120
Nitrate as N	DUP	805632-01RE'	23.530	23.950		mg/L	1.8		10	
	MS	805632-01RE'	23.530	76.556	50.505	mg/L		105		80 - 120
	MSD	805632-01RE'	23.530	75.889	50.505	mg/L	0.9	104	10	80 - 120
Sulfate	DUP	805632-01RE'	163.20	167.59		mg/L	2.7		10	
	MS	805632-01RE'	163.20	1246.1	1010.1	mg/L		107		80 - 120
	MSD	805632-01RE'	163.20	1239.4	1010.1	mg/L	0.5	107	10	80 - 120
<b>QC Batch ID: B005690</b>		Used client sample: N								
Nitrite as N	DUP	1805596-01	ND	ND		mg/L			10	
	MS	1805596-01	ND	0.51518	0.52632	mg/L		97.9		90 - 110
	MSD	1805596-01	ND	0.51690	0.52632	mg/L	0.3	98.2	10	90 - 110
<b>QC Batch ID: B005897</b>		Used client sample: Y - Description: MEN-MW1s, 02/20/2018 13:57								
Total Dissolved Solids @ 180 C	DUP	1805632-01	3520.0	3600.0		mg/L	2.2		10	
<b>QC Batch ID: B005950</b>		Used client sample: N								
Dissolved Calcium	DUP	1805517-13	57.569	56.560		mg/L	1.8		20	
	MS	1805517-13	57.569	68.352	10.204	mg/L		106		85 - 115
	MSD	1805517-13	57.569	68.247	10.204	mg/L	0.2	105	20	85 - 115
Dissolved Magnesium	DUP	1805517-13	35.009	35.747		mg/L	2.1		20	
	MS	1805517-13	35.009	45.426	10.204	mg/L		102		85 - 115
	MSD	1805517-13	35.009	45.083	10.204	mg/L	0.8	98.7	20	85 - 115

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 17:58  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Albert Mendes Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B005950</b>		Used client sample: N								
Dissolved Sodium	DUP	1805517-13	35.873	35.744		mg/L	0.4		20	
	MS	1805517-13	35.873	46.878	10.204	mg/L		108		85 - 115
	MSD	1805517-13	35.873	47.047	10.204	mg/L	0.4	110	20	85 - 115
Dissolved Potassium	DUP	1805517-13	1.7057	1.7366		mg/L	1.8		20	
	MS	1805517-13	1.7057	11.940	10.204	mg/L		100		85 - 115
	MSD	1805517-13	1.7057	11.912	10.204	mg/L	0.2	100	20	85 - 115
<b>QC Batch ID: B005955</b>		Used client sample: Y - Description: BEA-MW1dd, 02/23/2018 11:47								
Dissolved Calcium	DUP	1806135-01	103.64	105.14		mg/L	1.4		20	
	MS	1806135-01	103.64	111.70	10.204	mg/L		79.0		85 - 115 A03
	MSD	1806135-01	103.64	111.20	10.204	mg/L	0.5	74.1	20	85 - 115 A03
Dissolved Magnesium	DUP	1806135-01	36.703	36.517		mg/L	0.5		20	
	MS	1806135-01	36.703	46.337	10.204	mg/L		94.4		85 - 115
	MSD	1806135-01	36.703	46.366	10.204	mg/L	0.1	94.7	20	85 - 115
Dissolved Sodium	DUP	1806135-01	88.921	90.147		mg/L	1.4		20	
	MS	1806135-01	88.921	98.064	10.204	mg/L		89.6		85 - 115 A03
	MSD	1806135-01	88.921	97.460	10.204	mg/L	0.6	83.7	20	85 - 115 A03
Dissolved Potassium	DUP	1806135-01	44.529	45.051		mg/L	1.2		20	
	MS	1806135-01	44.529	54.027	10.204	mg/L		93.1		85 - 115
	MSD	1806135-01	44.529	53.773	10.204	mg/L	0.5	90.6	20	85 - 115
<b>QC Batch ID: B006732</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1806808-01	2.1711	2.1377		mg/L	1.6		20	
	MS	1806808-01	2.1711	4.3369	2.0000	mg/L		108		90 - 110
	MSD	1806808-01	2.1711	4.2376	2.0000	mg/L	2.3	103	20	90 - 110
<b>QC Batch ID: B006733</b>		Used client sample: N								
Total Phosphate	DUP	1806808-01	0.25449	0.27565		mg/L	8.0		20	
	MS	1806808-01	0.25449	3.4857	3.0660	mg/L		105		80 - 120
	MSD	1806808-01	0.25449	3.4090	3.0660	mg/L	2.2	103	20	80 - 120
<b>QC Batch ID: B006734</b>		Used client sample: Y - Description: MEN-MW5s, 02/20/2018 14:57								
Total Kjeldahl Nitrogen	DUP	1805632-05	1.1436	1.2026		mg/L	5.0		20	
	MS	1805632-05	1.1436	2.9068	2.0000	mg/L		88.2		90 - 110 Q03
	MSD	1805632-05	1.1436	3.0784	2.0000	mg/L	5.7	96.7	20	90 - 110
<b>QC Batch ID: B006735</b>		Used client sample: Y - Description: MEN-MW5s, 02/20/2018 14:57								
Total Phosphate	DUP	1805632-05	0.67824	0.75183		mg/L	10.3		20	
	MS	1805632-05	0.67824	3.7236	3.0660	mg/L		99.3		80 - 120
	MSD	1805632-05	0.67824	3.8214	3.0660	mg/L	2.6	103	20	80 - 120
<b>QC Batch ID: B006799</b>		Used client sample: N								

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006799</b>		Used client sample: N								
Ammonia as N	DUP	1805517-11	0.021900	0.022700		mg/L	3.6		10	J
	MS	1805517-11	0.021900	1.1098	1.1111	mg/L		97.9	90 - 110	
	MSD	1805517-11	0.021900	1.1589	1.1111	mg/L	4.3	102	10	90 - 110
<b>QC Batch ID: B006800</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Ammonia as N	DUP	1805761-01	ND	ND		mg/L			10	
	MS	1805761-01	ND	1.0453	1.1111	mg/L		94.1	90 - 110	
	MSD	1805761-01	ND	1.0734	1.1111	mg/L	2.7	96.6	10	90 - 110
<b>QC Batch ID: B006848</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	806703-02RE'	0.23380	0.23620		mg/L	1.0		20	
	MS	806703-02RE'	0.23380	2.2722	2.0000	mg/L		102	90 - 110	
	MSD	806703-02RE'	0.23380	2.1865	2.0000	mg/L	3.8	97.6	20	90 - 110
<b>QC Batch ID: B006849</b>		Used client sample: N								
Total Phosphate	DUP	1806703-02	0.52187	0.51451		mg/L	1.4		20	
	MS	1806703-02	0.52187	3.7708	3.0660	mg/L		106	80 - 120	
	MSD	1806703-02	0.52187	3.7576	3.0660	mg/L	0.4	106	20	80 - 120

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:58  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/12/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Anchor J. Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805836  
Invoice ID: B296687

Enclosed are the results of analyses for samples received by the laboratory on 2/21/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805836

Samples were filtered through a 0.45 micron filter for requested analysis.



18-05836

BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Expanded Constituent Suite				From Unfiltered Sample:	
Project: Dairy Representative Monitoring Program				Total Kjeldahl Nitrogen, Total Phosphate (as PO <sub>4</sub> ), Alkalinity (HCO <sub>3</sub> , CO <sub>3</sub> & OH) as CaCO <sub>3</sub>	
Site: Anchor J. Dairy				From Filtered Sample:	
Samplers Name: Antonio Del-Tech				Na, K, Mg, Ca, Cl, SO <sub>4</sub> (as SO <sub>4</sub> ), Total Dissolved Solids	
Global ID: GADAIR100002				From Filtered Sample:	
Ammonia-N, NO <sub>3</sub> -N, NO <sub>2</sub> -N					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl/Pi Unpreserved
1	ANC-MW1	2/21/18	1608	6W	x
2	ANC-MW2		1552		x
3	ANC-MW3		1532		x
4	ANC-MW4		1630		x
5	ANC-MW5s, ANG-MW5d		1512		x
6	ANC-MW6s, ANG-MW6d		1651		x
7	ANC-MW7s, ANG-MW7d		1713		x
8	Field-Duplicate				x
9					
10					
11					
12					

Received By: <i>William</i>	Date & Time: 2/21/18 1730
Received By: <i>William</i>	Date & Time: 2/21/18 18:50
Received By: <i>William</i>	Date & Time: 2/21/18 2245

Relinquished by: (Signature) *Antonio H. Moch...* 2/21/18 1730  
 Relinquished by: (Signature) *Antonio H. Moch...* 2/21/18 1830  
 Relinquished by: (Signature) *Antonio H. Moch...* 2/21/18 2245

**Comments:**  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lufthoff and Scalmanini Consulting Engineers via email: [lloves@lscce.com](mailto:lloves@lscce.com), [rhyson@lscce.com](mailto:rhyson@lscce.com), [p@hainel@lscce.com](mailto:p@hainel@lscce.com), [jlovelis@lscce.com](mailto:jlovelis@lscce.com)  
 4) Send invoices to Jeanette Lovells ([jlovelis@lscce.com](mailto:jlovelis@lscce.com)).  
 (A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-05836

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify): \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify): \_\_\_\_\_

FREE LIQUID: YES  NO  W / S \_\_\_\_\_

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Intact? Yes  No  Intact? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO Emissivity: 0.98 Container: PE Thermometer ID: 1050 Date/Time: 2/22/18 2245

Temperature: (A) 0.5 °C / (C) 0.2 °C Analyst Init: WJL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/038/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8170										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERRROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: WJL Date/Time: 2-22-18 WJL Rev 21 05/23/2016

A = Actual / C = Corrected

(S:\WPDoc\WetPerf\LAB\_COCS\FORMS\SANREC\rev 20)



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805836-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	02/21/2018 16:08
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANC-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805836-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	02/21/2018 15:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANC-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805836-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	02/21/2018 15:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANC-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805836-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	02/21/2018 16:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANC-MW4	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805836-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	02/21/2018 15:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANC-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Woodland, CA 95695

**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805836-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	02/21/2018 16:51
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANC-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805836-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	02/21/2018 17:13
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANC-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805836-01	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW1, 2/21/2018 4:08:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	76	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	370	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	7.9	mg/L	1.0	0.10	EPA-200.7	0.15		1
Bicarbonate Alkalinity as CaCO3	1100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	320	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	0.59	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	100	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.058	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.028	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.14	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:34	02/26/18 22:15	JCC	PE-OP2	1	B005970
2	SM-2320B	02/27/18 13:00	02/27/18 15:29	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:30	02/23/18 00:55	OLH	IC1	2	B005825
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006125
5	EPA-351.2	03/06/18 20:00	03/07/18 12:51	JMH	SC-1	1	B006848
6	EPA-350.1	03/06/18 13:21	03/08/18 13:37	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:45	JNC	KONE-1	1	B005918
8	EPA-365.4	03/06/18 20:00	03/09/18 08:15	JMH	SC-1	1	B006849

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**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805836-02	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW2, 2/21/2018 3:52:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	160	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	57	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	340	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	9.4	mg/L	1.0	0.10	EPA-200.7	0.15		1
Bicarbonate Alkalinity as CaCO3	550	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	390	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	47	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	210	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.4	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.055	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.89	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	2.7	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:34	02/26/18 22:37	JCC	PE-OP2	1	B005970
2	SM-2320B	02/27/18 13:00	02/27/18 15:41	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:30	02/23/18 01:14	OLH	IC1	5	B005825
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006125
5	EPA-351.2	03/06/18 20:00	03/07/18 12:52	JMH	SC-1	1	B006848
6	EPA-350.1	03/06/18 13:21	03/08/18 13:38	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:50	JNC	KONE-1	1	B005918
8	EPA-365.4	03/06/18 20:00	03/09/18 08:16	JMH	SC-1	1	B006849

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**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805836-03		Client Sample Name: Anchor J. Dairy, ANC-MW3, 2/21/2018 3:32:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	95	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	23	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.1	mg/L	1.0	0.10	EPA-200.7	0.15		1
Bicarbonate Alkalinity as CaCO3	320	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	130	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	36	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	88	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.014	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.24	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:34	02/26/18 22:39	JCC	PE-OP2	1	B005970
2	SM-2320B	02/27/18 13:00	02/27/18 15:49	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:30	02/23/18 11:03	OLH	IC1	2	B005825
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	5	B006125
5	EPA-351.2	03/06/18 20:00	03/07/18 12:52	JMH	SC-1	1	B006848
6	EPA-350.1	03/06/18 13:22	03/08/18 14:18	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:50	JNC	KONE-1	1	B005918
8	EPA-365.4	03/06/18 20:00	03/09/18 08:17	JMH	SC-1	1	B006849

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**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805836-04	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW4, 2/21/2018 4:30:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	99	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	35	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	150	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	6.8	mg/L	1.0	0.10	EPA-200.7	0.15		1
Bicarbonate Alkalinity as CaCO3	330	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	130	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	33	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	86	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	960	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.021	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.0	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:34	02/26/18 22:42	JCC	PE-OP2	1	B005970
2	SM-2320B	02/27/18 13:00	02/27/18 15:55	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:30	02/23/18 11:22	OLH	IC1	2	B005825
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	5	B006125
5	EPA-351.2	03/06/18 20:00	03/07/18 12:54	JMH	SC-1	1	B006848
6	EPA-350.1	03/06/18 13:22	03/08/18 13:44	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:50	JNC	KONE-1	1	B005918
8	EPA-365.4	03/06/18 20:00	03/09/18 08:18	JMH	SC-1	1	B006849

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Reported: 03/12/2018 17:24  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Anchor J. Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805836-05		Client Sample Name: Anchor J. Dairy, ANC-MW5s, 2/21/2018 3:12:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	51	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	22	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	760	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	0.15		1
Bicarbonate Alkalinity as CaCO3	1000	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	460	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	17	mg/L	0.20	0.042	EPA-300.0	ND	A07	4
Sulfate	260	mg/L	2.0	0.26	EPA-300.0	ND	A07	4
Total Dissolved Solids @ 180 C	2400	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.65	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.022	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.013	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.79	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:34	02/26/18 22:45	JCC	PE-OP2	1	B005970
2	SM-2320B	02/27/18 13:00	02/27/18 16:01	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:30	02/23/18 10:44	OLH	IC1	5	B005825
4	EPA-300.0	02/22/18 23:30	02/23/18 02:11	OLH	IC1	2	B005825
5	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006125
6	EPA-351.2	03/06/18 20:00	03/07/18 12:54	JMH	SC-1	1	B006848
7	EPA-350.1	03/06/18 13:22	03/08/18 13:46	JMH	SC-1	1	B006803
8	EPA-353.2	02/22/18 08:03	02/22/18 13:50	JNC	KONE-1	1	B005918
9	EPA-365.4	03/06/18 20:00	03/09/18 08:18	JMH	SC-1	1	B006849

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**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805836-06		Client Sample Name: Anchor J. Dairy, ANC-MW6s, 2/21/2018 4:51:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	51	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	340	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	22	mg/L	1.0	0.10	EPA-200.7	0.15		1
Bicarbonate Alkalinity as CaCO3	400	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	360	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	78	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	200	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.90	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.046	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.040	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	13	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:34	02/26/18 22:48	JCC	PE-OP2	1	B005970
2	SM-2320B	02/27/18 13:00	02/27/18 16:10	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:30	02/23/18 02:30	OLH	IC1	5	B005825
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006125
5	EPA-351.2	03/08/18 11:25	03/09/18 12:58	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:22	03/08/18 13:48	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:50	JNC	KONE-1	1	B005918
8	EPA-365.4	03/08/18 11:25	03/09/18 16:07	JMH	SC-1	5	B007027

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**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805836-07	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW7s, 2/21/2018 5:13:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	66	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	20	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	180	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.5	mg/L	1.0	0.10	EPA-200.7	0.15		1
Bicarbonate Alkalinity as CaCO3	270	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	170	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	69	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	840	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.49	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.74	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:34	02/26/18 22:50	JCC	PE-OP2	1	B005970
2	SM-2320B	02/27/18 13:00	02/27/18 16:15	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:30	02/23/18 12:38	OLH	IC1	2	B005825
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	5	B006125
5	EPA-351.2	03/08/18 11:25	03/09/18 12:58	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:22	03/08/18 13:49	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:50	JNC	KONE-1	1	B005918
8	EPA-365.4	03/08/18 11:25	03/09/18 15:43	JMH	SC-1	1	B007027

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005345</b>						
Bicarbonate Alkalinity as CaCO3	B005345-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005345-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005345-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005825</b>						
Chloride	B005825-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005825-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005825-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005918</b>						
Nitrite as N	B005918-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005970</b>						
Dissolved Calcium	B005970-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005970-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005970-BLK1	ND	mg/L	0.50	0.051	
<b>Dissolved Potassium</b>	<b>B005970-BLK1</b>	<b>0.14643</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B006125</b>						
Total Dissolved Solids @ 180 C	B006125-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006801</b>						
Ammonia as N	B006801-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006803</b>						
Ammonia as N	B006803-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006848</b>						
Total Kjeldahl Nitrogen	B006848-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006849</b>						
Total Phosphate	B006849-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007024</b>						
Total Kjeldahl Nitrogen	B007024-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007027</b>						
Total Phosphate	B007027-BLK1	ND	mg/L	0.15	0.060	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005825</b>										
Chloride	B005825-BS1	LCS	52.938	50.000	mg/L	106		90 - 110		
Nitrate as N	B005825-BS1	LCS	5.1810	5.0000	mg/L	104		90 - 110		
Sulfate	B005825-BS1	LCS	104.98	100.00	mg/L	105		90 - 110		
<b>QC Batch ID: B005918</b>										
Nitrite as N	B005918-BS1	LCS	0.49767	0.50000	mg/L	99.5		90 - 110		
<b>QC Batch ID: B005970</b>										
Dissolved Calcium	B005970-BS1	LCS	10.440	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B005970-BS1	LCS	10.570	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B005970-BS1	LCS	10.938	10.000	mg/L	109		85 - 115		
Dissolved Potassium	B005970-BS1	LCS	10.490	10.000	mg/L	105		85 - 115		
<b>QC Batch ID: B006125</b>										
Total Dissolved Solids @ 180 C	B006125-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B006801</b>										
Ammonia as N	B006801-BS1	LCS	0.94080	1.0000	mg/L	94.1		90 - 110		
<b>QC Batch ID: B006803</b>										
Ammonia as N	B006803-BS1	LCS	0.90830	1.0000	mg/L	90.8		90 - 110		
<b>QC Batch ID: B006848</b>										
Total Kjeldahl Nitrogen	B006848-BS1	LCS	1.8947	2.0000	mg/L	94.7		90 - 110		
<b>QC Batch ID: B006849</b>										
Total Phosphate	B006849-BS1	LCS	3.0457	3.0660	mg/L	99.3		85 - 115		
<b>QC Batch ID: B007024</b>										
Total Kjeldahl Nitrogen	B007024-BS1	LCS	1.9154	2.0000	mg/L	95.8		90 - 110		
<b>QC Batch ID: B007027</b>										
Total Phosphate	B007027-BS1	LCS	3.2980	3.0660	mg/L	108		85 - 115		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 03/12/2018 17:24
Project: Dairy Rep MP - Expanded Suite
Project Number: Anchor J. Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch IDs B005345, B005825, B005918, B005970, B006125, and B006801.

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Woodland, CA 95695

Reported: 03/12/2018 17:24  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Anchor J. Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B006803</b>		Used client sample: Y - Description: ANC-MW3, 02/21/2018 15:32								
Ammonia as N	DUP	1805836-03	ND	ND		mg/L			10	
	MS	1805836-03	ND	1.0598	1.1111	mg/L		95.4		90 - 110
	MSD	1805836-03	ND	1.0839	1.1111	mg/L	2.2	97.6	10	90 - 110
<b>QC Batch ID: B006848</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	806703-02RE	0.23380	0.23620		mg/L	1.0		20	
	MS	806703-02RE	0.23380	2.2722	2.0000	mg/L		102		90 - 110
	MSD	806703-02RE	0.23380	2.1865	2.0000	mg/L	3.8	97.6	20	90 - 110
<b>QC Batch ID: B006849</b>		Used client sample: N								
Total Phosphate	DUP	1806703-02	0.52187	0.51451		mg/L	1.4		20	
	MS	1806703-02	0.52187	3.7708	3.0660	mg/L		106		80 - 120
	MSD	1806703-02	0.52187	3.7576	3.0660	mg/L	0.4	106	20	80 - 120
<b>QC Batch ID: B007024</b>		Used client sample: Y - Description: MOO-MW1, 02/21/2018 10:52								
Total Kjeldahl Nitrogen	DUP	1805837-01	0.64810	0.68820		mg/L	6.0		20	
	MS	1805837-01	0.64810	2.5443	2.0000	mg/L		94.8		90 - 110
	MSD	1805837-01	0.64810	2.6506	2.0000	mg/L	4.1	100	20	90 - 110
<b>QC Batch ID: B007027</b>		Used client sample: Y - Description: MOO-MW1, 02/21/2018 10:52								
Total Phosphate	DUP	1805837-01	0.18305	0.17723		mg/L	3.2		20	
	MS	1805837-01	0.18305	3.3621	3.0660	mg/L		104		80 - 120
	MSD	1805837-01	0.18305	3.3152	3.0660	mg/L	1.4	102	20	80 - 120

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:24  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/22/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Bettencourt & Marson Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805985  
Invoice ID: B297963

Enclosed are the results of analyses for samples received by the laboratory on 2/22/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805985

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody	
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested	
<b>Report to:</b> Expanded Constituent Suite Project: Daily Representative Monitoring Program Site: Bettencourt & Marson Dairy 1/18/2018 Samplers Name: ANTONIO Del-Tech Global ID - GADAIRY00003		From Filtered Sample: Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
<b>Report to:</b> Expanded Constituent Suite Project: Daily Representative Monitoring Program Site: Bettencourt & Marson Dairy 1/18/2018 Samplers Name: ANTONIO Del-Tech Global ID - GADAIRY00003		From Filtered Sample: Ammonia-N, NO3-N, NO2-N	
<b>Name:</b> Luthdorff and Scalmanini	<b>Address:</b> 500 First Street Woodland 95695 CA Attn: Till Angermann	<b>Date Sampled:</b> 2/22/18 <b>Time Sampled:</b> 11:27 <b>Matrix:</b> 6w <b>Ok To Unreserved:</b> x	
<b>Lab #</b> 1 BET-MW1s, BET-MW1d 2 BET-MW2s, BET-MW2d 3 BET-MW3s, BET-MW3d 4 BET-MW4s, BET-MW4d 5 BET-MW5s, BET-MW5d 6 BET-MW6s, BET-MW6d 7 BET-MW7s, BET-MW7d 8 BET-MW8s, BET-MW8d 9 Field Duplicate 10 11 12	<b>Strike out non-sampled wells</b> 1 2 3 4 5 6 7 8 9 10 11 12	<b>Time Sampled:</b> 11:27 11:47 12:12 11:02 10:32 9:55 9:02 9:27 MAMM SUB-OU:	<b>From Filtered Sample:</b> Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids  <b>From Unfiltered Sample:</b> Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
<b>Comments:</b> 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luthdorff and Scalmanini Consulting Engineers via email: lthdorff@lsce.com, roryson@lsce.com, pdhalvial@lsce.com, jlovelis@lsce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com). (A)= Analysis (C)= Container (P)= Preservative		<b>Relinquished by: (Signature)</b> [Signature] 2/22/18 1730 <b>Relinquished by: (Signature)</b> [Signature] 2/22/18 18:25 <b>Relinquished by: (Signature)</b> [Signature] 2/22/18 22:45	<b>Received By: (Signature) Date &amp; Time</b> [Signature] 2/22/18 17:10 <b>Received By: (Signature) Date &amp; Time</b> [Signature] 2/22/18 18:25 <b>Received By: (Signature) Date &amp; Time</b> [Signature] 2/22/18 22:45

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1805985

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify): \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify): \_\_\_\_\_

**FREE LIQUID**  
 YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.98 Container: PE Thermometer ID: 108 Date/Time: 2/22/15  
 Temperature: (A) 0.10 °C / (C) 0.3 °C Analyst Init: RJL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 503/503A/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 5270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: 661 Date/Time: 2/22/15  
 A = Actual / C = Corrected  
 Rev 21 05/23/2016  
IS:\WP\Doc\Word\Prefect\LAB\_DOC\FORMS\CHAIN\REC\201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805985-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 11:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805985-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 11:47
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805985-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 12:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805985-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 11:02
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805985-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 10:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805985-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 09:55
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805985-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 09:02
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805985-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	02/22/2018 09:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805985-01		Client Sample Name: Bettencourt & Marson Dairy, BET-MW1s, 2/22/2018 11:27:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	62	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	20	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	29	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	16	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	72	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	29	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	56	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	24	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	710	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.025	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	4.0	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 18:18	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 14:00	03/01/18 15:13	MEV	MET-1	1	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 03:38	OLH	IC2	5	B006064
4	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	3.333	B006391
5	EPA-351.2	03/09/18 10:45	03/13/18 12:25	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:44	03/14/18 11:53	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 08:31	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/13/18 13:50	JMH	SC-1	1	B007151

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805985-02		Client Sample Name: Bettencourt & Marson Dairy, BET-MW2s, 2/22/2018 11:47:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	44	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	63	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	50	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	330	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	270	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	9.0	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	70	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	1.5	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.046	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.34	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	1.3	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:29	02/28/18 18:21	JCC	PE-OP2	1	B005966
2	SM-2320B	03/01/18 14:00	03/01/18 15:30	MEV	MET-1	2	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 21:09	OLH	IC2	2	B006064
4	EPA-300.0	02/23/18 20:00	02/24/18 03:58	OLH	IC2	1	B006064
5	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	5	B006391
6	EPA-351.2	03/09/18 10:45	03/13/18 12:26	JMH	SC-1	1	B007155
7	EPA-350.1	03/12/18 07:44	03/14/18 11:53	JMH	SC-1	1	B007268
8	EPA-353.2	02/23/18 07:34	02/23/18 08:31	JNC	KONE-1	1	B005924
9	EPA-365.4	03/09/18 10:45	03/13/18 13:51	JMH	SC-1	1	B007151

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805985-03		Client Sample Name: Bettencourt & Marson Dairy, BET-MW3s, 2/22/2018 12:12:00PM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	38	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	50	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	45	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	260	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	87	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	48	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	54	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.10	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.033	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.35	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	3.9	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 18:37	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 15:38	MEV	MET-1	2	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 04:19	OLH	IC2	5	B006064
4	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	5	B006391
5	EPA-351.2	03/09/18 10:45	03/13/18 12:27	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:44	03/14/18 11:55	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 08:31	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/13/18 13:51	JMH	SC-1	1	B007151

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805985-04		Client Sample Name: Bettencourt & Marson Dairy, BET-MW4s, 2/22/2018 11:02:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	56	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	170	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	440	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	590	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	440	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	58	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	180	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.12	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.093	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	9.3	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 18:50	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 15:44	MEV	MET-1	2	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 05:21	OLH	IC2	5	B006064
4	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	10	B006391
5	EPA-351.2	03/09/18 10:45	03/13/18 12:28	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:44	03/14/18 11:55	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 08:31	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/13/18 14:53	JMH	SC-1	5	B007151

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Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Bettencourt & Marson Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805985-05		Client Sample Name: Bettencourt & Marson Dairy, BET-MW5s, 2/22/2018 10:32:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	85	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	30	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	41	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	6.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	70	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	38	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	74	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	44	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	900	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.043	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.64	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 19:01	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 15:52	MEV	MET-1	1	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 05:41	OLH	IC2	5	B006064
4	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	3.333	B006391
5	EPA-351.2	03/09/18 10:45	03/13/18 12:30	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:44	03/14/18 11:57	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 08:31	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/13/18 13:54	JMH	SC-1	1	B007151

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Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Bettencourt & Marson Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805985-06		Client Sample Name: Bettencourt & Marson Dairy, BET-MW6s, 2/22/2018 9:55:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	49	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	11	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	28	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	8.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	46	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	27	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	37	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	24	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	530	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.022	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	3.9	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 19:04	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 15:57	MEV	MET-1	1	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 06:02	OLH	IC2	2	B006064
4	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	2	B006391
5	EPA-351.2	03/09/18 10:45	03/13/18 12:32	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:44	03/14/18 11:59	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 09:06	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/13/18 13:55	JMH	SC-1	1	B007151

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805985-07		Client Sample Name: Bettencourt & Marson Dairy, BET-MW7s, 2/22/2018 9:02:00AM						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	54	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	16	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	36	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	47	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	34	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	44	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	29	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	620	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	5.3	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 19:06	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 16:04	MEV	MET-1	1	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 06:22	OLH	IC2	5	B006064
4	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	2	B006391
5	EPA-351.2	03/09/18 10:45	03/13/18 12:32	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:44	03/14/18 12:00	JMH	SC-1	1	B007268
7	EPA-353.2	02/23/18 07:34	02/23/18 09:06	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/13/18 13:55	JMH	SC-1	1	B007151

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805985-08	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW8s, 2/22/2018 9:27:00AM
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	40	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	9.3	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	24	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	55	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	15	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	29	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	20	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	420	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.037	mg/L	0.10	0.020	EPA-350.1	0.030	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	7.4	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 19:09	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 16:10	MEV	MET-1	1	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 06:43	OLH	IC2	2	B006064
4	SM-2540C	03/01/18 13:30	03/01/18 13:30	CAD	MANUAL	2	B006391
5	EPA-351.2	03/09/18 10:45	03/13/18 12:34	JMH	SC-1	1	B007155
6	EPA-350.1	03/12/18 07:45	03/14/18 12:02	JMH	SC-1	1	B007269
7	EPA-353.2	02/23/18 07:34	02/23/18 09:06	JNC	KONE-1	1	B005924
8	EPA-365.4	03/09/18 10:45	03/13/18 14:54	JMH	SC-1	5	B007151

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005358</b>						
Bicarbonate Alkalinity as CaCO3	B005358-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005358-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005358-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005924</b>						
Nitrite as N	B005924-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005965</b>						
Dissolved Calcium	B005965-BLK1	0.022264	mg/L	0.10	0.016	J
Dissolved Magnesium	B005965-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005965-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005965-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005966</b>						
Dissolved Calcium	B005966-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005966-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005966-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005966-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006064</b>						
Chloride	B006064-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006064-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006064-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006391</b>						
Total Dissolved Solids @ 180 C	B006391-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007151</b>						
Total Phosphate	B007151-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007155</b>						
Total Kjeldahl Nitrogen	B007155-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007268</b>						
Ammonia as N	B007268-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B007269</b>						
Ammonia as N	B007269-BLK1	0.029800	mg/L	0.10	0.020	J

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Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005924</b>										
Nitrite as N	B005924-BS1	LCS	0.49515	0.50000	mg/L	99.0		90 - 110		
<b>QC Batch ID: B005965</b>										
Dissolved Calcium	B005965-BS1	LCS	10.303	10.000	mg/L	103		85 - 115		
Dissolved Magnesium	B005965-BS1	LCS	10.555	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B005965-BS1	LCS	10.398	10.000	mg/L	104		85 - 115		
Dissolved Potassium	B005965-BS1	LCS	10.031	10.000	mg/L	100		85 - 115		
<b>QC Batch ID: B005966</b>										
Dissolved Calcium	B005966-BS1	LCS	10.149	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B005966-BS1	LCS	10.597	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B005966-BS1	LCS	10.281	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B005966-BS1	LCS	9.8560	10.000	mg/L	98.6		85 - 115		
<b>QC Batch ID: B006064</b>										
Chloride	B006064-BS1	LCS	51.655	50.000	mg/L	103		90 - 110		
Nitrate as N	B006064-BS1	LCS	5.1230	5.0000	mg/L	102		90 - 110		
Sulfate	B006064-BS1	LCS	103.52	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B006391</b>										
Total Dissolved Solids @ 180 C	B006391-BS1	LCS	605.00	586.00	mg/L	103		90 - 110		
<b>QC Batch ID: B007151</b>										
Total Phosphate	B007151-BS1	LCS	3.4332	3.0660	mg/L	112		85 - 115		
<b>QC Batch ID: B007155</b>										
Total Kjeldahl Nitrogen	B007155-BS1	LCS	2.1078	2.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B007268</b>										
Ammonia as N	B007268-BS1	LCS	0.96880	1.0000	mg/L	96.9		90 - 110		
<b>QC Batch ID: B007269</b>										
Ammonia as N	B007269-BS1	LCS	1.0040	1.0000	mg/L	100		90 - 110		

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Woodland, CA 95695

Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Bettencourt & Marson Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
<b>QC Batch ID: B005358</b>		Used client sample: Y - Description: BET-MW1s, 02/22/2018 11:27									
Bicarbonate Alkalinity as CaCO3	DUP	1805985-01	72.110	68.460		mg/L	5.2		10		
Carbonate Alkalinity as CaCO3	DUP	1805985-01	ND	ND		mg/L			10		
Hydroxide Alkalinity as CaCO3	DUP	1805985-01	ND	ND		mg/L			10		
<b>QC Batch ID: B005924</b>		Used client sample: Y - Description: BET-MW1s, 02/22/2018 11:27									
Nitrite as N	DUP	1805985-01	ND	ND		mg/L			10		
	MS	1805985-01	ND	0.52889	0.52632	mg/L		100		90 - 110	
	MSD	1805985-01	ND	0.52664	0.52632	mg/L	0.4	100	10	90 - 110	
<b>QC Batch ID: B005965</b>		Used client sample: Y - Description: BET-MW3s, 02/22/2018 12:12									
Dissolved Calcium	DUP	1805985-03	121.76	122.28		mg/L	0.4		20		
	MS	1805985-03	121.76	130.40	10.204	mg/L		84.7		85 - 115	A03
	MSD	1805985-03	121.76	130.62	10.204	mg/L	0.2	86.8	20	85 - 115	
Dissolved Magnesium	DUP	1805985-03	37.953	37.982		mg/L	0.1		20		
	MS	1805985-03	37.953	48.038	10.204	mg/L		98.8		85 - 115	
	MSD	1805985-03	37.953	47.565	10.204	mg/L	1.0	94.2	20	85 - 115	
Dissolved Sodium	DUP	1805985-03	49.599	49.776		mg/L	0.4		20		
	MS	1805985-03	49.599	59.087	10.204	mg/L		93.0		85 - 115	
	MSD	1805985-03	49.599	59.064	10.204	mg/L	0.0	92.8	20	85 - 115	
Dissolved Potassium	DUP	1805985-03	44.950	45.374		mg/L	0.9		20		
	MS	1805985-03	44.950	54.522	10.204	mg/L		93.8		85 - 115	
	MSD	1805985-03	44.950	54.582	10.204	mg/L	0.1	94.4	20	85 - 115	
<b>QC Batch ID: B005966</b>		Used client sample: Y - Description: LON-MW1C, 02/22/2018 14:19									
Dissolved Calcium	DUP	1805984-01	71.982	70.207		mg/L	2.5		20		
	MS	1805984-01	71.982	79.753	10.204	mg/L		76.2		85 - 115	A03
	MSD	1805984-01	71.982	80.359	10.204	mg/L	0.8	82.1	20	85 - 115	A03
Dissolved Magnesium	DUP	1805984-01	4.4019	4.2866		mg/L	2.7		20		
	MS	1805984-01	4.4019	14.380	10.204	mg/L		97.8		85 - 115	
	MSD	1805984-01	4.4019	14.262	10.204	mg/L	0.8	96.6	20	85 - 115	
Dissolved Sodium	DUP	1805984-01	97.879	95.300		mg/L	2.7		20		
	MS	1805984-01	97.879	104.85	10.204	mg/L		68.3		85 - 115	A03
	MSD	1805984-01	97.879	102.42	10.204	mg/L	2.3	44.5	20	85 - 115	A03
Dissolved Potassium	DUP	1805984-01	0.44549	0.44262		mg/L	0.6		20		J
	MS	1805984-01	0.44549	10.158	10.204	mg/L		95.2		85 - 115	
	MSD	1805984-01	0.44549	10.281	10.204	mg/L	1.2	96.4	20	85 - 115	
<b>QC Batch ID: B006064</b>		Used client sample: Y - Description: BET-MW1s, 02/22/2018 11:27									
Chloride	DUP	1805985-01	29.420	29.625		mg/L	0.7		10		
	MS	1805985-01	29.420	298.10	252.53	mg/L		106		80 - 120	
	MSD	1805985-01	29.420	299.57	252.53	mg/L	0.5	107	10	80 - 120	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006064</b>		Used client sample: Y - Description: BET-MW1s, 02/22/2018 11:27								
Nitrate as N	DUP	1805985-01	56.200	56.290		mg/L	0.2		10	
	MS	1805985-01	56.200	81.657	25.253	mg/L		101		80 - 120
	MSD	1805985-01	56.200	82.343	25.253	mg/L	0.8	104	10	80 - 120
Sulfate	DUP	1805985-01	24.345	24.335		mg/L	0.0		10	
	MS	1805985-01	24.345	543.01	505.05	mg/L		103		80 - 120
	MSD	1805985-01	24.345	546.06	505.05	mg/L	0.6	103	10	80 - 120
<b>QC Batch ID: B006391</b>		Used client sample: Y - Description: BET-MW2s, 02/22/2018 11:47								
Total Dissolved Solids @ 180 C	DUP	1805985-02	1100.0	1100.0		mg/L	0		10	
<b>QC Batch ID: B007151</b>		Used client sample: Y - Description: Field Duplicate, 02/22/2018 00:00								
Total Phosphate	DUP	1805984-06	ND	ND		mg/L			20	
	MS	1805984-06	ND	3.1579	3.0660	mg/L		103		80 - 120
	MSD	1805984-06	ND	3.0889	3.0660	mg/L	2.2	101	20	80 - 120
<b>QC Batch ID: B007155</b>		Used client sample: Y - Description: Field Duplicate, 02/22/2018 00:00								
Total Kjeldahl Nitrogen	DUP	1805984-06	ND	ND		mg/L			20	
	MS	1805984-06	ND	0.88420	2.0000	mg/L		44.2		90 - 110 Q03
	MSD	1805984-06	ND	0.60780	2.0000	mg/L	37.1	30.4	20	90 - 110 Q02, Q03
<b>QC Batch ID: B007268</b>		Used client sample: Y - Description: LON-MW4C, 02/22/2018 16:05								
Ammonia as N	DUP	1805984-04	0.044800	0.034800		mg/L	25.1		10	J,A02
	MS	1805984-04	0.044800	1.1506	1.1111	mg/L		99.5		90 - 110
	MSD	1805984-04	0.044800	1.1681	1.1111	mg/L	1.5	101	10	90 - 110
<b>QC Batch ID: B007269</b>		Used client sample: Y - Description: BET-MW8s, 02/22/2018 09:27								
Ammonia as N	DUP	1805985-08	0.036900	0.028300		mg/L	26.4		10	J,A02
	MS	1805985-08	0.036900	1.1267	1.1111	mg/L		98.1		90 - 110
	MSD	1805985-08	0.036900	1.1267	1.1111	mg/L	0	98.1	10	90 - 110

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Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q02 Matrix spike precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/22/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Diepersloot Ranch  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806412  
Invoice ID: B297993

Enclosed are the results of analyses for samples received by the laboratory on 2/27/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806412

Samples were filtered through a 0.45 micron filter for requested analysis.





BC LABORATORIES, INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806412

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  M / S

Refrigerant: Ice  Blue Ice  Nons  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.95 Container: PE Thermometer ID: 206 Date/Time: 2/21/18 2:50  
Temperature: (A) 1.9 °C / (C) 1.4 °C Analyst Init: RL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 5030S/5030										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: Geel Date/Time: 2/21 22:19  
 = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 21:15  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1806412-01</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/27/2018 21:50
	<b>Project Number:</b> Diepersloot Ranch	<b>Sampling Date:</b> 02/27/2018 10:23
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DIE-MW1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1806412-02</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/27/2018 21:50
	<b>Project Number:</b> Diepersloot Ranch	<b>Sampling Date:</b> 02/27/2018 11:18
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DIE-MW2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1806412-03</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/27/2018 21:50
	<b>Project Number:</b> Diepersloot Ranch	<b>Sampling Date:</b> 02/27/2018 10:50
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DIE-MW3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1806412-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/27/2018 21:50
	<b>Project Number:</b> Diepersloot Ranch	<b>Sampling Date:</b> 02/27/2018 10:02
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DIE-MW4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 21:15  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806412-01	<b>Client Sample Name:</b> Diepersloot Ranch, DIE-MW1, 2/27/2018 10:23:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	71	mg/L	0.050	0.019	EPA-200.7	0.023		1
Dissolved Sodium	81	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	440	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	93	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	99	mg/L	1.0	0.21	EPA-300.0	ND	A07,S05	3
Sulfate	95	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.21	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.022	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.087	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/14/18 13:59	JCC	PE-OP2	1	B007257
2	SM-2320B	03/06/18 12:00	03/06/18 19:56	MEV	MET-1	2	B005382
3	EPA-300.0	03/15/18 18:00	03/15/18 19:47	SAV	IC2	10	B007746
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	5	B006620
5	EPA-351.2	03/16/18 20:00	03/19/18 14:47	JMH	SC-1	1	B007954
6	EPA-350.1	03/14/18 15:58	03/14/18 19:32	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:18	JNC	KONE-1	1	B006381
8	EPA-365.4	03/16/18 20:00	03/21/18 18:44	JMH	SC-1	1	B007955

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Reported: 03/22/2018 21:15  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Diepersloot Ranch  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806412-02	Client Sample Name:	Diepersloot Ranch, DIE-MW2, 2/27/2018 11:18:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	90	mg/L	0.10	0.016	EPA-200.7	0.029		1	
Dissolved Magnesium	29	mg/L	0.050	0.019	EPA-200.7	0.028		1	
Dissolved Sodium	120	mg/L	0.50	0.051	EPA-200.7	0.20		1	
Dissolved Potassium	4.0	mg/L	1.0	0.10	EPA-200.7	0.19		1	
Bicarbonate Alkalinity as CaCO3	410	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	66	mg/L	0.50	0.077	EPA-300.0	ND		3	
Nitrate as N	16	mg/L	0.10	0.021	EPA-300.0	ND		3	
Sulfate	30	mg/L	1.0	0.13	EPA-300.0	ND		3	
Total Dissolved Solids @ 180 C	610	mg/L	33	33	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.19	mg/L	0.20	0.084	EPA-351.2	ND	J	5	
Ammonia as N	0.033	mg/L	0.10	0.020	EPA-350.1	ND	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.46	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 21:26	JRG	PE-OP2	1	B006830
2	SM-2320B	03/06/18 12:00	03/06/18 20:03	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	02/28/18 22:51	SAV	IC1	1	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	3.333	B006620
5	EPA-351.2	03/16/18 20:00	03/19/18 14:48	JMH	SC-1	1	B007954
6	EPA-350.1	03/14/18 15:58	03/14/18 19:34	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:18	JNC	KONE-1	1	B006381
8	EPA-365.4	03/16/18 20:00	03/21/18 18:44	JMH	SC-1	1	B007955

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Reported: 03/22/2018 21:15  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Diepersloot Ranch  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806412-03	Client Sample Name:	Diepersloot Ranch, DIE-MW3, 2/27/2018 10:50:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	0.029		1	
Dissolved Magnesium	49	mg/L	0.050	0.019	EPA-200.7	0.028		1	
Dissolved Sodium	110	mg/L	0.50	0.051	EPA-200.7	0.20		1	
Dissolved Potassium	6.2	mg/L	1.0	0.10	EPA-200.7	0.19		1	
Bicarbonate Alkalinity as CaCO3	540	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	100	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	27	mg/L	0.20	0.042	EPA-300.0	ND	A07	3	
Sulfate	42	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	800	mg/L	50	50	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.42	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	0.021	mg/L	0.10	0.020	EPA-350.1	ND	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	1.5	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 21:50	JRG	PE-OP2	1	B006830
2	SM-2320B	03/06/18 12:00	03/06/18 20:11	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	02/28/18 23:48	OLH	IC1	2	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	5	B006620
5	EPA-351.2	03/16/18 20:00	03/19/18 14:48	JMH	SC-1	1	B007954
6	EPA-350.1	03/14/18 15:58	03/14/18 19:36	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:18	JNC	KONE-1	1	B006381
8	EPA-365.4	03/16/18 20:00	03/21/18 18:45	JMH	SC-1	1	B007955

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**Reported:** 03/22/2018 21:15  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806412-04		Client Sample Name: Diepersloot Ranch, DIE-MW4, 2/27/2018 10:02:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	160	mg/L	0.10	0.016	EPA-200.7	0.029		1
Dissolved Magnesium	45	mg/L	0.050	0.019	EPA-200.7	0.028		1
Dissolved Sodium	78	mg/L	0.50	0.051	EPA-200.7	0.20		1
Dissolved Potassium	3.7	mg/L	1.0	0.10	EPA-200.7	0.19		1
Bicarbonate Alkalinity as CaCO3	410	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	86	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	22	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	81	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	700	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.44	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.024	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.0	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 21:53	JRG	PE-OP2	1	B006830
2	SM-2320B	03/06/18 12:00	03/06/18 20:17	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	03/01/18 00:07	OLH	IC1	2	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	3.333	B006620
5	EPA-351.2	03/16/18 20:00	03/19/18 14:50	JMH	SC-1	1	B007954
6	EPA-350.1	03/14/18 15:58	03/14/18 19:38	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:18	JNC	KONE-1	1	B006381
8	EPA-365.4	03/16/18 20:00	03/21/18 18:46	JMH	SC-1	1	B007955

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**Project Number:** Diepersloot Ranch  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005382</b>						
Bicarbonate Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B006320</b>						
Chloride	B006320-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006320-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006320-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006381</b>						
Nitrite as N	B006381-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B006620</b>						
Total Dissolved Solids @ 180 C	B006620-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006830</b>						
Dissolved Calcium	B006830-BLK1	0.029216	mg/L	0.10	0.016	J
Dissolved Magnesium	B006830-BLK1	0.028126	mg/L	0.050	0.019	J
Dissolved Sodium	B006830-BLK1	0.19982	mg/L	0.50	0.051	J
Dissolved Potassium	B006830-BLK1	0.18561	mg/L	1.0	0.10	J
<b>QC Batch ID: B007257</b>						
Dissolved Calcium	B007257-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B007257-BLK1	0.023424	mg/L	0.050	0.019	J
Dissolved Sodium	B007257-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B007257-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B007669</b>						
Ammonia as N	B007669-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B007746</b>						
Chloride	B007746-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B007746-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B007746-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B007954</b>						
Total Kjeldahl Nitrogen	B007954-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007955</b>						

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007955</b>						
Total Phosphate	B007955-BLK1	ND	mg/L	0.15	0.060	

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**Project Number:** Diepersloot Ranch  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006320</b>										
Chloride	B006320-BS1	LCS	50.250	50.000	mg/L	100		90 - 110		
Nitrate as N	B006320-BS1	LCS	4.9670	5.0000	mg/L	99.3		90 - 110		
Sulfate	B006320-BS1	LCS	98.832	100.00	mg/L	98.8		90 - 110		
<b>QC Batch ID: B006381</b>										
Nitrite as N	B006381-BS1	LCS	0.49387	0.50000	mg/L	98.8		90 - 110		
<b>QC Batch ID: B006620</b>										
Total Dissolved Solids @ 180 C	B006620-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B006830</b>										
Dissolved Calcium	B006830-BS1	LCS	10.096	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B006830-BS1	LCS	10.630	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B006830-BS1	LCS	10.722	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B006830-BS1	LCS	10.011	10.000	mg/L	100		85 - 115		
<b>QC Batch ID: B007257</b>										
Dissolved Calcium	B007257-BS1	LCS	9.6921	10.000	mg/L	96.9		85 - 115		
Dissolved Magnesium	B007257-BS1	LCS	9.7287	10.000	mg/L	97.3		85 - 115		
Dissolved Sodium	B007257-BS1	LCS	9.3713	10.000	mg/L	93.7		85 - 115		
Dissolved Potassium	B007257-BS1	LCS	9.2764	10.000	mg/L	92.8		85 - 115		
<b>QC Batch ID: B007669</b>										
Ammonia as N	B007669-BS1	LCS	0.98400	1.0000	mg/L	98.4		90 - 110		
<b>QC Batch ID: B007746</b>										
Chloride	B007746-BS1	LCS	50.897	50.000	mg/L	102		90 - 110		
Nitrate as N	B007746-BS1	LCS	4.9940	5.0000	mg/L	99.9		90 - 110		
Sulfate	B007746-BS1	LCS	100.40	100.00	mg/L	100		90 - 110		
<b>QC Batch ID: B007954</b>										
Total Kjeldahl Nitrogen	B007954-BS1	LCS	2.0877	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B007955</b>										
Total Phosphate	B007955-BS1	LCS	2.9902	3.0660	mg/L	97.5		85 - 115		

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Project: Dairy Rep MP - Expanded Suite
Project Number: Diepersloot Ranch
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)
Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Qualls. Includes QC Batch IDs B005382, B006320, B006381, B006620, B006830, and B007257.

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Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B007257</b>		Used client sample: N								
Dissolved Magnesium	DUP	1807480-01	6.0281	5.8948		mg/L	2.2		20	
	MS	1807480-01	6.0281	16.033	10.204	mg/L		98.0		85 - 115
	MSD	1807480-01	6.0281	15.832	10.204	mg/L	1.3	96.1	20	85 - 115
Dissolved Sodium	DUP	1807480-01	19.711	19.724		mg/L	0.1		20	
	MS	1807480-01	19.711	29.546	10.204	mg/L		96.4		85 - 115
	MSD	1807480-01	19.711	29.573	10.204	mg/L	0.1	96.6	20	85 - 115
Dissolved Potassium	DUP	1807480-01	4.4675	4.4844		mg/L	0.4		20	
	MS	1807480-01	4.4675	14.362	10.204	mg/L		97.0		85 - 115
	MSD	1807480-01	4.4675	14.468	10.204	mg/L	0.7	98.0	20	85 - 115
<b>QC Batch ID: B007669</b>		Used client sample: Y - Description: TON-MW7s, 02/27/2018 17:15								
Ammonia as N	DUP	1806410-07	ND	ND		mg/L			10	
	MS	1806410-07	ND	1.1523	1.1111	mg/L		104		90 - 110
	MSD	1806410-07	ND	1.1376	1.1111	mg/L	1.3	102	10	90 - 110
<b>QC Batch ID: B007746</b>		Used client sample: N								
Chloride	DUP	1808356-01	120.91	120.61		mg/L	0.2		10	
	MS	1808356-01	120.91	174.06	50.505	mg/L		105		80 - 120
	MSD	1808356-01	120.91	174.57	50.505	mg/L	0.3	106	10	80 - 120
Nitrate as N	DUP	1808356-01	ND	ND		mg/L			10	
	MS	1808356-01	ND	5.0970	5.0505	mg/L		101		80 - 120
	MSD	1808356-01	ND	5.1192	5.0505	mg/L	0.4	101	10	80 - 120
Sulfate	DUP	1808356-01	279.18	279.22		mg/L	0.0		10	
	MS	1808356-01	279.18	375.11	101.01	mg/L		95.0		80 - 120
	MSD	1808356-01	279.18	376.32	101.01	mg/L	0.3	96.2	10	80 - 120
<b>QC Batch ID: B007954</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1807444-01	0.22170	0.15260		mg/L	36.9		20	J,A02
	MS	1807444-01	0.22170	2.1628	2.0000	mg/L		97.1		90 - 110
	MSD	1807444-01	0.22170	2.2268	2.0000	mg/L	2.9	100	20	90 - 110
<b>QC Batch ID: B007955</b>		Used client sample: N								
Total Phosphate	DUP	1807444-01	0.77084	0.79077		mg/L	2.6		20	
	MS	1807444-01	0.77084	3.7730	3.0660	mg/L		97.9		80 - 120
	MSD	1807444-01	0.77084	3.7386	3.0660	mg/L	0.9	96.8	20	80 - 120

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 21:15  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- S05 The sample holding time was exceeded.

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Date of Report: 03/12/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Durrer Dairy 1Qtr 2018  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805324  
Invoice ID: B296587

Enclosed are the results of analyses for samples received by the laboratory on 2/15/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805324

Samples were filtered through a 0.45 micron filter for requested analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1805324

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  (W) S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 2/15/18 2400

Temperature: (A) 0.4 °C / (C) 0.1 °C Analyst Init: RHPZ

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	AB	AB	AB	AB	AB	AB	AB	AB	AB	AB
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>14</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
25% NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 801SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
JEDLAR BAG										
FERROUS IRON										
SCORE										
MART KIT										
UMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: Date/Time: 2/15/18 2020 Rev 21 05/23/2016



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805324-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/15/2018 21:40
	<b>Project Number:</b>	Durrer Dariy	<b>Sampling Date:</b>	02/15/2018 13:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUR-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time				
1805324-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/15/2018 21:40
	<b>Project Number:</b>	Durrer Dariy	<b>Sampling Date:</b>	02/15/2018 12:47
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUR-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time				
1805324-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/15/2018 21:40
	<b>Project Number:</b>	Durrer Dariy	<b>Sampling Date:</b>	02/15/2018 13:47
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUR-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time				
1805324-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/15/2018 21:40
	<b>Project Number:</b>	Durrer Dariy	<b>Sampling Date:</b>	02/15/2018 13:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUR-MW4	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time				
1805324-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/15/2018 21:40
	<b>Project Number:</b>	Durrer Dariy	<b>Sampling Date:</b>	02/15/2018 14:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUR-MW6	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time				

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Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1805324-06</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/15/2018 21:40
	<b>Project Number:</b> Durrer Dariy	<b>Sampling Date:</b> 02/15/2018 12:09
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DUR-MW7	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805324-07</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/15/2018 21:40
	<b>Project Number:</b> Durrer Dariy	<b>Sampling Date:</b> 02/15/2018 12:22
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DUR-MW8	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805324-08</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/15/2018 21:40
	<b>Project Number:</b> Durrer Dariy	<b>Sampling Date:</b> 02/15/2018 15:12
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DUR-MW9	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1805324-09</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/15/2018 21:40
	<b>Project Number:</b> Durrer Dariy	<b>Sampling Date:</b> 02/15/2018 14:28
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> DUR-MW10s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-01	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW1, 2/15/2018 1:07:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	160	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	99	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	120	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	530	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	100	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	110	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	88	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1500	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.25	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.021	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	3.3	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:43	02/22/18 19:51	JCC	PE-OP2	1	B005541
2	SM-2320B	02/21/18 08:00	02/21/18 10:29	MEV	MET-1	2	B003273
3	EPA-300.0	02/15/18 22:00	02/16/18 01:56	OLH	IC2	10	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	5	B005526
5	EPA-351.2	02/27/18 20:30	02/28/18 15:59	JMH	SC-1	1	B006200
6	EPA-350.1	02/28/18 07:25	03/01/18 13:23	JMH	SC-1	1	B006211
7	EPA-353.2	02/16/18 08:54	02/16/18 08:54	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 20:30	02/28/18 12:26	JMH	SC-1	1	B006201

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Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805324-02		Client Sample Name: Durrer Dairy, DUR-MW2, 2/15/2018 12:47:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	210	mg/L	0.50	0.080	EPA-200.7	ND		1
Dissolved Magnesium	160	mg/L	0.25	0.095	EPA-200.7	ND		1
Dissolved Sodium	250	mg/L	2.5	0.26	EPA-200.7	ND		1
Dissolved Potassium	270	mg/L	5.0	0.50	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	2100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	320	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	0.13	mg/L	0.20	0.042	EPA-300.0	ND	J,A07	3
Sulfate	90	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	170	mg/L	10	4.2	EPA-351.2	ND	A07	5
Ammonia as N	170	mg/L	20	4.0	EPA-350.1	ND	A07	6
Nitrite as N	0.013	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	7.4	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:43	02/22/18 19:53	JCC	PE-OP2	5	B005541
2	SM-2320B	02/21/18 08:00	02/21/18 11:13	MEV	MET-1	2	B003273
3	EPA-300.0	02/15/18 22:00	02/16/18 09:37	OLH	IC2	2	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	10	B005526
5	EPA-351.2	02/27/18 20:30	02/28/18 17:09	JMH	SC-1	50	B006200
6	EPA-350.1	03/07/18 16:28	03/08/18 11:23	JMH	SC-1	200	B006941
7	EPA-353.2	02/16/18 08:54	02/16/18 08:54	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 20:30	02/28/18 12:27	JMH	SC-1	5	B006201

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-03	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW3, 2/15/2018 1:47:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	220	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	240	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	9.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	880	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	270	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	92	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	200	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.8	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.045	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.60	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.78	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:43	02/22/18 19:56	JCC	PE-OP2	1	B005541
2	SM-2320B	02/21/18 08:00	02/21/18 11:23	MEV	MET-1	2	B003273
3	EPA-300.0	02/15/18 22:00	02/16/18 09:58	OLH	IC2	5	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	10	B005526
5	EPA-351.2	03/05/18 20:00	03/06/18 12:47	JMH	SC-1	1	B006202
6	EPA-350.1	02/28/18 07:25	03/01/18 13:28	JMH	SC-1	1	B006211
7	EPA-353.2	02/16/18 08:54	02/16/18 08:54	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 21:00	02/28/18 12:37	JMH	SC-1	1	B006203

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Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-04	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW4, 2/15/2018 1:27:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	250	mg/L	0.20	0.032	EPA-200.7	ND	A07	1
Dissolved Magnesium	190	mg/L	0.10	0.038	EPA-200.7	ND	A07	1
Dissolved Sodium	260	mg/L	1.0	0.10	EPA-200.7	ND	A07	1
Dissolved Potassium	210	mg/L	2.0	0.20	EPA-200.7	ND	A07	1
Bicarbonate Alkalinity as CaCO3	2000	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	80	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	130	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2700	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	120	mg/L	5.0	2.1	EPA-351.2	ND	A07	5
Ammonia as N	130	mg/L	10	2.0	EPA-350.1	ND	A07	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	6.9	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:26	JCC	PE-OP2	2	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 11:32	MEV	MET-1	2	B003273
3	EPA-300.0	02/15/18 22:00	02/16/18 10:18	OLH	IC2	5	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	10	B005526
5	EPA-351.2	03/05/18 20:00	03/06/18 13:11	JMH	SC-1	25	B006202
6	EPA-350.1	03/07/18 16:28	03/08/18 11:25	JMH	SC-1	100	B006941
7	EPA-353.2	02/16/18 08:54	02/16/18 08:54	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 21:00	02/28/18 12:37	JMH	SC-1	5	B006203

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Woodland, CA 95695

Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Durrer Dairy 1Qtr 2018  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-05	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW6, 2/15/2018 2:52:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	190	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	95	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	110	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	4.5	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	680	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	120	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	78	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	80	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.28	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.026	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	1.1	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:37	JCC	PE-OP2	1	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 11:41	MEV	MET-1	2	B003273
3	EPA-300.0	02/15/18 22:00	02/16/18 10:39	OLH	IC2	5	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	5	B005526
5	EPA-351.2	03/05/18 20:00	03/06/18 12:49	JMH	SC-1	1	B006202
6	EPA-350.1	02/28/18 07:25	03/01/18 13:32	JMH	SC-1	1	B006211
7	EPA-353.2	02/16/18 08:54	02/16/18 08:55	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 21:00	02/28/18 12:38	JMH	SC-1	1	B006203

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-06	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW7, 2/15/2018 12:09:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	260	mg/L	0.20	0.032	EPA-200.7	ND	A07	1
Dissolved Magnesium	160	mg/L	0.10	0.038	EPA-200.7	ND	A07	1
Dissolved Sodium	180	mg/L	1.0	0.10	EPA-200.7	ND	A07	1
Dissolved Potassium	180	mg/L	2.0	0.20	EPA-200.7	ND	A07	1
Bicarbonate Alkalinity as CaCO3	1100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	190	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	140	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	190	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2500	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	7.8	mg/L	0.50	0.21	EPA-351.2	ND	A07	5
Ammonia as N	2.0	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.26	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	34	mg/L	1.9	0.75	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:40	JCC	PE-OP2	2	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 11:48	MEV	MET-1	2	B003273
3	EPA-300.0	02/15/18 22:00	02/16/18 03:39	OLH	IC2	10	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	10	B005526
5	EPA-351.2	03/05/18 20:00	03/06/18 12:50	JMH	SC-1	2.500	B006202
6	EPA-350.1	02/28/18 07:25	03/01/18 13:32	JMH	SC-1	1	B006211
7	EPA-353.2	02/16/18 08:54	02/16/18 09:00	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 21:00	02/28/18 12:54	JMH	SC-1	12.500	B006203

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Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Durrer Dairy 1Qtr 2018  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-07	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW8, 2/15/2018 12:22:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	87	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	34	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	36	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	24	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	300	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	28	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	25	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	72	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	800	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	3.4	mg/L	0.50	0.21	EPA-351.2	ND	A07	5
Ammonia as N	2.8	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.013	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	6.7	mg/L	0.38	0.15	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:43	JCC	PE-OP2	1	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 12:26	MEV	MET-1	1	B003274
3	EPA-300.0	02/15/18 22:00	02/16/18 10:59	OLH	IC2	2	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	3.333	B005526
5	EPA-351.2	03/05/18 20:00	03/06/18 12:51	JMH	SC-1	2.500	B006202
6	EPA-350.1	02/28/18 07:25	03/01/18 13:33	JMH	SC-1	1	B006211
7	EPA-353.2	02/16/18 08:54	02/16/18 09:00	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 21:00	02/28/18 12:39	JMH	SC-1	2.500	B006203

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-08	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW9, 2/15/2018 3:12:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	97	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	38	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	51	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	360	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	32	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	8.0	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	98	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	660	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.67	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	2.2	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:45	JCC	PE-OP2	1	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 12:33	MEV	MET-1	1	B003274
3	EPA-300.0	02/15/18 22:00	02/16/18 06:03	OLH	IC2	1	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	3.333	B005526
5	EPA-351.2	03/05/18 20:00	03/06/18 12:52	JMH	SC-1	1	B006202
6	EPA-350.1	02/28/18 07:25	03/01/18 13:34	JMH	SC-1	1	B006211
7	EPA-353.2	02/16/18 08:54	02/16/18 09:00	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 21:00	02/28/18 12:39	JMH	SC-1	1	B006203

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Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Durrer Dairy 1Qtr 2018  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805324-09	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW10s, 2/15/2018 2:28:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	210	mg/L	5.0	0.80	EPA-200.7	ND	A07	1
Dissolved Magnesium	110	mg/L	2.5	0.95	EPA-200.7	ND	A07	1
Dissolved Sodium	490	mg/L	25	2.6	EPA-200.7	ND	A07	1
Dissolved Potassium	1200	mg/L	50	5.0	EPA-200.7	ND	A07	1
Bicarbonate Alkalinity as CaCO3	1800	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	840	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	1.0	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	610	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	6300	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	51	mg/L	5.0	2.1	EPA-351.2	ND	A07	5
Ammonia as N	9.8	mg/L	0.50	0.10	EPA-350.1	ND	A07	6
Nitrite as N	0.014	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	85	mg/L	3.8	1.5	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:41	02/22/18 20:48	JCC	PE-OP2	50	B005540
2	SM-2320B	02/21/18 08:00	02/21/18 12:40	MEV	MET-1	2	B003274
3	EPA-300.0	02/15/18 22:00	02/16/18 12:22	SAV	IC2	5	B005172
4	SM-2540C	02/21/18 14:00	02/21/18 14:00	CAD	MANUAL	20	B005526
5	EPA-351.2	03/05/18 20:00	03/06/18 13:13	JMH	SC-1	25	B006202
6	EPA-350.1	02/28/18 07:25	03/01/18 14:02	JMH	SC-1	5	B006211
7	EPA-353.2	02/16/18 08:54	02/16/18 09:00	JNC	KONE-1	1	B005211
8	EPA-365.4	02/27/18 21:00	02/28/18 12:55	JMH	SC-1	25	B006203

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**Reported:** 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Durrer Dairy 1Qtr 2018  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003273</b>						
Bicarbonate Alkalinity as CaCO3	B003273-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003273-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003273-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B003274</b>						
Bicarbonate Alkalinity as CaCO3	B003274-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003274-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003274-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005172</b>						
Chloride	B005172-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005172-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005172-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005211</b>						
Nitrite as N	B005211-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005526</b>						
Total Dissolved Solids @ 180 C	B005526-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005540</b>						
Dissolved Calcium	B005540-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005540-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005540-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005540-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005541</b>						
Dissolved Calcium	B005541-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005541-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005541-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005541-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006200</b>						
Total Kjeldahl Nitrogen	B006200-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006201</b>						
Total Phosphate	B006201-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006202</b>						

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B006202</b>						
Total Kjeldahl Nitrogen	B006202-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006203</b>						
Total Phosphate	B006203-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006211</b>						
Ammonia as N	B006211-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006941</b>						
Ammonia as N	B006941-BLK1	ND	mg/L	0.10	0.020	

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005172</b>										
Chloride	B005172-BS1	LCS	50.028	50.000	mg/L	100		90 - 110		
Nitrate as N	B005172-BS1	LCS	5.0300	5.0000	mg/L	101		90 - 110		
Sulfate	B005172-BS1	LCS	101.92	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B005211</b>										
Nitrite as N	B005211-BS1	LCS	0.49525	0.50000	mg/L	99.1		90 - 110		
<b>QC Batch ID: B005526</b>										
Total Dissolved Solids @ 180 C	B005526-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B005540</b>										
Dissolved Calcium	B005540-BS1	LCS	9.8613	10.000	mg/L	98.6		85 - 115		
Dissolved Magnesium	B005540-BS1	LCS	10.131	10.000	mg/L	101		85 - 115		
Dissolved Sodium	B005540-BS1	LCS	10.308	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B005540-BS1	LCS	9.8260	10.000	mg/L	98.3		85 - 115		
<b>QC Batch ID: B005541</b>										
Dissolved Calcium	B005541-BS1	LCS	9.8678	10.000	mg/L	98.7		85 - 115		
Dissolved Magnesium	B005541-BS1	LCS	10.277	10.000	mg/L	103		85 - 115		
Dissolved Sodium	B005541-BS1	LCS	10.191	10.000	mg/L	102		85 - 115		
Dissolved Potassium	B005541-BS1	LCS	9.8115	10.000	mg/L	98.1		85 - 115		
<b>QC Batch ID: B006200</b>										
Total Kjeldahl Nitrogen	B006200-BS1	LCS	1.8850	2.0000	mg/L	94.2		90 - 110		
<b>QC Batch ID: B006201</b>										
Total Phosphate	B006201-BS1	LCS	3.1965	3.0660	mg/L	104		85 - 115		
<b>QC Batch ID: B006202</b>										
Total Kjeldahl Nitrogen	B006202-BS1	LCS	2.0274	2.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B006203</b>										
Total Phosphate	B006203-BS1	LCS	2.9914	3.0660	mg/L	97.6		85 - 115		
<b>QC Batch ID: B006211</b>										
Ammonia as N	B006211-BS1	LCS	0.96480	1.0000	mg/L	96.5		90 - 110		
<b>QC Batch ID: B006941</b>										
Ammonia as N	B006941-BS1	LCS	0.98360	1.0000	mg/L	98.4		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Durrer Dairy 1Qtr 2018  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B003273</b>		Used client sample: Y - Description: DUR-MW1, 02/15/2018 13:07								
Bicarbonate Alkalinity as CaCO3	DUP	1805324-01	528.20	533.38		mg/L	1.0		10	
Carbonate Alkalinity as CaCO3	DUP	1805324-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805324-01	ND	ND		mg/L			10	
<b>QC Batch ID: B003274</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805409-01	204.16	201.27		mg/L	1.4		10	
Carbonate Alkalinity as CaCO3	DUP	1805409-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805409-01	ND	ND		mg/L			10	
<b>QC Batch ID: B005172</b>		Used client sample: Y - Description: DUR-MW8, 02/15/2018 12:22								
Chloride	DUP	805324-07RE	27.664	27.930		mg/L	1.0		10	
	MS	805324-07RE	27.664	129.95	101.01	mg/L		101		80 - 120
	MSD	805324-07RE	27.664	130.62	101.01	mg/L	0.5	102	10	80 - 120
Nitrate as N	DUP	805324-07RE	25.252	25.228		mg/L	0.1		10	
	MS	805324-07RE	25.252	34.929	10.101	mg/L		95.8		80 - 120
	MSD	805324-07RE	25.252	34.881	10.101	mg/L	0.1	95.3	10	80 - 120
Sulfate	DUP	805324-07RE	71.710	71.632		mg/L	0.1		10	
	MS	805324-07RE	71.710	278.27	202.02	mg/L		102		80 - 120
	MSD	805324-07RE	71.710	277.32	202.02	mg/L	0.3	102	10	80 - 120
<b>QC Batch ID: B005211</b>		Used client sample: Y - Description: DUR-MW1, 02/15/2018 13:07								
Nitrite as N	DUP	1805324-01	ND	ND		mg/L			10	
	MS	1805324-01	ND	0.53431	0.52632	mg/L		102		90 - 110
	MSD	1805324-01	ND	0.53343	0.52632	mg/L	0.2	101	10	90 - 110
<b>QC Batch ID: B005526</b>		Used client sample: Y - Description: DUR-MW1, 02/15/2018 13:07								
Total Dissolved Solids @ 180 C	DUP	1805324-01	1460.0	1475.0		mg/L	1.0		10	
<b>QC Batch ID: B005540</b>		Used client sample: Y - Description: ZON-MW2B, 02/16/2018 15:21								
Dissolved Calcium	DUP	1805416-02	24.936	25.096		mg/L	0.6		20	
	MS	1805416-02	24.936	34.165	10.204	mg/L		90.4		85 - 115
	MSD	1805416-02	24.936	34.012	10.204	mg/L	0.4	88.9	20	85 - 115
Dissolved Magnesium	DUP	1805416-02	0.24850	0.24694		mg/L	0.6		20	
	MS	1805416-02	0.24850	10.546	10.204	mg/L		101		85 - 115
	MSD	1805416-02	0.24850	10.426	10.204	mg/L	1.2	99.7	20	85 - 115
Dissolved Sodium	DUP	1805416-02	87.233	86.694		mg/L	0.6		20	
	MS	1805416-02	87.233	100.03	10.204	mg/L		125		85 - 115 A03
	MSD	1805416-02	87.233	99.748	10.204	mg/L	0.3	123	20	85 - 115 A03
Dissolved Potassium	DUP	1805416-02	1.0010	0.91484		mg/L	9.0		20	J
	MS	1805416-02	1.0010	10.706	10.204	mg/L		95.1		85 - 115
	MSD	1805416-02	1.0010	10.706	10.204	mg/L	0.0	95.1	20	85 - 115

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Durrer Dairy 1Qtr 2018  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005541</b>		Used client sample: N								
Dissolved Calcium	DUP	1805181-01	40.712	40.411		mg/L	0.7		20	
	MS	1805181-01	40.712	51.963	10.204	mg/L		110		85 - 115
	MSD	1805181-01	40.712	52.158	10.204	mg/L	0.4	112	20	85 - 115
Dissolved Magnesium	DUP	1805181-01	14.222	14.052		mg/L	1.2		20	
	MS	1805181-01	14.222	23.858	10.204	mg/L		94.4		85 - 115
	MSD	1805181-01	14.222	24.018	10.204	mg/L	0.7	96.0	20	85 - 115
Dissolved Sodium	DUP	1805181-01	29.640	29.517		mg/L	0.4		20	
	MS	1805181-01	29.640	40.045	10.204	mg/L		102		85 - 115
	MSD	1805181-01	29.640	39.821	10.204	mg/L	0.6	99.8	20	85 - 115
Dissolved Potassium	DUP	1805181-01	2.7381	2.8624		mg/L	4.4		20	
	MS	1805181-01	2.7381	13.567	10.204	mg/L		106		85 - 115
	MSD	1805181-01	2.7381	13.654	10.204	mg/L	0.6	107	20	85 - 115
<b>QC Batch ID: B006200</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1805323-02	0.68010	0.66950		mg/L	1.6		20	
	MS	1805323-02	0.68010	2.5641	2.0000	mg/L		94.2		90 - 110
	MSD	1805323-02	0.68010	2.4752	2.0000	mg/L	3.5	89.8	20	90 - 110 Q03
<b>QC Batch ID: B006201</b>		Used client sample: N								
Total Phosphate	DUP	1805323-02	3.5761	3.4847		mg/L	2.6		20	
	MS	1805323-02	3.5761	6.6319	3.0660	mg/L		99.7		80 - 120
	MSD	1805323-02	3.5761	6.6684	3.0660	mg/L	0.5	101	20	80 - 120
<b>QC Batch ID: B006202</b>		Used client sample: Y - Description: ZON-MW4B, 02/16/2018 11:01								
Total Kjeldahl Nitrogen	DUP	1805416-03	0.49930	0.56880		mg/L	13.0		20	
	MS	1805416-03	0.49930	2.4498	2.0000	mg/L		97.5		90 - 110
	MSD	1805416-03	0.49930	1.7600	2.0000	mg/L	32.8	63.0	20	90 - 110 Q02,Q03
<b>QC Batch ID: B006203</b>		Used client sample: Y - Description: ZON-MW4B, 02/16/2018 11:01								
Total Phosphate	DUP	1805416-03	ND	ND		mg/L			20	
	MS	1805416-03	ND	3.0027	3.0660	mg/L		97.9		80 - 120
	MSD	1805416-03	ND	3.0251	3.0660	mg/L	0.7	98.7	20	80 - 120
<b>QC Batch ID: B006211</b>		Used client sample: Y - Description: DUR-MW1, 02/15/2018 13:07								
Ammonia as N	DUP	1805324-01	0.020600	0.020600		mg/L	0		10	J
	MS	1805324-01	0.020600	1.1367	1.1111	mg/L		100		90 - 110
	MSD	1805324-01	0.020600	1.0844	1.1111	mg/L	4.7	95.7	10	90 - 110
<b>QC Batch ID: B006941</b>		Used client sample: N								
Ammonia as N	DUP	1806028-01	0.029500	ND		mg/L			10	
	MS	1806028-01	0.029500	1.1343	1.1111	mg/L		99.4		90 - 110
	MSD	1806028-01	0.029500	1.1571	1.1111	mg/L	2.0	101	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Durrer Dairy 1Qtr 2018  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q02 Matrix spike precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/19/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Frank J. Gomes Dairy #1  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806133  
Invoice ID: B297489

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806133

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911							
<b>Report to:</b> 1806133 Expanded Constituent Suite							
Name: Lohdorff and Scalmani							
Address: 500 First Street							
City: Woodland							
State: 95685							
CA:							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: Frank J. Gomes Dairy #1							
Sampler Name: Antonio Del-Tec							
Global ID - GADAIRY00004							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl, Pb Unpreserved	From Filtered Sample:	From Unfiltered Sample:
1	FG1-MW4s, FG1-MW1d	2/23/18	1107	GW	X	Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
2	FG1-MW2s, FG1-MW2d		1029		X		
3	FG1-MW3s, FG1-MW3d		1046		X		
4	FG1-MW4s, FG1-MW4d		1013		X		
5	FG1-MW5s, FG1-MW5d		957		X		
6	FG1-MW6s, FG1-MW6d		934		X		
7	FG1-MW7s, FG1-MW7d		917		X		
8	FG1-MW8s, FG1-MW8d		857		X		
9	FG1-MW9s, FG1-MW9d		836		X		
10	Field Duplicate #7				X		
11							
12							
13							
Relinquished by: (Signature) Antonio H. Morales 2/23/18 1700 Relinquished by: (Signature) Antonio H. Morales 2/23/18 1700 Relinquished by: (Signature) Antonio H. Morales 2/23/18 1920 Relinquished by: (Signature) Antonio H. Morales 2/23/18 2140							

**Comments:**  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lohdorff and Scalmani Consulting Engineers via email: lsc@lscce.com, rnyson@lscce.com, puhallwal@lscce.com, jlovelis@lscce.com  
 4) Send invoices to Jeannette Lovelis (jlovelis@lscce.com).



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806133

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> <u>(W) / S</u>
--	--	--	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 1056 Date/Time: 2/23/2016  
 Temperature: (A) 1.0 °C / (C) 0.7 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	A
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/03/0080										
QT EPA 515.1/0150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_ Date/Time: 2/23 2250 Rev 21 05/23/2016  
 Sample Numbering Completed By: [Signature]  
 A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806133-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 11:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW1d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 10:29
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW2d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 10:46
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW3d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 10:13
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 09:57
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806133-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 09:34
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 09:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 08:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 08:36
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW9d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806133-10	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #1	<b>Sampling Date:</b>	02/23/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #7	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806133-01		Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW1d, 2/23/2018 11:07:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	0.041		1
Dissolved Magnesium	51	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	230	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	19	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	760	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	170	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	110	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	4.6	mg/L	0.50	0.21	EPA-351.2	ND	A07	5
Ammonia as N	4.4	mg/L	0.50	0.10	EPA-350.1	ND	A07	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.38	0.15	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:13	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 11:22	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 23:30	02/25/18 10:08	OLH	IC2	1	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006506
5	EPA-351.2	03/10/18 20:00	03/16/18 10:29	JMH	SC-1	2.500	B007245
6	EPA-350.1	03/14/18 08:35	03/14/18 17:39	JMH	SC-1	5	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:33	SAV	KONE-1	1	B005935
8	EPA-365.4	03/10/18 20:00	03/15/18 11:32	JMH	SC-1	2.500	B007246

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806133-02		Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW2d, 2/23/2018 10:29:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	0.041		1
Dissolved Magnesium	46	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	100	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	8.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	230	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	170	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	39	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	77	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	910	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.45	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.038	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.015	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	1.9	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:00	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 11:31	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 23:30	02/25/18 01:03	OLH	IC2	2	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006506
5	EPA-351.2	03/10/18 20:00	03/16/18 10:29	JMH	SC-1	1	B007245
6	EPA-350.1	03/14/18 08:35	03/14/18 17:39	JMH	SC-1	1	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:32	SAV	KONE-1	1	B005935
8	EPA-365.4	03/10/18 20:00	03/15/18 11:33	JMH	SC-1	1	B007246

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806133-03		Client Sample Name: Frank J. Gomes Dairy #1, FG1-MW3d, 2/23/2018 10:46:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	0.041		1
Dissolved Magnesium	66	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	7.6	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	720	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	180	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	7.8	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	57	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.14	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.028	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.57	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:21	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 11:37	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 23:30	02/25/18 01:23	OLH	IC2	1	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006506
5	EPA-351.2	03/10/18 20:00	03/16/18 10:31	JMH	SC-1	1	B007245
6	EPA-350.1	03/14/18 08:35	03/14/18 17:41	JMH	SC-1	1	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:32	SAV	KONE-1	1	B005935
8	EPA-365.4	03/10/18 20:00	03/15/18 11:34	JMH	SC-1	1	B007246

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806133-04	<b>Client Sample Name:</b> Frank J. Gomes Dairy #1, FG1-MW4s, 2/23/2018 10:13:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	240	mg/L	0.10	0.016	EPA-200.7	0.041		1
Dissolved Magnesium	76	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	170	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	16	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	110	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	340	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	170	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	190	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2400	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.81	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.021	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	6.6	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:24	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 11:46	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 23:30	02/25/18 01:44	OLH	IC2	10	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	10	B006506
5	EPA-351.2	03/10/18 20:00	03/16/18 10:31	JMH	SC-1	1	B007245
6	EPA-350.1	03/14/18 08:35	03/14/18 17:43	JMH	SC-1	1	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005935
8	EPA-365.4	03/10/18 20:00	03/15/18 11:53	JMH	SC-1	5	B007246

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806133-05	<b>Client Sample Name:</b> Frank J. Gomes Dairy #1, FG1-MW5s, 2/23/2018 9:57:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	0.041		1
Dissolved Magnesium	39	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	140	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	18	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	310	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	240	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	16	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	90	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	980	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.27	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.030	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.18	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.78	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:27	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 12:23	MEV	MET-1	2	B005370
3	EPA-300.0	02/24/18 23:30	02/25/18 02:05	OLH	IC2	2	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006506
5	EPA-351.2	03/10/18 20:00	03/16/18 10:32	JMH	SC-1	1	B007245
6	EPA-350.1	03/14/18 08:35	03/14/18 17:45	JMH	SC-1	1	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005935
8	EPA-365.4	03/10/18 20:00	03/15/18 11:35	JMH	SC-1	1	B007246

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806133-06	<b>Client Sample Name:</b> Frank J. Gomes Dairy #1, FG1-MW6s, 2/23/2018 9:34:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	68	mg/L	0.10	0.016	EPA-200.7	0.041		1
Dissolved Magnesium	30	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	84	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.6	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	110	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	150	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	33	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	51	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.30	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	0.043	J	6
Nitrite as N	0.014	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	3.6	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:29	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 12:31	MEV	MET-1	1	B005370
3	EPA-300.0	02/24/18 23:30	02/25/18 02:25	OLH	IC2	2	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	3.333	B006506
5	EPA-351.2	03/10/18 20:00	03/16/18 10:33	JMH	SC-1	1	B007245
6	EPA-350.1	03/14/18 08:36	03/14/18 17:47	JMH	SC-1	1	B007558
7	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005935
8	EPA-365.4	03/10/18 20:00	03/15/18 11:36	JMH	SC-1	1	B007246

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Reported: 03/19/2018 16:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #1  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806133-07	Client Sample Name:	Frank J. Gomes Dairy #1, FG1-MW7s, 2/23/2018 9:17:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	66	mg/L	0.10	0.016	EPA-200.7	0.041		1	
Dissolved Magnesium	25	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	59	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	7.5	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	86	mg/L	4.1	4.1	SM-2320B	ND		2	
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	110	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	34	mg/L	0.20	0.042	EPA-300.0	ND	A07	3	
Sulfate	55	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	640	mg/L	33	33	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.50	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	0.031	mg/L	0.10	0.020	EPA-350.1	0.043	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	4.2	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:32	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 12:37	MEV	MET-1	1	B005370
3	EPA-300.0	02/24/18 23:30	02/25/18 02:46	OLH	IC2	2	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	3.333	B006506
5	EPA-351.2	03/11/18 17:00	03/15/18 16:43	JMH	SC-1	1	B007250
6	EPA-350.1	03/14/18 08:36	03/14/18 17:50	JMH	SC-1	1	B007558
7	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005935
8	EPA-365.4	03/11/18 17:00	03/15/18 09:43	JMH	SC-1	1	B007251

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Woodland, CA 95695

**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806133-08	<b>Client Sample Name:</b> Frank J. Gomes Dairy #1, FG1-MW8s, 2/23/2018 8:52:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	86	mg/L	0.10	0.016	EPA-200.7	0.041		1
Dissolved Magnesium	41	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	90	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	350	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	100	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	0.44	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	89	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.25	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.026	mg/L	0.10	0.020	EPA-350.1	0.043	J	6
Nitrite as N	0.018	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.19	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:35	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 12:44	MEV	MET-1	2	B005370
3	EPA-300.0	02/24/18 23:30	02/25/18 03:07	OLH	IC2	1	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	3.333	B006506
5	EPA-351.2	03/11/18 17:00	03/15/18 16:47	JMH	SC-1	1	B007250
6	EPA-350.1	03/14/18 08:36	03/14/18 17:52	JMH	SC-1	1	B007558
7	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005935
8	EPA-365.4	03/11/18 17:00	03/15/18 09:45	JMH	SC-1	1	B007251

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Reported: 03/19/2018 16:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #1  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806133-09	Client Sample Name:	Frank J. Gomes Dairy #1, FG1-MW9d, 2/23/2018 8:36:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	50	mg/L	0.10	0.016	EPA-200.7	0.041		1	
Dissolved Magnesium	26	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	50	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	2.6	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	190	mg/L	4.1	4.1	SM-2320B	ND		2	
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	49	mg/L	0.50	0.077	EPA-300.0	ND		3	
Nitrate as N	9.3	mg/L	0.10	0.021	EPA-300.0	ND		3	
Sulfate	44	mg/L	1.0	0.13	EPA-300.0	ND		3	
Total Dissolved Solids @ 180 C	430	mg/L	20	20	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.24	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	0.043		6	
Nitrite as N	0.15	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.10	mg/L	0.15	0.060	EPA-365.4	ND	J	8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:38	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 12:50	MEV	MET-1	1	B005370
3	EPA-300.0	02/24/18 23:30	02/25/18 04:08	OLH	IC2	1	B006052
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	2	B006506
5	EPA-351.2	03/11/18 17:00	03/15/18 16:47	JMH	SC-1	1	B007250
6	EPA-350.1	03/14/18 08:36	03/14/18 17:54	JMH	SC-1	1	B007558
7	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005935
8	EPA-365.4	03/11/18 17:00	03/15/18 09:46	JMH	SC-1	1	B007251

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Reported: 03/19/2018 16:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #1  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806133-10	Client Sample Name:	Frank J. Gomes Dairy #1, Field Duplicate #7, 2/23/2018 12:00:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	66	mg/L	0.10	0.016	EPA-200.7	0.041		1	
Dissolved Magnesium	29	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	80	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	5.1	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	110	mg/L	4.1	4.1	SM-2320B	ND		2	
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2	
Chloride	150	mg/L	0.50	0.077	EPA-300.0	ND		3	
Nitrate as N	33	mg/L	0.20	0.042	EPA-300.0	ND	A07	4	
Sulfate	54	mg/L	1.0	0.13	EPA-300.0	ND		3	
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		5	
Total Kjeldahl Nitrogen	0.29	mg/L	0.20	0.084	EPA-351.2	ND		6	
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	0.043		7	
Nitrite as N	0.015	mg/L	0.050	0.010	EPA-353.2	ND	J	8	
Total Phosphate	3.7	mg/L	0.15	0.060	EPA-365.4	ND		9	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:12	03/07/18 14:40	JCC	PE-OP2	1	B005959
2	SM-2320B	03/05/18 08:00	03/05/18 12:56	MEV	MET-1	1	B005370
3	EPA-300.0	02/24/18 23:30	02/25/18 04:29	OLH	IC2	1	B006052
4	EPA-300.0	02/24/18 23:30	02/25/18 10:28	OLH	IC2	2	B006052
5	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	3.333	B006506
6	EPA-351.2	03/11/18 17:00	03/15/18 16:48	JMH	SC-1	1	B007250
7	EPA-350.1	03/14/18 08:36	03/14/18 17:55	JMH	SC-1	1	B007558
8	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005935
9	EPA-365.4	03/11/18 17:00	03/15/18 09:46	JMH	SC-1	1	B007251

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005369</b>						
Bicarbonate Alkalinity as CaCO3	B005369-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005369-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005369-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005370</b>						
Bicarbonate Alkalinity as CaCO3	B005370-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005370-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005370-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005935</b>						
Nitrite as N	B005935-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005959</b>						
Dissolved Calcium	B005959-BLK1	0.040647	mg/L	0.10	0.016	J
Dissolved Magnesium	B005959-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005959-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005959-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006052</b>						
Chloride	B006052-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006052-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006052-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006506</b>						
Total Dissolved Solids @ 180 C	B006506-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007245</b>						
Total Kjeldahl Nitrogen	B007245-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007246</b>						
Total Phosphate	B007246-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007250</b>						
Total Kjeldahl Nitrogen	B007250-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007251</b>						
Total Phosphate	B007251-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007557</b>						
Ammonia as N	B007557-BLK1	ND	mg/L	0.10	0.020	

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007558</b>						
Ammonia as N	B007558-BLK1	0.043100	mg/L	0.10	0.020	J

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
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**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005935</b>										
Nitrite as N	B005935-BS1	LCS	0.50382	0.50000	mg/L	101		90 - 110		
<b>QC Batch ID: B005959</b>										
Dissolved Calcium	B005959-BS1	LCS	10.401	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B005959-BS1	LCS	10.295	10.000	mg/L	103		85 - 115		
Dissolved Sodium	B005959-BS1	LCS	10.324	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B005959-BS1	LCS	10.055	10.000	mg/L	101		85 - 115		
<b>QC Batch ID: B006052</b>										
Chloride	B006052-BS1	LCS	52.235	50.000	mg/L	104		90 - 110		
Nitrate as N	B006052-BS1	LCS	5.1470	5.0000	mg/L	103		90 - 110		
Sulfate	B006052-BS1	LCS	103.78	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B006506</b>										
Total Dissolved Solids @ 180 C	B006506-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B007245</b>										
Total Kjeldahl Nitrogen	B007245-BS1	LCS	1.9805	2.0000	mg/L	99.0		90 - 110		
<b>QC Batch ID: B007246</b>										
Total Phosphate	B007246-BS1	LCS	3.2566	3.0660	mg/L	106		85 - 115		
<b>QC Batch ID: B007250</b>										
Total Kjeldahl Nitrogen	B007250-BS1	LCS	2.0147	2.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B007251</b>										
Total Phosphate	B007251-BS1	LCS	3.3051	3.0660	mg/L	108		85 - 115		
<b>QC Batch ID: B007557</b>										
Ammonia as N	B007557-BS1	LCS	0.98410	1.0000	mg/L	98.4		90 - 110		
<b>QC Batch ID: B007558</b>										
Ammonia as N	B007558-BS1	LCS	0.96370	1.0000	mg/L	96.4		90 - 110		

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Reported: 03/19/2018 16:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #1  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B005369</b>		Used client sample: Y - Description: GOD-MW2s, 02/23/2018 16:48								
Bicarbonate Alkalinity as CaCO3	DUP	1806132-02	428.71	421.10		mg/L	1.8		10	
Carbonate Alkalinity as CaCO3	DUP	1806132-02	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806132-02	ND	ND		mg/L			10	
<b>QC Batch ID: B005370</b>		Used client sample: Y - Description: COT-MW10, 02/23/2018 14:14								
Bicarbonate Alkalinity as CaCO3	DUP	1806134-04	273.08	269.88		mg/L	1.2		10	
Carbonate Alkalinity as CaCO3	DUP	1806134-04	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806134-04	ND	ND		mg/L			10	
<b>QC Batch ID: B005935</b>		Used client sample: Y - Description: FG1-MW1d, 02/23/2018 11:07								
Nitrite as N	DUP	1806133-01	ND	ND		mg/L			10	
	MS	1806133-01	ND	0.52529	0.52632	mg/L		99.8		90 - 110
	MSD	1806133-01	ND	0.53203	0.52632	mg/L	1.3	101	10	90 - 110
<b>QC Batch ID: B005959</b>		Used client sample: Y - Description: FG1-MW2d, 02/23/2018 10:29								
Dissolved Calcium	DUP	1806133-02	104.62	103.16		mg/L	1.4		20	
	MS	1806133-02	104.62	115.14	10.204	mg/L		103		85 - 115
	MSD	1806133-02	104.62	113.29	10.204	mg/L	1.6	84.9	20	85 - 115 A03
Dissolved Magnesium	DUP	1806133-02	45.748	45.826		mg/L	0.2		20	
	MS	1806133-02	45.748	55.443	10.204	mg/L		95.0		85 - 115
	MSD	1806133-02	45.748	54.917	10.204	mg/L	1.0	89.9	20	85 - 115
Dissolved Sodium	DUP	1806133-02	101.21	99.632		mg/L	1.6		20	
	MS	1806133-02	101.21	109.66	10.204	mg/L		82.9		85 - 115 A03
	MSD	1806133-02	101.21	108.42	10.204	mg/L	1.1	70.6	20	85 - 115 A03
Dissolved Potassium	DUP	1806133-02	8.1770	8.1074		mg/L	0.9		20	
	MS	1806133-02	8.1770	18.438	10.204	mg/L		101		85 - 115
	MSD	1806133-02	8.1770	18.370	10.204	mg/L	0.4	99.9	20	85 - 115
<b>QC Batch ID: B006052</b>		Used client sample: Y - Description: FG1-MW1d, 02/23/2018 11:07								
Chloride	DUP	1806133-01	164.81	167.24		mg/L	1.5		10	
	MS	1806133-01	164.81	282.43	101.01	mg/L		116		80 - 120
	MSD	1806133-01	164.81	284.90	101.01	mg/L	0.9	119	10	80 - 120
Nitrate as N	DUP	1806133-01	ND	ND		mg/L			10	
	MS	1806133-01	ND	10.612	10.101	mg/L		105		80 - 120
	MSD	1806133-01	ND	10.673	10.101	mg/L	0.6	106	10	80 - 120
Sulfate	DUP	1806133-01	104.09	106.03		mg/L	1.8		10	
	MS	1806133-01	104.09	334.60	202.02	mg/L		114		80 - 120
	MSD	1806133-01	104.09	336.44	202.02	mg/L	0.5	115	10	80 - 120
<b>QC Batch ID: B006506</b>		Used client sample: Y - Description: FG1-MW1d, 02/23/2018 11:07								
Total Dissolved Solids @ 180 C	DUP	1806133-01	1200.0	1190.0		mg/L	0.8		10	

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**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B007245</b>		Used client sample: Y - Description: GOD-MW4s, 02/23/2018 16:06								
Total Kjeldahl Nitrogen	DUP	1806132-04	0.46990	0.48510		mg/L	3.2		20	
	MS	1806132-04	0.46990	2.2853	2.0000	mg/L		90.8		90 - 110
	MSD	1806132-04	0.46990	2.6934	2.0000	mg/L	16.4	111	20	90 - 110 Q03
<b>QC Batch ID: B007246</b>		Used client sample: Y - Description: GOD-MW4s, 02/23/2018 16:06								
Total Phosphate	DUP	1806132-04	0.39217	0.36702		mg/L	6.6		20	
	MS	1806132-04	0.39217	3.6154	3.0660	mg/L		105		80 - 120
	MSD	1806132-04	0.39217	3.5596	3.0660	mg/L	1.6	103	20	80 - 120
<b>QC Batch ID: B007250</b>		Used client sample: Y - Description: FG1-MW7s, 02/23/2018 09:17								
Total Kjeldahl Nitrogen	DUP	1806133-07	0.49930	0.51200		mg/L	2.5		20	
	MS	1806133-07	0.49930	2.3461	2.0000	mg/L		92.3		90 - 110
	MSD	1806133-07	0.49930	2.4339	2.0000	mg/L	3.7	96.7	20	90 - 110
<b>QC Batch ID: B007251</b>		Used client sample: Y - Description: FG1-MW7s, 02/23/2018 09:17								
Total Phosphate	DUP	1806133-07	4.2105	4.2761		mg/L	1.5		20	
	MS	1806133-07	4.2105	7.2844	3.0660	mg/L		100		80 - 120
	MSD	1806133-07	4.2105	7.2114	3.0660	mg/L	1.0	97.9	20	80 - 120
<b>QC Batch ID: B007557</b>		Used client sample: Y - Description: GOD-MW3s, 02/23/2018 16:52								
Ammonia as N	DUP	1806132-03	ND	ND		mg/L			10	
	MS	1806132-03	ND	1.1276	1.1111	mg/L		101		90 - 110
	MSD	1806132-03	ND	1.0716	1.1111	mg/L	5.1	96.4	10	90 - 110
<b>QC Batch ID: B007558</b>		Used client sample: Y - Description: FG1-MW6s, 02/23/2018 09:34								
Ammonia as N	DUP	1806133-06	0.022600	0.038000		mg/L	50.8		10	J,A02
	MS	1806133-06	0.022600	1.1584	1.1111	mg/L		102		90 - 110
	MSD	1806133-06	0.022600	1.1324	1.1111	mg/L	2.3	99.9	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 16:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #1  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/19/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Gallo Cattle Company Bear Creek  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806135  
Invoice ID: B297495

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806135

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Lundorf and Scalmanini		Expanded Constituent Suite		From Unfiltered Sample:	
Address: 500 First Street		Project: Dairy Representative Monitoring Program		Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
City: Woodland		Site: Gallo Cattle Company Bear Creek		From Filtered Sample:	
State: 95695		Samplers Name: Antonio Bel-Teen		Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	
Atn: Till Angermann		Global ID - GADAIR70005		From Filtered Sample:	
		Date Sampled		Ammonia-N, NO3-N, NO2-N	
		Time Sampled			
		Matrix			
		Qt Pe Unpreserved			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	BEA-MW1s, BEA-MW1d, BEA-MW1dd	2/23/18	1147	GW	x
2	BEA-MW2s, BEA-MW2d, BEA-MW2dd		1302	I	x
3	BEA-MW3s, BEA-MW3d		1312	I	x
4	BEA-MW3s, BEA-MW4d		1335	I	x
5	Field-Duplicate				x
6					
7					
8					
9					
10					
11					

IL SHOWS HOLDING TIME Cr+6 NO3 NO2 OP SS DO Cl2 BOD MBAS GOT	Received By: <i>[Signature]</i> Date & Time: 2/23/18 1700 Received By: <i>[Signature]</i> Date & Time: 2/23/18 19:20 Received By: <i>[Signature]</i> Date & Time: 2/23/18 2140
--	--

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lundorf and Scalmanini Consulting Engineers via email: llavagnne@lisce.com, rbyson@lisce.com, pdhalival@lisce.com, jlovelis@lisce.com
- Send invoices to Jeanette Lovelis (jlovelis@lisce.com).

(A)= Analysis (C)= Container (P)= Preservative

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# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806135

SHIPPING INFORMATION		SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/> Box <input type="checkbox"/>	(W) / S
Other <input type="checkbox"/> (Specify) _____		Other <input type="checkbox"/> (Specify) _____		

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals:  Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 255 Date/Time: 2/23/2016

Temperature: (A) 1.0 °C / (C) 0.7 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cu <sup>2+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 4015M										
QT EPA 4270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 2/23 2250 Rev 21 08/23/2016

A = Actual / C = Corrected

ISAWP06110404PackedLAB\_DOC903M5(SAN)RECRev 20

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1806135-01</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b> Gallo Cattle Company Bear Creek	<b>Sampling Date:</b> 02/23/2018 11:47
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BEA-MW1dd	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1806135-02</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b> Gallo Cattle Company Bear Creek	<b>Sampling Date:</b> 02/23/2018 13:02
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BEA-MW2dd	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1806135-03</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b> Gallo Cattle Company Bear Creek	<b>Sampling Date:</b> 02/23/2018 12:12
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BEA-MW3d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

<b>1806135-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b> Gallo Cattle Company Bear Creek	<b>Sampling Date:</b> 02/23/2018 12:35
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BEA-MW4d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806135-01	<b>Client Sample Name:</b> Gallo Cattle Company Bear Creek, BEA-MW1dd, 2/23/2018 11:47:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	37	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	89	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	45	mg/L	1.0	0.10	EPA-200.7	0.20		1
Bicarbonate Alkalinity as CaCO3	610	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	57	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	0.19	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	24	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	800	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	25	mg/L	5.0	2.1	EPA-351.2	ND	A07	5
Ammonia as N	25	mg/L	5.0	1.0	EPA-350.1	ND	A07	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	3.4	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:07	02/26/18 19:29	JCC	PE-OP2	1	B005955
2	SM-2320B	03/05/18 08:00	03/05/18 14:33	MEV	MET-1	2	B005371
3	EPA-300.0	02/24/18 19:00	02/25/18 11:20	OLH	IC5	1	B006061
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	5	B006477
5	EPA-351.2	03/11/18 17:00	03/15/18 17:31	JMH	SC-1	25	B007252
6	EPA-350.1	03/14/18 08:37	03/14/18 18:10	JMH	SC-1	50	B007560
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/11/18 17:00	03/15/18 09:33	JMH	SC-1	5	B007253

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806135-02	<b>Client Sample Name:</b> Gallo Cattle Company Bear Creek, BEA-MW2dd, 2/23/2018 1:02:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	44	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	11	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	49	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	6.8	mg/L	1.0	0.10	EPA-200.7	0.20		1
Bicarbonate Alkalinity as CaCO3	170	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	17	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	6.6	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	43	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	360	mg/L	20	20	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.20	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.037	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.21	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:07	02/26/18 19:40	JCC	PE-OP2	1	B005955
2	SM-2320B	03/05/18 08:00	03/05/18 14:42	MEV	MET-1	1	B005371
3	EPA-300.0	02/24/18 19:00	02/24/18 23:24	OLH	IC5	1	B006061
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	2	B006477
5	EPA-351.2	03/11/18 17:00	03/15/18 17:08	JMH	SC-1	1	B007252
6	EPA-350.1	03/14/18 08:37	03/14/18 18:10	JMH	SC-1	1	B007560
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/11/18 17:00	03/15/18 09:34	JMH	SC-1	1	B007253

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806135-03	<b>Client Sample Name:</b> Gallo Cattle Company Bear Creek, BEA-MW3d, 2/23/2018 12:12:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	57	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	520	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	9.6	mg/L	1.0	0.10	EPA-200.7	0.20		1
Bicarbonate Alkalinity as CaCO3	640	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	500	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	170	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2500	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.3	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.51	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:07	02/26/18 19:51	JCC	PE-OP2	1	B005955
2	SM-2320B	03/05/18 08:00	03/05/18 14:48	MEV	MET-1	2	B005371
3	EPA-300.0	02/24/18 19:00	02/24/18 23:42	OLH	IC5	10	B006061
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006477
5	EPA-351.2	03/11/18 17:00	03/15/18 17:08	JMH	SC-1	1	B007252
6	EPA-350.1	03/14/18 08:37	03/14/18 18:12	JMH	SC-1	1	B007560
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/11/18 17:00	03/15/18 09:35	JMH	SC-1	1	B007253

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806135-04	<b>Client Sample Name:</b> Gallo Cattle Company Bear Creek, BEA-MW4d, 2/23/2018 12:35:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	84	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	25	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	200	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	6.5	mg/L	1.0	0.10	EPA-200.7	0.20		1
Bicarbonate Alkalinity as CaCO3	460	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	120	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	8.6	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	100	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	920	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.64	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.050	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.062	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.6	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:07	02/26/18 19:54	JCC	PE-OP2	1	B005955
2	SM-2320B	03/05/18 08:00	03/05/18 14:57	MEV	MET-1	2	B005371
3	EPA-300.0	02/24/18 19:00	02/25/18 11:38	OLH	IC5	1	B006061
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	5	B006477
5	EPA-351.2	03/11/18 17:00	03/15/18 17:10	JMH	SC-1	1	B007252
6	EPA-350.1	03/14/18 08:37	03/14/18 18:12	JMH	SC-1	1	B007560
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/11/18 17:00	03/15/18 09:36	JMH	SC-1	1	B007253

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005371</b>						
Bicarbonate Alkalinity as CaCO3	B005371-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005371-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005371-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005933</b>						
Nitrite as N	B005933-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005955</b>						
Dissolved Calcium	B005955-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005955-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005955-BLK1	ND	mg/L	0.50	0.051	
<b>Dissolved Potassium</b>	<b>B005955-BLK1</b>	<b>0.19794</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B006061</b>						
Chloride	B006061-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006061-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006061-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006477</b>						
Total Dissolved Solids @ 180 C	B006477-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007252</b>						
Total Kjeldahl Nitrogen	B007252-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007253</b>						
Total Phosphate	B007253-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007560</b>						
Ammonia as N	B007560-BLK1	ND	mg/L	0.10	0.020	

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Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005933</b>										
Nitrite as N	B005933-BS1	LCS	0.49811	0.50000	mg/L	99.6		90 - 110		
<b>QC Batch ID: B005955</b>										
Dissolved Calcium	B005955-BS1	LCS	10.812	10.000	mg/L	108		85 - 115		
Dissolved Magnesium	B005955-BS1	LCS	10.450	10.000	mg/L	105		85 - 115		
Dissolved Sodium	B005955-BS1	LCS	11.054	10.000	mg/L	111		85 - 115		
Dissolved Potassium	B005955-BS1	LCS	10.506	10.000	mg/L	105		85 - 115		
<b>QC Batch ID: B006061</b>										
Chloride	B006061-BS1	LCS	52.429	50.000	mg/L	105		90 - 110		
Nitrate as N	B006061-BS1	LCS	5.1330	5.0000	mg/L	103		90 - 110		
Sulfate	B006061-BS1	LCS	104.02	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B006477</b>										
Total Dissolved Solids @ 180 C	B006477-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B007252</b>										
Total Kjeldahl Nitrogen	B007252-BS1	LCS	2.0914	2.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B007253</b>										
Total Phosphate	B007253-BS1	LCS	3.2351	3.0660	mg/L	106		85 - 115		
<b>QC Batch ID: B007560</b>										
Ammonia as N	B007560-BS1	LCS	1.0038	1.0000	mg/L	100		90 - 110		

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Reported: 03/19/2018 17:16
Project: Dairy Rep MP - Expanded Suite
Project Number: Gallo Cattle Company Bear Creek
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)
Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Control Limits Percent Recovery, Lab Quals. Includes QC Batch IDs B005371, B005933, B005955, B006061, B006477, and B007252.

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Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B007253</b>		Used client sample: Y - Description: COT-MW13d, 02/23/2018 15:38								
Total Phosphate	DUP	1806134-07	9.6913	9.6404		mg/L	0.5		20	
	MS	1806134-07	9.6913	12.743	3.0660	mg/L		99.5		80 - 120
	MSD	1806134-07	9.6913	12.714	3.0660	mg/L	0.2	98.6	20	80 - 120
<b>QC Batch ID: B007560</b>		Used client sample: Y - Description: COT-MW12d, 02/23/2018 16:01								
Ammonia as N	DUP	1806134-06	0.036500	0.025500		mg/L	35.5		10	J,A02
	MS	1806134-06	0.036500	1.1243	1.1111	mg/L		97.9		90 - 110
	MSD	1806134-06	0.036500	1.1494	1.1111	mg/L	2.2	100	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 17:16  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Bear Creek  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/19/2018

Jeanette Kinzie

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Gallo Cattle Company Cottonwood

BCL Project: Dairy Rep MP - Expanded Suite

BCL Work Order: 1806134

Invoice ID: B297499

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806134

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Expanded Constituent Suite		From Filtered Sample:	From Filtered Sample:	From Unfiltered Sample:	
Project: Dairy Representative Monitoring Program		Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Ammonia-N, NO3-N, NO2-N	Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
Address: 500 First Street					
City: Woodland					
State: 95695					
Alt: TILL Angermann					
Sampler Name: Antonio Del-Tor					
Global ID - GADAIRY00006					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	GOT-MW4, COT-MW1d	2/23/18	16:39	6w	x
2	GOT-MW2				x
3	COT-MW3				x
4	GOT-MW4				x
5	GOT-MW5				x
6	COT-MW6				x
7	COT-MW7		14:43		x
8	GOT-MW8				x
9	COT-MW9		14:31		x
10	COT-MW10		14:14		x
11	GOT-MW11a, COT-MW11d		16:22		x
12	GOT-MW12a, COT-MW12d		16:01		x
13	GOT-MW13a, COT-MW13d		15:38		x
14	GOT-MW14a, COT-MW14d		15:17		x
15	Field Duplicate				x
16					
17					
18					

Received By: <i>M. Williams</i> 2/23/18 17:00	Received By: <i>M. Williams</i> 2/23/18 19:20
Received By: <i>M. Williams</i> 2/23/18 19:10	Received By: <i>M. Williams</i> 2/23/18 19:20
Received By: <i>M. Williams</i> 2/23/18 19:10	Received By: <i>M. Williams</i> 2/23/18 19:20

SHOULD HOLDING TIME

NO CL BOD MPAS COT

Cr<sup>6</sup> (NO) (NO) OP SS

Requisitioned by: (Signature) *M. Williams* 2/23/18 17:00

Requisitioned by: (Signature) *M. Williams* 2/23/18 19:10

Requisitioned by: (Signature) *M. Williams* 2/23/18 19:20

Requisitioned by: (Signature) *M. Williams* 2/23/18 19:20

Comments:

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Lohdort and Scalmanin Consulting Engineers via email: lsavagnino@lscce.com, rnyson@lscce.com, pdhellen@lscce.com, jlowells@lscce.com

4) Send invoices to Joannette Lovells (jlovells@lscce.com).

(A) = Analysis (C) = Container (P) = Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806134

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers:  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.98 Container: PE Thermometer ID: 105 Date/Time: 2/23/2014

Temperature: (A) 1.0 °C / (C) 0.7 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/08/3080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 3015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 2/23 2250 Rev 21 08/23/2016

A = Actual / C = Corrected

IS:\WP\Doc\Work\Perfect\LAB\_DOC\FORMS\ISS\WRC\rev 20]



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1806134-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b> 02/23/2018 16:39
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COT-MW1d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806134-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b> 02/23/2018 14:43
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COT-MW7	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806134-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b> 02/23/2018 14:31
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COT-MW9	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806134-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b> 02/23/2018 14:14
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COT-MW10	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806134-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b> 02/23/2018 16:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COT-MW11d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806134-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b>	02/23/2018 16:01
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COT-MW12d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806134-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b>	02/23/2018 15:38
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COT-MW13d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806134-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Gallo Cattle Company Cottonwood	<b>Sampling Date:</b>	02/23/2018 15:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COT-MW14d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/19/2018 18:01  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Cottonwood  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806134-01	Client Sample Name:	Gallo Cattle Company Cottonwood, COT-MW1d, 2/23/2018 4:39:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	0.025		1	
Dissolved Magnesium	68	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	120	mg/L	0.50	0.051	EPA-200.7	0.075		1	
Dissolved Potassium	18	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	530	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	110	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	43	mg/L	0.50	0.10	EPA-300.0	ND	A07	4	
Sulfate	160	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		5	
Total Kjeldahl Nitrogen	0.59	mg/L	0.20	0.084	EPA-351.2	ND		6	
Ammonia as N	0.030	mg/L	0.10	0.020	EPA-350.1	0.043	J	7	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	0.017		8	
Total Phosphate	5.4	mg/L	0.15	0.060	EPA-365.4	ND		9	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:10	03/06/18 17:39	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 13:03	MEV	MET-1	2	B005370
3	EPA-300.0	02/24/18 20:00	02/24/18 22:45	OLH	IC1	2	B006059
4	EPA-300.0	02/24/18 20:00	02/25/18 12:04	OLH	IC1	5	B006059
5	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006507
6	EPA-351.2	03/11/18 17:00	03/15/18 16:49	JMH	SC-1	1	B007250
7	EPA-350.1	03/14/18 08:36	03/14/18 17:56	JMH	SC-1	1	B007558
8	EPA-353.2	02/23/18 18:26	02/24/18 02:38	SAV	KONE-1	1	B005936
9	EPA-365.4	03/11/18 17:00	03/15/18 09:47	JMH	SC-1	1	B007251

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500 First Street  
Woodland, CA 95695

Reported: 03/19/2018 18:01  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Cottonwood  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806134-02	<b>Client Sample Name:</b> Gallo Cattle Company Cottonwood, COT-MW7, 2/23/2018 2:43:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	160	mg/L	0.10	0.016	EPA-200.7	0.025		1
Dissolved Magnesium	58	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	140	mg/L	0.50	0.051	EPA-200.7	0.075		1
Dissolved Potassium	45	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	560	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	170	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	47	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	100	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.47	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.028	mg/L	0.10	0.020	EPA-350.1	0.043	J	7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	0.017		8
Total Phosphate	5.6	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:10	03/06/18 18:00	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 13:12	MEV	MET-1	2	B005370
3	EPA-300.0	02/24/18 20:00	02/24/18 23:04	OLH	IC1	1	B006059
4	EPA-300.0	02/24/18 20:00	02/25/18 11:07	OLH	IC1	5	B006059
5	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006507
6	EPA-351.2	03/11/18 17:00	03/15/18 16:50	JMH	SC-1	1	B007250
7	EPA-350.1	03/14/18 08:36	03/14/18 17:57	JMH	SC-1	1	B007558
8	EPA-353.2	02/23/18 18:26	02/24/18 02:44	SAV	KONE-1	1	B005936
9	EPA-365.4	03/11/18 17:00	03/15/18 09:49	JMH	SC-1	1	B007251

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Reported: 03/19/2018 18:01  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Cottonwood  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806134-03	Client Sample Name:	Gallo Cattle Company Cottonwood, COT-MW9, 2/23/2018 2:31:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	0.025		1	
Dissolved Magnesium	56	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	170	mg/L	0.50	0.051	EPA-200.7	0.075		1	
Dissolved Potassium	5.0	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	530	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	120	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	81	mg/L	0.50	0.10	EPA-300.0	ND	A07	4	
Sulfate	160	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		5	
Total Kjeldahl Nitrogen	0.30	mg/L	0.20	0.084	EPA-351.2	ND		6	
Ammonia as N	0.024	mg/L	0.10	0.020	EPA-350.1	0.043	J	7	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	0.017		8	
Total Phosphate	0.70	mg/L	0.15	0.060	EPA-365.4	ND		9	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:10	03/06/18 18:03	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 13:19	MEV	MET-1	2	B005370
3	EPA-300.0	02/24/18 20:00	02/24/18 23:23	OLH	IC1	2	B006059
4	EPA-300.0	02/24/18 20:00	02/25/18 10:48	OLH	IC1	5	B006059
5	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006507
6	EPA-351.2	03/11/18 17:00	03/15/18 16:52	JMH	SC-1	1	B007250
7	EPA-350.1	03/14/18 08:36	03/14/18 17:57	JMH	SC-1	1	B007558
8	EPA-353.2	02/23/18 18:26	02/24/18 02:44	SAV	KONE-1	1	B005936
9	EPA-365.4	03/11/18 17:00	03/15/18 09:50	JMH	SC-1	1	B007251

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**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806134-04	<b>Client Sample Name:</b> Gallo Cattle Company Cottonwood, COT-MW10, 2/23/2018 2:14:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	64	mg/L	0.10	0.016	EPA-200.7	0.025		1
Dissolved Magnesium	27	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	100	mg/L	0.50	0.051	EPA-200.7	0.075		1
Dissolved Potassium	1.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	270	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	86	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	12	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	59	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	640	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.15	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.027	mg/L	0.10	0.020	EPA-350.1	0.043	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	0.017		7
Total Phosphate	4.3	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:10	03/06/18 18:05	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 12:09	MEV	MET-1	1	B005370
3	EPA-300.0	02/24/18 20:00	02/24/18 23:42	OLH	IC1	1	B006059
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	3.333	B006507
5	EPA-351.2	03/11/18 17:00	03/15/18 16:54	JMH	SC-1	1	B007250
6	EPA-350.1	03/14/18 08:36	03/14/18 17:59	JMH	SC-1	1	B007558
7	EPA-353.2	02/23/18 18:26	02/24/18 02:44	SAV	KONE-1	1	B005936
8	EPA-365.4	03/11/18 17:00	03/15/18 09:50	JMH	SC-1	1	B007251

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**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806134-05	<b>Client Sample Name:</b> Gallo Cattle Company Cottonwood, COT-MW11d, 2/23/2018 4:22:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	88	mg/L	0.10	0.016	EPA-200.7	0.025		1
Dissolved Magnesium	32	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	62	mg/L	0.50	0.051	EPA-200.7	0.075		1
Dissolved Potassium	32	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	400	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	58	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	8.8	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	19	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.79	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	0.043	J	6
Nitrite as N	0.019	mg/L	0.050	0.010	EPA-353.2	0.017	J	7
Total Phosphate	15	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:10	03/06/18 18:08	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 13:56	MEV	MET-1	2	B005371
3	EPA-300.0	02/24/18 20:00	02/25/18 11:45	OLH	IC1	1	B006059
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	3.333	B006507
5	EPA-351.2	03/11/18 17:00	03/15/18 16:54	JMH	SC-1	1	B007250
6	EPA-350.1	03/14/18 08:36	03/14/18 17:59	JMH	SC-1	1	B007558
7	EPA-353.2	02/23/18 18:26	02/24/18 02:44	SAV	KONE-1	1	B005936
8	EPA-365.4	03/11/18 17:00	03/15/18 10:19	JMH	SC-1	5	B007251

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**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806134-06		<b>Client Sample Name:</b> Gallo Cattle Company Cottonwood, COT-MW12d, 2/23/2018 4:01:00PM, Del-Tech/Antonio Morales						
<b>Constituent</b>	<b>Result</b>	<b>Units</b>	<b>PQL</b>	<b>MDL</b>	<b>Method</b>	<b>MB Bias</b>	<b>Lab Quals</b>	<b>Run #</b>
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	0.025		1
Dissolved Magnesium	46	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	90	mg/L	0.50	0.051	EPA-200.7	0.075		1
Dissolved Potassium	12	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	320	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	99	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	94	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	71	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.18	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.036	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	0.017		7
Total Phosphate	8.2	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

<b>Run #</b>	<b>Method</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Analyst</b>	<b>Instrument</b>	<b>Dilution</b>	<b>QC Batch ID</b>
1	EPA-200.7	02/26/18 09:10	03/06/18 18:11	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 14:03	MEV	MET-1	2	B005371
3	EPA-300.0	02/24/18 20:00	02/25/18 00:20	OLH	IC1	5	B006059
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006507
5	EPA-351.2	03/11/18 17:00	03/15/18 16:56	JMH	SC-1	1	B007250
6	EPA-350.1	03/14/18 08:37	03/14/18 18:03	JMH	SC-1	1	B007560
7	EPA-353.2	02/23/18 18:26	02/24/18 02:44	SAV	KONE-1	1	B005936
8	EPA-365.4	03/11/18 17:00	03/15/18 10:20	JMH	SC-1	5	B007251

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**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806134-07	<b>Client Sample Name:</b> Gallo Cattle Company Cottonwood, COT-MW13d, 2/23/2018 3:38:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	0.025		1
Dissolved Magnesium	39	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	120	mg/L	0.50	0.051	EPA-200.7	0.075		1
Dissolved Potassium	5.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	360	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	110	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	74	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.64	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.031	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	0.017		7
Total Phosphate	9.7	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:10	03/06/18 18:13	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 14:11	MEV	MET-1	2	B005371
3	EPA-300.0	02/24/18 20:00	02/25/18 00:39	OLH	IC1	5	B006059
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	5	B006507
5	EPA-351.2	03/11/18 17:00	03/15/18 17:54	JMH	SC-1	1	B007252
6	EPA-350.1	03/14/18 08:37	03/14/18 18:08	JMH	SC-1	1	B007560
7	EPA-353.2	02/23/18 18:26	02/24/18 02:44	SAV	KONE-1	1	B005936
8	EPA-365.4	03/11/18 17:00	03/15/18 10:09	JMH	SC-1	5	B007253

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**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806134-08		Client Sample Name: Gallo Cattle Company Cottonwood, COT-MW14d, 2/23/2018 3:17:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	230	mg/L	0.10	0.016	EPA-200.7	0.025		1
Dissolved Magnesium	74	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	170	mg/L	0.50	0.051	EPA-200.7	0.075		1
Dissolved Potassium	9.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	580	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	160	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	100	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	94	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.039	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.76	mg/L	0.050	0.010	EPA-353.2	0.017		7
Total Phosphate	0.56	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:10	03/06/18 18:16	JCC	PE-OP2	1	B005957
2	SM-2320B	03/05/18 08:00	03/05/18 14:18	MEV	MET-1	2	B005371
3	EPA-300.0	02/24/18 20:00	02/25/18 00:58	OLH	IC1	10	B006059
4	SM-2540C	03/02/18 15:30	03/02/18 15:30	CAD	MANUAL	10	B006507
5	EPA-351.2	03/11/18 17:00	03/15/18 17:06	JMH	SC-1	1	B007252
6	EPA-350.1	03/14/18 08:37	03/14/18 18:08	JMH	SC-1	1	B007560
7	EPA-353.2	02/23/18 18:26	02/24/18 02:44	SAV	KONE-1	1	B005936
8	EPA-365.4	03/11/18 17:00	03/15/18 09:32	JMH	SC-1	1	B007253

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005370</b>						
Bicarbonate Alkalinity as CaCO3	B005370-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005370-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005370-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005371</b>						
Bicarbonate Alkalinity as CaCO3	B005371-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005371-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005371-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005936</b>						
Nitrite as N	B005936-BLK1	0.017463	mg/L	0.050	0.010	J
<b>QC Batch ID: B005957</b>						
Dissolved Calcium	B005957-BLK1	0.024763	mg/L	0.10	0.016	J
Dissolved Magnesium	B005957-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005957-BLK1	0.074730	mg/L	0.50	0.051	J
Dissolved Potassium	B005957-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006059</b>						
Chloride	B006059-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006059-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006059-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006507</b>						
Total Dissolved Solids @ 180 C	B006507-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007250</b>						
Total Kjeldahl Nitrogen	B007250-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007251</b>						
Total Phosphate	B007251-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007252</b>						
Total Kjeldahl Nitrogen	B007252-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007253</b>						
Total Phosphate	B007253-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007558</b>						
Ammonia as N	B007558-BLK1	0.043100	mg/L	0.10	0.020	J

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007560</b>						
Ammonia as N	B007560-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005936</b>										
Nitrite as N	B005936-BS1	LCS	0.49774	0.50000	mg/L	99.5		90 - 110		
<b>QC Batch ID: B005957</b>										
Dissolved Calcium	B005957-BS1	LCS	10.106	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B005957-BS1	LCS	10.729	10.000	mg/L	107		85 - 115		
Dissolved Sodium	B005957-BS1	LCS	10.099	10.000	mg/L	101		85 - 115		
Dissolved Potassium	B005957-BS1	LCS	9.9669	10.000	mg/L	99.7		85 - 115		
<b>QC Batch ID: B006059</b>										
Chloride	B006059-BS1	LCS	51.723	50.000	mg/L	103		90 - 110		
Nitrate as N	B006059-BS1	LCS	4.9950	5.0000	mg/L	99.9		90 - 110		
Sulfate	B006059-BS1	LCS	102.52	100.00	mg/L	103		90 - 110		
<b>QC Batch ID: B006507</b>										
Total Dissolved Solids @ 180 C	B006507-BS1	LCS	605.00	586.00	mg/L	103		90 - 110		
<b>QC Batch ID: B007250</b>										
Total Kjeldahl Nitrogen	B007250-BS1	LCS	2.0147	2.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B007251</b>										
Total Phosphate	B007251-BS1	LCS	3.3051	3.0660	mg/L	108		85 - 115		
<b>QC Batch ID: B007252</b>										
Total Kjeldahl Nitrogen	B007252-BS1	LCS	2.0914	2.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B007253</b>										
Total Phosphate	B007253-BS1	LCS	3.2351	3.0660	mg/L	106		85 - 115		
<b>QC Batch ID: B007558</b>										
Ammonia as N	B007558-BS1	LCS	0.96370	1.0000	mg/L	96.4		90 - 110		
<b>QC Batch ID: B007560</b>										
Ammonia as N	B007560-BS1	LCS	1.0038	1.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/19/2018 18:01  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Cottonwood  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B005370</b>		Used client sample: Y - Description: COT-MW10, 02/23/2018 14:14								
Bicarbonate Alkalinity as CaCO3	DUP	1806134-04	273.08	269.88		mg/L	1.2		10	
Carbonate Alkalinity as CaCO3	DUP	1806134-04	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806134-04	ND	ND		mg/L			10	
<b>QC Batch ID: B005371</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1806511-02	112.43	108.62		mg/L	3.4		10	
Carbonate Alkalinity as CaCO3	DUP	1806511-02	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806511-02	ND	ND		mg/L			10	
<b>QC Batch ID: B005936</b>		Used client sample: Y - Description: COT-MW1d, 02/23/2018 16:39								
Nitrite as N	DUP	1806134-01	ND	ND		mg/L			10	
	MS	1806134-01	ND	0.53353	0.52632	mg/L		101		90 - 110
	MSD	1806134-01	ND	0.53460	0.52632	mg/L	0.2	102	10	90 - 110
<b>QC Batch ID: B005957</b>		Used client sample: Y - Description: COT-MW1d, 02/23/2018 16:39								
Dissolved Calcium	DUP	1806134-01	176.50	174.10		mg/L	1.4		20	
	MS	1806134-01	176.50	180.94	10.204	mg/L		43.5		85 - 115 A03
	MSD	1806134-01	176.50	181.10	10.204	mg/L	0.1	45.0	20	85 - 115 A03
Dissolved Magnesium	DUP	1806134-01	68.448	68.921		mg/L	0.7		20	
	MS	1806134-01	68.448	77.841	10.204	mg/L		92.0		85 - 115
	MSD	1806134-01	68.448	78.334	10.204	mg/L	0.6	96.9	20	85 - 115
Dissolved Sodium	DUP	1806134-01	116.45	114.81		mg/L	1.4		20	
	MS	1806134-01	116.45	122.36	10.204	mg/L		58.0		85 - 115 A03
	MSD	1806134-01	116.45	122.36	10.204	mg/L	0.0	58.0	20	85 - 115 A03
Dissolved Potassium	DUP	1806134-01	17.707	17.470		mg/L	1.4		20	
	MS	1806134-01	17.707	27.324	10.204	mg/L		94.2		85 - 115
	MSD	1806134-01	17.707	27.357	10.204	mg/L	0.1	94.6	20	85 - 115
<b>QC Batch ID: B006059</b>		Used client sample: Y - Description: COT-MW1d, 02/23/2018 16:39								
Chloride	DUP	806134-01RE'	104.73	104.15		mg/L	0.6		10	
	MS	806134-01RE'	104.73	388.33	252.53	mg/L		112		80 - 120
	MSD	806134-01RE'	104.73	388.27	252.53	mg/L	0.0	112	10	80 - 120
Nitrate as N	DUP	806134-01RE'	42.715	42.835		mg/L	0.3		10	
	MS	806134-01RE'	42.715	68.369	25.253	mg/L		102		80 - 120
	MSD	806134-01RE'	42.715	68.444	25.253	mg/L	0.1	102	10	80 - 120
Sulfate	DUP	806134-01RE'	153.36	152.20		mg/L	0.8		10	
	MS	806134-01RE'	153.36	697.82	505.05	mg/L		108		80 - 120
	MSD	806134-01RE'	153.36	700.28	505.05	mg/L	0.4	108	10	80 - 120
<b>QC Batch ID: B006507</b>		Used client sample: Y - Description: COT-MW1d, 02/23/2018 16:39								
Total Dissolved Solids @ 180 C	DUP	1806134-01	1305.0	1310.0		mg/L	0.4		10	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B007250</b>		Used client sample: Y - Description: FG1-MW7s, 02/23/2018 09:17								
Total Kjeldahl Nitrogen	DUP	1806133-07	0.49930	0.51200		mg/L	2.5		20	
	MS	1806133-07	0.49930	2.3461	2.0000	mg/L		92.3		90 - 110
	MSD	1806133-07	0.49930	2.4339	2.0000	mg/L	3.7	96.7	20	90 - 110
<b>QC Batch ID: B007251</b>		Used client sample: Y - Description: FG1-MW7s, 02/23/2018 09:17								
Total Phosphate	DUP	1806133-07	4.2105	4.2761		mg/L	1.5		20	
	MS	1806133-07	4.2105	7.2844	3.0660	mg/L		100		80 - 120
	MSD	1806133-07	4.2105	7.2114	3.0660	mg/L	1.0	97.9	20	80 - 120
<b>QC Batch ID: B007252</b>		Used client sample: Y - Description: COT-MW13d, 02/23/2018 15:38								
Total Kjeldahl Nitrogen	DUP	1806134-07	0.64410	0.64640		mg/L	0.4		20	
	MS	1806134-07	0.64410	2.3706	2.0000	mg/L		86.3		90 - 110 Q03
	MSD	1806134-07	0.64410	2.2029	2.0000	mg/L	7.3	77.9	20	90 - 110 Q03
<b>QC Batch ID: B007253</b>		Used client sample: Y - Description: COT-MW13d, 02/23/2018 15:38								
Total Phosphate	DUP	1806134-07	9.6913	9.6404		mg/L	0.5		20	
	MS	1806134-07	9.6913	12.743	3.0660	mg/L		99.5		80 - 120
	MSD	1806134-07	9.6913	12.714	3.0660	mg/L	0.2	98.6	20	80 - 120
<b>QC Batch ID: B007558</b>		Used client sample: Y - Description: FG1-MW6s, 02/23/2018 09:34								
Ammonia as N	DUP	1806133-06	0.022600	0.038000		mg/L	50.8		10	J,A02
	MS	1806133-06	0.022600	1.1584	1.1111	mg/L		102		90 - 110
	MSD	1806133-06	0.022600	1.1324	1.1111	mg/L	2.3	99.9	10	90 - 110
<b>QC Batch ID: B007560</b>		Used client sample: Y - Description: COT-MW12d, 02/23/2018 16:01								
Ammonia as N	DUP	1806134-06	0.036500	0.025500		mg/L	35.5		10	J,A02
	MS	1806134-06	0.036500	1.1243	1.1111	mg/L		97.9		90 - 110
	MSD	1806134-06	0.036500	1.1494	1.1111	mg/L	2.2	100	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:01  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Cottonwood  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 04/05/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Gallo Cattle Company Santa Rita  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806413  
Invoice ID: B297609

Enclosed are the results of analyses for samples received by the laboratory on 2/27/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000721049

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806413

Samples were filtered through a 0.45 micron filter for requested analysis.



**Chain of Custody**

4100 Atlas CL  
Bakersfield, CA 93308  
(861) 327-4911

**BC Laboratories, Inc.**

**Report to:** 18-06413

Expanded Constituent Suite

Name: Lufdorff and Scalimanni  
Address: 500 First Street  
City: Woodland  
State: 95695  
Att: Tili Angermann

Project: Dairy Representative Monitoring Program  
Site: Gallo Cattle Company Santa Rita  
Samplers Name: Antonio Del-Tech  
Global ID - GADAIRY0007

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pp Unpreserved
1	SAN-MW1d	2/27/18	1627	6w	x
2	SAN-MW2s, SAN-MW2d				x
3	SAN-MW3s, SAN-MW3d				x
4	SAN-MW4s, SAN-MW4d		1647		x
5	SAN-MW5s, SAN-MW5d		1450		x
6	SAN-MW6s, SAN-MW6d		1518		x
7	SAN-MW7s, SAN-MW7d		1537		x
8	SAN-MW8s, SAN-MW8d		1603		x
9	Field Duplicate #5				x
10					
11					
12					

From Filtered Sample:  
Na, K, Mg, Ca, Cl,  
SO4 (as SO4),  
Total Dissolved Solids

From Unfiltered Sample:  
Total Kjeldahl Nitrogen,  
Total Phosphate (as PO4),  
Alkalinity (HCO3, CO3 & OH) as  
CaCO3

From Filtered Sample:  
Ammonia-N, NO3-N,  
NO2-N

Received by: [Signature] Date & Time: 2/27/18 17:30

Relinquished by: [Signature] Date & Time: 2/27/18 17:50

Relinquished by: [Signature] Date & Time: 2/27/18 21:50

Comments:  
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
3) Send lab reports to Lufdorff and Scalimanni Consulting Engineers via email: llavagnino@lscce.com, rbyson@lscce.com, polhelwa@lscce.com, jlovelis@lscce.com  
4) Send invoices to Jesmette Lovelis (jlovelis@lscce.com).

(A) = Analysis (C) = Container (P) = Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-06413

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  M / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Container  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO Emissivity: 0.93 Container: PE Thermometer ID: 200 Date/Time: 2/21/18 2:50 Analyst Init: [Signature]

Temperature: (A) 1.9 °C / (C) 1.4 °C

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES 4oz / 8oz / 16oz PE UNPRES	A	A	A	A	B	A	A			
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 503/608/8080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 4015M										
QT EPA 4270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 2/21 2:21

A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806413-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Gallo Cattle Co. Santa Rita	<b>Sampling Date:</b>	02/27/2018 16:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SAN-MW1d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806413-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Gallo Cattle Co. Santa Rita	<b>Sampling Date:</b>	02/27/2018 16:47
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SAN-MW4d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806413-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Gallo Cattle Co. Santa Rita	<b>Sampling Date:</b>	02/27/2018 14:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SAN-MW5d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806413-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Gallo Cattle Co. Santa Rita	<b>Sampling Date:</b>	02/27/2018 15:18
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SAN-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806413-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Gallo Cattle Co. Santa Rita	<b>Sampling Date:</b>	02/27/2018 15:37
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SAN-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806413-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Gallo Cattle Co. Santa Rita	<b>Sampling Date:</b>	02/27/2018 16:03
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SAN-MW8d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806413-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Gallo Cattle Co. Santa Rita	<b>Sampling Date:</b>	02/27/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #5	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806413-01	<b>Client Sample Name:</b> Gallo Cattle Co. Santa Rita, SAN-MW1d, 2/27/2018 4:27:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	86	mg/L	0.10	0.016	EPA-200.7	0.029		1
Dissolved Magnesium	26	mg/L	0.050	0.019	EPA-200.7	0.028		1
Dissolved Sodium	350	mg/L	0.50	0.051	EPA-200.7	0.20		1
Dissolved Potassium	4.0	mg/L	1.0	0.10	EPA-200.7	0.19		1
Bicarbonate Alkalinity as CaCO3	690	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	110	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	38	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	140	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.42	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.077	mg/L	0.10	0.020	EPA-350.1	0.042	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.23	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 21:55	JRG	PE-OP2	1	B006830
2	SM-2320B	03/06/18 12:00	03/06/18 20:25	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	03/01/18 10:28	OLH	IC1	2	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	5	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:39	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:59	03/14/18 19:40	JMH	SC-1	1	B007670
7	EPA-353.2	02/28/18 08:06	02/28/18 08:55	JNC	KONE-1	1	B006384
8	EPA-365.4	03/13/18 10:45	03/15/18 13:42	JMH	SC-1	1	B007435

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**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806413-02		Client Sample Name: Gallo Cattle Co. Santa Rita, SAN-MW4d, 2/27/2018 4:47:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	0.029		1
Dissolved Magnesium	57	mg/L	0.050	0.019	EPA-200.7	0.028		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	0.20		1
Dissolved Potassium	6.4	mg/L	1.0	0.10	EPA-200.7	0.19		1
Bicarbonate Alkalinity as CaCO3	620	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	97	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	61	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.4	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.048	mg/L	0.10	0.020	EPA-350.1	0.042	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.8	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 21:58	JRG	PE-OP2	1	B006830
2	SM-2320B	03/06/18 12:00	03/06/18 20:31	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	03/01/18 01:23	OLH	IC1	5	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	5	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:40	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:59	03/14/18 19:43	JMH	SC-1	1	B007670
7	EPA-353.2	02/28/18 08:06	02/28/18 08:23	JNC	KONE-1	1	B006384
8	EPA-365.4	03/13/18 10:45	03/15/18 13:43	JMH	SC-1	1	B007435

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**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806413-03		Client Sample Name: Gallo Cattle Co. Santa Rita, SAN-MW5d, 2/27/2018 2:50:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	0.029		1
Dissolved Magnesium	39	mg/L	0.050	0.019	EPA-200.7	0.028		1
Dissolved Sodium	160	mg/L	0.50	0.051	EPA-200.7	0.20		1
Dissolved Potassium	3.7	mg/L	1.0	0.10	EPA-200.7	0.19		1
Bicarbonate Alkalinity as CaCO3	350	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	83	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	49	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	160	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.35	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.025	mg/L	0.10	0.020	EPA-350.1	0.042	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.15	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 22:09	JRG	PE-OP2	1	B006830
2	SM-2320B	03/06/18 12:00	03/06/18 19:28	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	03/01/18 01:42	OLH	IC1	5	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	5	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:41	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:59	03/14/18 19:45	JMH	SC-1	1	B007670
7	EPA-353.2	02/28/18 08:06	02/28/18 08:23	JNC	KONE-1	1	B006384
8	EPA-365.4	03/13/18 10:45	03/15/18 13:43	JMH	SC-1	1	B007435

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**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806413-04	Client Sample Name:	Gallo Cattle Co. Santa Rita, SAN-MW6s, 2/27/2018 3:18:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	220	mg/L	0.10	0.016	EPA-200.7	0.029		1	
Dissolved Magnesium	68	mg/L	0.050	0.019	EPA-200.7	0.028		1	
Dissolved Sodium	180	mg/L	0.50	0.051	EPA-200.7	0.20		1	
Dissolved Potassium	6.6	mg/L	1.0	0.10	EPA-200.7	0.19		1	
Bicarbonate Alkalinity as CaCO3	440	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	310	mg/L	2.5	0.38	EPA-300.0	ND	A07	3	
Nitrate as N	63	mg/L	0.50	0.10	EPA-300.0	ND	A07	3	
Sulfate	160	mg/L	5.0	0.65	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.39	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	0.035	mg/L	0.10	0.020	EPA-350.1	0.042	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.84	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 22:12	JRG	PE-OP2	1	B006830
2	SM-2320B	03/07/18 07:30	03/07/18 13:35	MEV	MET-1	2	B005386
3	EPA-300.0	02/28/18 15:00	03/01/18 02:01	OLH	IC1	5	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	10	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:35	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:59	03/14/18 19:47	JMH	SC-1	1	B007670
7	EPA-353.2	02/28/18 08:06	02/28/18 08:23	JNC	KONE-1	1	B006384
8	EPA-365.4	03/13/18 10:45	03/15/18 13:40	JMH	SC-1	1	B007435

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Reported: 04/05/2018 11:09  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Santa Rita  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806413-05	<b>Client Sample Name:</b> Gallo Cattle Co. Santa Rita, SAN-MW7s, 2/27/2018 3:37:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	0.029		1
Dissolved Magnesium	49	mg/L	0.050	0.019	EPA-200.7	0.028		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	0.20		1
Dissolved Potassium	2.6	mg/L	1.0	0.10	EPA-200.7	0.19		1
Bicarbonate Alkalinity as CaCO3	460	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	100	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	36	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	83	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	920	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.37	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.049	mg/L	0.10	0.020	EPA-350.1	0.042	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.83	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:07	03/08/18 22:14	JRG	PE-OP2	1	B006830
2	SM-2320B	03/07/18 07:30	03/07/18 09:10	MEV	MET-1	2	B005383
3	EPA-300.0	02/28/18 15:00	03/01/18 02:20	OLH	IC1	2	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	5	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:42	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:59	03/14/18 19:48	JMH	SC-1	1	B007670
7	EPA-353.2	02/28/18 08:06	02/28/18 08:23	JNC	KONE-1	1	B006384
8	EPA-365.4	03/13/18 10:45	03/15/18 13:44	JMH	SC-1	1	B007435

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Reported: 04/05/2018 11:09  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Santa Rita  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806413-06	<b>Client Sample Name:</b> Gallo Cattle Co. Santa Rita, SAN-MW8d, 2/27/2018 4:03:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	0.018		1
Dissolved Magnesium	40	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	180	mg/L	0.50	0.051	EPA-200.7	0.10		1
Dissolved Potassium	2.3	mg/L	1.0	0.10	EPA-200.7	0.18		1
Bicarbonate Alkalinity as CaCO3	570	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	85	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	35	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	100	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	940	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.31	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.057	mg/L	0.10	0.020	EPA-350.1	0.042	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.4	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:08	03/08/18 22:22	JRG	PE-OP2	1	B006831
2	SM-2320B	03/07/18 07:30	03/07/18 09:18	MEV	MET-1	2	B005383
3	EPA-300.0	02/28/18 15:00	03/01/18 02:39	OLH	IC1	2	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	5	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:44	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:59	03/14/18 19:49	JMH	SC-1	1	B007670
7	EPA-353.2	02/28/18 08:06	02/28/18 08:29	JNC	KONE-1	1	B006384
8	EPA-365.4	03/13/18 10:45	03/15/18 13:46	JMH	SC-1	1	B007435

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 04/05/2018 11:09  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Santa Rita  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806413-07	Client Sample Name:	Gallo Cattle Co. Santa Rita, Field Duplicate #5, 2/27/2018 12:00:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	0.018		1	
Dissolved Magnesium	46	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	120	mg/L	0.50	0.051	EPA-200.7	0.10		1	
Dissolved Potassium	2.4	mg/L	1.0	0.10	EPA-200.7	0.18		1	
Bicarbonate Alkalinity as CaCO3	460	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	100	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	35	mg/L	0.20	0.042	EPA-300.0	ND	A07	3	
Sulfate	82	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	900	mg/L	50	50	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.31	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	0.038	mg/L	0.10	0.020	EPA-350.1	0.042	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.71	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:08	03/08/18 22:25	JRG	PE-OP2	1	B006831
2	SM-2320B	03/07/18 07:30	03/07/18 09:25	MEV	MET-1	2	B005383
3	EPA-300.0	02/28/18 15:00	03/01/18 10:47	OLH	IC1	2	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	5	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:46	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:59	03/14/18 19:50	JMH	SC-1	1	B007670
7	EPA-353.2	02/28/18 08:06	02/28/18 08:29	JNC	KONE-1	1	B006384
8	EPA-365.4	03/13/18 10:45	03/15/18 13:46	JMH	SC-1	1	B007435

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500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005382</b>						
Bicarbonate Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005383</b>						
Bicarbonate Alkalinity as CaCO3	B005383-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005383-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005383-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005386</b>						
Bicarbonate Alkalinity as CaCO3	B005386-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005386-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005386-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B006321</b>						
Chloride	B006321-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006321-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006321-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006384</b>						
Nitrite as N	B006384-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B006623</b>						
Total Dissolved Solids @ 180 C	B006623-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006830</b>						
Dissolved Calcium	B006830-BLK1	0.029216	mg/L	0.10	0.016	J
Dissolved Magnesium	B006830-BLK1	0.028126	mg/L	0.050	0.019	J
Dissolved Sodium	B006830-BLK1	0.19982	mg/L	0.50	0.051	J
Dissolved Potassium	B006830-BLK1	0.18561	mg/L	1.0	0.10	J
<b>QC Batch ID: B006831</b>						
Dissolved Calcium	B006831-BLK1	0.017794	mg/L	0.10	0.016	J
Dissolved Magnesium	B006831-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B006831-BLK1	0.10210	mg/L	0.50	0.051	J
Dissolved Potassium	B006831-BLK1	0.17703	mg/L	1.0	0.10	J
<b>QC Batch ID: B007429</b>						
Total Kjeldahl Nitrogen	B007429-BLK1	ND	mg/L	0.20	0.084	

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500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007435</b>						
Total Phosphate	B007435-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007670</b>						
Ammonia as N	B007670-BLK1	0.042400	mg/L	0.10	0.020	J

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006321</b>										
Chloride	B006321-BS1	LCS	51.052	50.000	mg/L	102		90 - 110		
Nitrate as N	B006321-BS1	LCS	5.0720	5.0000	mg/L	101		90 - 110		
Sulfate	B006321-BS1	LCS	100.90	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B006384</b>										
Nitrite as N	B006384-BS1	LCS	0.49166	0.50000	mg/L	98.3		90 - 110		
<b>QC Batch ID: B006623</b>										
Total Dissolved Solids @ 180 C	B006623-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B006830</b>										
Dissolved Calcium	B006830-BS1	LCS	10.096	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B006830-BS1	LCS	10.630	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B006830-BS1	LCS	10.722	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B006830-BS1	LCS	10.011	10.000	mg/L	100		85 - 115		
<b>QC Batch ID: B006831</b>										
Dissolved Calcium	B006831-BS1	LCS	10.012	10.000	mg/L	100		85 - 115		
Dissolved Magnesium	B006831-BS1	LCS	10.742	10.000	mg/L	107		85 - 115		
Dissolved Sodium	B006831-BS1	LCS	10.422	10.000	mg/L	104		85 - 115		
Dissolved Potassium	B006831-BS1	LCS	9.9103	10.000	mg/L	99.1		85 - 115		
<b>QC Batch ID: B007429</b>										
Total Kjeldahl Nitrogen	B007429-BS1	LCS	1.9560	2.0000	mg/L	97.8		90 - 110		
<b>QC Batch ID: B007435</b>										
Total Phosphate	B007435-BS1	LCS	3.1340	3.0660	mg/L	102		85 - 115		
<b>QC Batch ID: B007670</b>										
Ammonia as N	B007670-BS1	LCS	1.0072	1.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 04/05/2018 11:09  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Santa Rita  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005382</b>		Used client sample: Y - Description: SAN-MW5d, 02/27/2018 14:50								
Bicarbonate Alkalinity as CaCO3	DUP	1806413-03	350.21	346.86		mg/L	1.0		10	
Carbonate Alkalinity as CaCO3	DUP	1806413-03	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806413-03	ND	ND		mg/L			10	
<b>QC Batch ID: B005383</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1806423-02	193.21	188.04		mg/L	2.7		10	
Carbonate Alkalinity as CaCO3	DUP	1806423-02	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806423-02	ND	ND		mg/L			10	
<b>QC Batch ID: B005386</b>		Used client sample: Y - Description: SAN-MW6s, 02/27/2018 15:18								
Bicarbonate Alkalinity as CaCO3	DUP	1806413-04	435.71	431.14		mg/L	1.1		10	
Carbonate Alkalinity as CaCO3	DUP	1806413-04	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806413-04	ND	ND		mg/L			10	
<b>QC Batch ID: B006321</b>		Used client sample: Y - Description: SAN-MW1d, 02/27/2018 16:27								
Chloride	DUP	1806413-01	104.82	106.12		mg/L	1.2		10	
	MS	1806413-01	104.82	403.67	252.53	mg/L		118		80 - 120
	MSD	1806413-01	104.82	404.13	252.53	mg/L	0.1	119	10	80 - 120
Nitrate as N	DUP	1806413-01	38.810	39.305		mg/L	1.3		10	
	MS	1806413-01	38.810	67.808	25.253	mg/L		115		80 - 120
	MSD	1806413-01	38.810	67.646	25.253	mg/L	0.2	114	10	80 - 120
Sulfate	DUP	1806413-01	134.02	136.15		mg/L	1.6		10	
	MS	1806413-01	134.02	711.03	505.05	mg/L		114		80 - 120
	MSD	1806413-01	134.02	705.10	505.05	mg/L	0.8	113	10	80 - 120
<b>QC Batch ID: B006384</b>		Used client sample: Y - Description: SAN-MW1d, 02/27/2018 16:27								
Nitrite as N	DUP	1806413-01	ND	ND		mg/L			10	
	MS	1806413-01	ND	0.52685	0.52632	mg/L		100		90 - 110
	MSD	1806413-01	ND	0.53256	0.52632	mg/L	1.1	101	10	90 - 110
<b>QC Batch ID: B006623</b>		Used client sample: Y - Description: SAN-MW1d, 02/27/2018 16:27								
Total Dissolved Solids @ 180 C	DUP	1806413-01	1270.0	1265.0		mg/L	0.4		10	
<b>QC Batch ID: B006830</b>		Used client sample: Y - Description: DIE-MW1, 02/27/2018 10:23								
Dissolved Calcium	DUP	1806412-01	217.39	220.22		mg/L	1.3		20	
	MS	1806412-01	217.39	223.28	10.204	mg/L		57.7		85 - 115 A03
	MSD	1806412-01	217.39	221.18	10.204	mg/L	0.9	37.1	20	85 - 115 A03
Dissolved Magnesium	DUP	1806412-01	74.340	74.033		mg/L	0.4		20	
	MS	1806412-01	74.340	82.844	10.204	mg/L		83.3		85 - 115 A03
	MSD	1806412-01	74.340	83.916	10.204	mg/L	1.3	93.8	20	85 - 115

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 04/05/2018 11:09  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Gallo Cattle Company Santa Rita  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006830</b>		Used client sample: Y - Description: DIE-MW1, 02/27/2018 10:23								
Dissolved Sodium	DUP	1806412-01	86.232	86.097		mg/L	0.2		20	
	MS	1806412-01	86.232	95.512	10.204	mg/L		90.9		85 - 115
	MSD	1806412-01	86.232	94.312	10.204	mg/L	1.3	79.2	20	85 - 115 A03
Dissolved Potassium	DUP	1806412-01	3.9165	3.9982		mg/L	2.1		20	
	MS	1806412-01	3.9165	13.818	10.204	mg/L		97.0		85 - 115
	MSD	1806412-01	3.9165	13.887	10.204	mg/L	0.5	97.7	20	85 - 115
<b>QC Batch ID: B006831</b>		Used client sample: N								
Dissolved Calcium	DUP	1806423-01	122.75	123.61		mg/L	0.7		20	
	MS	1806423-01	122.75	136.71	10.204	mg/L		137		85 - 115 A03
	MSD	1806423-01	122.75	137.66	10.204	mg/L	0.7	146	20	85 - 115 A03
Dissolved Magnesium	DUP	1806423-01	29.556	29.902		mg/L	1.2		20	
	MS	1806423-01	29.556	41.117	10.204	mg/L		113		85 - 115
	MSD	1806423-01	29.556	40.938	10.204	mg/L	0.4	112	20	85 - 115
Dissolved Sodium	DUP	1806423-01	24.664	24.659		mg/L	0.0		20	
	MS	1806423-01	24.664	35.460	10.204	mg/L		106		85 - 115
	MSD	1806423-01	24.664	35.076	10.204	mg/L	1.1	102	20	85 - 115
Dissolved Potassium	DUP	1806423-01	0.69699	0.78756		mg/L	12.2		20	J
	MS	1806423-01	0.69699	10.716	10.204	mg/L		98.2		85 - 115
	MSD	1806423-01	0.69699	10.682	10.204	mg/L	0.3	97.9	20	85 - 115
<b>QC Batch ID: B007429</b>		Used client sample: Y - Description: SAN-MW6s, 02/27/2018 15:18								
Total Kjeldahl Nitrogen	DUP	1806413-04	0.39240	0.29250		mg/L	29.2		20	A02
	MS	1806413-04	0.39240	2.0272	2.0000	mg/L		81.7		90 - 110 Q03
	MSD	1806413-04	0.39240	2.0012	2.0000	mg/L	1.3	80.4	20	90 - 110 Q03
<b>QC Batch ID: B007435</b>		Used client sample: Y - Description: SAN-MW6s, 02/27/2018 15:18								
Total Phosphate	DUP	1806413-04	0.84106	0.82634		mg/L	1.8		20	
	MS	1806413-04	0.84106	3.7147	3.0660	mg/L		93.7		80 - 120
	MSD	1806413-04	0.84106	3.7947	3.0660	mg/L	2.1	96.3	20	80 - 120
<b>QC Batch ID: B007670</b>		Used client sample: Y - Description: SAN-MW1d, 02/27/2018 16:27								
Ammonia as N	DUP	1806413-01	0.077300	0.039900		mg/L	63.8		10	J,A02
	MS	1806413-01	0.077300	1.1736	1.1111	mg/L		98.7		90 - 110
	MSD	1806413-01	0.077300	1.1736	1.1111	mg/L	0	98.7	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 11:09  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Gallo Cattle Company Santa Rita  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 04/05/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Genasci Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805439  
Invoice ID: B296457

Enclosed are the results of analyses for samples received by the laboratory on 2/16/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000716362

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805439

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody		
Name: Luitdorff and Scalimanni		Report to: Expanded Constituent Suite		Analysis Requested		
Address: 500 First Street		Project: Dairy Representative Monitoring Program		From Filtered Sample:		
City: Woodland		Site: Genasol Dairy		Na, K, Mg, Ca, Cl, SO <sub>4</sub> (as SO <sub>4</sub> ), Total Dissolved Solids		
State: 95695		Samplers Name: Antonio Bel-Tech		From Filtered Sample:		
Attn: Till Angermann		Global ID - WDD100006859		Ammonia-N, NO <sub>3</sub> -N, NO <sub>2</sub> -N		
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qc Fc Unpreserved	From Unfiltered Sample:
1	GEN-MW1	2/16/18	9:17	GW	X	Total Kjeldahl Nitrogen, Total Phosphate (as PO <sub>4</sub> ), Alkalinity (HCO <sub>3</sub> , CO <sub>3</sub> & OH) as CaCO <sub>3</sub>
2	GEN-MW2		11:17		X	
3	GEN-MW3		9:34		X	
4	GEN-MW5		10:27		X	
5	GEN-MW6		12:12		X	
6	GEN-MW7		9:52		X	
7	GEN-MW8		10:53		X	
8	GEN-MW9		11:42		X	
9	GEN-MW10		12:27		X	
10	GEN-MW11s, GEN-MW14		12:07		X	
11	GEN-MW12s, GEN-MW12d		12:47		X	
12	Field Duplicate #2				X	
13						
14						
15						

Retinquinshed by: (Signature)	2/16/18 1700	Received By: [Signature]	Date & Time: 2/16/18 17:00
Retinquinshed by: (Signature)		Received By: [Signature]	Date & Time: 2/16/18 17:45
Retinquinshed by: (Signature)		Received By: [Signature]	Date & Time: 2/16/18 2:40

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Luitdorff and Scalimanni Consulting Engineers via email: [rlwagnino@lsce.com](mailto:rlwagnino@lsce.com), [rbryson@lsce.com](mailto:rbryson@lsce.com), [poheliv@lsce.com](mailto:poheliv@lsce.com), [jlovelis@lsce.com](mailto:jlovelis@lsce.com)  
 4) Send invoices to Jeanette Lovelis ([jlovelis@lsce.com](mailto:jlovelis@lsce.com)).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 2

Submission #: 1805439

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify)

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify)

FREE LIQUID: YES  NO  S

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals: Ice Chest  Containers  None  Comments:

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 208 Date/Time: 2/16/16 2:40

Temperature: (A) 0.5 °C / (C) 0.2 °C Analyst Init: RNE

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	A
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/008/0080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 551.1										
3oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
1oz / 16oz / 32oz AMBER										
1oz / 16oz / 32oz JAR										
OIL SLEEVE										
CB VIAL										
LASTIC BAG										
EDLAR BAG										
ERROUS IRON										
NCORE										
MART KIT										
DMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: Gas Date/Time: 2/16/16 2:55

Rev 21 05/23/2016

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 Of 2

Submission #: 1805439

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emisivity: 0.95 Container: PE Thermometer ID: 108 Date/Time: 2/16/15 2:40

Temperature: (A) 0.5 °C / (C) 0.2 °C Analyst Init: RNE

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHEROLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1661										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 518/518/518										
QT EPA 515/515										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 551.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
3oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLERVE										
PCB VIAL										
PLASTIC BAG										
EDLAR BAG										
ERRORS IRON										
NCORE										
MART KIT										
UMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GP Date/Time: 2/16/15

Rev 21 06/23/2016

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805439-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 09:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 11:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 09:34
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 10:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW5	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 13:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW6	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805439-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 09:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW7	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 10:53
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW8	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 11:42
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW9	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 12:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW10	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805439-10	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 12:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW11s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805439-11	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 12:47
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW12s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805439-12	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	02/16/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-01	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW1, 2/16/2018 9:17:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	210	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	150	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	160	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	43	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	1100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	300	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	4.5	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	77	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	7.0	mg/L	0.50	0.21	EPA-351.2	ND	A07	5
Ammonia as N	1.9	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.30	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	13	mg/L	0.38	0.15	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 14:59	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 11:14	MEV	MET-1	2	B003280
3	EPA-300.0	02/16/18 19:00	02/17/18 14:03	SAV	IC5	2	B005254
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	10	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:18	JMH	SC-1	2.500	B006467
6	EPA-350.1	03/05/18 08:52	03/06/18 14:28	JMH	SC-1	1	B006594
7	EPA-353.2	02/17/18 06:58	02/17/18 06:58	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:22	JMH	SC-1	2.500	B006468

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Woodland, CA 95695

Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805439-02	Client Sample Name:	Genasci Dairy, GEN-MW2, 2/16/2018 11:17:00AM, Del-Tech/Antonio Morales					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	140	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	110	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	9.3	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	820	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	190	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	57	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	87	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.33	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	0.15	mg/L	0.050	0.010	EPA-353.2	0.011		8
Total Phosphate	0.98	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 15:12	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 11:23	MEV	MET-1	2	B003280
3	EPA-300.0	02/16/18 19:00	02/17/18 14:21	SAV	IC5	2	B005254
4	EPA-300.0	02/16/18 19:00	02/17/18 22:06	SAV	IC5	5	B005254
5	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	10	B005687
6	EPA-351.2	03/01/18 20:00	03/02/18 14:15	JMH	SC-1	1	B006467
7	EPA-350.1	03/05/18 08:52	03/06/18 14:29	JMH	SC-1	1	B006594
8	EPA-353.2	02/17/18 06:58	02/17/18 06:58	JNC	KONE-1	1	B005242
9	EPA-365.4	03/01/18 20:00	03/05/18 09:20	JMH	SC-1	1	B006468

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-03	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW3, 2/16/2018 9:34:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	420	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	330	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	470	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	790	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	1700	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	450	mg/L	50	7.7	EPA-300.0	ND	A07	3
Nitrate as N	510	mg/L	10	2.1	EPA-300.0	ND	A07	3
Sulfate	410	mg/L	100	13	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	6100	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	4.2	mg/L	0.50	0.21	EPA-351.2	ND	A07	5
Ammonia as N	0.57	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.96	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	1.4	mg/L	0.38	0.15	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 15:21	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 11:30	MEV	MET-1	2	B003280
3	EPA-300.0	02/16/18 19:00	02/17/18 14:39	SAV	IC5	100	B005254
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	20	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:20	JMH	SC-1	2.500	B006467
6	EPA-350.1	03/05/18 08:52	03/06/18 14:30	JMH	SC-1	1	B006594
7	EPA-353.2	02/17/18 06:58	02/17/18 06:58	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:22	JMH	SC-1	2.500	B006468

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500 First Street  
Woodland, CA 95695

Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-04	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW5, 2/16/2018 10:27:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	230	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	120	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	93	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	16	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	450	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	55	mg/L	10	1.5	EPA-300.0	ND	A07	3
Nitrate as N	170	mg/L	2.0	0.42	EPA-300.0	ND	A07	3
Sulfate	150	mg/L	20	2.6	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.5	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.22	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	1.7	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 15:24	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 11:40	MEV	MET-1	2	B003280
3	EPA-300.0	02/16/18 19:00	02/17/18 14:57	SAV	IC5	20	B005254
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	10	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:20	JMH	SC-1	1	B006467
6	EPA-350.1	03/05/18 08:54	03/06/18 15:08	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 06:58	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:23	JMH	SC-1	1	B006468

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500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805439-05		Client Sample Name: Genasci Dairy, GEN-MW6, 2/16/2018 1:12:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	38	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	59	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	4.5	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	280	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	25	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	66	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	68	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	920	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	0.011	J	7
Total Phosphate	1.2	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 15:27	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 11:48	MEV	MET-1	2	B003280
3	EPA-300.0	02/16/18 19:00	02/17/18 15:15	SAV	IC5	5	B005254
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:22	JMH	SC-1	1	B006467
6	EPA-350.1	03/05/18 08:54	03/06/18 14:41	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 06:58	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:23	JMH	SC-1	1	B006468

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Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-06	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW7, 2/16/2018 9:52:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	84	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	41	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	34	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	3.5	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	310	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	18	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	30	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	34	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	610	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.46	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.031	mg/L	0.050	0.010	EPA-353.2	0.011	J	7
Total Phosphate	0.38	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 15:29	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 10:30	MEV	MET-1	1	B003280
3	EPA-300.0	02/16/18 19:00	02/17/18 15:33	SAV	IC5	5	B005254
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	3.333	B005687
5	EPA-351.2	03/06/18 20:00	03/07/18 12:57	JMH	SC-1	1	B006848
6	EPA-350.1	03/05/18 08:54	03/06/18 14:41	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:03	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:24	JMH	SC-1	1	B006468

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Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805439-07	Client Sample Name:	Genasci Dairy, GEN-MW8, 2/16/2018 10:53:00AM, Del-Tech/Antonio Morales					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	340	mg/L	0.20	0.032	EPA-200.7	0.047	A07	1
Dissolved Magnesium	240	mg/L	0.10	0.038	EPA-200.7	ND	A07	1
Dissolved Sodium	210	mg/L	1.0	0.10	EPA-200.7	0.11	A07	1
Dissolved Potassium	73	mg/L	2.0	0.20	EPA-200.7	0.23	A07	1
Bicarbonate Alkalinity as CaCO3	2100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	250	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	11	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	31	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	45	mg/L	5.0	2.1	EPA-351.2	ND	A07	5
Ammonia as N	47	mg/L	5.0	1.0	EPA-350.1	ND	A07	6
Nitrite as N	0.052	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	0.60	mg/L	0.75	0.30	EPA-365.4	ND	J,A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 16:43	JCC	PE-OP2	2	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 12:25	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 15:50	SAV	IC5	2	B005254
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	10	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:59	JMH	SC-1	25	B006467
6	EPA-350.1	03/05/18 08:54	03/06/18 14:43	JMH	SC-1	50	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:04	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:26	JMH	SC-1	5	B006468

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**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-08	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW9, 2/16/2018 11:42:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	190	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	71	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	110	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	200	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	600	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	110	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	140	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	58	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.035	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.68	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	18	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 15:35	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 12:34	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 16:08	SAV	IC5	10	B005254
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	10	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:26	JMH	SC-1	1	B006467
6	EPA-350.1	03/05/18 08:54	03/06/18 14:43	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:04	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:39	JMH	SC-1	5	B006468

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**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-09	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW10, 2/16/2018 12:27:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	170	mg/L	0.10	0.016	EPA-200.7	0.024		1
Dissolved Magnesium	120	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	87	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	29	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	820	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	110	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	34	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	61	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.0	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.043	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.65	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	2.8	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:39	02/26/18 15:37	JCC	PE-OP2	1	B005537
2	SM-2320B	02/22/18 07:30	02/22/18 12:42	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 17:38	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:27	JMH	SC-1	1	B006467
6	EPA-350.1	03/05/18 08:54	03/06/18 14:44	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:04	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:27	JMH	SC-1	1	B006468

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Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-10	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW11s, 2/16/2018 12:07:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	65	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	67	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	170	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	310	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	50	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	140	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	110	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1600	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.3	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.034	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.23	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	29	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:35	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 12:48	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 18:49	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005687
5	EPA-351.2	03/01/18 20:00	03/02/18 14:27	JMH	SC-1	1	B006467
6	EPA-350.1	03/05/18 08:54	03/06/18 14:45	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:04	JNC	KONE-1	1	B005242
8	EPA-365.4	03/01/18 20:00	03/05/18 09:40	JMH	SC-1	5	B006468

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Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-11	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW12s, 2/16/2018 12:47:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	99	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	72	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	8.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	460	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	44	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	62	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	100	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.026	mg/L	0.050	0.010	EPA-353.2	0.011	J	7
Total Phosphate	0.61	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:38	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 12:11	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 19:07	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 14:00	JMH	SC-1	1	B006465
6	EPA-350.1	03/05/18 08:54	03/06/18 14:46	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:04	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:09	JMH	SC-1	1	B006466

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805439-12	<b>Client Sample Name:</b> Genasci Dairy, Field Duplicate #2, 2/16/2018 12:00:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	170	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	120	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	84	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	27	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	810	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	110	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	36	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	62	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.051	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.65	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	2.7	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:40	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 12:56	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 19:25	SAV	IC5	5	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 14:00	JMH	SC-1	1	B006465
6	EPA-350.1	03/05/18 08:54	03/06/18 14:48	JMH	SC-1	1	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:08	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:10	JMH	SC-1	1	B006466

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**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003280</b>						
Bicarbonate Alkalinity as CaCO3	B003280-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003280-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003280-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B003281</b>						
Bicarbonate Alkalinity as CaCO3	B003281-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003281-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003281-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005241</b>						
Nitrite as N	B005241-BLK1	0.011416	mg/L	0.050	0.010	J
<b>QC Batch ID: B005242</b>						
Nitrite as N	B005242-BLK1	0.010956	mg/L	0.050	0.010	J
<b>QC Batch ID: B005254</b>						
Chloride	B005254-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005254-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005254-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005255</b>						
Chloride	B005255-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005255-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005255-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005536</b>						
Dissolved Calcium	B005536-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005536-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005536-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005536-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005537</b>						
Dissolved Calcium	B005537-BLK1	0.023536	mg/L	0.10	0.016	J
Dissolved Magnesium	B005537-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005537-BLK1	0.053821	mg/L	0.50	0.051	J
Dissolved Potassium	B005537-BLK1	0.11705	mg/L	1.0	0.10	J
<b>QC Batch ID: B005687</b>						
Total Dissolved Solids @ 180 C	B005687-BLK1	ND	mg/L	6.7	6.7	

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**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005688</b>						
Total Dissolved Solids @ 180 C	B005688-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006465</b>						
Total Kjeldahl Nitrogen	B006465-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006466</b>						
Total Phosphate	B006466-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006467</b>						
Total Kjeldahl Nitrogen	B006467-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006468</b>						
Total Phosphate	B006468-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006594</b>						
Ammonia as N	B006594-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006595</b>						
Ammonia as N	B006595-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006848</b>						
Total Kjeldahl Nitrogen	B006848-BLK1	ND	mg/L	0.20	0.084	

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**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005241</b>										
Nitrite as N	B005241-BS1	LCS	0.50081	0.50000	mg/L	100		90 - 110		
<b>QC Batch ID: B005242</b>										
Nitrite as N	B005242-BS1	LCS	0.50245	0.50000	mg/L	100		90 - 110		
<b>QC Batch ID: B005254</b>										
Chloride	B005254-BS1	LCS	51.335	50.000	mg/L	103		90 - 110		
Nitrate as N	B005254-BS1	LCS	5.0130	5.0000	mg/L	100		90 - 110		
Sulfate	B005254-BS1	LCS	101.74	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B005255</b>										
Chloride	B005255-BS1	LCS	51.184	50.000	mg/L	102		90 - 110		
Nitrate as N	B005255-BS1	LCS	5.0080	5.0000	mg/L	100		90 - 110		
Sulfate	B005255-BS1	LCS	100.93	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B005536</b>										
Dissolved Calcium	B005536-BS1	LCS	10.691	10.000	mg/L	107		85 - 115		
Dissolved Magnesium	B005536-BS1	LCS	10.418	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B005536-BS1	LCS	10.691	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B005536-BS1	LCS	10.320	10.000	mg/L	103		85 - 115		
<b>QC Batch ID: B005537</b>										
Dissolved Calcium	B005537-BS1	LCS	10.666	10.000	mg/L	107		85 - 115		
Dissolved Magnesium	B005537-BS1	LCS	10.186	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B005537-BS1	LCS	10.651	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B005537-BS1	LCS	10.267	10.000	mg/L	103		85 - 115		
<b>QC Batch ID: B005687</b>										
Total Dissolved Solids @ 180 C	B005687-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B005688</b>										
Total Dissolved Solids @ 180 C	B005688-BS1	LCS	555.00	586.00	mg/L	94.7		90 - 110		
<b>QC Batch ID: B006465</b>										
Total Kjeldahl Nitrogen	B006465-BS1	LCS	1.9651	2.0000	mg/L	98.3		90 - 110		
<b>QC Batch ID: B006466</b>										
Total Phosphate	B006466-BS1	LCS	3.3790	3.0660	mg/L	110		85 - 115		
<b>QC Batch ID: B006467</b>										
Total Kjeldahl Nitrogen	B006467-BS1	LCS	1.9603	2.0000	mg/L	98.0		90 - 110		
<b>QC Batch ID: B006468</b>										

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**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B006468</b>										
Total Phosphate	B006468-BS1	LCS	3.2471	3.0660	mg/L	106		85 - 115		
<b>QC Batch ID: B006594</b>										
Ammonia as N	B006594-BS1	LCS	1.0072	1.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B006595</b>										
Ammonia as N	B006595-BS1	LCS	0.97900	1.0000	mg/L	97.9		90 - 110		
<b>QC Batch ID: B006848</b>										
Total Kjeldahl Nitrogen	B006848-BS1	LCS	1.8947	2.0000	mg/L	94.7		90 - 110		

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Woodland, CA 95695

Reported: 04/05/2018 10:53  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Genasci Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B003280</b>		Used client sample: Y - Description: GEN-MW7, 02/16/2018 09:52								
Bicarbonate Alkalinity as CaCO3	DUP	1805439-06	313.55	311.26		mg/L	0.7		10	
Carbonate Alkalinity as CaCO3	DUP	1805439-06	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805439-06	ND	ND		mg/L			10	
<b>QC Batch ID: B003281</b>		Used client sample: Y - Description: GEN-MW12s, 02/16/2018 12:47								
Bicarbonate Alkalinity as CaCO3	DUP	1805439-11	464.31	458.53		mg/L	1.3		10	
Carbonate Alkalinity as CaCO3	DUP	1805439-11	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805439-11	ND	ND		mg/L			10	
<b>QC Batch ID: B005241</b>		Used client sample: Y - Description: GEN-MW12s, 02/16/2018 12:47								
Nitrite as N	DUP	1805439-11	0.026195	0.025692		mg/L	1.9		10	J
	MS	1805439-11	0.026195	0.53962	0.52632	mg/L		97.6		90 - 110
	MSD	1805439-11	0.026195	0.54487	0.52632	mg/L	1.0	98.5	10	90 - 110
<b>QC Batch ID: B005242</b>		Used client sample: Y - Description: GEN-MW1, 02/16/2018 09:17								
Nitrite as N	DUP	1805439-01	0.29942	0.30246		mg/L	1.0		10	
	MS	1805439-01	0.29942	0.83085	0.52632	mg/L		101		90 - 110
	MSD	1805439-01	0.29942	0.82231	0.52632	mg/L	1.0	99.4	10	90 - 110
<b>QC Batch ID: B005254</b>		Used client sample: N								
Chloride	DUP	1805409-01	41.912	42.009		mg/L	0.2		10	
	MS	1805409-01	41.912	96.039	50.505	mg/L		107		80 - 120
	MSD	1805409-01	41.912	96.499	50.505	mg/L	0.5	108	10	80 - 120
Nitrate as N	DUP	1805409-01	7.0840	7.0870		mg/L	0.0		10	
	MS	1805409-01	7.0840	12.278	5.0505	mg/L		103		80 - 120
	MSD	1805409-01	7.0840	12.307	5.0505	mg/L	0.2	103	10	80 - 120
Sulfate	DUP	1805409-01	97.791	97.851		mg/L	0.1		10	
	MS	1805409-01	97.791	206.58	101.01	mg/L		108		80 - 120
	MSD	1805409-01	97.791	206.83	101.01	mg/L	0.1	108	10	80 - 120
<b>QC Batch ID: B005255</b>		Used client sample: Y - Description: GEN-MW10, 02/16/2018 12:27								
Chloride	DUP	1805439-09	106.16	107.40		mg/L	1.2		10	
	MS	1805439-09	106.16	660.00	505.05	mg/L		110		80 - 120
	MSD	1805439-09	106.16	665.00	505.05	mg/L	0.8	111	10	80 - 120
Nitrate as N	DUP	1805439-09	34.400	34.960		mg/L	1.6		10	
	MS	1805439-09	34.400	88.253	50.505	mg/L		107		80 - 120
	MSD	1805439-09	34.400	88.818	50.505	mg/L	0.6	108	10	80 - 120
Sulfate	DUP	1805439-09	61.070	61.470		mg/L	0.7		10	
	MS	1805439-09	61.070	1129.6	1010.1	mg/L		106		80 - 120
	MSD	1805439-09	61.070	1134.9	1010.1	mg/L	0.5	106	10	80 - 120
<b>QC Batch ID: B005536</b>		Used client sample: Y - Description: CAE-MW2d, 02/16/2018 16:37								

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Reported: 04/05/2018 10:53
Project: Dairy Rep MP - Expanded Suite
Project Number: Genasci Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)
Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quails. Includes QC Batch IDs B005536, B005537, B005687, B005688, B006465, and B006466.

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**Reported:** 04/05/2018 10:53  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006467</b>		Used client sample: Y - Description: GEN-MW2, 02/16/2018 11:17								
Total Kjeldahl Nitrogen	DUP	1805439-02	0.32900	0.36010		mg/L	9.0		20	
	MS	1805439-02	0.32900	1.9969	2.0000	mg/L		83.4		Q03
	MSD	1805439-02	0.32900	1.9786	2.0000	mg/L	0.9	82.5	20	90 - 110 Q03
<b>QC Batch ID: B006468</b>		Used client sample: Y - Description: GEN-MW2, 02/16/2018 11:17								
Total Phosphate	DUP	1805439-02	0.97904	1.0220		mg/L	4.3		20	
	MS	1805439-02	0.97904	4.2004	3.0660	mg/L		105		80 - 120
	MSD	1805439-02	0.97904	4.2406	3.0660	mg/L	1.0	106	20	80 - 120
<b>QC Batch ID: B006594</b>		Used client sample: N								
Ammonia as N	DUP	1806703-02	0.27950	0.25660		mg/L	8.5		10	
	MS	1806703-02	0.27950	1.3248	1.1111	mg/L		94.1		90 - 110
	MSD	1806703-02	0.27950	1.3292	1.1111	mg/L	0.3	94.5	10	90 - 110
<b>QC Batch ID: B006595</b>		Used client sample: Y - Description: GEN-MW5, 02/16/2018 10:27								
Ammonia as N	DUP	1805439-04	ND	0.020400		mg/L			10	J
	MS	1805439-04	ND	1.1780	1.1111	mg/L		106		90 - 110
	MSD	1805439-04	ND	1.1780	1.1111	mg/L	0	106	10	90 - 110
<b>QC Batch ID: B006848</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	806703-02RE'	0.23380	0.23620		mg/L	1.0		20	
	MS	806703-02RE'	0.23380	2.2722	2.0000	mg/L		102		90 - 110
	MSD	806703-02RE'	0.23380	2.1865	2.0000	mg/L	3.8	97.6	20	90 - 110

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**Project Number:** Genasci Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/19/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: J. Troost Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806411  
Invoice ID: B297501

Enclosed are the results of analyses for samples received by the laboratory on 2/27/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806411

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911							
Report to:				Analysis Requested			
Expanded Constituent Suite				From Filtered Sample:			
Project: Dairy Representative Monitoring Program				Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids			
Site: J. Troost Dairy				From Unfiltered Sample:			
Samplers Name: Antonio DEL-TECH				Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3			
Global ID - WDR100038424							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cr Pb Unpreserved		
1	TRO-MW1	2/27/18	1319	GW	x		x
2	TRO-MW2		1303		x		x
3	TRO-MW3		1301		x		x
4	Field Duplicate				x		x
5							
6							
7							
8							
9							
10							
11							
12							

Received By: <i>Mullen</i> Date & Time: 2/27/18 17:15	Received By: <i>Mullen</i> Date & Time: 2/27/18 17:50
Received By: <i>Mullen</i> Date & Time: 2/27/18 17:50	Received By: <i>Mullen</i> Date & Time: 2/27/18 17:50

Retrievished by: (Signature) *Mullen* 2/27/18 17:30  
 Retrievished by: (Signature) *Mullen* 2/27/18 17:50  
 Retrievished by: (Signature) *Mullen* 2/27/18 17:50

**Comments:**  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@lsce.com, rhyson@lsce.com, pthallixal@lsce.com, jlovells@lsce.com  
 4) Send invoices to Jeanette Lovells (jlovells@lsce.com).  
 (A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806411

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / S
--	--	--	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.93 Container: PE Thermometer ID: 206 Date/Time: 2/21/18 2:50

Temperature: (A) 1.9 °C / (C) 1.4 °C Analyst Init: RL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/623/6383										
QT EPA 515.1/6150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: Goel Date/Time: 2/21 22:19

A = Actual / C = Corrected

Rev 21 05/23/2016  
[S:\WPDoc\WordPerfect\LAB\_5061\FORMS\CHAINRECrev 20]



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J. Troost Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806411-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	J. Troost Dairy	<b>Sampling Date:</b>	02/27/2018 13:19
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TRO-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806411-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	J. Troost Dairy	<b>Sampling Date:</b>	02/27/2018 12:23
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TRO-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806411-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	J. Troost Dairy	<b>Sampling Date:</b>	02/27/2018 13:01
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TRO-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/19/2018 18:08  
Project: Dairy Rep MP - Expanded Suite  
Project Number: J. Troost Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806411-01	<b>Client Sample Name:</b> J. Troost Dairy, TRO-MW1, 2/27/2018 1:19:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	30	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	50	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	380	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	92	mg/L	0.50	0.077	EPA-300.0	ND		3
Nitrate as N	12	mg/L	0.10	0.021	EPA-300.0	ND		3
Sulfate	23	mg/L	1.0	0.13	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	560	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.61	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.047	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	4.7	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:20	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 19:04	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 15:00	03/01/18 03:56	OLH	IC1	1	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	3.333	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:46	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:58	03/14/18 19:30	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:12	JNC	KONE-1	1	B006381
8	EPA-365.4	03/13/18 10:45	03/15/18 13:47	JMH	SC-1	1	B007435

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J. Troost Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806411-02	<b>Client Sample Name:</b> J. Troost Dairy, TRO-MW2, 2/27/2018 12:23:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	36	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	58	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	270	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	120	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	85	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	30	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.36	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.021	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.37	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:22	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 19:42	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	03/01/18 04:15	OLH	IC1	5	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	5	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:48	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:58	03/14/18 19:31	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:17	JNC	KONE-1	1	B006381
8	EPA-365.4	03/13/18 10:45	03/15/18 13:48	JMH	SC-1	1	B007435

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500 First Street  
Woodland, CA 95695

Reported: 03/19/2018 18:08  
Project: Dairy Rep MP - Expanded Suite  
Project Number: J. Troost Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806411-03	Client Sample Name:	J. Troost Dairy, TRO-MW3, 2/27/2018 1:01:00PM, Del-Tech/Antonio Morales					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	31	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	51	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.5	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	290	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	99	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	45	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	18	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	740	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.21	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.72	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:25	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 19:48	MEV	MET-1	2	B005382
3	EPA-300.0	02/28/18 15:00	03/01/18 04:34	OLH	IC1	5	B006321
4	SM-2540C	03/05/18 13:00	03/05/18 13:00	CAD	MANUAL	3.333	B006623
5	EPA-351.2	03/13/18 10:45	03/16/18 13:48	JMH	SC-1	1	B007429
6	EPA-350.1	03/14/18 15:58	03/14/18 19:32	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:17	JNC	KONE-1	1	B006381
8	EPA-365.4	03/13/18 10:45	03/15/18 13:48	JMH	SC-1	1	B007435

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Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J. Troost Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005381</b>						
Bicarbonate Alkalinity as CaCO3	B005381-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005381-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005381-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005382</b>						
Bicarbonate Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005382-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B006321</b>						
Chloride	B006321-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006321-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006321-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006381</b>						
Nitrite as N	B006381-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B006623</b>						
Total Dissolved Solids @ 180 C	B006623-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006828</b>						
Dissolved Calcium	B006828-BLK1	0.017459	mg/L	0.10	0.016	J
Dissolved Magnesium	B006828-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B006828-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B006828-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B007429</b>						
Total Kjeldahl Nitrogen	B007429-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007435</b>						
Total Phosphate	B007435-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007669</b>						
Ammonia as N	B007669-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J. Troost Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006321</b>										
Chloride	B006321-BS1	LCS	51.052	50.000	mg/L	102		90 - 110		
Nitrate as N	B006321-BS1	LCS	5.0720	5.0000	mg/L	101		90 - 110		
Sulfate	B006321-BS1	LCS	100.90	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B006381</b>										
Nitrite as N	B006381-BS1	LCS	0.49387	0.50000	mg/L	98.8		90 - 110		
<b>QC Batch ID: B006623</b>										
Total Dissolved Solids @ 180 C	B006623-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B006828</b>										
Dissolved Calcium	B006828-BS1	LCS	10.393	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B006828-BS1	LCS	9.9189	10.000	mg/L	99.2		85 - 115		
Dissolved Sodium	B006828-BS1	LCS	10.232	10.000	mg/L	102		85 - 115		
Dissolved Potassium	B006828-BS1	LCS	9.9350	10.000	mg/L	99.3		85 - 115		
<b>QC Batch ID: B007429</b>										
Total Kjeldahl Nitrogen	B007429-BS1	LCS	1.9560	2.0000	mg/L	97.8		90 - 110		
<b>QC Batch ID: B007435</b>										
Total Phosphate	B007435-BS1	LCS	3.1340	3.0660	mg/L	102		85 - 115		
<b>QC Batch ID: B007669</b>										
Ammonia as N	B007669-BS1	LCS	0.98400	1.0000	mg/L	98.4		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 03/19/2018 18:08
Project: Dairy Rep MP - Expanded Suite
Project Number: J. Troost Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch IDs B005381, B005382, B006321, B006381, B006623, and B006828.

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J. Troost Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B007429</b>		Used client sample: Y - Description: SAN-MW6s, 02/27/2018 15:18								
Total Kjeldahl Nitrogen	DUP	1806413-04	0.39240	0.29250		mg/L	29.2		20	A02
	MS	1806413-04	0.39240	2.0272	2.0000	mg/L		81.7		Q03
	MSD	1806413-04	0.39240	2.0012	2.0000	mg/L	1.3	80.4	20	90 - 110
<b>QC Batch ID: B007435</b>		Used client sample: Y - Description: SAN-MW6s, 02/27/2018 15:18								
Total Phosphate	DUP	1806413-04	0.84106	0.82634		mg/L	1.8		20	
	MS	1806413-04	0.84106	3.7147	3.0660	mg/L		93.7		80 - 120
	MSD	1806413-04	0.84106	3.7947	3.0660	mg/L	2.1	96.3	20	80 - 120
<b>QC Batch ID: B007669</b>		Used client sample: Y - Description: TON-MW7s, 02/27/2018 17:15								
Ammonia as N	DUP	1806410-07	ND	ND		mg/L			10	
	MS	1806410-07	ND	1.1523	1.1111	mg/L		104		90 - 110
	MSD	1806410-07	ND	1.1376	1.1111	mg/L	1.3	102	10	90 - 110

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Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** J. Troost Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/22/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: P & L Souza Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805986  
Invoice ID: B297964

Enclosed are the results of analyses for samples received by the laboratory on 2/22/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Quality Control Reports

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## Case Narratives

### Case Narrative for Work Order 1805986

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody						
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested						
Name: Lohdorff and Scalmanini								
Address: 500 First Street								
City: Woodland								
State: 95695								
Atrn: Tili Angermann								
Project: Daily Representative Monitoring Program								
Site: P & L Souza Dairy								
Samplers Name: Antonio Del-Tech								
Global ID - GADAIRY00008								
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Fe Unpreserved	From Filtered Sample:	From Filtered Sample:	From Unfiltered Sample:
1	PLS-MW1s, PLS-MW1d-	2/22/18	1418	6w	x	Ammonia-N, NO3-N, NO2-N	Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3
2	PLS-MW2s, PLS-MW2d-		1402		x			
3	PLS-MW3s, PLS-MW3d		1507		x			
4	PLS-MW4s, PLS-MW4d		1449		x			
5	PLS-MW5s, PLS-MW5d-		1434		x			
6	PLS-MW6s, PLS-MW6d		1445		x			
7	PLS-MW7s, PLS-MW7d-		1502		x			
8	Field Duplicate #28				x			
9								
10								
11								
12								
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: jlvegnino@lsce.com, roryson@lsce.com, pdhalvial@lsce.com, jlovelis@lsce.com 4) Send invoices to Jeanette Lovelis: jlovelis@lsce.com.				Received By: <i>[Signature]</i> Date & Time: 2/22/18 17:30 Received By: <i>[Signature]</i> Date & Time: 2/22/18 18:25 Received By: <i>[Signature]</i> Date & Time: 2/22/18 22:45				

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1805986

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify): \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify): \_\_\_\_\_

FREE LIQUID: YES  NO  (W / S)

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Inhibit? Yes  No  Inhibit? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.98 Container: PE Thermometer ID: 108 Date/Time: 2/22/15

Temperature: (A) 0.10 °C / (C) 0.3 °C Analyst Init: RJC

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.I										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: 0651 Date/Time: 2/22/15 Rev 21 05/23/2016

A = Actual / C = Corrected

IS:\WP\Doc\Word\PerfectLAB\_DOC\FORMS\SI\ANREC\rev 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805986-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 14:18
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805986-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 14:02
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805986-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 15:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805986-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 14:49
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805986-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 14:34
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805986-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 13:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805986-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 13:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805986-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/22/2018 22:45
	<b>Project Number:</b>	P & L Souza Dairy	<b>Sampling Date:</b>	02/22/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #8	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805986-01		Client Sample Name: P & L Souza Dairy, PLS-MW1s, 2/22/2018 2:18:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	220	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	88	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	390	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	200	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	230	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1900	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.3	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.038	mg/L	0.10	0.020	EPA-350.1	0.030	J	6
Nitrite as N	0.042	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.26	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 19:12	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 16:17	MEV	MET-1	2	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 00:11	OLH	IC2	10	B006063
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	5	B006347
5	EPA-351.2	03/09/18 10:45	03/12/18 14:08	JMH	SC-1	1	B007152
6	EPA-350.1	03/12/18 07:45	03/14/18 12:06	JMH	SC-1	1	B007269
7	EPA-353.2	02/23/18 07:34	02/23/18 09:06	JNC	KONE-1	1	B005926
8	EPA-365.4	03/09/18 10:45	03/12/18 11:32	JMH	SC-1	1	B007148

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: P & L Souza Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805986-02	Client Sample Name:	P & L Souza Dairy, PLS-MW2s, 2/22/2018 2:02:00PM, Del-Tech/Antonio Morales					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	66	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	200	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.6	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	650	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	190	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	37	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	81	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	1.3	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.042	mg/L	0.10	0.020	EPA-350.1	0.030	J	7
Nitrite as N	0.023	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.24	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 19:14	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 16:23	MEV	MET-1	2	B005358
3	EPA-300.0	02/23/18 20:00	02/24/18 20:49	OLH	IC2	2	B006063
4	EPA-300.0	02/23/18 20:00	02/24/18 01:13	OLH	IC2	5	B006063
5	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	5	B006347
6	EPA-351.2	03/09/18 10:45	03/12/18 14:10	JMH	SC-1	1	B007152
7	EPA-350.1	03/12/18 07:45	03/14/18 12:07	JMH	SC-1	1	B007269
8	EPA-353.2	02/23/18 07:34	02/23/18 09:06	JNC	KONE-1	1	B005926
9	EPA-365.4	03/09/18 10:45	03/12/18 11:33	JMH	SC-1	1	B007148

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: P & L Souza Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805986-03	<b>Client Sample Name:</b> P & L Souza Dairy, PLS-MW3s, 2/22/2018 3:07:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	320	mg/L	0.10	0.016	EPA-200.7	0.022		1
Dissolved Magnesium	79	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	230	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	4.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	640	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	350	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	80	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	240	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.0	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.065	mg/L	0.10	0.020	EPA-350.1	0.030	J	6
Nitrite as N	0.46	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.30	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:26	02/28/18 19:17	JCC	PE-OP2	1	B005965
2	SM-2320B	03/01/18 14:00	03/01/18 17:00	MEV	MET-1	2	B005359
3	EPA-300.0	02/23/18 20:00	02/24/18 01:34	OLH	IC2	5	B006063
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006347
5	EPA-351.2	03/09/18 10:45	03/12/18 14:12	JMH	SC-1	1	B007152
6	EPA-350.1	03/12/18 07:45	03/14/18 12:10	JMH	SC-1	1	B007269
7	EPA-353.2	02/23/18 07:34	02/23/18 09:06	JNC	KONE-1	1	B005926
8	EPA-365.4	03/09/18 10:45	03/12/18 11:34	JMH	SC-1	1	B007148

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Woodland, CA 95695

Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: P & L Souza Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805986-04	Client Sample Name:	P & L Souza Dairy, PLS-MW4s, 2/22/2018 2:49:00PM, Del-Tech/Antonio Morales					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	230	mg/L	0.10	0.016	EPA-200.7	0.030		1
Dissolved Magnesium	94	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	290	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	320	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	940	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	600	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	38	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	200	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2600	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.8	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.22	mg/L	0.10	0.020	EPA-350.1	0.030		6
Nitrite as N	0.047	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.50	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:21	02/28/18 20:06	JCC	PE-OP2	1	B005963
2	SM-2320B	03/01/18 14:00	03/01/18 17:07	MEV	MET-1	2	B005359
3	EPA-300.0	02/23/18 20:00	02/24/18 01:54	OLH	IC2	5	B006063
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006347
5	EPA-351.2	03/09/18 10:45	03/12/18 14:12	JMH	SC-1	1	B007152
6	EPA-350.1	03/12/18 07:45	03/14/18 12:11	JMH	SC-1	1	B007269
7	EPA-353.2	02/23/18 07:34	02/23/18 09:10	JNC	KONE-1	1	B005926
8	EPA-365.4	03/09/18 10:45	03/12/18 11:34	JMH	SC-1	1	B007148

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Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: P & L Souza Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805986-05	Client Sample Name:	P & L Souza Dairy, PLS-MW5s, 2/22/2018 2:34:00PM, Del-Tech/Antonio Morales					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	0.030		1
Dissolved Magnesium	66	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	220	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	8.7	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	530	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	200	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	89	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	110	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.77	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.072	mg/L	0.10	0.020	EPA-350.1	0.030	J	6
Nitrite as N	0.022	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.21	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:21	02/28/18 20:08	JCC	PE-OP2	1	B005963
2	SM-2320B	03/01/18 14:00	03/01/18 17:15	MEV	MET-1	2	B005359
3	EPA-300.0	02/23/18 20:00	02/24/18 02:15	OLH	IC2	5	B006063
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006347
5	EPA-351.2	03/09/18 10:45	03/12/18 14:13	JMH	SC-1	1	B007152
6	EPA-350.1	03/12/18 07:45	03/14/18 12:11	JMH	SC-1	1	B007269
7	EPA-353.2	02/23/18 07:34	02/23/18 09:10	JNC	KONE-1	1	B005926
8	EPA-365.4	03/09/18 10:45	03/12/18 11:35	JMH	SC-1	1	B007148

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805986-06		Client Sample Name: P & L Souza Dairy, PLS-MW6s, 2/22/2018 1:45:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	170	mg/L	0.10	0.016	EPA-200.7	0.030		1
Dissolved Magnesium	49	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	360	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.9	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	790	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	250	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	41	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	240	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.96	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.043	mg/L	0.10	0.020	EPA-350.1	0.030	J	7
Nitrite as N	0.074	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.52	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:21	02/28/18 20:11	JCC	PE-OP2	1	B005963
2	SM-2320B	03/01/18 14:00	03/01/18 17:22	MEV	MET-1	2	B005359
3	EPA-300.0	02/23/18 20:00	02/24/18 02:36	OLH	IC2	2	B006063
4	EPA-300.0	02/23/18 16:00	02/24/18 09:24	OLH	IC1	5	B005879
5	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006347
6	EPA-351.2	03/09/18 10:45	03/12/18 14:14	JMH	SC-1	1	B007152
7	EPA-350.1	03/12/18 07:45	03/14/18 12:13	JMH	SC-1	1	B007269
8	EPA-353.2	02/23/18 07:34	02/23/18 09:10	JNC	KONE-1	1	B005926
9	EPA-365.4	03/09/18 10:45	03/12/18 11:35	JMH	SC-1	1	B007148

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805986-07	<b>Client Sample Name:</b> P & L Souza Dairy, PLS-MW7s, 2/22/2018 1:22:00PM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	270	mg/L	0.10	0.016	EPA-200.7	0.030		1
Dissolved Magnesium	110	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	230	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.4	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	500	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	240	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	170	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	200	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2400	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.7	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.061	mg/L	0.10	0.020	EPA-350.1	0.030	J	6
Nitrite as N	0.15	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.64	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:21	02/28/18 20:14	JCC	PE-OP2	1	B005963
2	SM-2320B	03/01/18 14:00	03/01/18 17:30	MEV	MET-1	2	B005359
3	EPA-300.0	02/23/18 20:00	02/24/18 02:56	OLH	IC2	10	B006063
4	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006347
5	EPA-351.2	03/09/18 10:45	03/12/18 14:15	JMH	SC-1	1	B007152
6	EPA-350.1	03/12/18 07:45	03/14/18 12:13	JMH	SC-1	1	B007269
7	EPA-353.2	02/23/18 07:34	02/23/18 09:10	JNC	KONE-1	1	B005926
8	EPA-365.4	03/09/18 10:45	03/12/18 11:36	JMH	SC-1	1	B007148

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805986-08		Client Sample Name: P & L Souza Dairy, Field Duplicate #8, 2/22/2018 12:00:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	220	mg/L	0.10	0.016	EPA-200.7	0.030		1
Dissolved Magnesium	91	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.0	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	390	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	240	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	140	mg/L	1.0	0.21	EPA-300.0	ND	A07	4
Sulfate	260	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	1.3	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.068	mg/L	0.10	0.020	EPA-350.1	0.030	J	7
Nitrite as N	0.038	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.26	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:21	02/28/18 20:17	JCC	PE-OP2	1	B005963
2	SM-2320B	03/01/18 14:00	03/01/18 17:37	MEV	MET-1	2	B005359
3	EPA-300.0	02/23/18 20:00	02/24/18 03:17	OLH	IC2	2	B006063
4	EPA-300.0	02/23/18 20:00	02/24/18 20:28	OLH	IC2	10	B006063
5	SM-2540C	03/01/18 12:30	03/01/18 12:30	CAD	MANUAL	10	B006347
6	EPA-351.2	03/09/18 10:45	03/12/18 14:16	JMH	SC-1	1	B007152
7	EPA-350.1	03/12/18 07:45	03/14/18 12:15	JMH	SC-1	1	B007269
8	EPA-353.2	02/23/18 07:34	02/23/18 09:10	JNC	KONE-1	1	B005926
9	EPA-365.4	03/09/18 10:45	03/12/18 11:37	JMH	SC-1	1	B007148

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005358</b>						
Bicarbonate Alkalinity as CaCO3	B005358-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005358-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005358-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005359</b>						
Bicarbonate Alkalinity as CaCO3	B005359-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005359-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005359-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005879</b>						
Nitrate as N	B005879-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B005926</b>						
Nitrite as N	B005926-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005963</b>						
Dissolved Calcium	B005963-BLK1	0.029887	mg/L	0.10	0.016	J
Dissolved Magnesium	B005963-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005963-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005963-BLK1	0.11510	mg/L	1.0	0.10	J
<b>QC Batch ID: B005965</b>						
Dissolved Calcium	B005965-BLK1	0.022264	mg/L	0.10	0.016	J
Dissolved Magnesium	B005965-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005965-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005965-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006063</b>						
Chloride	B006063-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006063-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006063-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006347</b>						
Total Dissolved Solids @ 180 C	B006347-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007148</b>						
Total Phosphate	B007148-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007152</b>						

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007152</b>						
Total Kjeldahl Nitrogen	B007152-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007269</b>						
Ammonia as N	B007269-BLK1	0.029800	mg/L	0.10	0.020	J

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**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005879</b>										
Nitrate as N	B005879-BS1	LCS	5.0200	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B005926</b>										
Nitrite as N	B005926-BS1	LCS	0.50396	0.50000	mg/L	101		90 - 110		
<b>QC Batch ID: B005963</b>										
Dissolved Calcium	B005963-BS1	LCS	10.468	10.000	mg/L	105		85 - 115		
Dissolved Magnesium	B005963-BS1	LCS	10.798	10.000	mg/L	108		85 - 115		
Dissolved Sodium	B005963-BS1	LCS	10.425	10.000	mg/L	104		85 - 115		
Dissolved Potassium	B005963-BS1	LCS	10.090	10.000	mg/L	101		85 - 115		
<b>QC Batch ID: B005965</b>										
Dissolved Calcium	B005965-BS1	LCS	10.303	10.000	mg/L	103		85 - 115		
Dissolved Magnesium	B005965-BS1	LCS	10.555	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B005965-BS1	LCS	10.398	10.000	mg/L	104		85 - 115		
Dissolved Potassium	B005965-BS1	LCS	10.031	10.000	mg/L	100		85 - 115		
<b>QC Batch ID: B006063</b>										
Chloride	B006063-BS1	LCS	51.309	50.000	mg/L	103		90 - 110		
Nitrate as N	B006063-BS1	LCS	5.1010	5.0000	mg/L	102		90 - 110		
Sulfate	B006063-BS1	LCS	102.75	100.00	mg/L	103		90 - 110		
<b>QC Batch ID: B006347</b>										
Total Dissolved Solids @ 180 C	B006347-BS1	LCS	600.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B007148</b>										
Total Phosphate	B007148-BS1	LCS	3.2186	3.0660	mg/L	105		85 - 115		
<b>QC Batch ID: B007152</b>										
Total Kjeldahl Nitrogen	B007152-BS1	LCS	1.9201	2.0000	mg/L	96.0		90 - 110		
<b>QC Batch ID: B007269</b>										
Ammonia as N	B007269-BS1	LCS	1.0040	1.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: P & L Souza Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005358</b>		Used client sample: Y - Description: BET-MW1s, 02/22/2018 11:27								
Bicarbonate Alkalinity as CaCO3	DUP	1805985-01	72.110	68.460		mg/L	5.2		10	
Carbonate Alkalinity as CaCO3	DUP	1805985-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805985-01	ND	ND		mg/L			10	
<b>QC Batch ID: B005359</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1806370-02	105.73	107.41		mg/L	1.6		10	
Carbonate Alkalinity as CaCO3	DUP	1806370-02	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806370-02	ND	ND		mg/L			10	
<b>QC Batch ID: B005879</b>		Used client sample: N								
Nitrate as N	DUP	1805979-04	ND	ND		mg/L			10	
	MS	1805979-04	ND	5.2394	5.0505	mg/L		104		80 - 120
	MSD	1805979-04	ND	5.3081	5.0505	mg/L	1.3	105	10	80 - 120
<b>QC Batch ID: B005926</b>		Used client sample: Y - Description: PLS-MW1s, 02/22/2018 14:18								
Nitrite as N	DUP	1805986-01	0.042039	0.042539		mg/L	1.2		10	J
	MS	1805986-01	0.042039	0.56600	0.52632	mg/L		99.6		90 - 110
	MSD	1805986-01	0.042039	0.56503	0.52632	mg/L	0.2	99.4	10	90 - 110
<b>QC Batch ID: B005963</b>		Used client sample: N								
Dissolved Calcium	DUP	1806028-01	57.384	58.736		mg/L	2.3		20	
	MS	1806028-01	57.384	68.047	10.204	mg/L		105		85 - 115
	MSD	1806028-01	57.384	67.303	10.204	mg/L	1.1	97.2	20	85 - 115
Dissolved Magnesium	DUP	1806028-01	36.075	36.086		mg/L	0.0		20	
	MS	1806028-01	36.075	46.740	10.204	mg/L		105		85 - 115
	MSD	1806028-01	36.075	46.708	10.204	mg/L	0.1	104	20	85 - 115
Dissolved Sodium	DUP	1806028-01	108.36	111.49		mg/L	2.8		20	
	MS	1806028-01	108.36	117.20	10.204	mg/L		86.6		85 - 115
	MSD	1806028-01	108.36	118.14	10.204	mg/L	0.8	95.8	20	85 - 115
Dissolved Potassium	DUP	1806028-01	0.64278	0.53961		mg/L	17.5		20	J
	MS	1806028-01	0.64278	10.437	10.204	mg/L		96.0		85 - 115
	MSD	1806028-01	0.64278	10.367	10.204	mg/L	0.7	95.3	20	85 - 115
<b>QC Batch ID: B005965</b>		Used client sample: Y - Description: BET-MW3s, 02/22/2018 12:12								
Dissolved Calcium	DUP	1805985-03	121.76	122.28		mg/L	0.4		20	
	MS	1805985-03	121.76	130.40	10.204	mg/L		84.7		85 - 115 A03
	MSD	1805985-03	121.76	130.62	10.204	mg/L	0.2	86.8	20	85 - 115
Dissolved Magnesium	DUP	1805985-03	37.953	37.982		mg/L	0.1		20	
	MS	1805985-03	37.953	48.038	10.204	mg/L		98.8		85 - 115
	MSD	1805985-03	37.953	47.565	10.204	mg/L	1.0	94.2	20	85 - 115

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/22/2018 15:57  
Project: Dairy Rep MP - Expanded Suite  
Project Number: P & L Souza Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005965</b>		Used client sample: Y - Description: BET-MW3s, 02/22/2018 12:12								
Dissolved Sodium	DUP	1805985-03	49.599	49.776		mg/L	0.4		20	
	MS	1805985-03	49.599	59.087	10.204	mg/L		93.0		85 - 115
	MSD	1805985-03	49.599	59.064	10.204	mg/L	0.0	92.8	20	85 - 115
Dissolved Potassium	DUP	1805985-03	44.950	45.374		mg/L	0.9		20	
	MS	1805985-03	44.950	54.522	10.204	mg/L		93.8		85 - 115
	MSD	1805985-03	44.950	54.582	10.204	mg/L	0.1	94.4	20	85 - 115
<b>QC Batch ID: B006063</b>		Used client sample: Y - Description: PLS-MW1s, 02/22/2018 14:18								
Chloride	DUP	1805986-01	201.56	205.97		mg/L	2.2		10	
	MS	1805986-01	201.56	798.36	505.05	mg/L		118		80 - 120
	MSD	1805986-01	201.56	798.67	505.05	mg/L	0.0	118	10	80 - 120
Nitrate as N	DUP	1805986-01	128.83	130.53		mg/L	1.3		10	
	MS	1805986-01	128.83	184.00	50.505	mg/L		109		80 - 120
	MSD	1805986-01	128.83	183.94	50.505	mg/L	0.0	109	10	80 - 120
Sulfate	DUP	1805986-01	226.48	230.57		mg/L	1.8		10	
	MS	1805986-01	226.48	1369.7	1010.1	mg/L		113		80 - 120
	MSD	1805986-01	226.48	1367.6	1010.1	mg/L	0.1	113	10	80 - 120
<b>QC Batch ID: B006347</b>		Used client sample: Y - Description: PLS-MW1s, 02/22/2018 14:18								
Total Dissolved Solids @ 180 C	DUP	1805986-01	1905.0	1900.0		mg/L	0.3		10	
<b>QC Batch ID: B007148</b>		Used client sample: Y - Description: ADO-MW1d, 02/23/2018 09:37								
Total Phosphate	DUP	1806082-01	0.19716	0.11253		mg/L	54.7		20	J,A02
	MS	1806082-01	0.19716	3.3566	3.0660	mg/L		103		80 - 120
	MSD	1806082-01	0.19716	3.3323	3.0660	mg/L	0.7	102	20	80 - 120
<b>QC Batch ID: B007152</b>		Used client sample: Y - Description: ADO-MW1d, 02/23/2018 09:37								
Total Kjeldahl Nitrogen	DUP	1806082-01	0.19980	0.17290		mg/L	14.4		20	J
	MS	1806082-01	0.19980	2.2041	2.0000	mg/L		100		90 - 110
	MSD	1806082-01	0.19980	2.1820	2.0000	mg/L	1.0	99.1	20	90 - 110
<b>QC Batch ID: B007269</b>		Used client sample: Y - Description: BET-MW8s, 02/22/2018 09:27								
Ammonia as N	DUP	1805985-08	0.036900	0.028300		mg/L	26.4		10	J,A02
	MS	1805985-08	0.036900	1.1267	1.1111	mg/L		98.1		90 - 110
	MSD	1805985-08	0.036900	1.1267	1.1111	mg/L	0	98.1	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 15:57  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** P & L Souza Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/12/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Paul Caetano Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805440  
Invoice ID: B296588

Enclosed are the results of analyses for samples received by the laboratory on 2/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805440

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Analysis Requested					
From Unfiltered Sample:	From Filtered Sample:	From Filtered Sample:	From Filtered Sample:		
Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	Ammonia-N, NO3-N, NO2-N			
<b>Report to:</b> Expanded Constituent Suite Name: Luthorff and Scalmimini Address: 500 First Street City: Woodland State: 95695 Alt: Till Angermann Project: Dairy Representative Monitoring Program Site: Paul Caetano Dairy Samplers Name: Antonia Del-Tech Global ID - GADAIRY00009					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pa Unpreserved
1	CAE-MW1a, CAE-MW1d	2/16/18	1558	GW	x
2	CAE-MW2a, CAE-MW2d		1637		x
3	CAE-MW3a, CAE-MW3d		1659		x
4	CAE-MW4a, CAE-MW4d		1615		x
5	CAE-MW5a, CAE-MW5d		1531		x
6	CAE-MW6a, CAE-MW6d		1516		x
7	Field-Duplicate				x
8					
9					
10					
11					
12					
Comments: 1) Where indicated, samples shall be filtered (0.45um) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luthorff and Scalmimini Consulting Engineers via email: jllovelis@lsc.com, rryson@lsc.com, pdhaliwa@lsc.com, jllovelis@lsc.com 4) Send invoices to Jeanette Lovells (jlovelis@lsc.com). (A)= Analysis (C)= Container (P)= Preservative					
Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)		Date & Time Date & Time Date & Time			
Received By: [Signature] Received By: [Signature] Received By: [Signature]		Date & Time Date & Time Date & Time			

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1805440

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify): \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify): \_\_\_\_\_

FREE LIQUID: YES  NO  / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.98 Container: PE Thermometer ID: 108 Date/Time: 2/16/16 2:40

Temperature: (A) 0.5 °C / (C) 10.2 °C Analyst Init: RNE

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
OT PE UNPRES	A	A	A	A	A	A				
4oz/8oz/16oz PB UNPRES										
2oz Cr <sup>6+</sup>										
OT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz/8oz/16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
OT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
OT EPA 505/508/5080										
OT EPA 515.1/5150										
OT EPA 525										
OT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
OT EPA 549										
OT EPA 5015M										
OT EPA 5570										
3oz / 16oz / 32oz AMBER										
10x / 16oz / 32oz IAR										
10IL SLEVE										
1CB VIAL										
ELASTIC BAG										
EDLAR BAG										
FERROUS IRON										
NCORE										
MART KIT										
UMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: Gas Date/Time: 2/16/2015

Rev 21 05/23/2016

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805440-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b>	02/16/2018 15:58
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CAE-MW1d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805440-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b>	02/16/2018 16:37
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CAE-MW2d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805440-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b>	02/16/2018 16:59
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CAE-MW3d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805440-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b>	02/16/2018 16:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CAE-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805440-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b>	02/16/2018 15:31
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CAE-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805440-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/16/2018 21:40
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b>	02/16/2018 15:16
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CAE-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and	
			Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805440-01	<b>Client Sample Name:</b> Paul Caetano Dairy, CAE-MW1d, 2/16/2018 3:58:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	96	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	45	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	110	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	230	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	1100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	88	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	35	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	56	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	130	mg/L	10	4.2	EPA-351.2	ND	A07	5
Ammonia as N	130	mg/L	25	5.0	EPA-350.1	ND	A07	6
Nitrite as N	0.013	mg/L	0.050	0.010	EPA-353.2	0.011	J	7
Total Phosphate	5.0	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:14	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 13:05	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 19:43	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	10	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 15:14	JMH	SC-1	50	B006465
6	EPA-350.1	03/05/18 08:54	03/06/18 15:24	JMH	SC-1	250	B006595
7	EPA-353.2	02/17/18 06:58	02/17/18 07:08	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:11	JMH	SC-1	5	B006466

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500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Paul Caetano Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805440-02	Client Sample Name:	Paul Caetano Dairy, CAE-MW2d, 2/16/2018 4:37:00PM, Del-Tech/Antonio Morales					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	98	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	23	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	92	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	28	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	240	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	49	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	53	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	63	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	840	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.5	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.073	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	0.48	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:01	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 13:14	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 20:01	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	3.333	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 14:04	JMH	SC-1	1	B006465
6	EPA-350.1	03/05/18 08:56	03/06/18 14:52	JMH	SC-1	1	B006596
7	EPA-353.2	02/17/18 06:58	02/17/18 07:08	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:12	JMH	SC-1	1	B006466

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805440-03		Client Sample Name: Paul Caetano Dairy, CAE-MW3d, 2/16/2018 4:59:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	32	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	11	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	45	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	280	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	290	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	27	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	55	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	55	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	960	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.051	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	9.9	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:24	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 13:21	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 20:19	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 14:06	JMH	SC-1	1	B006465
6	EPA-350.1	03/05/18 08:56	03/06/18 14:56	JMH	SC-1	1	B006596
7	EPA-353.2	02/17/18 06:58	02/17/18 07:08	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:37	JMH	SC-1	5	B006466

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805440-04		Client Sample Name: Paul Caetano Dairy, CAE-MW4s, 2/16/2018 4:15:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	190	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	44	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	30	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	230	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	120	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	80	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1600	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.1	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.038	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.070	mg/L	0.050	0.010	EPA-353.2	0.011		7
Total Phosphate	8.5	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:27	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 13:27	MEV	MET-1	2	B003281
3	EPA-300.0	02/16/18 19:00	02/17/18 21:13	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 14:06	JMH	SC-1	1	B006465
6	EPA-350.1	03/05/18 08:56	03/06/18 14:57	JMH	SC-1	1	B006596
7	EPA-353.2	02/17/18 06:58	02/17/18 07:08	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:38	JMH	SC-1	5	B006466

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805440-05		Client Sample Name: Paul Caetano Dairy, CAE-MW5s, 2/16/2018 3:31:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	29	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	46	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	240	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	18	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	58	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	38	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	740	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.58	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.040	mg/L	0.050	0.010	EPA-353.2	0.011	J	7
Total Phosphate	0.46	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:30	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 14:37	MEV	MET-1	2	B005322
3	EPA-300.0	02/16/18 19:00	02/17/18 21:30	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	3.333	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 14:07	JMH	SC-1	1	B006465
6	EPA-350.1	03/05/18 08:56	03/06/18 14:59	JMH	SC-1	1	B006596
7	EPA-353.2	02/17/18 06:58	02/17/18 07:08	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:14	JMH	SC-1	1	B006466

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Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Paul Caetano Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805440-06	Client Sample Name:	Paul Caetano Dairy, CAE-MW6s, 2/16/2018 3:16:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	58	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	65	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	63	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	360	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	66	mg/L	5.0	0.77	EPA-300.0	ND	A07	3	
Nitrate as N	68	mg/L	1.0	0.21	EPA-300.0	ND	A07	3	
Sulfate	80	mg/L	10	1.3	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	1.5	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	0.026	mg/L	0.10	0.020	EPA-350.1	ND	J	6	
Nitrite as N	0.010	mg/L	0.050	0.010	EPA-353.2	0.011	J	7	
Total Phosphate	0.40	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/21/18 09:38	02/26/18 16:32	JCC	PE-OP2	1	B005536
2	SM-2320B	02/22/18 07:30	02/22/18 14:43	MEV	MET-1	2	B005322
3	EPA-300.0	02/16/18 19:00	02/17/18 21:48	SAV	IC5	10	B005255
4	SM-2540C	02/22/18 13:00	02/22/18 13:00	CAD	MANUAL	5	B005688
5	EPA-351.2	03/01/18 20:00	03/02/18 14:08	JMH	SC-1	1	B006465
6	EPA-350.1	03/05/18 08:56	03/06/18 15:01	JMH	SC-1	1	B006596
7	EPA-353.2	02/17/18 06:58	02/17/18 07:09	JNC	KONE-1	1	B005241
8	EPA-365.4	03/01/18 20:00	03/05/18 09:15	JMH	SC-1	1	B006466

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B003281</b>						
Bicarbonate Alkalinity as CaCO3	B003281-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B003281-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B003281-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005241</b>						
Nitrite as N	B005241-BLK1	0.011416	mg/L	0.050	0.010	J
<b>QC Batch ID: B005255</b>						
Chloride	B005255-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005255-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005255-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005322</b>						
Bicarbonate Alkalinity as CaCO3	B005322-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005322-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005322-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005536</b>						
Dissolved Calcium	B005536-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005536-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005536-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005536-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005688</b>						
Total Dissolved Solids @ 180 C	B005688-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006465</b>						
Total Kjeldahl Nitrogen	B006465-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006466</b>						
Total Phosphate	B006466-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006595</b>						
Ammonia as N	B006595-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006596</b>						
Ammonia as N	B006596-BLK1	ND	mg/L	0.10	0.020	

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**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005241</b>										
Nitrite as N	B005241-BS1	LCS	0.50081	0.50000	mg/L	100		90 - 110		
<b>QC Batch ID: B005255</b>										
Chloride	B005255-BS1	LCS	51.184	50.000	mg/L	102		90 - 110		
Nitrate as N	B005255-BS1	LCS	5.0080	5.0000	mg/L	100		90 - 110		
Sulfate	B005255-BS1	LCS	100.93	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B005536</b>										
Dissolved Calcium	B005536-BS1	LCS	10.691	10.000	mg/L	107		85 - 115		
Dissolved Magnesium	B005536-BS1	LCS	10.418	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B005536-BS1	LCS	10.691	10.000	mg/L	107		85 - 115		
Dissolved Potassium	B005536-BS1	LCS	10.320	10.000	mg/L	103		85 - 115		
<b>QC Batch ID: B005688</b>										
Total Dissolved Solids @ 180 C	B005688-BS1	LCS	555.00	586.00	mg/L	94.7		90 - 110		
<b>QC Batch ID: B006465</b>										
Total Kjeldahl Nitrogen	B006465-BS1	LCS	1.9651	2.0000	mg/L	98.3		90 - 110		
<b>QC Batch ID: B006466</b>										
Total Phosphate	B006466-BS1	LCS	3.3790	3.0660	mg/L	110		85 - 115		
<b>QC Batch ID: B006595</b>										
Ammonia as N	B006595-BS1	LCS	0.97900	1.0000	mg/L	97.9		90 - 110		
<b>QC Batch ID: B006596</b>										
Ammonia as N	B006596-BS1	LCS	1.0150	1.0000	mg/L	102		90 - 110		

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Reported: 03/12/2018 9:38  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Paul Caetano Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry) Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B003281</b>		Used client sample: Y - Description: GEN-MW12s, 02/16/2018 12:47								
Bicarbonate Alkalinity as CaCO3	DUP	1805439-11	464.31	458.53		mg/L	1.3		10	
Carbonate Alkalinity as CaCO3	DUP	1805439-11	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805439-11	ND	ND		mg/L			10	
<b>QC Batch ID: B005241</b>		Used client sample: Y - Description: GEN-MW12s, 02/16/2018 12:47								
Nitrite as N	DUP	1805439-11	0.026195	0.025692		mg/L	1.9		10	J
	MS	1805439-11	0.026195	0.53962	0.52632	mg/L		97.6		90 - 110
	MSD	1805439-11	0.026195	0.54487	0.52632	mg/L	1.0	98.5	10	90 - 110
<b>QC Batch ID: B005255</b>		Used client sample: Y - Description: GEN-MW10, 02/16/2018 12:27								
Chloride	DUP	1805439-09	106.16	107.40		mg/L	1.2		10	
	MS	1805439-09	106.16	660.00	505.05	mg/L		110		80 - 120
	MSD	1805439-09	106.16	665.00	505.05	mg/L	0.8	111	10	80 - 120
Nitrate as N	DUP	1805439-09	34.400	34.960		mg/L	1.6		10	
	MS	1805439-09	34.400	88.253	50.505	mg/L		107		80 - 120
	MSD	1805439-09	34.400	88.818	50.505	mg/L	0.6	108	10	80 - 120
Sulfate	DUP	1805439-09	61.070	61.470		mg/L	0.7		10	
	MS	1805439-09	61.070	1129.6	1010.1	mg/L		106		80 - 120
	MSD	1805439-09	61.070	1134.9	1010.1	mg/L	0.5	106	10	80 - 120
<b>QC Batch ID: B005322</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805739-03	139.51	136.77		mg/L	2.0		10	
Carbonate Alkalinity as CaCO3	DUP	1805739-03	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805739-03	ND	ND		mg/L			10	
<b>QC Batch ID: B005536</b>		Used client sample: Y - Description: CAE-MW2d, 02/16/2018 16:37								
Dissolved Calcium	DUP	1805440-02	98.112	95.957		mg/L	2.2		20	
	MS	1805440-02	98.112	104.79	10.204	mg/L		65.5		85 - 115 A03
	MSD	1805440-02	98.112	108.19	10.204	mg/L	3.2	98.8	20	85 - 115
Dissolved Magnesium	DUP	1805440-02	23.047	23.240		mg/L	0.8		20	
	MS	1805440-02	23.047	32.949	10.204	mg/L		97.0		85 - 115
	MSD	1805440-02	23.047	32.656	10.204	mg/L	0.9	94.2	20	85 - 115
Dissolved Sodium	DUP	1805440-02	91.824	89.188		mg/L	2.9		20	
	MS	1805440-02	91.824	98.819	10.204	mg/L		68.6		85 - 115 A03
	MSD	1805440-02	91.824	102.24	10.204	mg/L	3.4	102	20	85 - 115
Dissolved Potassium	DUP	1805440-02	27.621	26.811		mg/L	3.0		20	
	MS	1805440-02	27.621	37.372	10.204	mg/L		95.6		85 - 115
	MSD	1805440-02	27.621	37.178	10.204	mg/L	0.5	93.7	20	85 - 115
<b>QC Batch ID: B005688</b>		Used client sample: Y - Description: CAE-MW1d, 02/16/2018 15:58								
Total Dissolved Solids @ 180 C	DUP	1805440-01	1350.0	1330.0		mg/L	1.5		10	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006465</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1805438-06	0.26220	0.31470		mg/L	18.2		20	
	MS	1805438-06	0.26220	2.1282	2.0000	mg/L		93.3		90 - 110
	MSD	1805438-06	0.26220	2.0980	2.0000	mg/L	1.4	91.8	20	90 - 110
<b>QC Batch ID: B006466</b>		Used client sample: N								
Total Phosphate	DUP	1805438-06	2.3251	2.3653		mg/L	1.7		20	
	MS	1805438-06	2.3251	5.5452	3.0660	mg/L		105		80 - 120
	MSD	1805438-06	2.3251	5.3990	3.0660	mg/L	2.7	100	20	80 - 120
<b>QC Batch ID: B006595</b>		Used client sample: Y - Description: GEN-MW5, 02/16/2018 10:27								
Ammonia as N	DUP	1805439-04	ND	0.020400		mg/L			10	J
	MS	1805439-04	ND	1.1780	1.1111	mg/L		106		90 - 110
	MSD	1805439-04	ND	1.1780	1.1111	mg/L	0	106	10	90 - 110
<b>QC Batch ID: B006596</b>		Used client sample: Y - Description: CAE-MW2d, 02/16/2018 16:37								
Ammonia as N	DUP	1805440-02	ND	ND		mg/L			10	
	MS	1805440-02	ND	1.2041	1.1111	mg/L		108		90 - 110
	MSD	1805440-02	ND	1.1896	1.1111	mg/L	1.2	107	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 9:38  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/14/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Robert Gioletti & Son Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805633  
Invoice ID: B296911

Enclosed are the results of analyses for samples received by the laboratory on 2/20/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805633

Samples were filtered through a 0.45 micron filter for requested analysis.



1805633

BC Laboratories, Inc.

4100 Atlas Ct.  
Bakersfield, CA 93308  
(861) 327-4911

Chain of Custody

Report to:

Expanded Constituent Suite

Project: Dairy Representative Monitoring Program

Site: Robert Gioielli & Sons Dairy / 10/1/2018

Samplers Name: Antonio Del-Tech

Global ID - GADAIRY00010

Analysis Requested

From Filtered Sample:  
Ammonia-N, NO3-N,  
NO2-N

From Filtered Sample:  
Na, K, Mg, Ca, Cl,  
SO4 (as SO4),  
Total Dissolved Solids

From Unfiltered Sample:  
Total Kjeldahl Nitrogen,  
Total Phosphate (as PO4),  
Alkalinity (HCO3, CO3 & OH) as  
CaCO3

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
- 1	ROB-MW1s, ROB-MW1d	2/20/18	1158	SW	x
- 2	ROB-MW2s, ROB-MW2d		1214		x
- 3	ROB-MW3s, ROB-MW3d		1230		x
- 4	ROB-MW4s, ROB-MW4d		1118		x
- 5	ROB-MW5s, ROB-MW5d		1139		x
- 6	ROB-MW6s, ROB-MW6d		1000		x
- 7	ROB-MW7s, ROB-MW7d		1032		x
- 8	ROB-MW8s, ROB-MW8d		1057		x
9	Field Duplicate				x
10					x
11					x
12					x

SHORT HOLDING TIME		CHECKY	
Cr <sup>6+</sup>	NO <sub>2</sub>	NO <sub>3</sub>	SS
DO	Cl <sub>2</sub>	BOD	MBAS
		COT	

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Luthdorff and Scalmanini Consulting Engineers via email:  
 llavagnino@isce.com, rnyson@isce.com, pthallwa@isce.com,  
 jvelles@isce.com  
 4) Send invoices to Jeanette Lovells (jlovells@isce.com).

Relinquished by: (Signature) *Antonio Del-Tech* Date & Time: 2/20/18 1730  
 Relinquished by: (Signature) *Antonio Del-Tech* Date & Time: 2/20/18 18:30  
 Relinquished by: (Signature) *Antonio Del-Tech* Date & Time: 2/20/18 2300

(A)= Analysis (C)= Container (P)= Preservative



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1805633

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> W S	
--	--	--	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 106 Date/Time: 2/20/16 13:00

Temperature: (A) 1.2 °C (C) 0.9 °C Analyst Init: WJL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/616/8380										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 54E										
QT EPA 549										
QT EPA 801501										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 2/20/16 13:29 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805633-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 11:58
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	DEI-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805633-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 12:14
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805633-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 12:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805633-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 11:18
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805633-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 11:39
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW5d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805633-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 10:02
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805633-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 10:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805633-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/20/2018 23:00
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	02/20/2018 10:57
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805633-01	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW1s, 2/20/2018 11:58:00AM, DEI-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	290	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	94	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	110	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	890	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	260	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	94	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	56	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	9.1	mg/L	0.50	0.21	EPA-351.2	ND	A07	5
Ammonia as N	7.6	mg/L	0.50	0.10	EPA-350.1	ND		6
Nitrite as N	0.60	mg/L	0.10	0.020	EPA-353.2	ND	A07	7
Total Phosphate	11	mg/L	0.38	0.15	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:36	02/26/18 20:56	JCC	PE-OP2	1	B005972
2	SM-2320B	02/26/18 08:00	02/26/18 12:43	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/21/18 20:04	SAV	IC8	10	B005637
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005898
5	EPA-351.2	03/08/18 19:40	03/09/18 14:26	JMH	SC-1	2.500	B006734
6	EPA-350.1	03/06/18 13:20	03/08/18 13:13	JMH	SC-1	5	B006800
7	EPA-353.2	02/21/18 06:54	02/21/18 07:48	JNC	KONE-1	2	B005691
8	EPA-365.4	03/05/18 21:00	03/07/18 09:34	JMH	SC-1	2.500	B006735

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805633-02		Client Sample Name: Robert Gioletti & Son Dairy, ROB-MW2s, 2/20/2018 12:14:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	280	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	84	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	110	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	130	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	580	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	160	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	160	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	100	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2200	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.3	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.041	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	7.0	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:36	02/26/18 20:59	JCC	PE-OP2	1	B005972
2	SM-2320B	02/26/18 08:00	02/26/18 12:49	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/22/18 04:09	OLH	IC8	10	B005637
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005898
5	EPA-351.2	03/08/18 19:40	03/09/18 14:27	JMH	SC-1	1	B006734
6	EPA-350.1	03/06/18 13:20	03/08/18 13:15	JMH	SC-1	1	B006800
7	EPA-353.2	02/21/18 06:54	02/21/18 07:11	JNC	KONE-1	1	B005691
8	EPA-365.4	03/05/18 21:00	03/07/18 09:56	JMH	SC-1	5	B006735

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Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805633-03		Client Sample Name: Robert Gioletti & Son Dairy, ROB-MW3s, 2/20/2018 12:30:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	250	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	83	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	15	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	630	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	250	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	49	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	98	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.75	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	1.8	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:36	02/26/18 21:01	JCC	PE-OP2	1	B005972
2	SM-2320B	02/26/18 08:00	02/26/18 12:58	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/21/18 21:30	SAV	IC8	2	B005637
4	EPA-300.0	02/21/18 13:00	02/22/18 04:47	OLH	IC8	5	B005637
5	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	5	B005898
6	EPA-351.2	03/08/18 19:40	03/09/18 14:27	JMH	SC-1	1	B006734
7	EPA-350.1	03/06/18 13:20	03/08/18 13:17	JMH	SC-1	1	B006800
8	EPA-353.2	02/21/18 06:54	02/21/18 07:11	JNC	KONE-1	1	B005691
9	EPA-365.4	03/05/18 21:00	03/07/18 09:37	JMH	SC-1	1	B006735

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**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805633-04		Client Sample Name: Robert Gioletti & Son Dairy, ROB-MW4s, 2/20/2018 11:18:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	220	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	78	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	260	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	6.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	500	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	54	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	250	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.91	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	0.025	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.13	mg/L	0.15	0.060	EPA-365.4	ND	J	9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:36	02/26/18 21:04	JCC	PE-OP2	1	B005972
2	SM-2320B	02/26/18 08:00	02/26/18 13:04	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/21/18 21:49	SAV	IC8	2	B005637
4	EPA-300.0	02/21/18 13:00	02/22/18 05:06	OLH	IC8	5	B005637
5	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005898
6	EPA-351.2	03/08/18 19:40	03/09/18 14:29	JMH	SC-1	1	B006734
7	EPA-350.1	03/06/18 13:20	03/08/18 13:17	JMH	SC-1	1	B006800
8	EPA-353.2	02/21/18 06:54	02/21/18 07:11	JNC	KONE-1	1	B005691
9	EPA-365.4	03/05/18 21:00	03/07/18 09:37	JMH	SC-1	1	B006735

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**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805633-05		Client Sample Name: Robert Gioletti & Son Dairy, ROB-MW5d, 2/20/2018 11:39:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	280	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	96	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	150	mg/L	0.50	0.051	EPA-200.7	0.059		1
Dissolved Potassium	5.3	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	630	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	320	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	76	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	79	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.96	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	5.5	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:45	02/26/18 21:50	JCC	PE-OP2	1	B005974
2	SM-2320B	02/26/18 08:00	02/26/18 13:12	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/21/18 22:08	SAV	IC8	5	B005637
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005898
5	EPA-351.2	03/08/18 19:40	03/09/18 14:29	JMH	SC-1	1	B006734
6	EPA-350.1	03/06/18 13:20	03/08/18 13:19	JMH	SC-1	1	B006800
7	EPA-353.2	02/21/18 06:54	02/21/18 07:11	JNC	KONE-1	1	B005691
8	EPA-365.4	03/05/18 21:00	03/07/18 09:38	JMH	SC-1	1	B006735

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**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805633-06		Client Sample Name: Robert Gioletti & Son Dairy, ROB-MW6s, 2/20/2018 10:02:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	94	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	0.059		1
Dissolved Potassium	250	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	1300	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	390	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	7.2	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	82	mg/L	1.0	0.13	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	92	mg/L	5.0	2.1	EPA-351.2	ND	A07	6
Ammonia as N	93	mg/L	5.0	1.0	EPA-350.1	ND	A07	7
Nitrite as N	0.014	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	4.6	mg/L	0.75	0.30	EPA-365.4	ND	A07	9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:45	02/26/18 21:53	JCC	PE-OP2	1	B005974
2	SM-2320B	02/26/18 08:00	02/26/18 13:19	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/22/18 05:25	OLH	IC8	2	B005637
4	EPA-300.0	02/21/18 13:00	02/21/18 22:27	SAV	IC8	1	B005637
5	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	10	B005898
6	EPA-351.2	03/08/18 19:40	03/09/18 14:46	JMH	SC-1	25	B006734
7	EPA-350.1	03/06/18 13:20	03/08/18 13:19	JMH	SC-1	50	B006800
8	EPA-353.2	02/21/18 06:54	02/21/18 07:54	JNC	KONE-1	1	B005691
9	EPA-365.4	03/05/18 21:00	03/07/18 09:38	JMH	SC-1	5	B006735

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**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805633-07	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW7s, 2/20/2018 10:32:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	41	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	81	mg/L	0.50	0.051	EPA-200.7	0.059		1
Dissolved Potassium	13	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	270	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	130	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	65	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	60	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.36	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	4.5	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:45	02/26/18 21:56	JCC	PE-OP2	1	B005974
2	SM-2320B	02/26/18 08:00	02/26/18 12:05	MEV	MET-1	2	B005335
3	EPA-300.0	02/21/18 13:00	02/21/18 23:24	SAV	IC8	5	B005637
4	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	5	B005898
5	EPA-351.2	03/05/18 23:00	03/07/18 15:51	JMH	SC-1	1	B006736
6	EPA-350.1	03/06/18 13:20	03/08/18 13:20	JMH	SC-1	1	B006800
7	EPA-353.2	02/21/18 06:54	02/21/18 07:13	JNC	KONE-1	1	B005691
8	EPA-365.4	03/05/18 23:00	03/07/18 10:47	JMH	SC-1	1	B006737

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Reported: 03/14/2018 9:02  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Robert Gioletti & Son Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805633-08	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW8s, 2/20/2018 10:57:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	250	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	84	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	0.059		1
Dissolved Potassium	4.5	mg/L	1.0	0.10	EPA-200.7	0.12		1
Bicarbonate Alkalinity as CaCO3	760	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	190	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	96	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.76	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.33	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:45	02/26/18 21:58	JCC	PE-OP2	1	B005974
2	SM-2320B	02/26/18 08:00	02/26/18 13:57	MEV	MET-1	2	B005336
3	EPA-300.0	02/21/18 13:00	02/21/18 23:43	SAV	IC8	2	B005637
4	EPA-300.0	02/21/18 13:00	02/22/18 06:03	OLH	IC8	5	B005637
5	SM-2540C	02/26/18 10:30	02/26/18 10:30	CAD	MANUAL	5	B005898
6	EPA-351.2	03/05/18 23:00	03/07/18 15:53	JMH	SC-1	1	B006736
7	EPA-350.1	03/06/18 13:20	03/08/18 13:21	JMH	SC-1	1	B006800
8	EPA-353.2	02/21/18 06:54	02/21/18 07:13	JNC	KONE-1	1	B005691
9	EPA-365.4	03/05/18 23:00	03/07/18 10:48	JMH	SC-1	1	B006737

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**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005335</b>						
Bicarbonate Alkalinity as CaCO3	B005335-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005335-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005335-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005336</b>						
Bicarbonate Alkalinity as CaCO3	B005336-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005336-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005336-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005637</b>						
Chloride	B005637-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005637-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005637-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005691</b>						
Nitrite as N	B005691-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005898</b>						
Total Dissolved Solids @ 180 C	B005898-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B005972</b>						
Dissolved Calcium	B005972-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005972-BLK1	ND	mg/L	0.050	0.019	
<b>Dissolved Sodium</b>	<b>B005972-BLK1</b>	<b>0.054075</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
Dissolved Potassium	B005972-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005974</b>						
Dissolved Calcium	B005974-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005974-BLK1	ND	mg/L	0.050	0.019	
<b>Dissolved Sodium</b>	<b>B005974-BLK1</b>	<b>0.059077</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
<b>Dissolved Potassium</b>	<b>B005974-BLK1</b>	<b>0.12151</b>	<b>mg/L</b>	<b>1.0</b>	<b>0.10</b>	<b>J</b>
<b>QC Batch ID: B006734</b>						
Total Kjeldahl Nitrogen	B006734-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006735</b>						
Total Phosphate	B006735-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006736</b>						

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B006736</b>						
Total Kjeldahl Nitrogen	B006736-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006737</b>						
Total Phosphate	B006737-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B006800</b>						
Ammonia as N	B006800-BLK1	ND	mg/L	0.10	0.020	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005637</b>										
Chloride	B005637-BS1	LCS	50.776	50.000	mg/L	102		90 - 110		
Nitrate as N	B005637-BS1	LCS	4.9360	5.0000	mg/L	98.7		90 - 110		
Sulfate	B005637-BS1	LCS	99.881	100.00	mg/L	99.9		90 - 110		
<b>QC Batch ID: B005691</b>										
Nitrite as N	B005691-BS1	LCS	0.48999	0.50000	mg/L	98.0		90 - 110		
<b>QC Batch ID: B005898</b>										
Total Dissolved Solids @ 180 C	B005898-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
<b>QC Batch ID: B005972</b>										
Dissolved Calcium	B005972-BS1	LCS	10.563	10.000	mg/L	106		85 - 115		
Dissolved Magnesium	B005972-BS1	LCS	10.425	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B005972-BS1	LCS	11.002	10.000	mg/L	110		85 - 115		
Dissolved Potassium	B005972-BS1	LCS	10.438	10.000	mg/L	104		85 - 115		
<b>QC Batch ID: B005974</b>										
Dissolved Calcium	B005974-BS1	LCS	10.443	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B005974-BS1	LCS	10.222	10.000	mg/L	102		85 - 115		
Dissolved Sodium	B005974-BS1	LCS	10.936	10.000	mg/L	109		85 - 115		
Dissolved Potassium	B005974-BS1	LCS	10.323	10.000	mg/L	103		85 - 115		
<b>QC Batch ID: B006734</b>										
Total Kjeldahl Nitrogen	B006734-BS1	LCS	2.0347	2.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B006735</b>										
Total Phosphate	B006735-BS1	LCS	3.0831	3.0660	mg/L	101		85 - 115		
<b>QC Batch ID: B006736</b>										
Total Kjeldahl Nitrogen	B006736-BS1	LCS	1.9020	2.0000	mg/L	95.1		90 - 110		
<b>QC Batch ID: B006737</b>										
Total Phosphate	B006737-BS1	LCS	3.1916	3.0660	mg/L	104		85 - 115		
<b>QC Batch ID: B006800</b>										
Ammonia as N	B006800-BS1	LCS	0.93720	1.0000	mg/L	93.7		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 03/14/2018 9:02
Project: Dairy Rep MP - Expanded Suite
Project Number: Robert Gioletti & Son Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC batches B005335, B005336, B005637, B005691, B005898, and B005972.

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/14/2018 9:02  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Robert Gioletti & Son Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005974</b>		Used client sample: N								
Dissolved Calcium	DUP	1805724-01	5.8483	5.8926		mg/L	0.8		20	
	MS	1805724-01	5.8483	16.108	10.204	mg/L		101		85 - 115
	MSD	1805724-01	5.8483	16.145	10.204	mg/L	0.2	101	20	85 - 115
Dissolved Magnesium	DUP	1805724-01	6.8826	6.8426		mg/L	0.6		20	
	MS	1805724-01	6.8826	17.009	10.204	mg/L		99.2		85 - 115
	MSD	1805724-01	6.8826	16.729	10.204	mg/L	1.7	96.5	20	85 - 115
Dissolved Sodium	DUP	1805724-01	91.532	91.879		mg/L	0.4		20	
	MS	1805724-01	91.532	103.32	10.204	mg/L		116		85 - 115 A03
	MSD	1805724-01	91.532	103.75	10.204	mg/L	0.4	120	20	85 - 115 A03
Dissolved Potassium	DUP	1805724-01	281.40	282.32		mg/L	0.3		20	
	MS	1805724-01	281.40	294.24	10.204	mg/L		126		85 - 115 A03
	MSD	1805724-01	281.40	295.85	10.204	mg/L	0.5	142	20	85 - 115 A03
<b>QC Batch ID: B006734</b>		Used client sample: Y - Description: MEN-MW5s, 02/20/2018 14:57								
Total Kjeldahl Nitrogen	DUP	1805632-05	1.1436	1.2026		mg/L	5.0		20	
	MS	1805632-05	1.1436	2.9068	2.0000	mg/L		88.2		90 - 110 Q03
	MSD	1805632-05	1.1436	3.0784	2.0000	mg/L	5.7	96.7	20	90 - 110
<b>QC Batch ID: B006735</b>		Used client sample: Y - Description: MEN-MW5s, 02/20/2018 14:57								
Total Phosphate	DUP	1805632-05	0.67824	0.75183		mg/L	10.3		20	
	MS	1805632-05	0.67824	3.7236	3.0660	mg/L		99.3		80 - 120
	MSD	1805632-05	0.67824	3.8214	3.0660	mg/L	2.6	103	20	80 - 120
<b>QC Batch ID: B006736</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Total Kjeldahl Nitrogen	DUP	1805761-01	0.43680	0.56720		mg/L	26.0		20	A02
	MS	1805761-01	0.43680	2.3979	2.0000	mg/L		98.1		90 - 110
	MSD	1805761-01	0.43680	2.4382	2.0000	mg/L	1.7	100	20	90 - 110
<b>QC Batch ID: B006737</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Total Phosphate	DUP	1805761-01	ND	ND		mg/L			20	
	MS	1805761-01	ND	3.2851	3.0660	mg/L		107		80 - 120
	MSD	1805761-01	ND	3.2143	3.0660	mg/L	2.2	105	20	80 - 120
<b>QC Batch ID: B006800</b>		Used client sample: Y - Description: MAP-MW10, 02/21/2018 13:01								
Ammonia as N	DUP	1805761-01	ND	ND		mg/L			10	
	MS	1805761-01	ND	1.0453	1.1111	mg/L		94.1		90 - 110
	MSD	1805761-01	ND	1.0734	1.1111	mg/L	2.7	96.6	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/14/2018 9:02  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Robert Gioletti & Son Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 04/04/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Woods Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806562  
Invoice ID: B297689

Enclosed are the results of analyses for samples received by the laboratory on 2/28/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000721325

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806562

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name:	Luhdorff and Scalmanini		Expanded Constituent Suite		
Address:	500 First Street		Project: Dairy Representative Monitoring Program		
City:	Woodland		Site: Woods Dairy		
State:	CA		Samplers Name: Del Tech / Steg Young		
Attr:	Till Angermann		Global ID - WDO100006551		
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl Pe Unpreserved
1	WOO-MW1	2/28/18	11:20	GW	x
2	WOO-MW2	2/28/18	11:46	GW	x
3	WOO-MW3	2/28/18	10:54	GW	x
4	Blank Duplicate				x
5					
6					
7					
8					
9					
10					
11					
12					
From Filtered Sample:		From Filtered Sample:		From Unfiltered Sample:	
Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids		Ammonia-N, NO3-N, NO2-N		Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
<p>Comments:</p> <p>1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.</p> <p>2) Lab reports shall identify sampled wells exactly as shown on this CoC.</p> <p>3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: luvapnco@lscce.com, rtrysom@lscce.com, pdhallwal@lscce.com, jlovells@lscce.com</p> <p>4) Send invoices to Jeanette Lovells (jlovells@lscce.com).</p>					
Relinquished by: (Signature)		Relinquished by: (Signature)		Relinquished by: (Signature)	
Date & Time		Date & Time		Date & Time	
2/28/18 2:28 PM		2/28/18 1:18 PM		2/28/18 2:20 PM	

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# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806562

SHIPPING INFORMATION  
Fed Ex  UPS  Ontrac  Hand Delivery   
BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER  
Ice Chest  None  Box   
Other  (Specify) \_\_\_\_\_

FREE LIQUID  
YES  NO   
(W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  
 YES  NO

Emissivity: 0.93 Container: PE Thermometer ID: 208

Date/Time 2/28/18 2000

Temperature: (A) 1.7 °C / (C) 1.4 °C

Analyst Init RDL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL, METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 588/608/8080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 567										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 801SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
Sample Numbering Completed By: CSL Date/Time: 2/28 2235  
A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/04/2018 11:20  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Woods Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806562-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/28/2018 22:00
	<b>Project Number:</b>	Woods Dairy	<b>Sampling Date:</b>	02/28/2018 11:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	WOO-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806562-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/28/2018 22:00
	<b>Project Number:</b>	Woods Dairy	<b>Sampling Date:</b>	02/28/2018 11:46
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	WOO-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806562-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/28/2018 22:00
	<b>Project Number:</b>	Woods Dairy	<b>Sampling Date:</b>	02/28/2018 10:54
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	WOO-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 04/04/2018 11:20  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Woods Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806562-01		Client Sample Name: Woods Dairy, WOO-MW1, 2/28/2018 11:20:00AM, Del-Tech/Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	54	mg/L	0.050	0.019	EPA-200.7	0.020		1
Dissolved Sodium	96	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	520	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	100	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	22	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	69	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	880	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.099	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	0.056	mg/L	0.10	0.020	EPA-350.1	0.042	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.53	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:15	03/09/18 15:11	JCC	PE-OP2	1	B006834
2	SM-2320B	03/07/18 12:00	03/07/18 16:08	MEV	MET-1	2	B005387
3	EPA-300.0	02/28/18 23:00	03/01/18 13:29	OLH	IC2	2	B006397
4	SM-2540C	03/05/18 16:00	03/05/18 16:00	CAD	MANUAL	5	B006628
5	EPA-351.2	03/13/18 19:30	03/16/18 10:59	JMH	SC-1	1	B007521
6	EPA-350.1	03/14/18 15:59	03/14/18 19:50	JMH	SC-1	1	B007670
7	EPA-353.2	03/01/18 06:48	03/01/18 06:54	JNC	KONE-1	1	B006387
8	EPA-365.4	03/13/18 19:30	03/15/18 11:40	JMH	SC-1	1	B007522

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 04/04/2018 11:20  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Woods Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806562-02	Client Sample Name:	Woods Dairy, WOO-MW2, 2/28/2018 11:46:00AM, Del-Tech/Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	56	mg/L	0.050	0.019	EPA-200.7	0.020		1	
Dissolved Sodium	68	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	480	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	72	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	25	mg/L	0.20	0.042	EPA-300.0	ND	A07	3	
Sulfate	33	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	810	mg/L	33	33	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.12	mg/L	0.20	0.084	EPA-351.2	ND	J	5	
Ammonia as N	0.033	mg/L	0.10	0.020	EPA-350.1	0.042	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.42	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:15	03/09/18 15:13	JCC	PE-OP2	1	B006834
2	SM-2320B	03/07/18 12:00	03/07/18 16:15	MEV	MET-1	2	B005387
3	EPA-300.0	02/28/18 23:00	03/01/18 13:49	OLH	IC2	2	B006397
4	SM-2540C	03/05/18 16:00	03/05/18 16:00	CAD	MANUAL	3.333	B006628
5	EPA-351.2	03/13/18 19:30	03/16/18 11:03	JMH	SC-1	1	B007521
6	EPA-350.1	03/14/18 15:59	03/14/18 19:52	JMH	SC-1	1	B007670
7	EPA-353.2	03/01/18 06:48	03/01/18 06:56	JNC	KONE-1	1	B006387
8	EPA-365.4	03/13/18 19:30	03/15/18 11:43	JMH	SC-1	1	B007522

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/04/2018 11:20  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Woods Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806562-03		Client Sample Name: Woods Dairy, WOO-MW3, 2/28/2018 10:54:00AM, Del-Tech/Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	160	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	63	mg/L	0.050	0.019	EPA-200.7	0.020		1
Dissolved Sodium	100	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	470	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	99	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	57	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.20	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.025	mg/L	0.10	0.020	EPA-350.1	0.042	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.086	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:15	03/19/18 17:12	JCC	PE-OP2	1	B006834
2	SM-2320B	03/07/18 12:00	03/07/18 16:22	MEV	MET-1	2	B005387
3	EPA-300.0	02/28/18 23:00	03/01/18 11:25	OLH	IC2	5	B006397
4	SM-2540C	03/05/18 16:00	03/05/18 16:00	CAD	MANUAL	5	B006628
5	EPA-351.2	03/13/18 19:30	03/16/18 11:05	JMH	SC-1	1	B007521
6	EPA-350.1	03/14/18 15:59	03/14/18 19:52	JMH	SC-1	1	B007670
7	EPA-353.2	03/01/18 06:48	03/01/18 06:56	JNC	KONE-1	1	B006387
8	EPA-365.4	03/13/18 19:30	03/15/18 11:44	JMH	SC-1	1	B007522

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Woodland, CA 95695

**Reported:** 04/04/2018 11:20  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Woods Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005387</b>						
Bicarbonate Alkalinity as CaCO3	B005387-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005387-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005387-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B006387</b>						
Nitrite as N	B006387-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B006397</b>						
Chloride	B006397-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006397-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006397-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006628</b>						
Total Dissolved Solids @ 180 C	B006628-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006834</b>						
Dissolved Calcium	B006834-BLK1	ND	mg/L	0.10	0.016	
<b>Dissolved Magnesium</b>	<b>B006834-BLK1</b>	<b>0.020398</b>	<b>mg/L</b>	<b>0.050</b>	<b>0.019</b>	<b>J</b>
Dissolved Sodium	B006834-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B006834-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B007521</b>						
Total Kjeldahl Nitrogen	B007521-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007522</b>						
Total Phosphate	B007522-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007670</b>						
Ammonia as N	<b>B007670-BLK1</b>	<b>0.042400</b>	<b>mg/L</b>	<b>0.10</b>	<b>0.020</b>	<b>J</b>

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Woodland, CA 95695

**Reported:** 04/04/2018 11:20  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Woods Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006387</b>										
Nitrite as N	B006387-BS1	LCS	0.49303	0.50000	mg/L	98.6		90 - 110		
<b>QC Batch ID: B006397</b>										
Chloride	B006397-BS1	LCS	54.754	50.000	mg/L	110		90 - 110		
Nitrate as N	B006397-BS1	LCS	5.3860	5.0000	mg/L	108		90 - 110		
Sulfate	B006397-BS1	LCS	108.72	100.00	mg/L	109		90 - 110		
<b>QC Batch ID: B006628</b>										
Total Dissolved Solids @ 180 C	B006628-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B006834</b>										
Dissolved Calcium	B006834-BS1	LCS	9.9728	10.000	mg/L	99.7		85 - 115		
Dissolved Magnesium	B006834-BS1	LCS	9.7374	10.000	mg/L	97.4		85 - 115		
Dissolved Sodium	B006834-BS1	LCS	9.6839	10.000	mg/L	96.8		85 - 115		
Dissolved Potassium	B006834-BS1	LCS	9.5714	10.000	mg/L	95.7		85 - 115		
<b>QC Batch ID: B007521</b>										
Total Kjeldahl Nitrogen	B007521-BS1	LCS	1.8845	2.0000	mg/L	94.2		90 - 110		
<b>QC Batch ID: B007522</b>										
Total Phosphate	B007522-BS1	LCS	3.1143	3.0660	mg/L	102		85 - 115		
<b>QC Batch ID: B007670</b>										
Ammonia as N	B007670-BS1	LCS	1.0072	1.0000	mg/L	101		90 - 110		

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Woodland, CA 95695

Reported: 04/04/2018 11:20
Project: Dairy Rep MP - Expanded Suite
Project Number: Woods Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Qualls. Includes QC Batch IDs B005387, B006387, B006397, B006628, B006834, and B007521.

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 04/04/2018 11:20  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Woods Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B007522</b>		Used client sample: Y - Description: WOO-MW1, 02/28/2018 11:20								
Total Phosphate	DUP	1806562-01	0.52524	0.61017		mg/L	15.0		20	
	MS	1806562-01	0.52524	3.6914	3.0660	mg/L		103		80 - 120
	MSD	1806562-01	0.52524	3.5464	3.0660	mg/L	4.0	98.5	20	80 - 120
<b>QC Batch ID: B007670</b>		Used client sample: Y - Description: SAN-MW1d, 02/27/2018 16:27								
Ammonia as N	DUP	1806413-01	0.077300	0.039900		mg/L	63.8		10	J,A02
	MS	1806413-01	0.077300	1.1736	1.1111	mg/L		98.7		90 - 110
	MSD	1806413-01	0.077300	1.1736	1.1111	mg/L	0	98.7	10	90 - 110

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Woodland, CA 95695

**Reported:** 04/04/2018 11:20  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Woods Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q01 Sample precision is not within the control limits.



Date of Report: 03/15/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Antone L. Gomes & Sons Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805835  
Invoice ID: B297086

Enclosed are the results of analyses for samples received by the laboratory on 2/21/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805835

Samples were filtered through a 0.45 micron filter for requested analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 2

Submission #: 18-05835

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify): \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify): \_\_\_\_\_

FREE LIQUID: YES  NO  W / S \_\_\_\_\_

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Instruct? Yes  No  Instruct? Yes  No  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO Emissivity: 0.98 Container: PE Thermometer ID: 2050 Date/Time: 2/22/18 2245

Temperature: (A) 0.5 °C / (C) 0.2 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz C <sup>14</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
3oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 2-22-18 [Signature] Rev 21 05/23/2016

A = Actual / C = Corrected

(S:\WPDoc\WordPerfect\LAB\_COC\FORMS\SAMRECrev 20)



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805835-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Antone L. Gomes & Sons Dairy	<b>Sampling Date:</b>	02/21/2018 13:02
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANT-MW1d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805835-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Antone L. Gomes & Sons Dairy	<b>Sampling Date:</b>	02/21/2018 13:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANT-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805835-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Antone L. Gomes & Sons Dairy	<b>Sampling Date:</b>	02/21/2018 13:56
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANT-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805835-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Antone L. Gomes & Sons Dairy	<b>Sampling Date:</b>	02/21/2018 13:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANT-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1805835-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Antone L. Gomes & Sons Dairy	<b>Sampling Date:</b>	02/21/2018 12:46
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANT-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805835-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Antone L. Gomes & Sons Dairy	<b>Sampling Date:</b>	02/21/2018 14:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ANT-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
			<b>Metal Analysis:</b>	2-Lab Filtered and Acidified past 15 minute holding time

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805835-01		<b>Client Sample Name:</b> Antone L. Gomes & Sons Dairy, ANT-MW1d, 2/21/2018 1:02:00PM, Del-Tech/Antonio Morales						
<b>Constituent</b>	<b>Result</b>	<b>Units</b>	<b>PQL</b>	<b>MDL</b>	<b>Method</b>	<b>MB Bias</b>	<b>Lab Quals</b>	<b>Run #</b>
Dissolved Calcium	160	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	110	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	150	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	5.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	650	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	180	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	51	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	120	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.58	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.039	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.010	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.081	mg/L	0.15	0.060	EPA-365.4	ND	J	8

<b>Run #</b>	<b>Method</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Analyst</b>	<b>Instrument</b>	<b>Dilution</b>	<b>QC Batch ID</b>
1	EPA-200.7	02/26/18 09:36	02/26/18 20:21	JCC	PE-OP2	1	B005972
2	SM-2320B	02/27/18 08:00	02/27/18 14:14	MEV	MET-1	2	B005344
3	EPA-300.0	02/22/18 23:30	02/23/18 03:08	OLH	IC1	5	B005825
4	SM-2540C	02/27/18 11:00	02/27/18 11:00	CAD	MANUAL	10	B006124
5	EPA-351.2	03/06/18 20:00	03/09/18 11:08	JMH	SC-1	1	B006845
6	EPA-350.1	03/06/18 13:21	03/08/18 13:30	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:40	JNC	KONE-1	1	B005917
8	EPA-365.4	03/06/18 20:00	03/09/18 15:54	JMH	SC-1	1	B006846

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Woodland, CA 95695

Reported: 03/15/2018 13:43  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Antone L. Gomes & Sons Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805835-02	Client Sample Name:	Antone L. Gomes & Sons Dairy, ANT-MW2s, 2/21/2018 1:22:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	98	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	150	mg/L	0.50	0.051	EPA-200.7	0.054		1	
Dissolved Potassium	3.5	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	500	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	220	mg/L	1.0	0.15	EPA-300.0	ND	A07	3	
Nitrate as N	37	mg/L	0.20	0.042	EPA-300.0	ND	A07	3	
Sulfate	170	mg/L	2.0	0.26	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.30	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.17	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:36	02/26/18 20:34	JCC	PE-OP2	1	B005972
2	SM-2320B	02/27/18 08:00	02/27/18 14:21	MEV	MET-1	2	B005344
3	EPA-300.0	02/22/18 23:30	02/23/18 10:25	OLH	IC1	2	B005825
4	SM-2540C	02/27/18 11:00	02/27/18 11:00	CAD	MANUAL	5	B006124
5	EPA-351.2	03/06/18 20:00	03/09/18 11:10	JMH	SC-1	1	B006845
6	EPA-350.1	03/06/18 13:21	03/08/18 13:31	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:40	JNC	KONE-1	1	B005917
8	EPA-365.4	03/06/18 20:00	03/09/18 15:55	JMH	SC-1	1	B006846

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Reported: 03/15/2018 13:43  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Antone L. Gomes & Sons Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805835-03	Client Sample Name:	Antone L. Gomes & Sons Dairy, ANT-MW3s, 2/21/2018 1:56:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	180	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	110	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	150	mg/L	0.50	0.051	EPA-200.7	0.054		1	
Dissolved Potassium	3.5	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	530	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	230	mg/L	2.5	0.38	EPA-300.0	ND	A07	3	
Nitrate as N	59	mg/L	0.50	0.10	EPA-300.0	ND	A07	3	
Sulfate	160	mg/L	5.0	0.65	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.14	mg/L	0.20	0.084	EPA-351.2	ND	J	5	
Ammonia as N	0.026	mg/L	0.10	0.020	EPA-350.1	ND	J	6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.20	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:36	02/26/18 20:45	JCC	PE-OP2	1	B005972
2	SM-2320B	02/27/18 08:00	02/27/18 14:29	MEV	MET-1	2	B005344
3	EPA-300.0	02/22/18 23:30	02/23/18 03:46	OLH	IC1	5	B005825
4	SM-2540C	02/27/18 11:00	02/27/18 11:00	CAD	MANUAL	10	B006124
5	EPA-351.2	03/06/18 20:00	03/09/18 11:12	JMH	SC-1	1	B006845
6	EPA-350.1	03/06/18 13:21	03/08/18 13:31	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:45	JNC	KONE-1	1	B005917
8	EPA-365.4	03/06/18 20:00	03/09/18 15:56	JMH	SC-1	1	B006846

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**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805835-04		<b>Client Sample Name:</b> Antone L. Gomes & Sons Dairy, ANT-MW4s, 2/21/2018 1:40:00PM, Del-Tech/Antonio Morales						
<b>Constituent</b>	<b>Result</b>	<b>Units</b>	<b>PQL</b>	<b>MDL</b>	<b>Method</b>	<b>MB Bias</b>	<b>Lab Quals</b>	<b>Run #</b>
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	110	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	210	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	690	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	190	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	23	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	150	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.20	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.029	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	1.7	mg/L	0.15	0.060	EPA-365.4	ND		8

<b>Run #</b>	<b>Method</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Analyst</b>	<b>Instrument</b>	<b>Dilution</b>	<b>QC Batch ID</b>
1	EPA-200.7	02/26/18 09:36	02/26/18 20:48	JCC	PE-OP2	1	B005972
2	SM-2320B	02/27/18 08:00	02/27/18 14:35	MEV	MET-1	2	B005344
3	EPA-300.0	02/22/18 23:30	02/23/18 04:43	OLH	IC1	2	B005826
4	SM-2540C	02/27/18 11:00	02/27/18 11:00	CAD	MANUAL	5	B006124
5	EPA-351.2	03/06/18 20:00	03/09/18 11:12	JMH	SC-1	1	B006845
6	EPA-350.1	03/06/18 13:21	03/08/18 13:33	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:45	JNC	KONE-1	1	B005917
8	EPA-365.4	03/06/18 20:00	03/09/18 15:56	JMH	SC-1	1	B006846

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**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805835-05		<b>Client Sample Name:</b> Antone L. Gomes & Sons Dairy, ANT-MW5s, 2/21/2018 12:46:00PM, Del-Tech/Antonio Morales						
<b>Constituent</b>	<b>Result</b>	<b>Units</b>	<b>PQL</b>	<b>MDL</b>	<b>Method</b>	<b>MB Bias</b>	<b>Lab Quals</b>	<b>Run #</b>
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	91	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	130	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	5.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	580	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	170	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	24	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	110	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.52	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.15	0.060	EPA-365.4	ND		8

<b>Run #</b>	<b>Method</b>	<b>Prep Date</b>	<b>Run Date/Time</b>	<b>Analyst</b>	<b>Instrument</b>	<b>Dilution</b>	<b>QC Batch ID</b>
1	EPA-200.7	02/26/18 09:36	02/26/18 20:51	JCC	PE-OP2	1	B005972
2	SM-2320B	02/27/18 08:00	02/27/18 14:44	MEV	MET-1	2	B005344
3	EPA-300.0	02/22/18 23:30	02/23/18 10:06	OLH	IC1	2	B005826
4	SM-2540C	02/27/18 11:00	02/27/18 11:00	CAD	MANUAL	5	B006124
5	EPA-351.2	03/09/18 20:00	03/10/18 11:34	JMH	SC-1	1	B007219
6	EPA-350.1	03/06/18 13:21	03/08/18 13:33	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:45	JNC	KONE-1	1	B005917
8	EPA-365.4	03/09/18 20:00	03/12/18 09:15	JMH	SC-1	1	B007220

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**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805835-06		Client Sample Name: Antone L. Gomes & Sons Dairy, ANT-MW6s, 2/21/2018 2:17:00PM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	63	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	68	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	100	mg/L	0.50	0.051	EPA-200.7	0.054		1
Dissolved Potassium	64	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	400	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	110	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	110	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	900	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.25	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.029	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	ND	mg/L	0.38	0.15	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:36	02/26/18 20:53	JCC	PE-OP2	1	B005972
2	SM-2320B	02/27/18 08:00	02/27/18 14:51	MEV	MET-1	2	B005344
3	EPA-300.0	02/22/18 23:30	02/23/18 05:21	OLH	IC1	2	B005826
4	SM-2540C	02/27/18 11:00	02/27/18 11:00	CAD	MANUAL	5	B006124
5	EPA-351.2	03/09/18 20:00	03/10/18 11:36	JMH	SC-1	1	B007219
6	EPA-350.1	03/06/18 13:21	03/08/18 13:35	JMH	SC-1	1	B006801
7	EPA-353.2	02/22/18 08:03	02/22/18 13:45	JNC	KONE-1	1	B005917
8	EPA-365.4	03/09/18 20:00	03/12/18 09:17	JMH	SC-1	2.500	B007220

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**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005344</b>						
Bicarbonate Alkalinity as CaCO3	B005344-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005344-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005344-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005825</b>						
Chloride	B005825-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005825-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005825-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005826</b>						
Chloride	B005826-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005826-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005826-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005917</b>						
Nitrite as N	B005917-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005972</b>						
Dissolved Calcium	B005972-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005972-BLK1	ND	mg/L	0.050	0.019	
<b>Dissolved Sodium</b>	<b>B005972-BLK1</b>	<b>0.054075</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
Dissolved Potassium	B005972-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006124</b>						
Total Dissolved Solids @ 180 C	B006124-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006801</b>						
Ammonia as N	B006801-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006845</b>						
Total Kjeldahl Nitrogen	B006845-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B006846</b>						
Total Phosphate	B006846-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007219</b>						
Total Kjeldahl Nitrogen	B007219-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007220</b>						
Total Phosphate	B007220-BLK1	ND	mg/L	0.15	0.060	

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**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005825</b>										
Chloride	B005825-BS1	LCS	52.938	50.000	mg/L	106		90 - 110		
Nitrate as N	B005825-BS1	LCS	5.1810	5.0000	mg/L	104		90 - 110		
Sulfate	B005825-BS1	LCS	104.98	100.00	mg/L	105		90 - 110		
<b>QC Batch ID: B005826</b>										
Chloride	B005826-BS1	LCS	52.506	50.000	mg/L	105		90 - 110		
Nitrate as N	B005826-BS1	LCS	5.1330	5.0000	mg/L	103		90 - 110		
Sulfate	B005826-BS1	LCS	103.85	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B005917</b>										
Nitrite as N	B005917-BS1	LCS	0.50341	0.50000	mg/L	101		90 - 110		
<b>QC Batch ID: B005972</b>										
Dissolved Calcium	B005972-BS1	LCS	10.563	10.000	mg/L	106		85 - 115		
Dissolved Magnesium	B005972-BS1	LCS	10.425	10.000	mg/L	104		85 - 115		
Dissolved Sodium	B005972-BS1	LCS	11.002	10.000	mg/L	110		85 - 115		
Dissolved Potassium	B005972-BS1	LCS	10.438	10.000	mg/L	104		85 - 115		
<b>QC Batch ID: B006124</b>										
Total Dissolved Solids @ 180 C	B006124-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B006801</b>										
Ammonia as N	B006801-BS1	LCS	0.94080	1.0000	mg/L	94.1		90 - 110		
<b>QC Batch ID: B006845</b>										
Total Kjeldahl Nitrogen	B006845-BS1	LCS	2.0855	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B006846</b>										
Total Phosphate	B006846-BS1	LCS	3.4970	3.0660	mg/L	114		85 - 115		
<b>QC Batch ID: B007219</b>										
Total Kjeldahl Nitrogen	B007219-BS1	LCS	1.9359	2.0000	mg/L	96.8		90 - 110		
<b>QC Batch ID: B007220</b>										
Total Phosphate	B007220-BS1	LCS	3.2560	3.0660	mg/L	106		85 - 115		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 03/15/2018 13:43
Project: Dairy Rep MP - Expanded Suite
Project Number: Antone L. Gomes & Sons Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch IDs B005344, B005825, B005826, B005917, and B005972.

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/15/2018 13:43  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Antone L. Gomes & Sons Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005972</b>		Used client sample: Y - Description: ANT-MW1d, 02/21/2018 13:02								
Dissolved Potassium	DUP	1805835-01	5.7901	5.7998		mg/L	0.2		20	
	MS	1805835-01	5.7901	16.151	10.204	mg/L		102		85 - 115
	MSD	1805835-01	5.7901	16.247	10.204	mg/L	0.6	102	20	85 - 115
<b>QC Batch ID: B006124</b>		Used client sample: Y - Description: ANT-MW1d, 02/21/2018 13:02								
Total Dissolved Solids @ 180 C	DUP	1805835-01	1400.0	1390.0		mg/L	0.7		10	
<b>QC Batch ID: B006801</b>		Used client sample: Y - Description: ZON-MW3B, 02/21/2018 11:37								
Ammonia as N	DUP	1805764-01	ND	ND		mg/L			10	
	MS	1805764-01	ND	1.0421	1.1111	mg/L		93.8		90 - 110
	MSD	1805764-01	ND	1.0566	1.1111	mg/L	1.4	95.1	10	90 - 110
<b>QC Batch ID: B006845</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1805825-03	0.11770	0.14280		mg/L	19.3		20	J
	MS	1805825-03	0.11770	2.1260	2.0000	mg/L		100		90 - 110
	MSD	1805825-03	0.11770	2.1543	2.0000	mg/L	1.3	102	20	90 - 110
<b>QC Batch ID: B006846</b>		Used client sample: N								
Total Phosphate	DUP	1805825-03	1.0076	0.16465		mg/L	144		20	Q01
	MS	1805825-03	1.0076	3.3848	3.0660	mg/L		77.5		80 - 120 Q03
	MSD	1805825-03	1.0076	3.3363	3.0660	mg/L	1.4	76.0	20	80 - 120 Q03
<b>QC Batch ID: B007219</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1806028-01	ND	ND		mg/L			20	
	MS	1806028-01	ND	1.9288	2.0000	mg/L		96.4		90 - 110
	MSD	1806028-01	ND	1.9917	2.0000	mg/L	3.2	99.6	20	90 - 110
<b>QC Batch ID: B007220</b>		Used client sample: N								
Total Phosphate	DUP	1806028-01	0.32287	0.28240		mg/L	13.4		20	
	MS	1806028-01	0.32287	3.5957	3.0660	mg/L		107		80 - 120
	MSD	1806028-01	0.32287	3.6304	3.0660	mg/L	1.0	108	20	80 - 120

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/15/2018 13:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Antone L. Gomes & Sons Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q01 Sample precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/19/2018

Jeanette Kinzie

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Correia Family Dairy

BCL Project: Dairy Rep MP - Expanded Suite

BCL Work Order: 1806409

Invoice ID: B297500

Enclosed are the results of analyses for samples received by the laboratory on 2/27/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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#### Water Analysis (General Chemistry)

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## Case Narratives

### Case Narrative for Work Order 1806409

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Lunderoff and Scalmanini		Project: Dairy Representative Monitoring Program		From Unfiltered Sample:	
Address: 500 First Street		Site: Correlia Family Dairy		Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
City: Woodland		Samplers Name: DAN LIENT (DELTECH)		From Filtered Sample:	
State: CA		Global ID: GADAIRY00012		Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	
Attn: Till Angermann		Date Sampled: 2/27/18		From Filtered Sample:	
		Time Sampled: 11:27		Ammonia-N, NO3-N, NO2-N	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1/P6 Unpreserved
1	COR-MW1s, COR-MW4B	2/27/18	11:27	GW	x
2	COR-MW2s, COR-MW2d		10:45		x
3	COR-MW3s, COR-MW3d		10:10		x
4	COR-MW4s, COR-MW4d		11:40		x
5	COR-MW5s, COR-MW5d		12:20		x
6	Field Duplicate #4				x
7					x
8					
9					
10					
11					

Received By: [Signature]	Date & Time: 2/27/18 17:30
Received By: [Signature]	Date & Time: 2/27/18 17:50
Received By: [Signature]	Date & Time: 2/27/18 2:50

Relinquished by: [Signature]	Date & Time: 2/27/18 17:30
Relinquished by: [Signature]	Date & Time: 2/27/18 17:50
Relinquished by: [Signature]	Date & Time: 2/27/18 2:50

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lunderoff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rboycen@lsc.com, pdh@lsc.com, jlovelis@lsc.com
- Send invoices to Jeanette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806409

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> S
---	--	---	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO Emissivity: 0.95 Container: PE Thermometer ID: W6 Date/Time: 2/27/18 2:50  
 Temperature: (A) 1.9 °C / (C) 1.4 °C Analyst Init: RR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 503/508/509/510										
QT EPA 515.1/515.0										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 8270										
8oz / 16oz / 32oz AMERR										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: RR Date/Time: 2/27 2:50  
 A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806409-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b>	02/27/2018 11:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COR-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806409-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b>	02/27/2018 10:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COR-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806409-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b>	02/27/2018 10:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COR-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806409-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b>	02/27/2018 11:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COR-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806409-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b>	02/27/2018 12:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	COR-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806409-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b>	02/27/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #4	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and	
			Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806409-01	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW1s, 2/27/2018 11:12:00AM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	760	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	820	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	960	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	64	mg/L	0.50	0.10	EPA-300.0	ND	A07	4
Sulfate	330	mg/L	5.0	0.65	EPA-300.0	ND	A07	4
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		5
Total Kjeldahl Nitrogen	1.2	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.061	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.078	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.42	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 19:55	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 16:46	MEV	MET-1	2	B005380
3	EPA-300.0	02/28/18 15:00	03/01/18 11:06	OLH	IC1	10	B006320
4	EPA-300.0	02/28/18 15:00	02/28/18 20:38	SAV	IC1	5	B006320
5	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	20	B006620
6	EPA-351.2	03/12/18 20:00	03/16/18 14:00	JMH	SC-1	1	B007395
7	EPA-350.1	03/14/18 08:37	03/14/18 18:13	JMH	SC-1	1	B007560
8	EPA-353.2	02/28/18 08:06	02/28/18 08:29	JNC	KONE-1	1	B006385
9	EPA-365.4	03/12/18 20:00	03/15/18 13:32	JMH	SC-1	1	B007396

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500 First Street  
Woodland, CA 95695

Reported: 03/19/2018 18:08  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Correia Family Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806409-02	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW2s, 2/27/2018 10:40:00AM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	150	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	78	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	210	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	380	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	9.6	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	240	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.34	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.045	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.22	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:06	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 16:54	MEV	MET-1	2	B005380
3	EPA-300.0	02/28/18 15:00	02/28/18 20:57	SAV	IC1	5	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	5	B006620
5	EPA-351.2	03/12/18 20:00	03/16/18 14:01	JMH	SC-1	1	B007395
6	EPA-350.1	03/14/18 08:37	03/14/18 18:15	JMH	SC-1	1	B007560
7	EPA-353.2	02/28/18 08:06	02/28/18 08:32	JNC	KONE-1	1	B006385
8	EPA-365.4	03/12/18 20:00	03/15/18 13:33	JMH	SC-1	1	B007396

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806409-03	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW3s, 2/27/2018 10:10:00AM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	65	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	200	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	400	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	310	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	4.0	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	220	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.30	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.026	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.025	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.14	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:09	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 17:01	MEV	MET-1	2	B005380
3	EPA-300.0	02/28/18 15:00	02/28/18 21:16	SAV	IC1	2	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	5	B006620
5	EPA-351.2	03/12/18 20:00	03/16/18 14:02	JMH	SC-1	1	B007395
6	EPA-350.1	03/14/18 08:37	03/14/18 18:17	JMH	SC-1	1	B007560
7	EPA-353.2	02/28/18 08:06	02/28/18 08:32	JNC	KONE-1	1	B006385
8	EPA-365.4	03/12/18 20:00	03/15/18 13:34	JMH	SC-1	1	B007396

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806409-04	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW4s, 2/27/2018 11:40:00AM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	72	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	240	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	500	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	290	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	12	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	190	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.35	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.020	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.17	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:12	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 17:09	MEV	MET-1	2	B005380
3	EPA-300.0	02/28/18 15:00	02/28/18 21:35	SAV	IC1	5	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	5	B006620
5	EPA-351.2	03/12/18 20:00	03/16/18 14:02	JMH	SC-1	1	B007395
6	EPA-350.1	03/14/18 15:57	03/14/18 19:07	JMH	SC-1	1	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:32	JNC	KONE-1	1	B006385
8	EPA-365.4	03/12/18 20:00	03/15/18 13:34	JMH	SC-1	1	B007396

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806409-05	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW5s, 2/27/2018 12:20:00PM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	74	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	270	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	76	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	650	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	7.8	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	210	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.2	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.053	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.49	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	2.4	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:14	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 17:15	MEV	MET-1	2	B005380
3	EPA-300.0	02/28/18 15:00	02/28/18 21:54	SAV	IC1	5	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	10	B006620
5	EPA-351.2	03/12/18 20:00	03/16/18 14:04	JMH	SC-1	1	B007395
6	EPA-350.1	03/14/18 15:57	03/14/18 19:11	JMH	SC-1	1	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:33	JNC	KONE-1	1	B006385
8	EPA-365.4	03/12/18 20:00	03/15/18 13:35	JMH	SC-1	1	B007396

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Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806409-06	<b>Client Sample Name:</b> Correia Family Dairy, Field Duplicate #4, 2/27/2018 12:00:00AM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	0.017		1
Dissolved Magnesium	73	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	240	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	500	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	290	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	12	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	190	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.43	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.17	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:02	03/07/18 20:17	JCC	PE-OP2	1	B006828
2	SM-2320B	03/06/18 12:00	03/06/18 17:24	MEV	MET-1	2	B005380
3	EPA-300.0	02/28/18 15:00	02/28/18 22:13	SAV	IC1	5	B006320
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	5	B006620
5	EPA-351.2	03/13/18 10:45	03/16/18 13:28	JMH	SC-1	1	B007431
6	EPA-350.1	03/14/18 15:57	03/14/18 19:12	JMH	SC-1	1	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:33	JNC	KONE-1	1	B006385
8	EPA-365.4	03/13/18 10:45	03/15/18 14:01	JMH	SC-1	1	B007436

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Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005380</b>						
Bicarbonate Alkalinity as CaCO3	B005380-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005380-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005380-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B006320</b>						
Chloride	B006320-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006320-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006320-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006385</b>						
Nitrite as N	B006385-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B006620</b>						
Total Dissolved Solids @ 180 C	B006620-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006828</b>						
Dissolved Calcium	B006828-BLK1	0.017459	mg/L	0.10	0.016	J
Dissolved Magnesium	B006828-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B006828-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B006828-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B007395</b>						
Total Kjeldahl Nitrogen	B007395-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007396</b>						
Total Phosphate	B007396-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007431</b>						
Total Kjeldahl Nitrogen	B007431-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007436</b>						
Total Phosphate	B007436-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007560</b>						
Ammonia as N	B007560-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B007668</b>						
Ammonia as N	B007668-BLK1	ND	mg/L	0.10	0.020	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006320</b>										
Chloride	B006320-BS1	LCS	50.250	50.000	mg/L	100		90 - 110		
Nitrate as N	B006320-BS1	LCS	4.9670	5.0000	mg/L	99.3		90 - 110		
Sulfate	B006320-BS1	LCS	98.832	100.00	mg/L	98.8		90 - 110		
<b>QC Batch ID: B006385</b>										
Nitrite as N	B006385-BS1	LCS	0.48817	0.50000	mg/L	97.6		90 - 110		
<b>QC Batch ID: B006620</b>										
Total Dissolved Solids @ 180 C	B006620-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B006828</b>										
Dissolved Calcium	B006828-BS1	LCS	10.393	10.000	mg/L	104		85 - 115		
Dissolved Magnesium	B006828-BS1	LCS	9.9189	10.000	mg/L	99.2		85 - 115		
Dissolved Sodium	B006828-BS1	LCS	10.232	10.000	mg/L	102		85 - 115		
Dissolved Potassium	B006828-BS1	LCS	9.9350	10.000	mg/L	99.3		85 - 115		
<b>QC Batch ID: B007395</b>										
Total Kjeldahl Nitrogen	B007395-BS1	LCS	1.9002	2.0000	mg/L	95.0		90 - 110		
<b>QC Batch ID: B007396</b>										
Total Phosphate	B007396-BS1	LCS	3.2100	3.0660	mg/L	105		85 - 115		
<b>QC Batch ID: B007431</b>										
Total Kjeldahl Nitrogen	B007431-BS1	LCS	1.9733	2.0000	mg/L	98.7		90 - 110		
<b>QC Batch ID: B007436</b>										
Total Phosphate	B007436-BS1	LCS	3.1281	3.0660	mg/L	102		85 - 115		
<b>QC Batch ID: B007560</b>										
Ammonia as N	B007560-BS1	LCS	1.0038	1.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B007668</b>										
Ammonia as N	B007668-BS1	LCS	0.98730	1.0000	mg/L	98.7		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 03/19/2018 18:08
Project: Dairy Rep MP - Expanded Suite
Project Number: Correia Family Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quails. Includes multiple QC Batch sections (B005380, B006320, B006385, B006620, B006828, B007395) with detailed data for various chemical constituents.

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Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B007396</b>		Used client sample: N								
Total Phosphate	DUP	1806385-01	0.069603	ND		mg/L			20	
	MS	1806385-01	0.069603	3.1429	3.0660	mg/L		100		80 - 120
	MSD	1806385-01	0.069603	3.2069	3.0660	mg/L	2.0	102	20	80 - 120
<b>QC Batch ID: B007431</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1806477-02	0.57560	0.56930		mg/L	1.1		20	
	MS	1806477-02	0.57560	2.4448	2.0000	mg/L		93.5		90 - 110
	MSD	1806477-02	0.57560	2.4826	2.0000	mg/L	1.5	95.4	20	90 - 110
<b>QC Batch ID: B007436</b>		Used client sample: N								
Total Phosphate	DUP	1806477-02	0.29405	0.24438		mg/L	18.5		20	
	MS	1806477-02	0.29405	3.3339	3.0660	mg/L		99.1		80 - 120
	MSD	1806477-02	0.29405	3.3529	3.0660	mg/L	0.6	99.8	20	80 - 120
<b>QC Batch ID: B007560</b>		Used client sample: Y - Description: COT-MW12d, 02/23/2018 16:01								
Ammonia as N	DUP	1806134-06	0.036500	0.025500		mg/L	35.5		10	J,A02
	MS	1806134-06	0.036500	1.1243	1.1111	mg/L		97.9		90 - 110
	MSD	1806134-06	0.036500	1.1494	1.1111	mg/L	2.2	100	10	90 - 110
<b>QC Batch ID: B007668</b>		Used client sample: Y - Description: COR-MW4s, 02/27/2018 11:40								
Ammonia as N	DUP	1806409-04	0.020000	0.062300		mg/L	103		10	J,A02
	MS	1806409-04	0.020000	1.1182	1.1111	mg/L		98.8		90 - 110
	MSD	1806409-04	0.020000	1.1191	1.1111	mg/L	0.1	98.9	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 03/19/2018 18:08  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Correia Family Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/16/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Frank J. Gomes Dairy #2  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806131  
Invoice ID: B297311

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806131

Samples were filtered through a 0.45 micron filter for requested analysis.





# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page    Of   

Submission #: 1806131

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / S
---	--	---	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 108 Date/Time: 2/23/2016  
 Temperature: (A) 1.0 °C / (C) 1.3 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/6080										
QT EPA 515.1/6150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 6015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 2/23/2016

Actual / C = Corrected

Rev 21 05/23/2016

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1806131-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b> 02/23/2018 16:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	FG2-MW1s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806131-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b> 02/23/2018 15:08
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	FG2-MW2s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806131-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b> 02/23/2018 15:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	FG2-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806131-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b> 02/23/2018 17:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	FG2-MW4s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806131-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b> 02/23/2018 14:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	FG2-MW5s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b> Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806131-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b>	02/23/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate#6	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
			<b>Metal Analysis:</b>	2-Lab Filtered and Acidified past 15 minute holding time

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Woodland, CA 95695

Reported: 03/16/2018 17:13  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #2  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806131-01	Client Sample Name:	Frank J. Gomes Dairy #2, FG2-MW1s, 2/23/2018 4:20:00PM, Del-Tech/Don Light						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	270	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	340	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	650	mg/L	0.50	0.051	EPA-200.7	ND		1	
Dissolved Potassium	1.7	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	480	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	530	mg/L	2.5	0.38	EPA-300.0	ND		3	
Nitrate as N	0.19	mg/L	0.20	0.042	EPA-300.0	ND	J	4	
Sulfate	2500	mg/L	10	1.3	EPA-300.0	ND		5	
Total Dissolved Solids @ 180 C	4600	mg/L	200	200	SM-2540C	ND		6	
Total Kjeldahl Nitrogen	0.46	mg/L	0.20	0.084	EPA-351.2	ND		7	
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	ND	J	8	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		9	
Total Phosphate	0.15	mg/L	0.15	0.060	EPA-365.4	ND		10	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 21:23	JCC	PE-OP2	1	B005961
2	SM-2320B	03/02/18 13:00	03/02/18 20:28	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 12:27	OLH	IC8	5	B006054
4	EPA-300.0	02/24/18 19:00	02/25/18 02:20	OLH	IC8	2	B006054
5	EPA-300.0	02/24/18 19:00	02/26/18 09:02	OLH	IC8	10	B006054
6	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	20	B006477
7	EPA-351.2	03/10/18 20:00	03/15/18 16:27	JMH	SC-1	1	B007243
8	EPA-350.1	03/14/18 08:30	03/14/18 17:19	JMH	SC-1	1	B007555
9	EPA-353.2	02/23/18 18:26	02/24/18 02:16	SAV	KONE-1	1	B005933
10	EPA-365.4	03/10/18 20:00	03/15/18 11:16	JMH	SC-1	1	B007244

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Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806131-02	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW2s, 2/23/2018 3:08:00PM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	190	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	330	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	5.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	690	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	360	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	6.0	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	630	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2200	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.71	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.023	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.29	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 21:26	JCC	PE-OP2	1	B005961
2	SM-2320B	03/05/18 08:00	03/05/18 09:32	MEV	MET-1	2	B005368
3	EPA-300.0	02/24/18 19:00	02/25/18 02:39	OLH	IC8	5	B006054
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006477
5	EPA-351.2	03/10/18 20:00	03/15/18 16:29	JMH	SC-1	1	B007243
6	EPA-350.1	03/14/18 08:30	03/14/18 17:21	JMH	SC-1	1	B007555
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/10/18 20:00	03/15/18 11:17	JMH	SC-1	1	B007244

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500 First Street  
Woodland, CA 95695

Reported: 03/16/2018 17:13  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #2  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806131-03	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW3s, 2/23/2018 3:45:00PM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	350	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	550	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	4.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	660	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	560	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	7.0	mg/L	0.20	0.042	EPA-300.0	ND		4
Sulfate	1700	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	3900	mg/L	200	200	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.61	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.043	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.062	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.44	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 21:28	JCC	PE-OP2	1	B005961
2	SM-2320B	03/05/18 08:00	03/05/18 09:40	MEV	MET-1	2	B005368
3	EPA-300.0	02/24/18 19:00	02/25/18 11:30	OLH	IC8	5	B006054
4	EPA-300.0	02/24/18 19:00	02/25/18 02:58	OLH	IC8	2	B006054
5	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	20	B006477
6	EPA-351.2	03/10/18 20:00	03/15/18 16:31	JMH	SC-1	1	B007243
7	EPA-350.1	03/14/18 08:30	03/14/18 17:23	JMH	SC-1	1	B007555
8	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
9	EPA-365.4	03/10/18 20:00	03/15/18 11:19	JMH	SC-1	1	B007244

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500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806131-04	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW4s, 2/23/2018 5:00:00PM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	170	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	190	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	510	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	9.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	660	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	470	mg/L	5.0	0.77	EPA-300.0	ND		3
Nitrate as N	25	mg/L	1.0	0.21	EPA-300.0	ND		3
Sulfate	900	mg/L	10	1.3	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.80	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.044	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.054	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.080	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 20:10	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 09:47	MEV	MET-1	2	B005368
3	EPA-300.0	02/24/18 19:00	02/25/18 03:55	OLH	IC8	10	B006054
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006477
5	EPA-351.2	03/10/18 20:00	03/15/18 16:23	JMH	SC-1	1	B007243
6	EPA-350.1	03/14/18 08:30	03/14/18 17:23	JMH	SC-1	1	B007555
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/10/18 20:00	03/15/18 11:14	JMH	SC-1	1	B007244

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500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806131-05	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW5s, 2/23/2018 2:32:00PM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	170	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	370	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	620	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	340	mg/L	1.0	0.15	EPA-300.0	ND		3
Nitrate as N	6.2	mg/L	0.20	0.042	EPA-300.0	ND		3
Sulfate	770	mg/L	2.0	0.26	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2200	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.66	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.037	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.11	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.25	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 20:12	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 09:56	MEV	MET-1	2	B005368
3	EPA-300.0	02/24/18 19:00	02/25/18 04:14	OLH	IC8	2	B006053
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006477
5	EPA-351.2	03/10/18 20:00	03/15/18 16:32	JMH	SC-1	1	B007243
6	EPA-350.1	03/14/18 08:30	03/14/18 17:25	JMH	SC-1	1	B007555
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/10/18 20:00	03/15/18 11:20	JMH	SC-1	1	B007244

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806131-06	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, Field Duplicate#6, 2/23/2018 12:00:00AM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	350	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	550	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	4.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	660	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	550	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	6.8	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	1600	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	3900	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.61	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.039	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.064	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.44	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 20:15	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 10:03	MEV	MET-1	2	B005368
3	EPA-300.0	02/24/18 19:00	02/25/18 04:33	OLH	IC8	5	B006053
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	20	B006477
5	EPA-351.2	03/10/18 20:00	03/15/18 16:32	JMH	SC-1	1	B007243
6	EPA-350.1	03/14/18 08:30	03/14/18 17:25	JMH	SC-1	1	B007555
7	EPA-353.2	02/23/18 18:26	02/24/18 02:21	SAV	KONE-1	1	B005933
8	EPA-365.4	03/10/18 20:00	03/15/18 11:20	JMH	SC-1	1	B007244

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005367</b>						
Bicarbonate Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005368</b>						
Bicarbonate Alkalinity as CaCO3	B005368-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005368-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005368-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005933</b>						
Nitrite as N	B005933-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005960</b>						
Dissolved Calcium	B005960-BLK1	0.020840	mg/L	0.10	0.016	J
Dissolved Magnesium	B005960-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005960-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005960-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B005961</b>						
Dissolved Calcium	B005961-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005961-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005961-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005961-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006053</b>						
Chloride	B006053-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006053-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006053-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006054</b>						
Chloride	B006054-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006054-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006054-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006477</b>						
Total Dissolved Solids @ 180 C	B006477-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007243</b>						
Total Kjeldahl Nitrogen	B007243-BLK1	ND	mg/L	0.20	0.084	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007244</b>						
Total Phosphate	B007244-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007555</b>						
Ammonia as N	B007555-BLK1	ND	mg/L	0.10	0.020	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005933</b>										
Nitrite as N	B005933-BS1	LCS	0.49811	0.50000	mg/L	99.6		90 - 110		
<b>QC Batch ID: B005960</b>										
Dissolved Calcium	B005960-BS1	LCS	10.071	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B005960-BS1	LCS	10.578	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B005960-BS1	LCS	10.250	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B005960-BS1	LCS	9.8469	10.000	mg/L	98.5		85 - 115		
<b>QC Batch ID: B005961</b>										
Dissolved Calcium	B005961-BS1	LCS	10.116	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B005961-BS1	LCS	10.656	10.000	mg/L	107		85 - 115		
Dissolved Sodium	B005961-BS1	LCS	10.164	10.000	mg/L	102		85 - 115		
Dissolved Potassium	B005961-BS1	LCS	9.7522	10.000	mg/L	97.5		85 - 115		
<b>QC Batch ID: B006053</b>										
Chloride	B006053-BS1	LCS	51.774	50.000	mg/L	104		90 - 110		
Nitrate as N	B006053-BS1	LCS	5.0580	5.0000	mg/L	101		90 - 110		
Sulfate	B006053-BS1	LCS	103.80	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B006054</b>										
Chloride	B006054-BS1	LCS	51.753	50.000	mg/L	104		90 - 110		
Nitrate as N	B006054-BS1	LCS	4.9840	5.0000	mg/L	99.7		90 - 110		
Sulfate	B006054-BS1	LCS	102.12	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B006477</b>										
Total Dissolved Solids @ 180 C	B006477-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B007243</b>										
Total Kjeldahl Nitrogen	B007243-BS1	LCS	2.0764	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B007244</b>										
Total Phosphate	B007244-BS1	LCS	3.4645	3.0660	mg/L	113		85 - 115		
<b>QC Batch ID: B007555</b>										
Ammonia as N	B007555-BS1	LCS	1.0031	1.0000	mg/L	100		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/16/2018 17:13  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #2  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B005367</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								
Bicarbonate Alkalinity as CaCO3	DUP	1806130-06	869.89	866.55		mg/L	0.4		10	
Carbonate Alkalinity as CaCO3	DUP	1806130-06	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806130-06	ND	ND		mg/L			10	
<b>QC Batch ID: B005368</b>		Used client sample: Y - Description: GOD-MW1s, 02/23/2018 16:29								
Bicarbonate Alkalinity as CaCO3	DUP	1806132-01	546.46	540.98		mg/L	1.0		10	
Carbonate Alkalinity as CaCO3	DUP	1806132-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806132-01	ND	ND		mg/L			10	
<b>QC Batch ID: B005933</b>		Used client sample: Y - Description: FG2-MW1s, 02/23/2018 16:20								
Nitrite as N	DUP	1806131-01	ND	ND		mg/L			10	
	MS	1806131-01	ND	0.53199	0.52632	mg/L		101		90 - 110
	MSD	1806131-01	ND	0.53397	0.52632	mg/L	0.4	101	10	90 - 110
<b>QC Batch ID: B005960</b>		Used client sample: Y - Description: GOD-MW1s, 02/23/2018 16:29								
Dissolved Calcium	DUP	1806132-01	73.874	75.914		mg/L	2.7		20	
	MS	1806132-01	73.874	84.589	10.204	mg/L		105		85 - 115
	MSD	1806132-01	73.874	84.772	10.204	mg/L	0.2	107	20	85 - 115
Dissolved Magnesium	DUP	1806132-01	83.650	84.685		mg/L	1.2		20	
	MS	1806132-01	83.650	95.339	10.204	mg/L		115		85 - 115
	MSD	1806132-01	83.650	95.303	10.204	mg/L	0.0	114	20	85 - 115
Dissolved Sodium	DUP	1806132-01	479.62	469.86		mg/L	2.1		20	
	MS	1806132-01	479.62	472.01	10.204	mg/L		-74.6		85 - 115 A03
	MSD	1806132-01	479.62	477.82	10.204	mg/L	1.2	-17.7	20	85 - 115 A03
Dissolved Potassium	DUP	1806132-01	1.2079	1.2283		mg/L	1.7		20	
	MS	1806132-01	1.2079	11.414	10.204	mg/L		100		85 - 115
	MSD	1806132-01	1.2079	11.426	10.204	mg/L	0.1	100	20	85 - 115
<b>QC Batch ID: B005961</b>		Used client sample: Y - Description: MAC-MW1s, 02/23/2018 12:56								
Dissolved Calcium	DUP	1806130-01	131.55	129.92		mg/L	1.3		20	
	MS	1806130-01	131.55	140.27	10.204	mg/L		85.4		85 - 115
	MSD	1806130-01	131.55	138.19	10.204	mg/L	1.5	65.0	20	85 - 115 A03
Dissolved Magnesium	DUP	1806130-01	71.722	72.728		mg/L	1.4		20	
	MS	1806130-01	71.722	83.181	10.204	mg/L		112		85 - 115
	MSD	1806130-01	71.722	82.581	10.204	mg/L	0.7	106	20	85 - 115
Dissolved Sodium	DUP	1806130-01	401.10	393.97		mg/L	1.8		20	
	MS	1806130-01	401.10	405.62	10.204	mg/L		44.3		85 - 115 A03
	MSD	1806130-01	401.10	401.69	10.204	mg/L	1.0	5.8	20	85 - 115 A03
Dissolved Potassium	DUP	1806130-01	1.8416	1.8872		mg/L	2.4		20	
	MS	1806130-01	1.8416	12.034	10.204	mg/L		99.9		85 - 115
	MSD	1806130-01	1.8416	11.971	10.204	mg/L	0.5	99.3	20	85 - 115

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500 First Street  
Woodland, CA 95695

Reported: 03/16/2018 17:13  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Frank J. Gomes Dairy #2  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006053</b>		Used client sample: Y - Description: GOD-MW1s, 02/23/2018 16:29								
Chloride	DUP	806132-01RE'	345.74	345.42		mg/L	0.1		10	
	MS	806132-01RE'	345.74	597.40	252.53	mg/L		99.7		80 - 120
	MSD	806132-01RE'	345.74	596.93	252.53	mg/L	0.1	99.5	10	80 - 120
Nitrate as N	DUP	806132-01RE'	6.0050	5.9950		mg/L	0.2		10	
	MS	806132-01RE'	6.0050	31.439	25.253	mg/L		101		80 - 120
	MSD	806132-01RE'	6.0050	31.586	25.253	mg/L	0.5	101	10	80 - 120
Sulfate	DUP	806132-01RE'	601.41	600.94		mg/L	0.1		10	
	MS	806132-01RE'	601.41	1117.6	505.05	mg/L		102		80 - 120
	MSD	806132-01RE'	601.41	1117.9	505.05	mg/L	0.0	102	10	80 - 120
<b>QC Batch ID: B006054</b>		Used client sample: Y - Description: MAC-MW1s, 02/23/2018 12:56								
Chloride	DUP	1806130-01	296.15	298.45		mg/L	0.8		10	
	MS	1806130-01	296.15	397.84	101.01	mg/L		101		80 - 120
	MSD	1806130-01	296.15	396.45	101.01	mg/L	0.3	99.3	10	80 - 120
Nitrate as N	DUP	1806130-01	21.544	21.680		mg/L	0.6		10	
	MS	1806130-01	21.544	31.911	10.101	mg/L		103		80 - 120
	MSD	1806130-01	21.544	31.978	10.101	mg/L	0.2	103	10	80 - 120
Sulfate	DUP	1806130-01	376.28	379.60		mg/L	0.9		10	
	MS	1806130-01	376.28	588.58	202.02	mg/L		105		80 - 120
	MSD	1806130-01	376.28	590.55	202.02	mg/L	0.3	106	10	80 - 120
<b>QC Batch ID: B006477</b>		Used client sample: Y - Description: FG2-MW1s, 02/23/2018 16:20								
Total Dissolved Solids @ 180 C	DUP	1806131-01	4560.0	4560.0		mg/L	0		10	
<b>QC Batch ID: B007243</b>		Used client sample: Y - Description: FG2-MW4s, 02/23/2018 17:00								
Total Kjeldahl Nitrogen	DUP	1806131-04	0.79590	0.83700		mg/L	5.0		20	
	MS	1806131-04	0.79590	3.0002	2.0000	mg/L		110		90 - 110
	MSD	1806131-04	0.79590	2.8301	2.0000	mg/L	5.8	102	20	90 - 110
<b>QC Batch ID: B007244</b>		Used client sample: Y - Description: FG2-MW4s, 02/23/2018 17:00								
Total Phosphate	DUP	1806131-04	0.080028	0.15484		mg/L	63.7		20	A02
	MS	1806131-04	0.080028	3.3296	3.0660	mg/L		106		80 - 120
	MSD	1806131-04	0.080028	3.3575	3.0660	mg/L	0.8	107	20	80 - 120
<b>QC Batch ID: B007555</b>		Used client sample: Y - Description: MAC-MW5s, 02/23/2018 13:24								
Ammonia as N	DUP	1806130-05	ND	0.029200		mg/L			10	J
	MS	1806130-05	ND	1.1422	1.1111	mg/L		103		90 - 110
	MSD	1806130-05	ND	1.1227	1.1111	mg/L	1.7	101	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:13  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 03/16/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Godinho Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806132  
Invoice ID: B297312

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806132

Samples were filtered through a 0.45 micron filter for requested analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1806132

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO   
 (W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.98 Container: PE Thermometer ID: 105 Date/Time: 2/23/2014  
 Temperature: (A) 1.0 °C / (C) 1.3 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/509/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 6015M										
QT EPA 3270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 2/23/2014

Actual / C = Corrected

Rev 21 05/23/2016  
 [S:\WPDoc\WordPerfect\LAB\_DOC\SYSTEMS\ISAMREC\rv 20]



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Woodland, CA 95695

**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806132-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	02/23/2018 16:29
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806132-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	02/23/2018 16:48
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806132-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	02/23/2018 16:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806132-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	02/23/2018 16:06
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806132-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	02/23/2018 15:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806132-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	02/23/2018 15:48
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806132-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	02/23/2018 15:26
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806132-01	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW1s, 2/23/2018 4:29:00PM, Del-Tech/Stacy Young
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	74	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	84	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	480	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	550	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	350	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	6.3	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	600	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.32	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.034	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.29	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 19:32	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 08:38	MEV	MET-1	2	B005368
3	EPA-300.0	02/24/18 19:00	02/25/18 12:08	OLH	IC8	5	B006053
4	EPA-300.0	02/24/18 19:00	02/24/18 20:56	OLH	IC8	1	B006053
5	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006478
6	EPA-351.2	03/10/18 20:00	03/15/18 16:34	JMH	SC-1	1	B007243
7	EPA-350.1	03/14/18 08:30	03/14/18 17:27	JMH	SC-1	1	B007555
8	EPA-353.2	02/23/18 18:26	02/24/18 02:27	SAV	KONE-1	1	B005934
9	EPA-365.4	03/10/18 20:00	03/15/18 11:21	JMH	SC-1	1	B007244

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**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806132-02	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW2s, 2/23/2018 4:48:00PM, Del-Tech/Stacy Young
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	96	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	120	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	430	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	430	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	410	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	30	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	550	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.48	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.053	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.011	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.36	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 19:45	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 10:27	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 19:00	02/24/18 21:15	OLH	IC8	5	B006053
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006478
5	EPA-351.2	03/10/18 20:00	03/15/18 16:34	JMH	SC-1	1	B007243
6	EPA-350.1	03/14/18 08:30	03/14/18 17:27	JMH	SC-1	1	B007555
7	EPA-353.2	02/23/18 18:26	02/24/18 02:27	SAV	KONE-1	1	B005934
8	EPA-365.4	03/10/18 20:00	03/15/18 11:21	JMH	SC-1	1	B007244

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**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806132-03	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW3s, 2/23/2018 4:52:00PM, Del-Tech/Stacy Young
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	67	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	160	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	390	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	170	mg/L	1.0	0.15	EPA-300.0	ND		3
Nitrate as N	23	mg/L	0.20	0.042	EPA-300.0	ND		3
Sulfate	210	mg/L	2.0	0.26	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.37	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.43	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 19:56	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 10:43	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 19:00	02/24/18 21:34	OLH	IC8	2	B006053
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	5	B006478
5	EPA-351.2	03/10/18 20:00	03/15/18 16:36	JMH	SC-1	1	B007243
6	EPA-350.1	03/14/18 08:35	03/14/18 17:30	JMH	SC-1	1	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:27	SAV	KONE-1	1	B005934
8	EPA-365.4	03/10/18 20:00	03/15/18 11:22	JMH	SC-1	1	B007244

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**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806132-04	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW4s, 2/23/2018 4:06:00PM, Del-Tech/Stacy Young
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	100	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	720	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	930	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	480	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND		4
Sulfate	710	mg/L	2.0	0.26	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.47	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.029	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.39	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 19:59	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 10:50	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 19:00	02/25/18 11:49	OLH	IC8	5	B006053
4	EPA-300.0	02/24/18 19:00	02/24/18 21:53	OLH	IC8	2	B006053
5	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	20	B006478
6	EPA-351.2	03/10/18 20:00	03/16/18 10:20	JMH	SC-1	1	B007245
7	EPA-350.1	03/14/18 08:35	03/14/18 17:36	JMH	SC-1	1	B007557
8	EPA-353.2	02/23/18 18:26	02/24/18 02:27	SAV	KONE-1	1	B005934
9	EPA-365.4	03/10/18 20:00	03/15/18 11:27	JMH	SC-1	1	B007246

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**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806132-05	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW5s, 2/23/2018 3:05:00PM, Del-Tech/Stacy Young
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	100	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	210	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	0.98	mg/L	1.0	0.10	EPA-200.7	ND	J	1
Bicarbonate Alkalinity as CaCO3	380	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	300	mg/L	1.0	0.15	EPA-300.0	ND		3
Nitrate as N	10	mg/L	0.20	0.042	EPA-300.0	ND		3
Sulfate	380	mg/L	2.0	0.26	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.42	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.020	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.27	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 20:02	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 10:57	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 19:00	02/24/18 22:12	OLH	IC8	2	B006053
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006478
5	EPA-351.2	03/10/18 20:00	03/16/18 10:24	JMH	SC-1	1	B007245
6	EPA-350.1	03/14/18 08:35	03/14/18 17:36	JMH	SC-1	1	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:27	SAV	KONE-1	1	B005934
8	EPA-365.4	03/10/18 20:00	03/15/18 11:30	JMH	SC-1	1	B007246

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**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806132-06	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW6s, 2/23/2018 3:48:00PM, Del-Tech/Stacy Young
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	140	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	630	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.3	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	510	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	560	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	53	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	940	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.79	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.036	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.42	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 20:04	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 11:06	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 19:00	02/25/18 10:33	OLH	IC8	5	B006053
4	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	20	B006478
5	EPA-351.2	03/10/18 20:00	03/16/18 10:25	JMH	SC-1	1	B007245
6	EPA-350.1	03/14/18 08:35	03/14/18 17:37	JMH	SC-1	1	B007557
7	EPA-353.2	02/23/18 18:26	02/24/18 02:32	SAV	KONE-1	1	B005934
8	EPA-365.4	03/10/18 20:00	03/15/18 11:31	JMH	SC-1	1	B007246

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806132-07	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW7s, 2/23/2018 3:26:00PM, Del-Tech/Stacy Young
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	96	mg/L	0.10	0.016	EPA-200.7	0.021		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	610	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	820	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	460	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	1.3	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	720	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2600	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.82	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.053	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.054	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.46	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:13	03/06/18 20:07	JCC	PE-OP2	1	B005960
2	SM-2320B	03/05/18 08:00	03/05/18 11:13	MEV	MET-1	2	B005369
3	EPA-300.0	02/24/18 19:00	02/25/18 11:11	OLH	IC8	5	B006053
4	EPA-300.0	02/24/18 19:00	02/24/18 22:50	OLH	IC8	1	B006053
5	SM-2540C	03/02/18 14:30	03/02/18 14:30	CAD	MANUAL	10	B006478
6	EPA-351.2	03/10/18 20:00	03/16/18 10:27	JMH	SC-1	1	B007245
7	EPA-350.1	03/14/18 08:35	03/14/18 17:38	JMH	SC-1	1	B007557
8	EPA-353.2	02/23/18 18:26	02/24/18 02:32	SAV	KONE-1	1	B005934
9	EPA-365.4	03/10/18 20:00	03/15/18 11:31	JMH	SC-1	1	B007246

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Woodland, CA 95695

**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005368</b>						
Bicarbonate Alkalinity as CaCO3	B005368-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005368-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005368-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005369</b>						
Bicarbonate Alkalinity as CaCO3	B005369-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005369-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005369-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005934</b>						
Nitrite as N	B005934-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005960</b>						
Dissolved Calcium	B005960-BLK1	0.020840	mg/L	0.10	0.016	J
Dissolved Magnesium	B005960-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005960-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005960-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006053</b>						
Chloride	B006053-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006053-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006053-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006478</b>						
Total Dissolved Solids @ 180 C	B006478-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007243</b>						
Total Kjeldahl Nitrogen	B007243-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007244</b>						
Total Phosphate	B007244-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007245</b>						
Total Kjeldahl Nitrogen	B007245-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007246</b>						
Total Phosphate	B007246-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007555</b>						
Ammonia as N	B007555-BLK1	ND	mg/L	0.10	0.020	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007557</b>						
Ammonia as N	B007557-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005934</b>										
Nitrite as N	B005934-BS1	LCS	0.51230	0.50000	mg/L	102		90 - 110		
<b>QC Batch ID: B005960</b>										
Dissolved Calcium	B005960-BS1	LCS	10.071	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B005960-BS1	LCS	10.578	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B005960-BS1	LCS	10.250	10.000	mg/L	103		85 - 115		
Dissolved Potassium	B005960-BS1	LCS	9.8469	10.000	mg/L	98.5		85 - 115		
<b>QC Batch ID: B006053</b>										
Chloride	B006053-BS1	LCS	51.774	50.000	mg/L	104		90 - 110		
Nitrate as N	B006053-BS1	LCS	5.0580	5.0000	mg/L	101		90 - 110		
Sulfate	B006053-BS1	LCS	103.80	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B006478</b>										
Total Dissolved Solids @ 180 C	B006478-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B007243</b>										
Total Kjeldahl Nitrogen	B007243-BS1	LCS	2.0764	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B007244</b>										
Total Phosphate	B007244-BS1	LCS	3.4645	3.0660	mg/L	113		85 - 115		
<b>QC Batch ID: B007245</b>										
Total Kjeldahl Nitrogen	B007245-BS1	LCS	1.9805	2.0000	mg/L	99.0		90 - 110		
<b>QC Batch ID: B007246</b>										
Total Phosphate	B007246-BS1	LCS	3.2566	3.0660	mg/L	106		85 - 115		
<b>QC Batch ID: B007555</b>										
Ammonia as N	B007555-BS1	LCS	1.0031	1.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B007557</b>										
Ammonia as N	B007557-BS1	LCS	0.98410	1.0000	mg/L	98.4		90 - 110		

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Woodland, CA 95695

Reported: 03/16/2018 17:18
Project: Dairy Rep MP - Expanded Suite
Project Number: Godinho Dairy
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes multiple QC batches (B005368, B005369, B005934, B005960, B006053, B006478) and various chemical tests like Bicarbonate Alkalinity, Nitrite as N, Dissolved Calcium, etc.

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Woodland, CA 95695

Reported: 03/16/2018 17:18  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Godinho Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B007243</b>		Used client sample: Y - Description: FG2-MW4s, 02/23/2018 17:00								
Total Kjeldahl Nitrogen	DUP	1806131-04	0.79590	0.83700		mg/L	5.0		20	
	MS	1806131-04	0.79590	3.0002	2.0000	mg/L		110		90 - 110
	MSD	1806131-04	0.79590	2.8301	2.0000	mg/L	5.8	102	20	90 - 110
<b>QC Batch ID: B007244</b>		Used client sample: Y - Description: FG2-MW4s, 02/23/2018 17:00								
Total Phosphate	DUP	1806131-04	0.080028	0.15484		mg/L	63.7		20	A02
	MS	1806131-04	0.080028	3.3296	3.0660	mg/L		106		80 - 120
	MSD	1806131-04	0.080028	3.3575	3.0660	mg/L	0.8	107	20	80 - 120
<b>QC Batch ID: B007245</b>		Used client sample: Y - Description: GOD-MW4s, 02/23/2018 16:06								
Total Kjeldahl Nitrogen	DUP	1806132-04	0.46990	0.48510		mg/L	3.2		20	
	MS	1806132-04	0.46990	2.2853	2.0000	mg/L		90.8		90 - 110
	MSD	1806132-04	0.46990	2.6934	2.0000	mg/L	16.4	111	20	90 - 110 Q03
<b>QC Batch ID: B007246</b>		Used client sample: Y - Description: GOD-MW4s, 02/23/2018 16:06								
Total Phosphate	DUP	1806132-04	0.39217	0.36702		mg/L	6.6		20	
	MS	1806132-04	0.39217	3.6154	3.0660	mg/L		105		80 - 120
	MSD	1806132-04	0.39217	3.5596	3.0660	mg/L	1.6	103	20	80 - 120
<b>QC Batch ID: B007555</b>		Used client sample: Y - Description: MAC-MW5s, 02/23/2018 13:24								
Ammonia as N	DUP	1806130-05	ND	0.029200		mg/L			10	J
	MS	1806130-05	ND	1.1422	1.1111	mg/L		103		90 - 110
	MSD	1806130-05	ND	1.1227	1.1111	mg/L	1.7	101	10	90 - 110
<b>QC Batch ID: B007557</b>		Used client sample: Y - Description: GOD-MW3s, 02/23/2018 16:52								
Ammonia as N	DUP	1806132-03	ND	ND		mg/L			10	
	MS	1806132-03	ND	1.1276	1.1111	mg/L		101		90 - 110
	MSD	1806132-03	ND	1.0716	1.1111	mg/L	5.1	96.4	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/16/2018 17:18  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Godinho Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.

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Date of Report: 03/23/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: John Machado Dariy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806130  
Invoice ID: B298033

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806130

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Expanded Constituent Suite				From Filtered Sample:	
Project: Dairy Representative Monitoring Program				Na, K, Mg, Ca, Cl, SO <sub>4</sub> (as SO <sub>4</sub> ), Total Dissolved Solids	
Site: John Machado Dairy				From Unfiltered Sample:	
Samplers Name: Kelly Jones, Dave Reed				Total Kjeldahl Nitrogen, Total Phosphate (as PO <sub>4</sub> ), Alkalinity (HCO <sub>3</sub> , CO <sub>3</sub> & OH) as CaCO <sub>3</sub>	
Global ID - GADARV00119					
Address: 500 First Street					
City: Woodland					
State: 95665					
Attn: Till Angermann					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct/Pc Unpreserved
1	MAC-MW1s, <del>MAC-MW1d</del>	2-23-18	12:56	GW	x
2	MAC-MW2s, <del>MAC-MW2d</del>		12:38		x
3	MAC-MW3s, <del>MAC-MW3d</del>		14:19		x
4	MAC-MW4s, <del>MAC-MW4d</del>		13:52		x
5	MAC-MW5s, <del>MAC-MW5d</del>		13:24		x
6	Field Duplicate #1		N/A		x
7					
8					
9					
10					
11					
12					

Relinquished by: (Signature)	Received By:	Date & Time
<i>Steph Jones 2/23/18</i>	<i>Michelle Jones 2/23/18</i>	2/23/18 17:35
Relinquished by: (Signature)	Received By:	Date & Time
<i>[Signature]</i>	<i>[Signature]</i>	2/23/18 19:20
Relinquished by: (Signature)	Received By:	Date & Time
<i>[Signature]</i>	<i>[Signature]</i>	2/23/18 21:40

**Comments:**

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: [lavagnino@isce.com](mailto:lavagnino@isce.com), [trypson@isce.com](mailto:trypson@isce.com), [pdtalival@isce.com](mailto:pdtalival@isce.com), [jlowellis@isce.com](mailto:jlowellis@isce.com)
- Send invoices to Jeannette Lovellis ([jlowellis@isce.com](mailto:jlowellis@isce.com)).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page      Of     

Submission #: 18-06130

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO   
W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals  Container  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.98 Container: PE Thermometer ID: 908 Date/Time: 2/23/21 140  
 Temperature: (A) 1.0 °C / (C) 1.3 °C Analyst Init: WJ

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 518/518/0180										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 4015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT <sup>5t</sup>										
SURIMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: WJ Date/Time: 2/23/21 238  
 \* = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806130-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	John Machado Dariy	<b>Sampling Date:</b>	02/23/2018 12:56
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806130-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	John Machado Dariy	<b>Sampling Date:</b>	02/23/2018 12:38
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806130-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	John Machado Dariy	<b>Sampling Date:</b>	02/23/2018 14:19
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806130-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	John Machado Dariy	<b>Sampling Date:</b>	02/23/2018 13:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806130-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	John Machado Dariy	<b>Sampling Date:</b>	02/23/2018 13:24
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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Woodland, CA 95695

**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dary  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
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<b>1806130-06</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 02/23/2018 21:40
	<b>Project Number:</b> John Machado Dary	<b>Sampling Date:</b> 02/23/2018 00:00
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> Field Duplicate #1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Stacy Young of DTO	<b>Sample Type:</b> Groundwater
		Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806130-01		Client Sample Name: John Machado Dariy, MAC-MW1s, 2/23/2018 12:56:00PM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	72	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	400	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.8	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	650	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	300	mg/L	1.0	0.15	EPA-300.0	ND		3
Nitrate as N	22	mg/L	0.20	0.042	EPA-300.0	ND		3
Sulfate	380	mg/L	2.0	0.26	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.81	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.038	mg/L	0.10	0.020	EPA-350.1	0.024	J	6
Nitrite as N	0.061	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.44	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 20:48	JCC	PE-OP2	1	B005961
2	SM-2320B	03/02/18 13:00	03/02/18 19:50	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 00:26	OLH	IC8	2	B006054
4	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	10	B006476
5	EPA-351.2	03/09/18 10:45	03/13/18 12:05	JMH	SC-1	1	B007154
6	EPA-350.1	03/12/18 07:46	03/14/18 12:28	JMH	SC-1	1	B007272
7	EPA-353.2	02/23/18 18:00	02/24/18 02:05	SAV	KONE-1	1	B005931
8	EPA-365.4	03/09/18 10:45	03/13/18 13:37	JMH	SC-1	1	B007149

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**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806130-02		Client Sample Name: John Machado Dariy, MAC-MW2s, 2/23/2018 12:38:00PM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	95	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	100	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	510	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	1000	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	1.0	0.15	EPA-300.0	ND		3
Nitrate as N	24	mg/L	0.20	0.042	EPA-300.0	ND		3
Sulfate	180	mg/L	2.0	0.26	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.55	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.032	mg/L	0.10	0.020	EPA-350.1	0.024	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.60	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 21:01	JCC	PE-OP2	1	B005961
2	SM-2320B	03/02/18 13:00	03/02/18 19:56	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 10:14	OLH	IC8	2	B006054
4	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	10	B006476
5	EPA-351.2	03/09/18 10:45	03/13/18 12:07	JMH	SC-1	1	B007154
6	EPA-350.1	03/12/18 07:46	03/14/18 12:29	JMH	SC-1	1	B007272
7	EPA-353.2	02/23/18 18:00	02/24/18 02:10	SAV	KONE-1	1	B005931
8	EPA-365.4	03/09/18 10:45	03/13/18 13:38	JMH	SC-1	1	B007149

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Reported: 03/23/2018 10:43  
Project: Dairy Rep MP - Expanded Suite  
Project Number: John Machado Dariy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806130-03		Client Sample Name: John Machado Dariy, MAC-MW3s, 2/23/2018 2:19:00PM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	510	mg/L	0.50	0.080	EPA-200.7	ND	A07	1
Dissolved Magnesium	250	mg/L	0.25	0.095	EPA-200.7	ND	A07	1
Dissolved Sodium	1100	mg/L	2.5	0.26	EPA-200.7	ND	A07	1
Dissolved Potassium	6.4	mg/L	5.0	0.50	EPA-200.7	ND	A07	1
Bicarbonate Alkalinity as CaCO3	340	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	400	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	45	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	3900	mg/L	10	1.3	EPA-300.0	ND		4
Total Dissolved Solids @ 180 C	6900	mg/L	200	200	SM-2540C	ND		5
Total Kjeldahl Nitrogen	1.1	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.055	mg/L	0.10	0.020	EPA-350.1	0.024	J	7
Nitrite as N	0.13	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	1.9	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/07/18 18:21	JCC	PE-OP2	5	B005961
2	SM-2320B	03/02/18 13:00	03/02/18 20:05	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 01:04	OLH	IC8	5	B006054
4	EPA-300.0	02/24/18 19:00	02/25/18 10:52	OLH	IC8	10	B006054
5	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	20	B006476
6	EPA-351.2	03/09/18 10:45	03/13/18 12:09	JMH	SC-1	1	B007154
7	EPA-350.1	03/12/18 07:46	03/14/18 12:31	JMH	SC-1	1	B007272
8	EPA-353.2	02/23/18 18:00	02/24/18 02:10	SAV	KONE-1	1	B005931
9	EPA-365.4	03/09/18 10:45	03/13/18 13:39	JMH	SC-1	1	B007149

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**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806130-04		Client Sample Name: John Machado Dariy, MAC-MW4s, 2/23/2018 1:52:00PM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	96	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	110	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	720	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	4.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	780	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	510	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	16	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	690	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.76	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.094	mg/L	0.10	0.020	EPA-350.1	0.024	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.55	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 21:15	JCC	PE-OP2	1	B005961
2	SM-2320B	03/02/18 13:00	03/02/18 20:12	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 01:23	OLH	IC8	5	B006054
4	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	10	B006476
5	EPA-351.2	03/09/18 10:45	03/13/18 12:10	JMH	SC-1	1	B007154
6	EPA-350.1	03/12/18 07:46	03/14/18 12:33	JMH	SC-1	1	B007272
7	EPA-353.2	02/23/18 18:00	02/24/18 02:10	SAV	KONE-1	1	B005931
8	EPA-365.4	03/09/18 10:45	03/13/18 13:40	JMH	SC-1	1	B007149

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**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806130-05		Client Sample Name: John Machado Dariy, MAC-MW5s, 2/23/2018 1:24:00PM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	46	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	59	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	850	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	860	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	510	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	19	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	680	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	2900	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.94	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.010	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.72	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 21:17	JCC	PE-OP2	1	B005961
2	SM-2320B	03/02/18 13:00	03/02/18 20:20	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 01:42	OLH	IC8	5	B006054
4	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	10	B006476
5	EPA-351.2	03/09/18 10:45	03/13/18 12:11	JMH	SC-1	1	B007154
6	EPA-350.1	03/14/18 08:30	03/14/18 17:14	JMH	SC-1	1	B007555
7	EPA-353.2	02/23/18 18:00	02/24/18 02:10	SAV	KONE-1	1	B005931
8	EPA-365.4	03/09/18 10:45	03/13/18 13:40	JMH	SC-1	1	B007149

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**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806130-06	<b>Client Sample Name:</b> John Machado Dariy, Field Duplicate #1, 2/23/2018 12:00:00AM, Stacy Young
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	47	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	59	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	870	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	3.2	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	870	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	500	mg/L	2.5	0.38	EPA-300.0	ND		3
Nitrate as N	18	mg/L	0.50	0.10	EPA-300.0	ND		3
Sulfate	670	mg/L	5.0	0.65	EPA-300.0	ND		3
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.77	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.032	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.010	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.70	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:17	03/06/18 21:20	JCC	PE-OP2	1	B005961
2	SM-2320B	03/02/18 13:00	03/02/18 19:09	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 02:01	OLH	IC8	5	B006054
4	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	20	B006475
5	EPA-351.2	03/09/18 10:45	03/13/18 12:02	JMH	SC-1	1	B007154
6	EPA-350.1	03/14/18 08:30	03/14/18 17:18	JMH	SC-1	1	B007555
7	EPA-353.2	02/23/18 18:00	02/24/18 02:10	SAV	KONE-1	1	B005931
8	EPA-365.4	03/09/18 10:45	03/13/18 13:34	JMH	SC-1	1	B007149

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**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005367</b>						
Bicarbonate Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005931</b>						
Nitrite as N	B005931-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005961</b>						
Dissolved Calcium	B005961-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005961-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005961-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005961-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006054</b>						
Chloride	B006054-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006054-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006054-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006475</b>						
Total Dissolved Solids @ 180 C	B006475-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006476</b>						
Total Dissolved Solids @ 180 C	B006476-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007149</b>						
Total Phosphate	B007149-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007154</b>						
Total Kjeldahl Nitrogen	B007154-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007272</b>						
Ammonia as N	B007272-BLK1	0.024000	mg/L	0.10	0.020	J
<b>QC Batch ID: B007555</b>						
Ammonia as N	B007555-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005931</b>										
Nitrite as N	B005931-BS1	LCS	0.51702	0.50000	mg/L	103		90 - 110		
<b>QC Batch ID: B005961</b>										
Dissolved Calcium	B005961-BS1	LCS	10.116	10.000	mg/L	101		85 - 115		
Dissolved Magnesium	B005961-BS1	LCS	10.656	10.000	mg/L	107		85 - 115		
Dissolved Sodium	B005961-BS1	LCS	10.164	10.000	mg/L	102		85 - 115		
Dissolved Potassium	B005961-BS1	LCS	9.7522	10.000	mg/L	97.5		85 - 115		
<b>QC Batch ID: B006054</b>										
Chloride	B006054-BS1	LCS	51.753	50.000	mg/L	104		90 - 110		
Nitrate as N	B006054-BS1	LCS	4.9840	5.0000	mg/L	99.7		90 - 110		
Sulfate	B006054-BS1	LCS	102.12	100.00	mg/L	102		90 - 110		
<b>QC Batch ID: B006475</b>										
Total Dissolved Solids @ 180 C	B006475-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B006476</b>										
Total Dissolved Solids @ 180 C	B006476-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B007149</b>										
Total Phosphate	B007149-BS1	LCS	3.1536	3.0660	mg/L	103		85 - 115		
<b>QC Batch ID: B007154</b>										
Total Kjeldahl Nitrogen	B007154-BS1	LCS	1.9920	2.0000	mg/L	99.6		90 - 110		
<b>QC Batch ID: B007272</b>										
Ammonia as N	B007272-BS1	LCS	1.0226	1.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B007555</b>										
Ammonia as N	B007555-BS1	LCS	1.0031	1.0000	mg/L	100		90 - 110		

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Woodland, CA 95695

Reported: 03/23/2018 10:43  
Project: Dairy Rep MP - Expanded Suite  
Project Number: John Machado Dariy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry) Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B005367</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								
Bicarbonate Alkalinity as CaCO3	DUP	1806130-06	869.89	866.55		mg/L	0.4		10	
Carbonate Alkalinity as CaCO3	DUP	1806130-06	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806130-06	ND	ND		mg/L			10	
<b>QC Batch ID: B005931</b>		Used client sample: N								
Nitrite as N	DUP	1806116-01	ND	ND		mg/L			10	
	MS	1806116-01	ND	0.53217	0.52632	mg/L		101		90 - 110
	MSD	1806116-01	ND	0.53661	0.52632	mg/L	0.8	102	10	90 - 110
<b>QC Batch ID: B005961</b>		Used client sample: Y - Description: MAC-MW1s, 02/23/2018 12:56								
Dissolved Calcium	DUP	1806130-01	131.55	129.92		mg/L	1.3		20	
	MS	1806130-01	131.55	140.27	10.204	mg/L		85.4		85 - 115
	MSD	1806130-01	131.55	138.19	10.204	mg/L	1.5	65.0	20	85 - 115 A03
Dissolved Magnesium	DUP	1806130-01	71.722	72.728		mg/L	1.4		20	
	MS	1806130-01	71.722	83.181	10.204	mg/L		112		85 - 115
	MSD	1806130-01	71.722	82.581	10.204	mg/L	0.7	106	20	85 - 115
Dissolved Sodium	DUP	1806130-01	401.10	393.97		mg/L	1.8		20	
	MS	1806130-01	401.10	405.62	10.204	mg/L		44.3		85 - 115 A03
	MSD	1806130-01	401.10	401.69	10.204	mg/L	1.0	5.8	20	85 - 115 A03
Dissolved Potassium	DUP	1806130-01	1.8416	1.8872		mg/L	2.4		20	
	MS	1806130-01	1.8416	12.034	10.204	mg/L		99.9		85 - 115
	MSD	1806130-01	1.8416	11.971	10.204	mg/L	0.5	99.3	20	85 - 115
<b>QC Batch ID: B006054</b>		Used client sample: Y - Description: MAC-MW1s, 02/23/2018 12:56								
Chloride	DUP	1806130-01	296.15	298.45		mg/L	0.8		10	
	MS	1806130-01	296.15	397.84	101.01	mg/L		101		80 - 120
	MSD	1806130-01	296.15	396.45	101.01	mg/L	0.3	99.3	10	80 - 120
Nitrate as N	DUP	1806130-01	21.544	21.680		mg/L	0.6		10	
	MS	1806130-01	21.544	31.911	10.101	mg/L		103		80 - 120
	MSD	1806130-01	21.544	31.978	10.101	mg/L	0.2	103	10	80 - 120
Sulfate	DUP	1806130-01	376.28	379.60		mg/L	0.9		10	
	MS	1806130-01	376.28	588.58	202.02	mg/L		105		80 - 120
	MSD	1806130-01	376.28	590.55	202.02	mg/L	0.3	106	10	80 - 120
<b>QC Batch ID: B006475</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1806101-01	11300	11300		mg/L	0		10	
<b>QC Batch ID: B006476</b>		Used client sample: Y - Description: NUN-MW1s, 02/23/2018 10:41								
Total Dissolved Solids @ 180 C	DUP	1806129-01	4280.0	4320.0		mg/L	0.9		10	
<b>QC Batch ID: B007149</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								

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500 First Street  
Woodland, CA 95695

**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B007149</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								
Total Phosphate	DUP	1806130-06	0.70400	0.68622		mg/L	2.6		20	
	MS	1806130-06	0.70400	3.8346	3.0660	mg/L		102		80 - 120
	MSD	1806130-06	0.70400	3.9082	3.0660	mg/L	1.9	105	20	80 - 120
<b>QC Batch ID: B007154</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								
Total Kjeldahl Nitrogen	DUP	1806130-06	0.76760	0.82270		mg/L	6.9		20	
	MS	1806130-06	0.76760	2.7124	2.0000	mg/L		97.2		90 - 110
	MSD	1806130-06	0.76760	2.7460	2.0000	mg/L	1.2	98.9	20	90 - 110
<b>QC Batch ID: B007272</b>		Used client sample: Y - Description: ADO-MW2d, 02/23/2018 11:07								
Ammonia as N	DUP	1806082-02	0.040500	0.029800		mg/L	30.4		10	J,A02
	MS	1806082-02	0.040500	1.1387	1.1111	mg/L		98.8		90 - 110
	MSD	1806082-02	0.040500	1.1307	1.1111	mg/L	0.7	98.1	10	90 - 110
<b>QC Batch ID: B007555</b>		Used client sample: Y - Description: MAC-MW5s, 02/23/2018 13:24								
Ammonia as N	DUP	1806130-05	ND	0.029200		mg/L			10	J
	MS	1806130-05	ND	1.1422	1.1111	mg/L		103		90 - 110
	MSD	1806130-05	ND	1.1227	1.1111	mg/L	1.7	101	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 03/23/2018 10:43  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** John Machado Dariy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 03/22/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Jose Nunes Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806129  
Invoice ID: B297855

Enclosed are the results of analyses for samples received by the laboratory on 2/23/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806129

Samples were filtered through a 0.45 micron filter for requested analysis.





BC LABORATORIES INC.		COOLER RECEIPT FORM		Page	Of
Submission #: <u>1806129</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> (W) / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments:					
Custody Seals: Ice Chest <input checked="" type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments:					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.95</u> Container: <u>PE</u> Thermometer ID: <u>106</u>		Date/Time: <u>2/23/2010</u>	
		Temperature: (A) <u>1.0</u> °C / (C) <u>1.3</u> °C		Analyst Init: <u>[Signature]</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 518/018/030										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_ Date/Time: 2/23/2010 Rev 21 05/23/2016  
 Sample Numbering Completed By: [Signature]  
 A = Actual / C = Corrected



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Woodland, CA 95695

**Reported:** 03/22/2018 10:04  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806129-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	02/23/2018 10:41
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806129-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	02/23/2018 09:51
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806129-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	02/23/2018 11:03
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806129-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	02/23/2018 11:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	
1806129-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/23/2018 21:40
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	02/23/2018 10:18
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Stacy Young of DTO	<b>Sample Type:</b>	Groundwater
			Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time	

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500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 10:04  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806129-01		Client Sample Name: Jose Nunes Dairy, NUN-MW1s, 2/23/2018 10:41:00AM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.50	0.080	EPA-200.7	0.16	A07	1
Dissolved Magnesium	140	mg/L	0.25	0.095	EPA-200.7	ND	A07	1
Dissolved Sodium	1200	mg/L	2.5	0.26	EPA-200.7	ND	A07	1
Dissolved Potassium	1.6	mg/L	5.0	0.50	EPA-200.7	ND	J,A07	1
Bicarbonate Alkalinity as CaCO3	800	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	770	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	1.5	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	1700	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	4300	mg/L	200	200	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.69	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.034	mg/L	0.10	0.020	EPA-350.1	0.024	J	7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.54	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:19	03/07/18 13:30	JCC	PE-OP2	5	B005962
2	SM-2320B	03/02/18 13:00	03/02/18 18:38	MEV	MET-1	2	B005366
3	EPA-300.0	02/24/18 19:00	02/25/18 10:26	OLH	IC5	5	B006061
4	EPA-300.0	02/24/18 19:00	02/24/18 21:37	OLH	IC5	1	B006061
5	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	20	B006476
6	EPA-351.2	03/09/18 10:45	03/13/18 12:12	JMH	SC-1	1	B007154
7	EPA-350.1	03/12/18 07:46	03/14/18 12:24	JMH	SC-1	1	B007272
8	EPA-353.2	02/23/18 18:26	02/24/18 02:10	SAV	KONE-1	1	B005932
9	EPA-365.4	03/09/18 10:45	03/13/18 13:41	JMH	SC-1	1	B007149

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Woodland, CA 95695

**Reported:** 03/22/2018 10:04  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806129-02	Client Sample Name:	Jose Nunes Dairy, NUN-MW2s, 2/23/2018 9:51:00AM, Stacy Young					
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	140	mg/L	0.50	0.080	EPA-200.7	0.16	A07	1
Dissolved Magnesium	130	mg/L	0.25	0.095	EPA-200.7	ND	A07	1
Dissolved Sodium	560	mg/L	2.5	0.26	EPA-200.7	ND	A07	1
Dissolved Potassium	0.72	mg/L	5.0	0.50	EPA-200.7	ND	J,A07	1
Bicarbonate Alkalinity as CaCO3	510	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	330	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	1.7	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	1100	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2500	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.77	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.048	mg/L	0.10	0.020	EPA-350.1	0.024	J	7
Nitrite as N	0.014	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.53	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:19	03/07/18 13:33	JCC	PE-OP2	5	B005962
2	SM-2320B	03/02/18 13:00	03/02/18 18:45	MEV	MET-1	2	B005366
3	EPA-300.0	02/24/18 19:00	02/25/18 09:50	OLH	IC5	5	B006061
4	EPA-300.0	02/24/18 19:00	02/24/18 21:55	OLH	IC5	1	B006061
5	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	10	B006476
6	EPA-351.2	03/09/18 10:45	03/13/18 12:12	JMH	SC-1	1	B007154
7	EPA-350.1	03/12/18 07:46	03/14/18 12:24	JMH	SC-1	1	B007272
8	EPA-353.2	02/23/18 18:26	02/24/18 02:16	SAV	KONE-1	1	B005932
9	EPA-365.4	03/09/18 10:45	03/13/18 13:42	JMH	SC-1	1	B007149

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Woodland, CA 95695

Reported: 03/22/2018 10:04  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Jose Nunes Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1806129-03	Client Sample Name:	Jose Nunes Dairy, NUN-MW3s, 2/23/2018 11:03:00AM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	260	mg/L	0.50	0.080	EPA-200.7	0.16	A07	1	
Dissolved Magnesium	150	mg/L	0.25	0.095	EPA-200.7	ND	A07	1	
Dissolved Sodium	1300	mg/L	2.5	0.26	EPA-200.7	ND	A07	1	
Dissolved Potassium	0.79	mg/L	5.0	0.50	EPA-200.7	ND	J,A07	1	
Bicarbonate Alkalinity as CaCO3	650	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	930	mg/L	2.5	0.38	EPA-300.0	ND	A07	3	
Nitrate as N	7.7	mg/L	0.10	0.021	EPA-300.0	ND		4	
Sulfate	2300	mg/L	10	1.3	EPA-300.0	ND	A07	5	
Total Dissolved Solids @ 180 C	5500	mg/L	200	200	SM-2540C	ND		6	
Total Kjeldahl Nitrogen	1.3	mg/L	0.20	0.084	EPA-351.2	ND		7	
Ammonia as N	0.046	mg/L	0.10	0.020	EPA-350.1	0.024	J	8	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		9	
Total Phosphate	2.1	mg/L	0.15	0.060	EPA-365.4	ND		10	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:19	03/07/18 13:36	JCC	PE-OP2	5	B005962
2	SM-2320B	03/02/18 13:00	03/02/18 19:24	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 10:44	OLH	IC5	5	B006061
4	EPA-300.0	02/24/18 19:00	02/24/18 22:13	OLH	IC5	1	B006061
5	EPA-300.0	02/24/18 19:00	02/26/18 09:54	OLH	IC5	10	B006061
6	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	20	B006476
7	EPA-351.2	03/09/18 10:45	03/13/18 12:14	JMH	SC-1	1	B007154
8	EPA-350.1	03/12/18 07:46	03/14/18 12:25	JMH	SC-1	1	B007272
9	EPA-353.2	02/23/18 18:26	02/24/18 02:16	SAV	KONE-1	1	B005932
10	EPA-365.4	03/09/18 10:45	03/13/18 13:43	JMH	SC-1	1	B007149

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**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806129-04		Client Sample Name: Jose Nunes Dairy, NUN-MW4s, 2/23/2018 11:32:00AM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	460	mg/L	0.50	0.080	EPA-200.7	0.16	A07	1
Dissolved Magnesium	280	mg/L	0.25	0.095	EPA-200.7	ND	A07	1
Dissolved Sodium	2600	mg/L	2.5	0.26	EPA-200.7	ND	A07	1
Dissolved Potassium	2.0	mg/L	5.0	0.50	EPA-200.7	ND	J,A07	1
Bicarbonate Alkalinity as CaCO3	570	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	950	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	1.5	mg/L	1.0	0.21	EPA-300.0	ND	A07	3
Sulfate	6100	mg/L	20	2.6	EPA-300.0	ND	A07	4
Total Dissolved Solids @ 180 C	11000	mg/L	500	500	SM-2540C	ND		5
Total Kjeldahl Nitrogen	1.2	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.043	mg/L	0.10	0.020	EPA-350.1	0.024	J	7
Nitrite as N	0.028	mg/L	0.050	0.010	EPA-353.2	ND	J	8
Total Phosphate	0.75	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:19	03/07/18 13:38	JCC	PE-OP2	5	B005962
2	SM-2320B	03/02/18 13:00	03/02/18 19:33	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 11:02	OLH	IC5	10	B006061
4	EPA-300.0	02/24/18 19:00	02/26/18 10:12	OLH	IC5	20	B006061
5	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	50	B006476
6	EPA-351.2	03/09/18 10:45	03/13/18 12:14	JMH	SC-1	1	B007154
7	EPA-350.1	03/12/18 07:46	03/14/18 12:26	JMH	SC-1	1	B007272
8	EPA-353.2	02/23/18 18:26	02/24/18 02:16	SAV	KONE-1	1	B005932
9	EPA-365.4	03/09/18 10:45	03/13/18 13:43	JMH	SC-1	1	B007149

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**Project Number:** Jose Nunes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1806129-05		Client Sample Name: Jose Nunes Dairy, NUN-MW5s, 2/23/2018 10:18:00AM, Stacy Young						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	280	mg/L	0.50	0.080	EPA-200.7	0.16	A07	1
Dissolved Magnesium	300	mg/L	0.25	0.095	EPA-200.7	ND	A07	1
Dissolved Sodium	1700	mg/L	2.5	0.26	EPA-200.7	ND	A07	1
Dissolved Potassium	1.7	mg/L	5.0	0.50	EPA-200.7	ND	J,A07	1
Bicarbonate Alkalinity as CaCO3	690	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	800	mg/L	5.0	0.77	EPA-300.0	ND	A07	3
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND		4
Sulfate	3600	mg/L	10	1.3	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	7000	mg/L	500	500	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.52	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.039	mg/L	0.10	0.020	EPA-350.1	0.024	J	7
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.29	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:19	03/07/18 13:41	JCC	PE-OP2	5	B005962
2	SM-2320B	03/02/18 13:00	03/02/18 19:41	MEV	MET-1	2	B005367
3	EPA-300.0	02/24/18 19:00	02/25/18 10:08	OLH	IC5	10	B006061
4	EPA-300.0	02/24/18 19:00	02/24/18 22:48	OLH	IC5	1	B006061
5	SM-2540C	03/02/18 11:30	03/02/18 11:30	CAD	MANUAL	50	B006476
6	EPA-351.2	03/09/18 10:45	03/13/18 12:34	JMH	SC-1	1	B007155
7	EPA-350.1	03/12/18 07:46	03/14/18 12:27	JMH	SC-1	1	B007272
8	EPA-353.2	02/23/18 18:26	02/24/18 03:03	SAV	KONE-1	1	B005932
9	EPA-365.4	03/09/18 10:45	03/13/18 13:56	JMH	SC-1	1	B007151

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### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005366</b>						
Bicarbonate Alkalinity as CaCO3	B005366-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005366-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005366-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005367</b>						
Bicarbonate Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005367-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005932</b>						
Nitrite as N	B005932-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005962</b>						
Dissolved Calcium	B005962-BLK1	0.031353	mg/L	0.10	0.016	J
Dissolved Magnesium	B005962-BLK1	ND	mg/L	0.050	0.019	
Dissolved Sodium	B005962-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B005962-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006061</b>						
Chloride	B006061-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006061-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006061-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006476</b>						
Total Dissolved Solids @ 180 C	B006476-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B007149</b>						
Total Phosphate	B007149-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007151</b>						
Total Phosphate	B007151-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007154</b>						
Total Kjeldahl Nitrogen	B007154-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007155</b>						
Total Kjeldahl Nitrogen	B007155-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007272</b>						
Ammonia as N	B007272-BLK1	0.024000	mg/L	0.10	0.020	J

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**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005932</b>										
Nitrite as N	B005932-BS1	LCS	0.50738	0.50000	mg/L	101		90 - 110		
<b>QC Batch ID: B005962</b>										
Dissolved Calcium	B005962-BS1	LCS	10.487	10.000	mg/L	105		85 - 115		
Dissolved Magnesium	B005962-BS1	LCS	10.343	10.000	mg/L	103		85 - 115		
Dissolved Sodium	B005962-BS1	LCS	10.519	10.000	mg/L	105		85 - 115		
Dissolved Potassium	B005962-BS1	LCS	10.175	10.000	mg/L	102		85 - 115		
<b>QC Batch ID: B006061</b>										
Chloride	B006061-BS1	LCS	52.429	50.000	mg/L	105		90 - 110		
Nitrate as N	B006061-BS1	LCS	5.1330	5.0000	mg/L	103		90 - 110		
Sulfate	B006061-BS1	LCS	104.02	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B006476</b>										
Total Dissolved Solids @ 180 C	B006476-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B007149</b>										
Total Phosphate	B007149-BS1	LCS	3.1536	3.0660	mg/L	103		85 - 115		
<b>QC Batch ID: B007151</b>										
Total Phosphate	B007151-BS1	LCS	3.4332	3.0660	mg/L	112		85 - 115		
<b>QC Batch ID: B007154</b>										
Total Kjeldahl Nitrogen	B007154-BS1	LCS	1.9920	2.0000	mg/L	99.6		90 - 110		
<b>QC Batch ID: B007155</b>										
Total Kjeldahl Nitrogen	B007155-BS1	LCS	2.1078	2.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B007272</b>										
Ammonia as N	B007272-BS1	LCS	1.0226	1.0000	mg/L	102		90 - 110		

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Project Number: Jose Nunes Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B005366</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1806117-01	494.74	491.39		mg/L	0.7		10	
Carbonate Alkalinity as CaCO3	DUP	1806117-01	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806117-01	ND	ND		mg/L			10	
<b>QC Batch ID: B005367</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								
Bicarbonate Alkalinity as CaCO3	DUP	1806130-06	869.89	866.55		mg/L	0.4		10	
Carbonate Alkalinity as CaCO3	DUP	1806130-06	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1806130-06	ND	ND		mg/L			10	
<b>QC Batch ID: B005932</b>		Used client sample: Y - Description: NUN-MW1s, 02/23/2018 10:41								
Nitrite as N	DUP	1806129-01	ND	ND		mg/L			10	
	MS	1806129-01	ND	0.53355	0.52632	mg/L		101		90 - 110
	MSD	1806129-01	ND	0.53713	0.52632	mg/L	0.7	102	10	90 - 110
<b>QC Batch ID: B005962</b>		Used client sample: Y - Description: ADO-MW1d, 02/23/2018 09:37								
Dissolved Calcium	DUP	1806082-01	152.16	152.05		mg/L	0.1		20	
	MS	1806082-01	152.16	160.18	10.204	mg/L		78.6		A03 85 - 115
	MSD	1806082-01	152.16	159.53	10.204	mg/L	0.4	72.2	20	A03 85 - 115
Dissolved Magnesium	DUP	1806082-01	77.052	76.280		mg/L	1.0		20	
	MS	1806082-01	77.052	86.442	10.204	mg/L		92.0		85 - 115
	MSD	1806082-01	77.052	86.080	10.204	mg/L	0.4	88.5	20	85 - 115
Dissolved Sodium	DUP	1806082-01	46.355	46.182		mg/L	0.4		20	
	MS	1806082-01	46.355	55.500	10.204	mg/L		89.6		85 - 115
	MSD	1806082-01	46.355	55.278	10.204	mg/L	0.4	87.4	20	85 - 115
Dissolved Potassium	DUP	1806082-01	7.9998	8.0348		mg/L	0.4		20	
	MS	1806082-01	7.9998	18.259	10.204	mg/L		101		85 - 115
	MSD	1806082-01	7.9998	18.334	10.204	mg/L	0.4	101	20	85 - 115
<b>QC Batch ID: B006061</b>		Used client sample: Y - Description: NUN-MW1s, 02/23/2018 10:41								
Chloride	DUP	806129-01RE'	773.25	766.72		mg/L	0.8		10	
	MS	806129-01RE'	773.25	1000.7	252.53	mg/L		90.1		80 - 120
	MSD	806129-01RE'	773.25	998.03	252.53	mg/L	0.3	89.0	10	80 - 120
Nitrate as N	DUP	806129-01RE'	1.5250	1.6100		mg/L	5.4		10	
	MS	806129-01RE'	1.5250	27.293	25.253	mg/L		102		80 - 120
	MSD	806129-01RE'	1.5250	27.298	25.253	mg/L	0.0	102	10	80 - 120
Sulfate	DUP	806129-01RE'	1739.1	1717.6		mg/L	1.2		10	
	MS	806129-01RE'	1739.1	2170.8	505.05	mg/L		85.5		80 - 120
	MSD	806129-01RE'	1739.1	2166.6	505.05	mg/L	0.2	84.6	10	80 - 120
<b>QC Batch ID: B006476</b>		Used client sample: Y - Description: NUN-MW1s, 02/23/2018 10:41								
Total Dissolved Solids @ 180 C	DUP	1806129-01	4280.0	4320.0		mg/L	0.9		10	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 10:04  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B007149</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								
Total Phosphate	DUP	1806130-06	0.70400	0.68622		mg/L	2.6		20	
	MS	1806130-06	0.70400	3.8346	3.0660	mg/L		102		80 - 120
	MSD	1806130-06	0.70400	3.9082	3.0660	mg/L	1.9	105	20	80 - 120
<b>QC Batch ID: B007151</b>		Used client sample: Y - Description: Field Duplicate, 02/22/2018 00:00								
Total Phosphate	DUP	1805984-06	ND	ND		mg/L			20	
	MS	1805984-06	ND	3.1579	3.0660	mg/L		103		80 - 120
	MSD	1805984-06	ND	3.0889	3.0660	mg/L	2.2	101	20	80 - 120
<b>QC Batch ID: B007154</b>		Used client sample: Y - Description: Field Duplicate #1, 02/23/2018 00:00								
Total Kjeldahl Nitrogen	DUP	1806130-06	0.76760	0.82270		mg/L	6.9		20	
	MS	1806130-06	0.76760	2.7124	2.0000	mg/L		97.2		90 - 110
	MSD	1806130-06	0.76760	2.7460	2.0000	mg/L	1.2	98.9	20	90 - 110
<b>QC Batch ID: B007155</b>		Used client sample: Y - Description: Field Duplicate, 02/22/2018 00:00								
Total Kjeldahl Nitrogen	DUP	1805984-06	ND	ND		mg/L			20	
	MS	1805984-06	ND	0.88420	2.0000	mg/L		44.2		90 - 110 Q03
	MSD	1805984-06	ND	0.60780	2.0000	mg/L	37.1	30.4	20	90 - 110 Q02, Q03
<b>QC Batch ID: B007272</b>		Used client sample: Y - Description: ADO-MW2d, 02/23/2018 11:07								
Ammonia as N	DUP	1806082-02	0.040500	0.029800		mg/L	30.4		10	J,A02
	MS	1806082-02	0.040500	1.1387	1.1111	mg/L		98.8		90 - 110
	MSD	1806082-02	0.040500	1.1307	1.1111	mg/L	0.7	98.1	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/22/2018 10:04  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q02 Matrix spike precision is not within the control limits.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 03/12/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Moonshine Dairy  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1805837  
Invoice ID: B296688

Enclosed are the results of analyses for samples received by the laboratory on 2/21/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1805837

Samples were filtered through a 0.45 micron filter for requested analysis.



18-05837

BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Expanded Constituent Suite				From Unfiltered Sample:	
Project: Dairy Representative Monitoring Program				Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
Site: Moonshine Dairy				From Filtered Sample:	
Samplers Name: Antonio Del-Tech				Na, K, Mg, Ca, Cl, SO4 (as SO4), Total Dissolved Solids	
Global ID - GADAIRY00017				From Filtered Sample:	
Global ID - GADAIRY00017				Ammonia-N, NO3-N, NO2-N	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Cl-Pb Unpreserved
1	MOO-MW1	2/21/18	1052	bw	x
2	MOO-MW2		1107		x
3	MOO-MW3		1013		x
4	MOO-MW4		906		x
5	MOO-MW5s, MOO-MW5r		927		x
6	MOO-MW6s, MOO-MW6r		1119		x
7	MOO-MW7s, MOO-MW7r		1136		x
8	MOO-MW8s, MOO-MW8d		1156		x
9	Field Duplicate				x
10					x
11					x
12					x

Relinquished by: (Signature)	Antonio H. Morel	2/21/18	1730
Relinquished by: (Signature)	Antonio H. Morel	2/21/18	1850
Relinquished by: (Signature)	Antonio H. Morel	2/21/18	1850

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lubdorff and Scalmanini Consulting Engineers via email: ilovellis@lscce.com, rboyson@lscce.com, pdhawal@lscce.com.
- Send invoices to Jeanette Lovellis (jlovellis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-05837

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____	<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
---	--	---	---

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_  
 Intact? Yes  No  Intact? Yes  No

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.98 Container: PE Thermometer ID: 2090 Date/Time: 2/21/18 7:45  
 Temperature: (A) 0.5 °C / (C) 0.2 °C Analyst Init: BL

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A		
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA SIS.18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.I										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: JM Date/Time: 2-22-18 09:53 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805837-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 10:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805837-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 11:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805837-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 10:13
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805837-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 09:06
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW4	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805837-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 09:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1805837-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 11:19
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805837-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 11:36
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1805837-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/21/2018 22:45
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	02/21/2018 11:56
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805837-01		Client Sample Name: Moonshine Dairy, MOO-MW1, 2/21/2018 10:52:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	80	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	150	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	290	mg/L	0.50	0.051	EPA-200.7	0.062		1
Dissolved Potassium	2.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	840	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	310	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	1.9	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	250	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.65	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.059	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.10	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.18	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	02/26/18 23:17	JCC	PE-OP2	1	B005969
2	SM-2320B	02/27/18 13:00	02/27/18 16:23	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:00	02/23/18 07:56	OLH	IC2	2	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:46	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:22	03/08/18 13:49	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:34	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 15:34	JMH	SC-1	1	B007027

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805837-02	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW2, 2/21/2018 11:07:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	120	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	560	mg/L	0.50	0.051	EPA-200.7	0.062		1
Dissolved Potassium	2.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	1100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	380	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	23	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	310	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2200	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.40	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.020	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.27	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	02/26/18 23:31	JCC	PE-OP2	1	B005969
2	SM-2320B	02/27/18 13:00	02/27/18 16:30	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:00	02/23/18 08:16	OLH	IC2	2	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:49	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:22	03/08/18 13:51	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:34	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 15:37	JMH	SC-1	1	B007027

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805837-03	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW3, 2/21/2018 10:13:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	230	mg/L	0.50	0.051	EPA-200.7	0.062		1
Dissolved Potassium	1.9	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	790	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	270	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	2.1	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	220	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.38	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.023	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.14	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	02/26/18 23:42	JCC	PE-OP2	1	B005969
2	SM-2320B	02/27/18 13:00	02/27/18 15:14	MEV	MET-1	2	B005345
3	EPA-300.0	02/22/18 23:00	02/23/18 08:37	OLH	IC2	2	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:51	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:22	03/08/18 13:51	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:34	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 15:38	JMH	SC-1	1	B007027

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Woodland, CA 95695

**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805837-04	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW4, 2/21/2018 9:06:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	64	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	200	mg/L	0.50	0.051	EPA-200.7	0.062		1
Dissolved Potassium	1.6	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	690	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	210	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	8.4	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	200	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.29	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.032	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.18	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.35	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	02/26/18 23:45	JCC	PE-OP2	1	B005969
2	SM-2320B	02/27/18 13:00	02/27/18 17:06	MEV	MET-1	2	B005346
3	EPA-300.0	02/22/18 23:00	02/23/18 08:57	OLH	IC2	2	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	5	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:51	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:22	03/08/18 13:53	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:34	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 15:39	JMH	SC-1	1	B007027

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**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID: 1805837-05		Client Sample Name: Moonshine Dairy, MOO-MW5s, 2/21/2018 9:27:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	95	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	160	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	210	mg/L	0.50	0.051	EPA-200.7	0.062		1
Dissolved Potassium	1.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	710	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	270	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	16	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	290	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.18	mg/L	0.20	0.084	EPA-351.2	ND	J	5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.016	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.22	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	02/26/18 23:47	JCC	PE-OP2	1	B005969
2	SM-2320B	02/27/18 13:00	02/27/18 17:13	MEV	MET-1	2	B005346
3	EPA-300.0	02/22/18 23:00	02/23/18 09:18	OLH	IC2	2	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:53	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:22	03/08/18 13:53	JMH	SC-1	1	B006803
7	EPA-353.2	02/22/18 08:03	02/22/18 13:34	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 15:40	JMH	SC-1	1	B007027

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**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805837-06	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW6s, 2/21/2018 11:19:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	120	mg/L	0.050	0.019	EPA-200.7	ND		1
Dissolved Sodium	170	mg/L	0.50	0.051	EPA-200.7	0.062		1
Dissolved Potassium	4.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	830	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	270	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	0.35	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	190	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	1.2	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.087	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	7.7	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	02/26/18 23:50	JCC	PE-OP2	1	B005969
2	SM-2320B	02/27/18 13:00	02/27/18 17:20	MEV	MET-1	2	B005346
3	EPA-300.0	02/22/18 23:00	02/23/18 11:22	OLH	IC2	2	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:55	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:23	03/08/18 15:00	JMH	SC-1	1	B006804
7	EPA-353.2	02/22/18 08:03	02/22/18 13:40	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 16:05	JMH	SC-1	5	B007027

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Reported: 03/12/2018 17:25  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Moonshine Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

BCL Sample ID:	1805837-07	Client Sample Name:	Moonshine Dairy, MOO-MW7s, 2/21/2018 11:36:00AM, Del-Tech/Antonio Morales						
Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #	
Dissolved Calcium	140	mg/L	0.10	0.016	EPA-200.7	ND		1	
Dissolved Magnesium	160	mg/L	0.050	0.019	EPA-200.7	ND		1	
Dissolved Sodium	300	mg/L	0.50	0.051	EPA-200.7	0.062		1	
Dissolved Potassium	8.4	mg/L	1.0	0.10	EPA-200.7	ND		1	
Bicarbonate Alkalinity as CaCO3	740	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2	
Chloride	380	mg/L	2.5	0.38	EPA-300.0	ND	A07	3	
Nitrate as N	21	mg/L	0.50	0.10	EPA-300.0	ND	A07,S05	3	
Sulfate	450	mg/L	5.0	0.65	EPA-300.0	ND	A07	3	
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		4	
Total Kjeldahl Nitrogen	0.89	mg/L	0.20	0.084	EPA-351.2	ND		5	
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6	
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7	
Total Phosphate	0.31	mg/L	0.15	0.060	EPA-365.4	ND		8	

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	02/26/18 23:53	JCC	PE-OP2	1	B005969
2	SM-2320B	02/27/18 13:00	02/27/18 17:28	MEV	MET-1	2	B005346
3	EPA-300.0	02/22/18 23:00	02/23/18 12:24	OLH	IC2	5	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	10	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:56	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:23	03/08/18 15:02	JMH	SC-1	1	B006804
7	EPA-353.2	02/22/18 08:03	02/22/18 13:40	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 15:41	JMH	SC-1	1	B007027

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**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1805837-08	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW8s, 2/21/2018 11:56:00AM, Del-Tech/Antonio Morales
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	32	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	39	mg/L	0.050	0.019	EPA-200.7	0.020		1
Dissolved Sodium	120	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.0	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	250	mg/L	4.1	4.1	SM-2320B	ND		2
Carbonate Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Hydroxide Alkalinity as CaCO3	ND	mg/L	4.1	4.1	SM-2320B	ND		2
Chloride	68	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	4.5	mg/L	0.50	0.10	EPA-300.0	ND	A07,S05	3
Sulfate	110	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	670	mg/L	33	33	SM-2540C	ND		4
Total Kjeldahl Nitrogen	4.2	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.074	mg/L	0.20	0.040	EPA-350.1	ND	J,A07	6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	17	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	02/26/18 09:33	03/09/18 15:08	JCC	PE-OP2	1	B006834
2	SM-2320B	02/27/18 13:00	02/27/18 17:34	MEV	MET-1	1	B005346
3	EPA-300.0	02/22/18 23:00	02/23/18 12:44	OLH	IC2	5	B005829
4	SM-2540C	02/27/18 13:30	02/27/18 13:30	CAD	MANUAL	3.333	B006126
5	EPA-351.2	03/08/18 11:25	03/09/18 12:56	JMH	SC-1	1	B007024
6	EPA-350.1	03/06/18 13:23	03/08/18 16:21	JMH	SC-1	2	B006804
7	EPA-353.2	02/22/18 08:03	02/22/18 13:40	JNC	KONE-1	1	B005916
8	EPA-365.4	03/08/18 11:25	03/09/18 16:06	JMH	SC-1	5	B007027

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**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005345</b>						
Bicarbonate Alkalinity as CaCO3	B005345-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005345-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005345-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005346</b>						
Bicarbonate Alkalinity as CaCO3	B005346-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005346-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005346-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B005829</b>						
Chloride	B005829-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B005829-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B005829-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B005916</b>						
Nitrite as N	B005916-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B005969</b>						
Dissolved Calcium	B005969-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B005969-BLK1	ND	mg/L	0.050	0.019	
<b>Dissolved Sodium</b>	<b>B005969-BLK1</b>	<b>0.062063</b>	<b>mg/L</b>	<b>0.50</b>	<b>0.051</b>	<b>J</b>
Dissolved Potassium	B005969-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B006126</b>						
Total Dissolved Solids @ 180 C	B006126-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006803</b>						
Ammonia as N	B006803-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006804</b>						
Ammonia as N	B006804-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B006834</b>						
Dissolved Calcium	B006834-BLK1	ND	mg/L	0.10	0.016	
<b>Dissolved Magnesium</b>	<b>B006834-BLK1</b>	<b>0.020398</b>	<b>mg/L</b>	<b>0.050</b>	<b>0.019</b>	<b>J</b>
Dissolved Sodium	B006834-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B006834-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B007024</b>						

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**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B007024</b>						
Total Kjeldahl Nitrogen	B007024-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007027</b>						
Total Phosphate	B007027-BLK1	ND	mg/L	0.15	0.060	

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**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B005829</b>										
Chloride	B005829-BS1	LCS	52.542	50.000	mg/L	105		90 - 110		
Nitrate as N	B005829-BS1	LCS	5.1990	5.0000	mg/L	104		90 - 110		
Sulfate	B005829-BS1	LCS	104.29	100.00	mg/L	104		90 - 110		
<b>QC Batch ID: B005916</b>										
Nitrite as N	B005916-BS1	LCS	0.50173	0.50000	mg/L	100		90 - 110		
<b>QC Batch ID: B005969</b>										
Dissolved Calcium	B005969-BS1	LCS	10.533	10.000	mg/L	105		85 - 115		
Dissolved Magnesium	B005969-BS1	LCS	10.046	10.000	mg/L	100		85 - 115		
Dissolved Sodium	B005969-BS1	LCS	11.049	10.000	mg/L	110		85 - 115		
Dissolved Potassium	B005969-BS1	LCS	10.419	10.000	mg/L	104		85 - 115		
<b>QC Batch ID: B006126</b>										
Total Dissolved Solids @ 180 C	B006126-BS1	LCS	565.00		mg/L			90 - 110		
<b>QC Batch ID: B006803</b>										
Ammonia as N	B006803-BS1	LCS	0.90830	1.0000	mg/L	90.8		90 - 110		
<b>QC Batch ID: B006804</b>										
Ammonia as N	B006804-BS1	LCS	0.93930	1.0000	mg/L	93.9		90 - 110		
<b>QC Batch ID: B006834</b>										
Dissolved Calcium	B006834-BS1	LCS	9.9728	10.000	mg/L	99.7		85 - 115		
Dissolved Magnesium	B006834-BS1	LCS	9.7374	10.000	mg/L	97.4		85 - 115		
Dissolved Sodium	B006834-BS1	LCS	9.6839	10.000	mg/L	96.8		85 - 115		
Dissolved Potassium	B006834-BS1	LCS	9.5714	10.000	mg/L	95.7		85 - 115		
<b>QC Batch ID: B007024</b>										
Total Kjeldahl Nitrogen	B007024-BS1	LCS	1.9154	2.0000	mg/L	95.8		90 - 110		
<b>QC Batch ID: B007027</b>										
Total Phosphate	B007027-BS1	LCS	3.2980	3.0660	mg/L	108		85 - 115		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 17:25  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Moonshine Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B005345</b>		Used client sample: Y - Description: MOO-MW3, 02/21/2018 10:13								
Bicarbonate Alkalinity as CaCO3	DUP	1805837-03	787.44	782.57		mg/L	0.6		10	
Carbonate Alkalinity as CaCO3	DUP	1805837-03	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805837-03	ND	ND		mg/L			10	
<b>QC Batch ID: B005346</b>		Used client sample: N								
Bicarbonate Alkalinity as CaCO3	DUP	1805838-05	147.26	141.48		mg/L	4.0		10	
Carbonate Alkalinity as CaCO3	DUP	1805838-05	ND	ND		mg/L			10	
Hydroxide Alkalinity as CaCO3	DUP	1805838-05	ND	ND		mg/L			10	
<b>QC Batch ID: B005829</b>		Used client sample: Y - Description: MOO-MW8s, 02/21/2018 11:56								
Chloride	DUP	1805837-08	68.115	67.785		mg/L	0.5		10	
	MS	1805837-08	68.115	351.89	252.53	mg/L		112		80 - 120
	MSD	1805837-08	68.115	352.42	252.53	mg/L	0.2	113	10	80 - 120
Nitrate as N	DUP	1805837-08	4.5400	4.5350		mg/L	0.1		10	
	MS	1805837-08	4.5400	31.157	25.253	mg/L		105		80 - 120
	MSD	1805837-08	4.5400	30.803	25.253	mg/L	1.1	104	10	80 - 120
Sulfate	DUP	1805837-08	109.57	109.06		mg/L	0.5		10	
	MS	1805837-08	109.57	661.31	505.05	mg/L		109		80 - 120
	MSD	1805837-08	109.57	660.69	505.05	mg/L	0.1	109	10	80 - 120
<b>QC Batch ID: B005916</b>		Used client sample: Y - Description: MOO-MW1, 02/21/2018 10:52								
Nitrite as N	DUP	1805837-01	0.10421	0.10674		mg/L	2.4		10	
	MS	1805837-01	0.10421	0.62114	0.52632	mg/L		98.2		90 - 110
	MSD	1805837-01	0.10421	0.62566	0.52632	mg/L	0.7	99.1	10	90 - 110
<b>QC Batch ID: B005969</b>		Used client sample: Y - Description: MOO-MW1, 02/21/2018 10:52								
Dissolved Calcium	DUP	1805837-01	79.877	79.531		mg/L	0.4		20	
	MS	1805837-01	79.877	91.402	10.204	mg/L		113		85 - 115
	MSD	1805837-01	79.877	88.042	10.204	mg/L	3.7	80.0	20	85 - 115 A03
Dissolved Magnesium	DUP	1805837-01	150.03	149.56		mg/L	0.3		20	
	MS	1805837-01	150.03	158.29	10.204	mg/L		80.9		85 - 115 A03
	MSD	1805837-01	150.03	159.94	10.204	mg/L	1.0	97.1	20	85 - 115
Dissolved Sodium	DUP	1805837-01	286.65	290.31		mg/L	1.3		20	
	MS	1805837-01	286.65	307.63	10.204	mg/L		206		85 - 115 A03
	MSD	1805837-01	286.65	296.27	10.204	mg/L	3.8	94.3	20	85 - 115
Dissolved Potassium	DUP	1805837-01	2.0821	2.1223		mg/L	1.9		20	
	MS	1805837-01	2.0821	12.470	10.204	mg/L		102		85 - 115
	MSD	1805837-01	2.0821	12.604	10.204	mg/L	1.1	103	20	85 - 115
<b>QC Batch ID: B006126</b>		Used client sample: Y - Description: MOO-MW1, 02/21/2018 10:52								
Total Dissolved Solids @ 180 C	DUP	1805837-01	1790.0	1750.0		mg/L	2.3		10	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/12/2018 17:25  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Moonshine Dairy  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B006803</b>		Used client sample: Y - Description: ANC-MW3, 02/21/2018 15:32								
Ammonia as N	DUP	1805836-03	ND	ND		mg/L			10	
	MS	1805836-03	ND	1.0598	1.1111	mg/L		95.4		90 - 110
	MSD	1805836-03	ND	1.0839	1.1111	mg/L	2.2	97.6	10	90 - 110
<b>QC Batch ID: B006804</b>		Used client sample: N								
Ammonia as N	DUP	1805880-01	0.028200	0.029600		mg/L	4.8		10	J
	MS	1805880-01	0.028200	1.0513	1.1111	mg/L		92.1		90 - 110
	MSD	1805880-01	0.028200	1.0859	1.1111	mg/L	3.2	95.2	10	90 - 110
<b>QC Batch ID: B006834</b>		Used client sample: N								
Dissolved Calcium	DUP	1806765-01	30.249	30.329		mg/L	0.3		20	
	MS	1806765-01	30.249	40.758	10.204	mg/L		103		85 - 115
	MSD	1806765-01	30.249	40.601	10.204	mg/L	0.4	101	20	85 - 115
Dissolved Magnesium	DUP	1806765-01	63.627	64.140		mg/L	0.8		20	
	MS	1806765-01	63.627	74.788	10.204	mg/L		109		85 - 115
	MSD	1806765-01	63.627	74.473	10.204	mg/L	0.4	106	20	85 - 115
Dissolved Sodium	DUP	1806765-01	445.37	451.57		mg/L	1.4		20	
	MS	1806765-01	445.37	455.38	10.204	mg/L		98.1		85 - 115
	MSD	1806765-01	445.37	459.25	10.204	mg/L	0.8	136	20	85 - 115 A03
Dissolved Potassium	DUP	1806765-01	0.69515	0.76144		mg/L	9.1		20	J
	MS	1806765-01	0.69515	10.535	10.204	mg/L		96.4		85 - 115
	MSD	1806765-01	0.69515	10.579	10.204	mg/L	0.4	96.9	20	85 - 115
<b>QC Batch ID: B007024</b>		Used client sample: Y - Description: MOO-MW1, 02/21/2018 10:52								
Total Kjeldahl Nitrogen	DUP	1805837-01	0.64810	0.68820		mg/L	6.0		20	
	MS	1805837-01	0.64810	2.5443	2.0000	mg/L		94.8		90 - 110
	MSD	1805837-01	0.64810	2.6506	2.0000	mg/L	4.1	100	20	90 - 110
<b>QC Batch ID: B007027</b>		Used client sample: Y - Description: MOO-MW1, 02/21/2018 10:52								
Total Phosphate	DUP	1805837-01	0.18305	0.17723		mg/L	3.2		20	
	MS	1805837-01	0.18305	3.3621	3.0660	mg/L		104		80 - 120
	MSD	1805837-01	0.18305	3.3152	3.0660	mg/L	1.4	102	20	80 - 120

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/12/2018 17:25  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Moonshine Dairy  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- S05 The sample holding time was exceeded.



Date of Report: 03/27/2018

Jeanette Kinzie

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Tony L. Lopes Dairy LP  
BCL Project: Dairy Rep MP - Expanded Suite  
BCL Work Order: 1806410  
Invoice ID: B298303

Enclosed are the results of analyses for samples received by the laboratory on 2/27/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Misty Orton  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1806410

Samples were filtered through a 0.45 micron filter for requested analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: 18-06410 Luhdorff and Scalmani		Expanded Constituent Suite		From Unfiltered Sample: Total Kjeldahl Nitrogen, Total Phosphate (as PO4), Alkalinity (HCO3, CO3 & OH) as CaCO3	
Address: 500 First Street		Project: Dairy Representative Monitoring Program		From Filtered Sample: Na, K, Mg, Ca, Cl, SO4 (as SC4), Total Dissolved Solids	
City: Woodland		Site: Tony L. Lopes Dairy LP		From Filtered Sample: Ammonia-N, NO3-N, NO2-N	
State: 94695		Samplers Name: DON LEWIS / DELTECA			
Attn: Till Angermann		Global ID - GADAIRY00018			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qi/Pi Unpreserved
1	TON-MW1s, TON-MW2s	2/27/18	1546	GN	x
2	TON-MW2s, TON-MW3s		340		x
3	TON-MW3s, TON-MW4s		1432		x
4	TON-MW4s, TON-MW5s		1500		x
5	TON-MW5s, TON-MW6s		1405		x
6	TON-MW6s, TON-MW7s		1615		x
7	TON-MW7s, TON-MW8s		1715		x
8	TON-MW8s, TON-MW9s		1850		x
9	Field Duplicate #3				x
10					
11					
12					

Relinquished by: (Signature)	2/27/18	1730	Received By:	2/27/18 17:50
Relinquished by: (Signature)	2/27/18	1750	Received by:	2/27/18 17:50
Relinquished by: (Signature)			Received by:	2/27/18 2:50

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: [llavagnino@lscce.com](mailto:llavagnino@lscce.com), [rlbyson@lscce.com](mailto:rlbyson@lscce.com), [pdrhalikal@lscce.com](mailto:pdrhalikal@lscce.com), [jlovelis@lscce.com](mailto:jlovelis@lscce.com)
- Send invoices to Jeanette Lovells ([jlovelis@lscce.com](mailto:jlovelis@lscce.com)).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page    Of   

Submission #: 1806410

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> <u>(W)</u> / S	
---	--	---	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.95 Container: PE Thermometer ID: W09 Date/Time: 2/27/18 2:50

Temperature: (A) 1.9 °C / (C) 1.4 °C Analyst Init: ell

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	A
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
49 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCE VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By:   ell   Date/Time: 2/27 2:50 Rev 21 06/22/2016

A = Actual / C = Corrected

(S:\WP\Prod\Wast\Perfect\LAB\_DOCS\FORMS\SAMRECrev 20)



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806410-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 15:46
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806410-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 13:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806410-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 14:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806410-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 15:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806410-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 14:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Woodland, CA 95695

**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1806410-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 16:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806410-07	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 17:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806410-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 16:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TON-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time
1806410-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	02/27/2018 21:50
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b>	02/27/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Don Light of DTO	<b>Sample Type:</b>	Groundwater
				Metal Analysis: 2-Lab Filtered and Acidified past 15 minute holding time

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Woodland, CA 95695

**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-01	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW1s, 2/27/2018 3:46:00PM, Del-Tech/Don Light
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	85	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	350	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	140	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	1100	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	380	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	8.5	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	130	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	52	mg/L	5.0	2.1	EPA-351.2	ND	A07	5
Ammonia as N	53	mg/L	5.0	1.0	EPA-350.1	ND	A07	6
Nitrite as N	0.063	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.35	mg/L	0.75	0.30	EPA-365.4	ND	J,A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 20:37	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:04	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 10:34	OLH	IC8	2	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	10	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 17:57	JMH	SC-1	25	B007300
6	EPA-350.1	03/14/18 15:57	03/14/18 19:14	JMH	SC-1	50	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:06	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:32	JMH	SC-1	5	B007302

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**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-02	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW2s, 2/27/2018 1:40:00PM, Del-Tech/Don Light
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	91	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	200	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	690	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	71	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	1500	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	580	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	23	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	260	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	3.8	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	2.2	mg/L	0.50	0.10	EPA-350.1	ND	A07	6
Nitrite as N	0.33	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	4.4	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 20:50	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:10	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 00:51	OLH	IC8	5	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	20	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 16:44	JMH	SC-1	1	B007300
6	EPA-350.1	03/14/18 15:57	03/14/18 20:39	JMH	SC-1	5	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:06	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:34	JMH	SC-1	1	B007302

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**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-03	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW3s, 2/27/2018 2:32:00PM, Del-Tech/Don Light
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	110	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	440	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	6.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	930	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	430	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	32	mg/L	0.20	0.042	EPA-300.0	ND	A07	4
Sulfate	240	mg/L	2.0	0.26	EPA-300.0	ND	A07	4
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		5
Total Kjeldahl Nitrogen	0.98	mg/L	0.20	0.084	EPA-351.2	ND		6
Ammonia as N	0.037	mg/L	0.10	0.020	EPA-350.1	ND	J	7
Nitrite as N	0.72	mg/L	0.050	0.010	EPA-353.2	ND		8
Total Phosphate	0.80	mg/L	0.15	0.060	EPA-365.4	ND		9

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 20:53	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:20	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 01:10	OLH	IC8	5	B006394
4	EPA-300.0	02/28/18 22:00	03/01/18 10:53	OLH	IC8	2	B006394
5	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	10	B006621
6	EPA-351.2	03/16/18 20:00	03/19/18 14:46	JMH	SC-1	1	B007954
7	EPA-350.1	03/23/18 07:44	03/23/18 11:45	JMH	SC-1	1	B008592
8	EPA-353.2	02/28/18 08:06	02/28/18 08:06	JNC	KONE-1	1	B006380
9	EPA-365.4	03/12/18 10:45	03/13/18 15:35	JMH	SC-1	1	B007302

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Reported: 03/27/2018 8:27  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Tony L. Lopes Dairy LP  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-04	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW4s, 2/27/2018 3:00:00PM, Del-Tech/Don Light
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	130	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	140	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	450	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	7.6	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	670	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	560	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	36	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	310	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.21	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	ND	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.22	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 21:04	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 17:48	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 01:29	OLH	IC8	5	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	10	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 16:39	JMH	SC-1	1	B007300
6	EPA-350.1	03/14/18 15:57	03/14/18 19:18	JMH	SC-1	1	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:06	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:30	JMH	SC-1	1	B007302

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**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-05	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW5s, 2/27/2018 2:05:00PM, Del-Tech/Don Light
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	120	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	130	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	440	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	2.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	870	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	370	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	66	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	170	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.50	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.024	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.015	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.11	mg/L	0.15	0.060	EPA-365.4	ND	J	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 21:07	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:26	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 01:48	OLH	IC8	5	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	10	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 16:48	JMH	SC-1	1	B007300
6	EPA-350.1	03/14/18 15:57	03/14/18 19:18	JMH	SC-1	1	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:06	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:35	JMH	SC-1	1	B007302

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Reported: 03/27/2018 8:27  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Tony L. Lopes Dairy LP  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-06	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW6s, 2/27/2018 4:15:00PM, Del-Tech/Don Light
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	100	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	150	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	390	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	33	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	910	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	320	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	31	mg/L	0.20	0.042	EPA-300.0	ND	A07	3
Sulfate	250	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		4
Total Kjeldahl Nitrogen	2.2	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.27	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.24	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	10	mg/L	0.75	0.30	EPA-365.4	ND	A07	8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 21:10	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:35	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 02:45	OLH	IC8	2	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	10	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 16:48	JMH	SC-1	1	B007300
6	EPA-350.1	03/14/18 15:57	03/14/18 19:20	JMH	SC-1	1	B007668
7	EPA-353.2	02/28/18 08:06	02/28/18 08:12	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:47	JMH	SC-1	5	B007302

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**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-07	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW7s, 2/27/2018 5:15:00PM, Del-Tech/Don Light
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Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	41	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	60	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	190	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	1.7	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	340	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	230	mg/L	1.0	0.15	EPA-300.0	ND	A07	3
Nitrate as N	0.16	mg/L	0.20	0.042	EPA-300.0	ND	J,A07	3
Sulfate	75	mg/L	2.0	0.26	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	920	mg/L	50	50	SM-2540C	ND		4
Total Kjeldahl Nitrogen	ND	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	ND	mg/L	0.10	0.020	EPA-350.1	ND		6
Nitrite as N	0.010	mg/L	0.050	0.010	EPA-353.2	ND	J	7
Total Phosphate	0.34	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 21:12	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:41	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 03:04	OLH	IC8	2	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	5	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 16:49	JMH	SC-1	1	B007300
6	EPA-350.1	03/14/18 15:58	03/14/18 19:23	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:12	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:36	JMH	SC-1	1	B007302

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-08	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW8s, 2/27/2018 4:50:00PM, Del-Tech/Don Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	250	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	760	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	4.1	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	750	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	980	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	25	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	1100	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	3800	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.68	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.041	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.090	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.90	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 21:15	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:49	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 03:23	OLH	IC8	5	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	20	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 16:50	JMH	SC-1	1	B007300
6	EPA-350.1	03/14/18 15:58	03/14/18 19:29	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:12	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:37	JMH	SC-1	1	B007302

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1806410-09	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, Field Duplicate #3, 2/27/2018 12:00:00AM, Del-Tech/Don Light
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Dissolved Calcium	200	mg/L	0.10	0.016	EPA-200.7	ND		1
Dissolved Magnesium	260	mg/L	0.050	0.019	EPA-200.7	0.021		1
Dissolved Sodium	800	mg/L	0.50	0.051	EPA-200.7	ND		1
Dissolved Potassium	4.4	mg/L	1.0	0.10	EPA-200.7	ND		1
Bicarbonate Alkalinity as CaCO3	750	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Carbonate Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Hydroxide Alkalinity as CaCO3	ND	mg/L	8.2	8.2	SM-2320B	ND	A07	2
Chloride	990	mg/L	2.5	0.38	EPA-300.0	ND	A07	3
Nitrate as N	25	mg/L	0.50	0.10	EPA-300.0	ND	A07	3
Sulfate	1100	mg/L	5.0	0.65	EPA-300.0	ND	A07	3
Total Dissolved Solids @ 180 C	3800	mg/L	200	200	SM-2540C	ND		4
Total Kjeldahl Nitrogen	0.54	mg/L	0.20	0.084	EPA-351.2	ND		5
Ammonia as N	0.027	mg/L	0.10	0.020	EPA-350.1	ND	J	6
Nitrite as N	0.091	mg/L	0.050	0.010	EPA-353.2	ND		7
Total Phosphate	0.79	mg/L	0.15	0.060	EPA-365.4	ND		8

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	03/06/18 18:05	03/08/18 21:18	JRG	PE-OP2	1	B006829
2	SM-2320B	03/06/18 12:00	03/06/18 18:56	MEV	MET-1	2	B005381
3	EPA-300.0	02/28/18 22:00	03/01/18 03:42	OLH	IC8	5	B006394
4	SM-2540C	03/05/18 11:30	03/05/18 11:30	CAD	MANUAL	20	B006621
5	EPA-351.2	03/12/18 10:45	03/13/18 16:51	JMH	SC-1	1	B007300
6	EPA-350.1	03/14/18 15:58	03/14/18 19:29	JMH	SC-1	1	B007669
7	EPA-353.2	02/28/18 08:06	02/28/18 08:12	JNC	KONE-1	1	B006380
8	EPA-365.4	03/12/18 10:45	03/13/18 15:37	JMH	SC-1	1	B007302

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 03/27/2018 8:27  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Tony L. Lopes Dairy LP  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B005381</b>						
Bicarbonate Alkalinity as CaCO3	B005381-BLK1	ND	mg/L	4.1	4.1	
Carbonate Alkalinity as CaCO3	B005381-BLK1	ND	mg/L	4.1	4.1	
Hydroxide Alkalinity as CaCO3	B005381-BLK1	ND	mg/L	4.1	4.1	
<b>QC Batch ID: B006380</b>						
Nitrite as N	B006380-BLK1	ND	mg/L	0.050	0.010	
<b>QC Batch ID: B006394</b>						
Chloride	B006394-BLK1	ND	mg/L	0.50	0.077	
Nitrate as N	B006394-BLK1	ND	mg/L	0.10	0.021	
Sulfate	B006394-BLK1	ND	mg/L	1.0	0.13	
<b>QC Batch ID: B006621</b>						
Total Dissolved Solids @ 180 C	B006621-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B006829</b>						
Dissolved Calcium	B006829-BLK1	ND	mg/L	0.10	0.016	
Dissolved Magnesium	B006829-BLK1	0.020866	mg/L	0.050	0.019	J
Dissolved Sodium	B006829-BLK1	ND	mg/L	0.50	0.051	
Dissolved Potassium	B006829-BLK1	ND	mg/L	1.0	0.10	
<b>QC Batch ID: B007300</b>						
Total Kjeldahl Nitrogen	B007300-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B007302</b>						
Total Phosphate	B007302-BLK1	ND	mg/L	0.15	0.060	
<b>QC Batch ID: B007668</b>						
Ammonia as N	B007668-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B007669</b>						
Ammonia as N	B007669-BLK1	ND	mg/L	0.10	0.020	
<b>QC Batch ID: B007954</b>						
Total Kjeldahl Nitrogen	B007954-BLK1	ND	mg/L	0.20	0.084	
<b>QC Batch ID: B008592</b>						
Ammonia as N	B008592-BLK1	ND	mg/L	0.10	0.020	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B006380</b>										
Nitrite as N	B006380-BS1	LCS	0.49333	0.50000	mg/L	98.7		90 - 110		
<b>QC Batch ID: B006394</b>										
Chloride	B006394-BS1	LCS	50.840	50.000	mg/L	102		90 - 110		
Nitrate as N	B006394-BS1	LCS	4.9290	5.0000	mg/L	98.6		90 - 110		
Sulfate	B006394-BS1	LCS	100.76	100.00	mg/L	101		90 - 110		
<b>QC Batch ID: B006621</b>										
Total Dissolved Solids @ 180 C	B006621-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B006829</b>										
Dissolved Calcium	B006829-BS1	LCS	10.042	10.000	mg/L	100		85 - 115		
Dissolved Magnesium	B006829-BS1	LCS	10.641	10.000	mg/L	106		85 - 115		
Dissolved Sodium	B006829-BS1	LCS	10.222	10.000	mg/L	102		85 - 115		
Dissolved Potassium	B006829-BS1	LCS	9.8453	10.000	mg/L	98.5		85 - 115		
<b>QC Batch ID: B007300</b>										
Total Kjeldahl Nitrogen	B007300-BS1	LCS	1.9643	2.0000	mg/L	98.2		90 - 110		
<b>QC Batch ID: B007302</b>										
Total Phosphate	B007302-BS1	LCS	3.1640	3.0660	mg/L	103		85 - 115		
<b>QC Batch ID: B007668</b>										
Ammonia as N	B007668-BS1	LCS	0.98730	1.0000	mg/L	98.7		90 - 110		
<b>QC Batch ID: B007669</b>										
Ammonia as N	B007669-BS1	LCS	0.98400	1.0000	mg/L	98.4		90 - 110		
<b>QC Batch ID: B007954</b>										
Total Kjeldahl Nitrogen	B007954-BS1	LCS	2.0877	2.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B008592</b>										
Ammonia as N	B008592-BS1	LCS	0.99480	1.0000	mg/L	99.5		90 - 110		

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Luhdorf & Scalmanini
500 First Street
Woodland, CA 95695

Reported: 03/27/2018 8:27
Project: Dairy Rep MP - Expanded Suite
Project Number: Tony L. Lopes Dairy LP
Project Manager: Jeanette Kinzie

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Table with columns: Constituent, Type, Source Sample ID, Source Result, Result, Spike Added, Units, RPD, Percent Recovery, Control Limits RPD, Percent Recovery, Lab Quals. Includes QC Batch IDs B005381, B006380, B006394, B006621, B006829, and B007300.

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500 First Street  
Woodland, CA 95695

Reported: 03/27/2018 8:27  
Project: Dairy Rep MP - Expanded Suite  
Project Number: Tony L. Lopes Dairy LP  
Project Manager: Jeanette Kinzie

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Source Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B007302</b>		Used client sample: Y - Description: TON-MW4s, 02/27/2018 15:00								
Total Phosphate	DUP	1806410-04	0.21555	0.15239		mg/L	34.3		20	A02
	MS	1806410-04	0.21555	3.4406	3.0660	mg/L		105	80 - 120	
	MSD	1806410-04	0.21555	3.4124	3.0660	mg/L	0.8	104	20 80 - 120	
<b>QC Batch ID: B007668</b>		Used client sample: Y - Description: COR-MW4s, 02/27/2018 11:40								
Ammonia as N	DUP	1806409-04	0.020000	0.062300		mg/L	103		10	J,A02
	MS	1806409-04	0.020000	1.1182	1.1111	mg/L		98.8	90 - 110	
	MSD	1806409-04	0.020000	1.1191	1.1111	mg/L	0.1	98.9	10 90 - 110	
<b>QC Batch ID: B007669</b>		Used client sample: Y - Description: TON-MW7s, 02/27/2018 17:15								
Ammonia as N	DUP	1806410-07	ND	ND		mg/L			10	
	MS	1806410-07	ND	1.1523	1.1111	mg/L		104	90 - 110	
	MSD	1806410-07	ND	1.1376	1.1111	mg/L	1.3	102	10 90 - 110	
<b>QC Batch ID: B007954</b>		Used client sample: N								
Total Kjeldahl Nitrogen	DUP	1807444-01	0.22170	0.15260		mg/L	36.9		20	J,A02
	MS	1807444-01	0.22170	2.1628	2.0000	mg/L		97.1	90 - 110	
	MSD	1807444-01	0.22170	2.2268	2.0000	mg/L	2.9	100	20 90 - 110	
<b>QC Batch ID: B008592</b>		Used client sample: N								
Ammonia as N	DUP	1807785-02	0.053300	ND		mg/L			10	
	MS	1807785-02	0.053300	1.1110	1.1111	mg/L		95.2	90 - 110	
	MSD	1807785-02	0.053300	1.1427	1.1111	mg/L	2.8	98.0	10 90 - 110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 03/27/2018 8:27  
**Project:** Dairy Rep MP - Expanded Suite  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Jeanette Kinzie

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A03 The sample concentration is more than 4 times the spike level.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.

# Attachment B3

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Laboratory Reports, 2018Q2



2018Q2

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## North Area

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Date of Report: 06/19/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Brentwood Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1817104

Invoice ID: B307229

Enclosed are the results of analyses for samples received by the laboratory on 5/31/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1817104

Samples were filtered through a 0.45 micron filter prior to analysis.



18-17104

<b>BC Laboratories, Inc.</b>		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		<b>Chain of Custody</b>	
<b>Report to:</b>			<b>Analysis Requested</b>		
Luhdorff and Scalmanini Reduced Constituent Suite			From Filtered Sample:		
Address: 500 First Street City: Woodland State: 95695 Altin: Till Angermann			Ammonia-N, NO3-N, Total Dissolved Solids		
Project: Dairy Representative Monitoring Program Site: Brentwood Farms Samplers Name: Tony Dalri Global ID - WDR100038422					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qi Pa Unpreserved
1	BRE-MW1d	5-29-18	1420	W	x
2	BRE-MW2s, BRE-MW5d	↓	1500	W	x
3	BRE-MW3s, BRE-MW3d	↓	1540	W	x
4	Field Duplicate				x
5					
6					
7					
8					
9					
10					

CHK BY: [Signature] DISTRIBUTION [Signature]  
SUB-OUT [ ]

Relinquished by: (Signature) [Signature] Date & Time 5-29-18 135  
Relinquished by: (Signature) [Signature] Date & Time 5/30/18 1448  
Relinquished by: (Signature) [Signature] Date & Time 5-31-18 0840

Comments:  
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: luvagnino@isce.com, rbryson@isce.com, pdhalliwell@isce.com, jlovelis@isce.com  
4) Send invoices to Jeanette Lovelis (jlovelis@isce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-17104

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other (Specify) <u>GSO</u>		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> <b>W / S</b>
--	--	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: WPC Thermometer ID: 284 Date/Time: 5-31-16 0840

Temperature: (A) 0.4 °C / (C) 1.2 °C Analyst Init: kg

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 546										
QT EPA 549										
QT EPA 5015M										
QT EPA 3270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: JM Date/Time: 5-31-16 1056 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Brentwood Farms  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1817104-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	Brentwood Farms	<b>Sampling Date:</b>	05/29/2018 14:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BRE-MW1d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
	<hr/>			
1817104-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	Brentwood Farms	<b>Sampling Date:</b>	05/29/2018 15:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BRE-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
	<hr/>			
1817104-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	Brentwood Farms	<b>Sampling Date:</b>	05/29/2018 15:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BRE-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
	<hr/>			

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500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Brentwood Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817104-01	<b>Client Sample Name:</b> Brentwood Farms, BRE-MW1d, 5/29/2018 2:20:00PM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.99	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	260	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.25	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 09:00	05/31/18 12:04		EMW	IC1	1	B015235
2	SM-2540C	06/04/18 14:00	06/04/18 14:00		CAD	MANUAL	2	B015377
3	EPA-350.1	06/11/18 09:18	06/13/18 11:04		JMH	SC-1	1	B016244

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Brentwood Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817104-02	<b>Client Sample Name:</b> Brentwood Farms, BRE-MW2s, 5/29/2018 3:00:00PM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.98	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	260	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.022	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 09:00	05/31/18 12:25		EMW	IC1	1	B015235
2	SM-2540C	06/04/18 14:00	06/04/18 14:00		CAD	MANUAL	2	B015377
3	EPA-350.1	06/11/18 09:18	06/13/18 11:06		JMH	SC-1	1	B016244

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Brentwood Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817104-03	<b>Client Sample Name:</b> Brentwood Farms, BRE-MW3s, 5/29/2018 3:40:00PM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.97	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	260	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 09:00	05/31/18 12:46		EMW	IC1	1	B015235
2	SM-2540C	06/04/18 14:00	06/04/18 14:00		CAD	MANUAL	2	B015377
3	EPA-350.1	06/11/18 09:19	06/19/18 14:06		JMH	SC-1	1	B016245

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Brentwood Farms  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B015235</b>						
Nitrate as N	B015235-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B015377</b>						
Total Dissolved Solids @ 180 C	B015377-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B016244</b>						
Ammonia as N	B016244-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B016245</b>						
Ammonia as N	B016245-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 06/19/2018 19:08  
Project: Dairy Representative Monitoring Program  
Project Number: Brentwood Farms  
Project Manager: Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015235</b>										
Nitrate as N	B015235-BS1	LCS	5.1160	5.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B015377</b>										
Total Dissolved Solids @ 180 C	B015377-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B016244</b>										
Ammonia as N	B016244-BS1	LCS	0.98210	1.0000	mg/L	98.2		90 - 110		
<b>QC Batch ID: B016245</b>										
Ammonia as N	B016245-BS1	LCS	0.97240	1.0000	mg/L	97.2		90 - 110		

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Brentwood Farms  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B015235</b>		Used client sample: N								
Nitrate as N	DUP	1817125-01	0.53400	0.54400		mg/L	1.9		10	
	MS	1817125-01	0.53400	5.6768	5.0505	mg/L		102		80 - 120
	MSD	1817125-01	0.53400	5.7586	5.0505	mg/L	1.4	103	10	80 - 120
<b>QC Batch ID: B015377</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1817125-01	870.00	890.00		mg/L	2.3		10	
<b>QC Batch ID: B016244</b>		Used client sample: Y - Description: LON-MW1C, 05/30/2018 12:11								
Ammonia as N	DUP	1817081-01	ND	ND		mg/L			10	
	MS	1817081-01	ND	1.1040	1.1111	mg/L		99.4		90 - 110
	MSD	1817081-01	ND	1.1583	1.1111	mg/L	4.8	104	10	90 - 110
<b>QC Batch ID: B016245</b>		Used client sample: Y - Description: BRE-MW3s, 05/29/2018 15:40								
Ammonia as N	DUP	1817104-03	ND	0.019400		mg/L			10	J
	MS	1817104-03	ND	1.0928	1.1111	mg/L		98.4		90 - 110
	MSD	1817104-03	ND	1.0733	1.1111	mg/L	1.8	96.6	10	90 - 110

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Brentwood Farms  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit



Date of Report: 06/19/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Creekside Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1817105

Invoice ID: B307230

Enclosed are the results of analyses for samples received by the laboratory on 5/31/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1817105

Samples were filtered through a 0.45 micron filter prior to analysis.





# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page	Of
Submission #: <u>18-17105</u>					
<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other (Specify) <u>GSO</u>			<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> <u>W / S</u>
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input type="checkbox"/> Containers <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments: _____					
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match CDC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
<b>COC Received</b> <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>WPE</u> Thermometer ID: <u>224</u> Temperature: (A) <u>0.4</u> °C / (C) <u>1.2</u> °C		Date/Time: <u>5-31-18 0840</u> Analyst Init: <u>Jlg</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/6150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLURRY										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: JML Date/Time: 5-31-18 1657 Rev 21 05/23/2016  
 A = Actual / C = Corrected

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Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1817105-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	Creekside Silveria Dairy	<b>Sampling Date:</b>	05/30/2018 09:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CRE-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
1817105-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	Creekside Silveria Dairy	<b>Sampling Date:</b>	05/30/2018 09:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CRE-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
1817105-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	Creekside Silveria Dairy	<b>Sampling Date:</b>	05/30/2018 10:25
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	CRE-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
1817105-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	Creekside Silveria Dairy	<b>Sampling Date:</b>	05/30/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Dup-3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817105-01	<b>Client Sample Name:</b> Creekside Silveria Dairy, CRE-MW1s, 5/30/2018 9:45:00AM, Tony Dairi
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	15	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.034	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/31/18 16:00	05/31/18 21:52	SAV	IC8	2	B015236
2	SM-2540C	06/05/18 16:30	06/05/18 16:30	CAD	MANUAL	5	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18 14:10	JMH	SC-1	1	B016245

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817105-02	<b>Client Sample Name:</b> Creekside Silveria Dairy, CRE-MW2s, 5/30/2018 9:10:00AM, Tony Dairi
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	580	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.033	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/31/18 16:00	05/31/18 22:54	SAV	IC8	1	B015236
2	SM-2540C	06/05/18 16:30	06/05/18 16:30	CAD	MANUAL	3.333	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18 14:11	JMH	SC-1	1	B016245

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817105-03	<b>Client Sample Name:</b> Creekside Silveria Dairy, CRE-MW3s, 5/30/2018 10:25:00AM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.0	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	280	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.030	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/31/18 16:00	05/31/18 23:14	SAV	IC8	1	B015236
2	SM-2540C	06/05/18 16:30	06/05/18 16:30	CAD	MANUAL	2	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18 14:13	JMH	SC-1	1	B016245

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**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817105-04	<b>Client Sample Name:</b> Creekside Silveria Dairy, Dup-3, 5/30/2018 12:00:00AM, Tony Dalri
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	570	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 16:00	05/31/18	23:35	EMW	IC8	1	B015236
2	SM-2540C	06/05/18 16:30	06/05/18	16:30	CAD	MANUAL	3.333	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18	14:15	JMH	SC-1	1	B016245

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Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B015236</b>						
Nitrate as N	B015236-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B015531</b>						
Total Dissolved Solids @ 180 C	B015531-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B016245</b>						
Ammonia as N	B016245-BLK1	ND	mg/L	0.10	0.018	

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Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
Project: Dairy Representative Monitoring Program  
Project Number: Creekside Dairy  
Project Manager: Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015236</b>										
Nitrate as N	B015236-BS1	LCS	5.2410	5.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B015531</b>										
Total Dissolved Solids @ 180 C	B015531-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B016245</b>										
Ammonia as N	B016245-BS1	LCS	0.97240	1.0000	mg/L	97.2		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015236</b>		Used client sample: N								
Nitrate as N	DUP	1817123-01	3.2280	3.2340		mg/L	0.2		10	
	MS	1817123-01	3.2280	8.6697	5.0505	mg/L		108		80 - 120
	MSD	1817123-01	3.2280	8.6677	5.0505	mg/L	0.0	108	10	80 - 120
<b>QC Batch ID: B015531</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1817173-01	34800	34500		mg/L	0.9		10	
<b>QC Batch ID: B016245</b>		Used client sample: Y - Description: BRE-MW3s, 05/29/2018 15:40								
Ammonia as N	DUP	1817104-03	ND	0.019400		mg/L			10	J
	MS	1817104-03	ND	1.0928	1.1111	mg/L		98.4		90 - 110
	MSD	1817104-03	ND	1.0733	1.1111	mg/L	1.8	96.6	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Creekside Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 06/19/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: MTSJ Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1817106

Invoice ID: B307231

Enclosed are the results of analyses for samples received by the laboratory on 5/31/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1817106

Samples were filtered through a 0.45 micron filter prior to analysis.





BC LABORATORIES INC.		COOLER RECEIPT FORM		Page	Of
Submission #: 18-17106					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input type="checkbox"/> Other <input checked="" type="checkbox"/> (Specify) GSO		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify)		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> W / S	
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments:					
Custody Seals Ice Chest <input type="checkbox"/> Containers: <input type="checkbox"/> None <input checked="" type="checkbox"/> Comments:					
All samples received? Yes <input type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: 0.97 Container: WPE Thermometer ID: 284		Date/Time: 5-31-18 0840	
		Temperature: (A) 0.4 °C / (C) 1.2 °C		Analyst Init: JG	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: JMC Date/Time: 5-31-18 105  
 A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1817106-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	MTSJ Dairy	<b>Sampling Date:</b>	05/30/2018 11:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MTS-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
1817106-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	MTSJ Dairy	<b>Sampling Date:</b>	05/30/2018 12:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MTS-MW2d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
1817106-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	MTSJ Dairy	<b>Sampling Date:</b>	05/30/2018 12:35
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MTS-MW3d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water
1817106-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/31/2018 08:40
	<b>Project Number:</b>	MTSJ Dairy	<b>Sampling Date:</b>	05/30/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Dup-4	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of DTO	<b>Sample Type:</b>	Water

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817106-01	<b>Client Sample Name:</b> MTSJ Dairy, MTS-MW1, 5/30/2018 11:30:00AM, Tony Dalri
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	560	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.024	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 16:00	06/01/18 00:36		EMW	IC8	2	B015237
2	SM-2540C	06/05/18 16:30	06/05/18 16:30		CAD	MANUAL	3.333	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18 14:15		JMH	SC-1	1	B016245

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817106-02	<b>Client Sample Name:</b> MTSJ Dairy, MTS-MW2d, 5/30/2018 12:00:00PM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	530	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 16:00	06/01/18 01:59		EMW	IC8	2	B015237
2	SM-2540C	06/05/18 16:30	06/05/18 16:30		CAD	MANUAL	3.333	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18 14:17		JMH	SC-1	1	B016245

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817106-03	<b>Client Sample Name:</b> MTSJ Dairy, MTS-MW3d, 5/30/2018 12:35:00PM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	480	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.034	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 16:00	06/01/18 10:26		EMW	IC8	2	B015237
2	SM-2540C	06/05/18 16:30	06/05/18 16:30		CAD	MANUAL	2	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18 14:17		JMH	SC-1	1	B016245

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817106-04	<b>Client Sample Name:</b> MTSJ Dairy, Dup-4, 5/30/2018 12:00:00AM, Tony Dalri
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	570	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.019	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/31/18 16:00	06/01/18 10:46		EMW	IC8	2	B015237
2	SM-2540C	06/05/18 16:30	06/05/18 16:30		CAD	MANUAL	3.333	B015531
3	EPA-350.1	06/11/18 09:19	06/19/18 14:18		JMH	SC-1	1	B016245

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B015237</b>						
Nitrate as N	B015237-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B015531</b>						
Total Dissolved Solids @ 180 C	B015531-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B016245</b>						
Ammonia as N	B016245-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
Project: Dairy Representative Monitoring Program  
Project Number: MTSJ Dairy  
Project Manager: Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015237</b>										
Nitrate as N	B015237-BS1	LCS	5.2350	5.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B015531</b>										
Total Dissolved Solids @ 180 C	B015531-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B016245</b>										
Ammonia as N	B016245-BS1	LCS	0.97240	1.0000	mg/L	97.2		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015237</b>		Used client sample: Y - Description: MTS-MW1, 05/30/2018 11:30								
Nitrate as N	DUP	1817106-01	32.104	32.040		mg/L	0.2		10	
	MS	1817106-01	32.104	41.638	10.101	mg/L		94.4		80 - 120
	MSD	1817106-01	32.104	41.675	10.101	mg/L	0.1	94.8	10	80 - 120
<b>QC Batch ID: B015531</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1817173-01	34800	34500		mg/L	0.9		10	
<b>QC Batch ID: B016245</b>		Used client sample: Y - Description: BRE-MW3s, 05/29/2018 15:40								
Ammonia as N	DUP	1817104-03	ND	0.019400		mg/L			10	J
	MS	1817104-03	ND	1.0928	1.1111	mg/L		98.4		90 - 110
	MSD	1817104-03	ND	1.0733	1.1111	mg/L	1.8	96.6	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/19/2018 19:08  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** MTSJ Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

## South Area

---





Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Aukeman Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815871

Invoice ID: B305592

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815871

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name:	Luhdorff and Scalmanini	Reduced Constituent Suite			
Address:	500 First Street	Project: Dairy Representative Monitoring Program			
City:	Woodland	Site: Aukerman Farms			
State:	95695	Samplers Name: <i>Edward Her</i>			
Attn:	Till Angermann	Global ID - WDR100038978			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	AUK-MW1	5-16-18	1218	W	x
2	AUK-MW2	5-16-18	1133	W	x
3	AUK-MW3	5-16-18	1050	W	x
4	-Field Duplicate-				x
5					
6					
7					
8					
9					
10					
<b>Comments:</b> 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: <a href="mailto:lavagnino@isce.com">lavagnino@isce.com</a> , <a href="mailto:rbryson@isce.com">rbryson@isce.com</a> , <a href="mailto:pdmaliwal@isce.com">pdmaliwal@isce.com</a> , <a href="mailto:jlovelis@isce.com">jlovelis@isce.com</a> 4) Send invoices to Jeanette Lovelis ( <a href="mailto:jlovelis@isce.com">jlovelis@isce.com</a> ).					
Relinquished by: (Signature)		Relinquished by: (Signature)		Relinquished by: (Signature)	
Received By: <i>[Signature]</i>		Received by: <i>[Signature]</i>		Received By: <i>[Signature]</i>	
Date & Time: 5/16/18 20:23		Date & Time: 5/16/18 20:23		Date & Time: 5/16/18 22:00	

CHK BY: *[Signature]* DISTRIBUTION: *[Signature]*

SUB-OUT L

SHEET HOLDING TIME

Cr<sup>6</sup> NO<sub>2</sub> NO<sub>3</sub> OP SS

DO Cl<sub>2</sub> BOD MBAS COT

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1815871

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals:  Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/16 2200  
 Temperature: (A) 0.3 °C / (C) 0.6 °C Analyst Init: GSP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B							
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 5M										
QT EPA 503/603/803										
QT EPA 515.1/815										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FEDLAR BAG										
FERROUS IRON										
INCORE										
SMART KIT										
UMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: GSP Date/Time: 5/16 2218  
 = Actual / C = Corrected

Rev 21 05/23/2016  
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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815871-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Aukkeman Farm	<b>Sampling Date:</b>	05/16/2018 12:18
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	AUK-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b>	Groundwater
1815871-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Aukkeman Farm	<b>Sampling Date:</b>	05/16/2018 11:33
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	AUK-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b>	Groundwater
1815871-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Aukkeman Farm	<b>Sampling Date:</b>	05/16/2018 10:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	AUK-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815871-01	<b>Client Sample Name:</b> Aukkeman Farm, AUK-MW1, 5/16/2018 12:18:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	58	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.034	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18	15:42	EMW	IC5	5	B014130
2	SM-2540C	05/22/18 13:30	05/22/18	13:30	CAD	MANUAL	5	B014466
3	EPA-350.1	05/30/18 15:31	05/31/18	11:00	JMH	SC-1	1	B015114

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Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815871-02	<b>Client Sample Name:</b> Aukkeman Farm, AUK-MW2, 5/16/2018 11:33:00AM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	73	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.038	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 16:00		EMW	IC5	5	B014130
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	5	B014466
3	EPA-350.1	05/30/18 15:31	05/31/18 11:00		JMH	SC-1	1	B015114

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815871-03	<b>Client Sample Name:</b> Aukkeman Farm, AUK-MW3, 5/16/2018 10:50:00AM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.040	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18	16:18	EMW	IC5	5	B014130
2	SM-2540C	05/22/18 13:30	05/22/18	13:30	CAD	MANUAL	5	B014466
3	EPA-350.1	05/30/18 15:31	05/31/18	11:02	JMH	SC-1	1	B015114

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Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014130</b>						
Nitrate as N	B014130-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014466</b>						
Total Dissolved Solids @ 180 C	B014466-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015114</b>						
Ammonia as N	B015114-BLK1	ND	mg/L	0.10	0.018	

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014130</b>										
Nitrate as N	B014130-BS1	LCS	5.1070	5.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B014466</b>										
Total Dissolved Solids @ 180 C	B014466-BS1	LCS	570.00	586.00	mg/L	97.3		90 - 110		
<b>QC Batch ID: B015114</b>										
Ammonia as N	B015114-BS1	LCS	1.0544	1.0000	mg/L	105		90 - 110		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B014130</b>		Used client sample: Y - Description: FG2-MW1s, 05/16/2018 09:24								
Nitrate as N	DUP	1815869-01	ND	ND		mg/L			10	
	MS	1815869-01	ND	25.253	25.253	mg/L		100		80 - 120
	MSD	1815869-01	ND	25.232	25.253	mg/L	0.1	99.9	10	80 - 120
<b>QC Batch ID: B014466</b>		Used client sample: Y - Description: GOD-MW1s, 05/16/2018 17:07								
Total Dissolved Solids @ 180 C	DUP	1815868-01	1630.0	1640.0		mg/L	0.6		10	
<b>QC Batch ID: B015114</b>		Used client sample: Y - Description: FG2-MW2s, 05/16/2018 10:06								
Ammonia as N	DUP	1815869-02	0.045300	0.037400		mg/L	19.1		10	J,A02
	MS	1815869-02	0.045300	1.1628	1.1111	mg/L		101		90 - 110
	MSD	1815869-02	0.045300	1.1941	1.1111	mg/L	2.7	103	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Aukeman Farms  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Dairyland Farms

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815687

Invoice ID: B305502

Enclosed are the results of analyses for samples received by the laboratory on 5/15/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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**1815687-01 - DLF-MW6C**

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## Case Narratives

### Case Narrative for Work Order 1815687

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody		
Report to:				Analysis Requested		
Name: Luthorff and Scalmanini		Reduced Constituent Suite				
Address: 800 First Street		Project: Dairy Representative Monitoring Program				
City: Woodland		Site: Dairyland Farms				
State: 95695		Samplers Name: Edward Per				
Attn: Till Angermann		Global ID: WDR100039173				
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pe Unpreserved	From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids
1	DLF-MW4				x	x
2	DLF-MW2				x	x
3	DLF-MW3				x	x
4	DLF-MW4A, DLF-MW4B, DLF-MW4C				x	x
5	DLF-MW6A, DLF-MW6B, DLF-MW6C				x	x
6	DLF-MW6A, DLF-MW6B DLF-MW6C, DLF-MW6D	5-15-18	1240	w	x	x
7	Field-Duplicate				x	x
8						
9						
10						
Relinquished by: (Signature)  Date & Time 5/15/18 20:06 Relinquished by: (Signature)  Date & Time 5/15/18 20:06 Relinquished by: (Signature)  Date & Time 5/15/18 22:00						
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luthorff and Scalmanini Consulting Engineers via email: llavegrino@lscce.com, rbryson@lscce.com, pthelwel@lscce.com, jlvelis@lscce.com 4) Send invoices to Jeanette Lovettis (jlovettis@lscce.com). (A)= Analysis (C)= Container (P)= Preservative						

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1  
 Submission #: 1815687

SHIPPING INFORMATION		SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify)	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/> Box <input type="checkbox"/>	<u>W</u> / S
		Other <input type="checkbox"/> (Specify)		

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals Containers: None  Comments:

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO  
 Emissivity: 0.97 Container: PE Thermometer ID: 205 Date/Time: 5/15/16 12:00  
 Temperature: (A) 1.7 °C / (C) 1.8 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	<u>A</u>									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	<u>B</u>									
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 503/603/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 801SM										
QT EPA 8276										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLURRY										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 5/15 2210 Rev 21 05/23/2016  
 A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:31  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Dairyland Farms  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815687-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Dairyland Farms	<b>Sampling Date:</b>	05/15/2018 12:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DLF-MW6C	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of GDTM	<b>Sample Type:</b>	Water

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:31  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Dairyland Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815687-01	<b>Client Sample Name:</b> Dairyland Farms, DLF-MW6C, 5/15/2018 12:40:00PM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	75	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.044	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 17:37		SAV	IC5	5	B014000
2	SM-2540C	05/19/18 11:30	05/19/18 11:30		CAD	MANUAL	5	B014299
3	EPA-350.1	05/30/18 10:56	05/30/18 15:16		JMH	SC-1	1	B015066

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Woodland, CA 95695

**Reported:** 05/31/2018 10:31  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Dairyland Farms  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014000</b>						
Nitrate as N	B014000-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014299</b>						
Total Dissolved Solids @ 180 C	B014299-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015066</b>						
Ammonia as N	B015066-BLK1	0.042100	mg/L	0.10	0.018	J

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:31  
Project: Dairy Representative Monitoring Program  
Project Number: Dairyland Farms  
Project Manager: Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014000</b>										
Nitrate as N	B014000-BS1	LCS	4.8160	5.0000	mg/L	96.3		90 - 110		
<b>QC Batch ID: B014299</b>										
Total Dissolved Solids @ 180 C	B014299-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B015066</b>										
Ammonia as N	B015066-BS1	LCS	1.0213	1.0000	mg/L	102		90 - 110		

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Woodland, CA 95695

**Reported:** 05/31/2018 10:31  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Dairyland Farms  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B014000</b>		Used client sample: Y - Description: MOO-MW1, 05/15/2018 09:51									
Nitrate as N	DUP	1815691-01	2.2560	2.1800		mg/L	3.4		10		
	MS	1815691-01	2.2560	12.234	10.101	mg/L		98.8		80 - 120	
	MSD	1815691-01	2.2560	12.269	10.101	mg/L	0.3	99.1	10	80 - 120	
<b>QC Batch ID: B014299</b>		Used client sample: N									
Total Dissolved Solids @ 180 C	DUP	1815590-02	675.00	685.00		mg/L	1.5		10		
<b>QC Batch ID: B015066</b>		Used client sample: Y - Description: RIC-MW1, 05/14/2018 16:40									
Ammonia as N	DUP	1815686-01	0.29760	0.27340		mg/L	8.5		10		
	MS	1815686-01	0.29760	1.4011	1.1111	mg/L		99.3		90 - 110	
	MSD	1815686-01	0.29760	1.4249	1.1111	mg/L	1.7	101	10	90 - 110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:31  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Dairyland Farms  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 06/18/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Giacomazzi Dairy  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1816958  
Invoice ID: B306390

Enclosed are the results of analyses for samples received by the laboratory on 5/29/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000755833

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1816958

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody					
18-16958 Report to:		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
Analysis Requested							
Name: Lunderoff and Scalmanini		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids					
Address: 500 First Street		Project: Dairy Representative Monitoring Program					
City: Woodland		Site: Giacomazzi Dairy					
State: 95695		Samplers Name: Ryan Gustafson					
City: CA		Global ID - WDR10037884					
Attn: Till Angermann							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P0 Unpreserved	CHK BY	DISTRIBUTION
1	ZZ1-MW1A, ZZ1-MW1B, ZZ1-MW1C, ZZ1-MW1D	6/20/18	1331	W	x	[Signature]	W
2	ZZ1-MW2A, ZZ1-MW2B, ZZ1-MW2C, ZZ1-MW2D		1359	W	x		
3	ZZ1-MW3A, ZZ1-MW3B		1426	W	x		
4	ZZ1-MW5A, ZZ1-MW5B, ZZ1-MW5C, ZZ1-MW5D		1556	W	x		
5	ZZ1-MW6A, ZZ1-MW6B, ZZ1-MW6C, ZZ1-MW6D		1532	W	x		
6	ZZ1-MW7A, ZZ1-MW7B, ZZ1-MW7C, ZZ1-MW7D		1508	W	x		
7	ZZ1-MW9A, ZZ1-MW9B, ZZ1-MW9C, ZZ1-MW9D		1633	W	x		
8	Field Duplicate						
9							
10							
11							
Relinquished by: (Signature) [Signature] Date & Time 2030 5/29/18 Relinquished by: (Signature) [Signature] Date & Time 5/29/18 2200 Relinquished by: (Signature) [Signature] Date & Time						SHORT HOLDING TIME Cr+6 NO2 NO3 OP SS DO Cl2 BOD MBAS COT	
<b>Comments:</b> 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Lunderoff and Scalmanini Consulting Engineers via email: <a href="mailto:lavagnino@lscce.com">lavagnino@lscce.com</a> , <a href="mailto:rbryson@lscce.com">rbryson@lscce.com</a> , <a href="mailto:pohatwa@lscce.com">pohatwa@lscce.com</a> , <a href="mailto:jlovelis@lscce.com">jlovelis@lscce.com</a> 4) Send invoices to Jeanette Lovells ( <a href="mailto:jlovelis@lscce.com">jlovelis@lscce.com</a> ).							
(A)= Analysis (C)= Container (P)= Preservative							

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-16958

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box. FREE LIQUID: YES, NO, W/S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Containers, Intact? Yes, No. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97. Container: B. Thermometer ID: 208. Date/Time: 5/29/18 2200. Temperature: (A) 1.2, (C) 1-3. Analyst Init: B.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, PT CYANIDE, etc.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 5/29 2217. Rev 21 08/23/2016



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1816958-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Giacomazzi Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ZZI-MW1C <b>Sampled By:</b> Ryan Gustafson of GDTM	<b>Receive Date:</b> 05/29/2018 22:00 <b>Sampling Date:</b> 05/29/2018 13:31 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100037884 Location ID (FieldPoint): ZZI-MW1C Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1816958-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Giacomazzi Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ZZI-MW2C <b>Sampled By:</b> Ryan Gustafson of GDTM	<b>Receive Date:</b> 05/29/2018 22:00 <b>Sampling Date:</b> 05/29/2018 13:59 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100037884 Location ID (FieldPoint): ZZI-MW2C Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1816958-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> Giacomazzi Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ZZI-MW3B <b>Sampled By:</b> Ryan Gustafson of GDTM	<b>Receive Date:</b> 05/29/2018 22:00 <b>Sampling Date:</b> 05/29/2018 14:26 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100037884 Location ID (FieldPoint): ZZI-MW3B Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1816958-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> Giacomazzi Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ZZI-MW5D <b>Sampled By:</b> Ryan Gustafson of GDTM	<b>Receive Date:</b> 05/29/2018 22:00 <b>Sampling Date:</b> 05/29/2018 15:56 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100037884 Location ID (FieldPoint): ZZI-MW5D Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1816958-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> Giacomazzi Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ZZI-MW6D <b>Sampled By:</b> Ryan Gustafson of GDTM	<b>Receive Date:</b> 05/29/2018 22:00 <b>Sampling Date:</b> 05/29/2018 15:32 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100037884 Location ID (FieldPoint): ZZI-MW6D Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1816958-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> Giacomazzi Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ZZI-MW7D <b>Sampled By:</b> Ryan Gustafson of GDTM	<b>Receive Date:</b> 05/29/2018 22:00 <b>Sampling Date:</b> 05/29/2018 15:08 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100037884 Location ID (FieldPoint): ZZI-MW7D Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

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500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1816958-07

**COC Number:** ---  
**Project Number:** Giacomazzi Dairy  
**Sampling Location:** ---  
**Sampling Point:** ZZI-MW9C  
**Sampled By:** Ryan Gustafson of GDTM

**Receive Date:** 05/29/2018 22:00  
**Sampling Date:** 05/29/2018 16:23  
**Sample Depth:** ---  
**Lab Matrix:** Water  
**Sample Type:** Water  
Delivery Work Order:  
Global ID: WDR100037884  
Location ID (FieldPoint): ZZI-MW9C  
Matrix: W  
Sample QC Type (SACode): CS  
Cooler ID:

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500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816958-01	<b>Client Sample Name:</b> Giacomazzi Dairy, ZZI-MW1C, 5/29/2018 1:31:00PM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.0	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	440	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.030	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/29/18 22:00	05/30/18 02:25		EMW	IC8	1	B015002
2	SM-2540C	06/04/18 13:00	06/04/18 13:00		CAD	MANUAL	2	B015371
3	EPA-350.1	05/31/18 15:00	05/31/18 15:57		JMH	SC-1	1	B015215

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816958-02	<b>Client Sample Name:</b> Giacomazzi Dairy, ZZI-MW2C, 5/29/2018 1:59:00PM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.7	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	550	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	0.026		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/29/18 22:00	05/30/18 02:45		EMW	IC8	1	B015002
2	SM-2540C	06/04/18 13:00	06/04/18 13:00		CAD	MANUAL	3.333	B015371
3	EPA-350.1	05/31/18 15:00	05/31/18 15:57		JMH	SC-1	1	B015215

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816958-03	<b>Client Sample Name:</b> Giacomazzi Dairy, ZZI-MW3B, 5/29/2018 2:26:00PM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.0	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	450	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.026	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/29/18 22:00	05/30/18 03:47	EMW	IC8	1	B015002
2	SM-2540C	06/04/18 13:00	06/04/18 13:00	CAD	MANUAL	2	B015371
3	EPA-350.1	05/31/18 15:00	05/31/18 15:59	JMH	SC-1	1	B015215

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816958-04	<b>Client Sample Name:</b> Giacomazzi Dairy, ZZI-MW5D, 5/29/2018 3:56:00PM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.018	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/29/18 22:00	05/30/18 04:07		EMW	IC8	5	B015002
2	SM-2540C	06/04/18 13:00	06/04/18 13:00		CAD	MANUAL	5	B015371
3	EPA-350.1	05/31/18 15:00	05/31/18 16:01		JMH	SC-1	1	B015215

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816958-05	<b>Client Sample Name:</b> Giacomazzi Dairy, ZZI-MW6D, 5/29/2018 3:32:00PM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	42	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	0.026		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/29/18 22:00	05/30/18 04:28		EMW	IC8	5	B015002
2	SM-2540C	06/04/18 13:00	06/04/18 13:00		CAD	MANUAL	5	B015371
3	EPA-350.1	05/31/18 15:00	05/31/18 16:02		JMH	SC-1	1	B015215

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816958-06	<b>Client Sample Name:</b> Giacomazzi Dairy, ZZI-MW7D, 5/29/2018 3:08:00PM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	890	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.021	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/29/18 22:00	05/30/18 04:48		EMW	IC8	2	B015002
2	SM-2540C	06/04/18 13:00	06/04/18 13:00		CAD	MANUAL	3.333	B015371
3	EPA-350.1	05/31/18 15:00	05/31/18 16:03		JMH	SC-1	1	B015215

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816958-07	<b>Client Sample Name:</b> Giacomazzi Dairy, ZZI-MW9C, 5/29/2018 4:23:00PM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	600	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.028	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/29/18 22:00	05/30/18 16:05	SAV	IC8	1	B015002
2	SM-2540C	06/04/18 13:00	06/04/18 13:00	CAD	MANUAL	3.333	B015371
3	EPA-350.1	05/31/18 15:00	05/31/18 16:04	JMH	SC-1	1	B015215

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B015002</b>						
Nitrate as N	B015002-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B015215</b>						
Ammonia as N	B015215-BLK1	0.025600	mg/L	0.10	0.018	J
<b>QC Batch ID: B015371</b>						
Total Dissolved Solids @ 180 C	B015371-BLK1	ND	mg/L	6.7	6.7	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
Project: Dairy Representative Monitoring Program  
Project Number: Giacomazzi Dairy  
Project Manager: Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015002</b>										
Nitrate as N	B015002-BS1	LCS	5.2080	5.0000	mg/L	104		90 - 110		
<b>QC Batch ID: B015215</b>										
Ammonia as N	B015215-BS1	LCS	1.0149	1.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B015371</b>										
Total Dissolved Solids @ 180 C	B015371-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015002</b>		Used client sample: N								
Nitrate as N	DUP	1816954-01	5.7380	5.7960		mg/L	1.0		10	
	MS	1816954-01	5.7380	11.236	5.0505	mg/L		109		80 - 120
	MSD	1816954-01	5.7380	11.208	5.0505	mg/L	0.3	108	10	80 - 120
<b>QC Batch ID: B015215</b>		Used client sample: Y - Description: ANT-MW6s, 05/15/2018 14:35								
Ammonia as N	DUP	1815689-06RE1	0.022300	0.042400		mg/L	62.1		10	J,A02
	MS	1815689-06RE1	0.022300	1.1574	1.1111	mg/L		102		90 - 110
	MSD	1815689-06RE1	0.022300	1.1769	1.1111	mg/L	1.7	104	10	90 - 110
<b>QC Batch ID: B015371</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1816926-01	26000	26400		mg/L	1.5		10	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/18/2018 9:25  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Giacomazzi Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: J&A Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815688

Invoice ID: B305503

Enclosed are the results of analyses for samples received by the laboratory on 5/15/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815688

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				Analysis Requested			
Name: <b>18-15688</b> Report to: Luhdorff and Scalmani Reduced Constituent Suite				From Filtered Sample:			
Address: 500 First Street Woodland				Ammonia-N, NO3-N, Total Dissolved Solids			
City: Woodland							
State: 95695							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: J & A Dairy							
Samplers Name: <i>Edward Her</i>							
Global ID - WDR100038660							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 Pa Unpreserved	Relinquished by: (Signature)	Date & Time
1	JAB-MW1				x		
2	JAB-MW2				x		
3	JAD-MW3	5-15-18	1743	W	x		
4	JAB-MW4, JAD-MW4d	5-15-18	1525	W	x		
5	JAB-MW5, JAB-MW5d				x		
6	JAD-MW6, JAD-MW6d	5-15-18	1658	W	x		
7	JAD-MW7, JAD-MW7d				x		
8	Field Duplicate	5-15-18	1703	W	x		
9							
10							

Relinquished by: (Signature) 	Received by: (Signature) 
Relinquished by: (Signature) 	Received by: (Signature) 
Relinquished by: (Signature) 	Received by: (Signature) 

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: llavagnne@lsc.com, rbryson@lsc.com, pdhalliwa@lsc.com, jlovelis@lsc.com  
 4) Send invoices to Jeanette Lovelis (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-15688

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> <u>(W) / S</u>
--	--	--	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match CDC? Yes  No

COC Received  YES  NO Emissivity: 0.97 Container: PE Thermometer ID: 2050 Date/Time: 5/15/19 2200  
 Temperature: (A) 1.7 °C / (C) 1.8 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz C <sup>14</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B						
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/508/5080										
QT EPA 515.L/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 5/15 2210  
 A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815688-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> J&A Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> JAD-MW3 <b>Sampled By:</b> Edward Her of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 17:43 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100038668 Location ID (FieldPoint): JAD-MW3 Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1815688-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> J&A Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> JAD-MW4d <b>Sampled By:</b> Edward Her of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 15:25 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100038668 Location ID (FieldPoint): JAD-MW4d Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815688-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> J&A Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> JAD-MW6d <b>Sampled By:</b> Edward Her of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 16:58 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: WDR100038668 Location ID (FieldPoint): JAD-MW6d Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1815688-04

**COC Number:** ---  
**Project Number:** J&A Dairy  
**Sampling Location:** ---  
**Sampling Point:** Field Duplicate  
**Sampled By:** Edward Her of GDTM

**Receive Date:** 05/15/2018 22:00  
**Sampling Date:** 05/15/2018 17:03  
**Sample Depth:** ---  
**Lab Matrix:** Water  
**Sample Type:** Water  
Delivery Work Order:  
Global ID: WDR100038668  
Location ID (FieldPoint): Field Duplicate  
Matrix: W  
Sample QC Type (SACode): CS  
Cooler ID:

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815688-01	<b>Client Sample Name:</b> J&A Dairy, JAD-MW3, 5/15/2018 5:43:00PM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	23	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	610	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.022	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18	20:35	SAV	IC1	2	B014001
2	SM-2540C	05/19/18 11:30	05/19/18	11:30	CAD	MANUAL	3.333	B014299
3	EPA-350.1	05/30/18 10:56	05/30/18	15:17	JMH	SC-1	1	B015066

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815688-02	<b>Client Sample Name:</b> J&A Dairy, JAD-MW4d, 5/15/2018 3:25:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.5	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	550	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.031	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 17:55	SAV	IC1	1	B014001
2	SM-2540C	05/19/18 11:30	05/19/18 11:30	CAD	MANUAL	3.333	B014299
3	EPA-350.1	05/30/18 10:56	05/30/18 15:18	JMH	SC-1	1	B015066

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815688-03	<b>Client Sample Name:</b> J&A Dairy, JAD-MW6d, 5/15/2018 4:58:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	820	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.023	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18	18:16	SAV	IC1	2	B014001
2	SM-2540C	05/19/18 11:30	05/19/18	11:30	CAD	MANUAL	5	B014299
3	EPA-350.1	05/30/18 10:56	05/30/18	15:18	JMH	SC-1	1	B015066

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815688-04	<b>Client Sample Name:</b> J&A Dairy, Field Duplicate, 5/15/2018 5:03:00PM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	820	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.043	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 18:37		SAV	IC1	2	B014001
2	SM-2540C	05/19/18 11:30	05/19/18 11:30		CAD	MANUAL	5	B014299
3	EPA-350.1	05/30/18 10:58	05/30/18 15:22		JMH	SC-1	1	B015067

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014001</b>						
Nitrate as N	B014001-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014299</b>						
Total Dissolved Solids @ 180 C	B014299-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015066</b>						
Ammonia as N	B015066-BLK1	0.042100	mg/L	0.10	0.018	J
<b>QC Batch ID: B015067</b>						
Ammonia as N	B015067-BLK1	0.026200	mg/L	0.10	0.018	J

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014001</b>										
Nitrate as N	B014001-BS1	LCS	5.0000	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B014299</b>										
Total Dissolved Solids @ 180 C	B014299-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B015066</b>										
Ammonia as N	B015066-BS1	LCS	1.0213	1.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B015067</b>										
Ammonia as N	B015067-BS1	LCS	0.97380	1.0000	mg/L	97.4		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B014001</b>		Used client sample: Y - Description: RIC-MW1, 05/14/2018 16:40								
Nitrate as N	DUP	1815686-01	ND	ND		mg/L			10	
	MS	1815686-01	ND	5.1566	5.0505	mg/L		102		80 - 120
	MSD	1815686-01	ND	5.0869	5.0505	mg/L	1.4	101	10	80 - 120
<b>QC Batch ID: B014299</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1815590-02	675.00	685.00		mg/L	1.5		10	
<b>QC Batch ID: B015066</b>		Used client sample: Y - Description: RIC-MW1, 05/14/2018 16:40								
Ammonia as N	DUP	1815686-01	0.29760	0.27340		mg/L	8.5		10	
	MS	1815686-01	0.29760	1.4011	1.1111	mg/L		99.3		90 - 110
	MSD	1815686-01	0.29760	1.4249	1.1111	mg/L	1.7	101	10	90 - 110
<b>QC Batch ID: B015067</b>		Used client sample: Y - Description: Field Duplicate, 05/15/2018 17:03								
Ammonia as N	DUP	1815688-04	0.043000	0.043000		mg/L	0		10	J
	MS	1815688-04	0.043000	1.1638	1.1111	mg/L		101		90 - 110
	MSD	1815688-04	0.043000	1.1628	1.1111	mg/L	0.1	101	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:47  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J&A Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 06/13/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Longfellow Farming Co.

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1817081

Invoice ID: B306817

Enclosed are the results of analyses for samples received by the laboratory on 5/30/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Sample Information

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## Case Narratives

### Case Narrative for Work Order 1817081

Samples were filtered through a 0.45 micron filter prior to analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-17081

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  (W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.97 Container: PE Thermometer ID: 708 Date/Time: 5/30/16 2250

Temperature: (A) 24 °C / (C) 27 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B	B			
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/608/8380										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 5/30/2250

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1817081-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/30/2018 22:30
	<b>Project Number:</b>	Longfellow Farming	<b>Sampling Date:</b> 05/30/2018 12:11
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	LON-MW1C	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Ryan Gustafson of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1817081-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/30/2018 22:30
	<b>Project Number:</b>	Longfellow Farming	<b>Sampling Date:</b> 05/30/2018 12:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	LON-MW2C	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Ryan Gustafson of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1817081-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/30/2018 22:30
	<b>Project Number:</b>	Longfellow Farming	<b>Sampling Date:</b> 05/30/2018 11:44
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	LON-MW3B	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Ryan Gustafson of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1817081-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/30/2018 22:30
	<b>Project Number:</b>	Longfellow Farming	<b>Sampling Date:</b> 05/30/2018 11:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	LON-MW4C	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Ryan Gustafson of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1817081-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/30/2018 22:30
	<b>Project Number:</b>	Longfellow Farming	<b>Sampling Date:</b> 05/30/2018 09:53
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	LON-MW5C	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Ryan Gustafson of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1817081-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/30/2018 22:30
	<b>Project Number:</b>	Longfellow Farming	<b>Sampling Date:</b> 05/30/2018 08:53
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	LON-MW6C	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Ryan Gustafson of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1817081-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/30/2018 22:30
	<b>Project Number:</b>	Longfellow Farming	<b>Sampling Date:</b> 05/30/2018 11:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	LON-MW7D	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Ryan Gustafson of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817081-01	<b>Client Sample Name:</b> Longfellow Farming, LON-MW1C, 5/30/2018 12:11:00PM, Ryan Gustafson
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	460	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/30/18 18:00	05/31/18 05:09	EMW	IC8	1	B015130
2	SM-2540C	06/04/18 15:00	06/04/18 15:00	CAD	MANUAL	3.333	B015389
3	EPA-350.1	06/11/18 09:18	06/13/18 10:53	JMH	SC-1	1	B016244

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500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817081-02	<b>Client Sample Name:</b> Longfellow Farming, LON-MW2C, 5/30/2018 12:40:00PM, Ryan Gustafson
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.7	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	670	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/30/18 18:00	05/31/18 06:31		EMW	IC8	1	B015130
2	SM-2540C	06/04/18 15:00	06/04/18 15:00		CAD	MANUAL	5	B015389
3	EPA-350.1	06/11/18 09:18	06/13/18 10:57		JMH	SC-1	1	B016244

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817081-03	<b>Client Sample Name:</b> Longfellow Farming, LON-MW3B, 5/30/2018 11:44:00AM, Ryan Gustafson
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	850	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.018	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/30/18 18:00	05/31/18 06:51		EMW	IC8	1	B015130
2	SM-2540C	06/04/18 15:00	06/04/18 15:00		CAD	MANUAL	5	B015389
3	EPA-350.1	06/11/18 09:18	06/13/18 10:59		JMH	SC-1	1	B016244

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817081-04	<b>Client Sample Name:</b> Longfellow Farming, LON-MW4C, 5/30/2018 11:32:00AM, Ryan Gustafson
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	52	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/30/18 18:00	05/31/18 07:12		EMW	IC8	5	B015130
2	SM-2540C	06/04/18 15:00	06/04/18 15:00		CAD	MANUAL	10	B015389
3	EPA-350.1	06/11/18 09:18	06/13/18 11:01		JMH	SC-1	1	B016244

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500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817081-05	<b>Client Sample Name:</b> Longfellow Farming, LON-MW5C, 5/30/2018 9:53:00AM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/30/18 18:00	05/31/18 08:13		EMW	IC8	5	B015130
2	SM-2540C	06/04/18 15:00	06/04/18 15:00		CAD	MANUAL	5	B015389
3	EPA-350.1	06/11/18 09:18	06/13/18 11:02		JMH	SC-1	1	B016244

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817081-06	<b>Client Sample Name:</b> Longfellow Farming, LON-MW6C, 5/30/2018 8:53:00AM, Ryan Gustafson
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	38	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/30/18 18:00	05/31/18 14:02		EMW	IC8	2	B015130
2	SM-2540C	06/04/18 15:00	06/04/18 15:00		CAD	MANUAL	5	B015389
3	EPA-350.1	06/11/18 09:18	06/13/18 11:02		JMH	SC-1	1	B016244

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1817081-07	<b>Client Sample Name:</b> Longfellow Farming, LON-MW7D, 5/30/2018 11:12:00AM, Ryan Gustafson
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.027	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/30/18 18:00	05/31/18 08:54		EMW	IC8	5	B015130
2	SM-2540C	06/04/18 15:00	06/04/18 15:00		CAD	MANUAL	10	B015389
3	EPA-350.1	06/11/18 09:18	06/13/18 11:04		JMH	SC-1	1	B016244

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B015130</b>						
Nitrate as N	B015130-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B015389</b>						
Total Dissolved Solids @ 180 C	B015389-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B016244</b>						
Ammonia as N	B016244-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015130</b>										
Nitrate as N	B015130-BS1	LCS	5.0870	5.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B015389</b>										
Total Dissolved Solids @ 180 C	B015389-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B016244</b>										
Ammonia as N	B016244-BS1	LCS	0.98210	1.0000	mg/L	98.2		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B015130</b>		Used client sample: Y - Description: LON-MW1C, 05/30/2018 12:11								
Nitrate as N	DUP	1817081-01	12.810	12.830		mg/L	0.2		10	
	MS	1817081-01	12.810	18.020	5.0505	mg/L		103		80 - 120
	MSD	1817081-01	12.810	18.024	5.0505	mg/L	0.0	103	10	80 - 120
<b>QC Batch ID: B015389</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1817028-01	26700	26400		mg/L	1.1		10	
<b>QC Batch ID: B016244</b>		Used client sample: Y - Description: LON-MW1C, 05/30/2018 12:11								
Ammonia as N	DUP	1817081-01	ND	ND		mg/L			10	
	MS	1817081-01	ND	1.1040	1.1111	mg/L		99.4		90 - 110
	MSD	1817081-01	ND	1.1583	1.1111	mg/L	4.8	104	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/13/2018 18:56  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Longfellow Farming Co.  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Client Project: Machado Dairy  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1816133  
Invoice ID: B305597

Enclosed are the results of analyses for samples received by the laboratory on 5/19/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Quality Control Reports

<b>Water Analysis (General Chemistry)</b>	
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Laboratory Control Sample.....	10
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## Case Narratives

### Case Narrative for Work Order 1816133

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b> 18-16133 Report to: Reduced Constituent Suite		<b>Chain of Custody</b> 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911	
<b>Analysis Requested</b>			
Name: Luidorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Tili Angermann		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Project: Dairy Representative Monitoring Program Site: Machado Dairy Samplers Name: Edward Lee Global ID: WDR10003666		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Lab # -1 -2 3 4 5 6 7 8 9 10	Strike out non-sampled wells ADO-MW1d ADO-MW2d Field Duplicate	Date Sampled 5-18-18 5-18-18	Time Sampled 1047 0916
	Matrix		Q1 P6 Unpreserved
			x x x
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luidorff and Scalmanini Consulting Engineers via email: llavegna@lsc.com, rbrysan@lsc.com, pcalinval@lsc.com, jlovelis@lsc.com 4) Send invoices to Jeanette Lovell (jlovelis@lsc.com).		Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)	
(A)= Analysis (C)= Container (P)= Preservative		Received By: [Signature] Date & Time: 5/18 1420 Received by: [Signature] Date & Time: 5/19 900 Received by: [Signature] Date & Time:	

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LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Session #: 18-16133

Shipping Information:  UPS  Ontrac  Hand Delivery  Other  (Specify) GSO

Shipping Container:  Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

Free Liquid: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.92 Container: PE Thermometer ID: 208 Date/Time: 5/19/0900

Temperature: (A) 2.1 °C / (C) 2.2 °C Analyst Init: 77

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES <u>X48</u>	A	A								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS <u>124</u>	B	B								
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PLA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/628/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: EMR Date/Time: 5-21-18 0811 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Machado Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1816133-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/19/2018 09:00
	<b>Project Number:</b>	Machado Dairy	<b>Sampling Date:</b>	05/18/2018 10:47
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ADO-MW1d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of LAR	<b>Sample Type:</b>	Water
1816133-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/19/2018 09:00
	<b>Project Number:</b>	Machado Dairy	<b>Sampling Date:</b>	05/18/2018 09:46
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ADO-MW2d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of LAR	<b>Sample Type:</b>	Water

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816133-01	<b>Client Sample Name:</b> Machado Dairy, ADO-MW1d, 5/18/2018 10:47:00AM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	780	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.036	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/19/18 13:00	05/19/18 19:12		EMW	IC8	2	B014306
2	SM-2540C	05/23/18 16:00	05/23/18 16:00		CAD	MANUAL	5	B014580
3	EPA-350.1	05/30/18 15:34	05/31/18 12:32		JMH	SC-1	1	B015117

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816133-02	<b>Client Sample Name:</b> Machado Dairy, ADO-MW2d, 5/18/2018 9:46:00AM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	630	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.039	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/19/18 13:00	05/19/18 19:32		EMW	IC8	2	B014306
2	SM-2540C	05/23/18 16:00	05/23/18 16:00		CAD	MANUAL	3.333	B014580
3	EPA-350.1	05/30/18 15:34	05/31/18 12:32		JMH	SC-1	1	B015117

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**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Machado Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014306</b>						
Nitrate as N	B014306-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014580</b>						
Total Dissolved Solids @ 180 C	B014580-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015117</b>						
Ammonia as N	B015117-BLK1	ND	mg/L	0.10	0.018	

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Machado Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014306</b>										
Nitrate as N	B014306-BS1	LCS	4.9500	5.0000	mg/L	99.0		90 - 110		
<b>QC Batch ID: B014580</b>										
Total Dissolved Solids @ 180 C	B014580-BS1	LCS	600.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B015117</b>										
Ammonia as N	B015117-BS1	LCS	0.95590	1.0000	mg/L	95.6		90 - 110		

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500 First Street  
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**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B014306</b>		Used client sample: N								
Nitrate as N	DUP	1816134-02	1.5320	1.5900		mg/L	3.7		10	
	MS	1816134-02	1.5320	6.7838	5.0505	mg/L		104		80 - 120
	MSD	1816134-02	1.5320	6.7879	5.0505	mg/L	0.1	104	10	80 - 120
<b>QC Batch ID: B014580</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1816100-02	6500.0	6600.0		mg/L	1.5		10	
<b>QC Batch ID: B015117</b>		Used client sample: Y - Description: MAL-MW4, 05/17/2018 14:57								
Ammonia as N	DUP	1816003-04	0.033100	0.047600		mg/L	35.9		10	J,A02
	MS	1816003-04	0.033100	1.1960	1.1111	mg/L		105		90 - 110
	MSD	1816003-04	0.033100	1.1243	1.1111	mg/L	6.2	98.2	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Machado Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Manuel and Alda Lawrence Dairy  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1816003  
Invoice ID: B305596

Enclosed are the results of analyses for samples received by the laboratory on 5/17/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1816003

Samples were filtered through a 0.45 micron filter prior to analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-1100833

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals:  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.97 Container: PS Thermometer ID: ZDS Date/Time: 5/17/18 2330

Temperature: (A) 1.9 °C / (C) 20 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	A
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B	B	B	B	B
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/603/8080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 5/17/18 2357 Rev 21 05/23/2016

A = Actual / C = Corrected (S:\WPDoc\Ward\Perfec\LAB\_DOC\CFORM\MSISAMRECrev 20)



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1816003-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b> 05/17/2018 15:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MAL-MW1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1816003-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b> 05/17/2018 11:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MAL-MW2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1816003-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b> 05/17/2018 12:57
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MAL-MW3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1816003-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b> 05/17/2018 14:57
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MAL-MW4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1816003-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b> 05/17/2018 13:34
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MAL-MW5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1816003-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b> 05/17/2018 09:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MAL-MW6	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1816003-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b> 05/17/2018 10:08
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MAL-MW7	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1816003-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b>	05/17/2018 12:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAL-MW8	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b>	Water
1816003-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/17/2018 23:30
	<b>Project Number:</b>	Manuel and Alda Lawrence Dairy	<b>Sampling Date:</b>	05/17/2018 10:13
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b>	Water

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Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-01	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW1, 5/17/2018 3:32:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.043	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 04:04		EMW	IC8	5	B014281
2	SM-2540C	05/23/18 15:00	05/23/18 15:00		CAD	MANUAL	10	B014576
3	EPA-350.1	05/30/18 15:33	05/31/18 12:16		JMH	SC-1	1	B015116

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-02	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW2, 5/17/2018 11:05:00AM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.051	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	
1	EPA-300.0	05/17/18 19:00	05/18/18 06:07		EMW	IC8	10	B014281	
2	SM-2540C	05/23/18 15:00	05/23/18 15:00		CAD	MANUAL	10	B014576	
3	EPA-350.1	05/30/18 15:33	05/31/18 12:18		JMH	SC-1	1	B015116	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-03	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW3, 5/17/2018 12:57:00PM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4300	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	3.0	mg/L	0.50	0.090	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	
1	EPA-300.0	05/17/18 19:00	05/18/18 06:27		EMW	IC8	5	B014281	
2	SM-2540C	05/23/18 15:00	05/23/18 15:00		CAD	MANUAL	20	B014576	
3	EPA-350.1	05/30/18 15:33	05/31/18 12:50		JMH	SC-1	5	B015116	

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-04	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW4, 5/17/2018 2:57:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.033	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	
1	EPA-300.0	05/17/18 19:00	05/18/18 06:48		EMW	IC8	2	B014281	
2	SM-2540C	05/23/18 15:00	05/23/18 15:00		CAD	MANUAL	10	B014576	
3	EPA-350.1	05/30/18 15:34	05/31/18 12:21		JMH	SC-1	1	B015117	

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Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-05	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW5, 5/17/2018 1:34:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	270	mg/L	2.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	5000	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.027	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 07:08	EMW	IC8	20	B014281
2	SM-2540C	05/23/18 15:00	05/23/18 15:00	CAD	MANUAL	20	B014576
3	EPA-350.1	05/30/18 15:34	05/31/18 12:25	JMH	SC-1	1	B015117

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-06	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW6, 5/17/2018 9:17:00AM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3700	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.065	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 07:29	EMW	IC8	10	B014281
2	SM-2540C	05/23/18 15:00	05/23/18 15:00	CAD	MANUAL	20	B014576
3	EPA-350.1	05/30/18 15:34	05/31/18 12:26	JMH	SC-1	1	B015117

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-07	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW7, 5/17/2018 10:08:00AM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	88	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.043	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 07:49	EMW	IC8	10	B014281
2	SM-2540C	05/23/18 15:00	05/23/18 15:00	CAD	MANUAL	10	B014576
3	EPA-350.1	05/30/18 15:34	05/31/18 12:28	JMH	SC-1	1	B015117

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Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-08	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, MAL-MW8, 5/17/2018 12:15:00PM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	73	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.046	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 08:10		EMW	IC8	10	B014281
2	SM-2540C	05/23/18 15:00	05/23/18 15:00		CAD	MANUAL	10	B014576
3	EPA-350.1	05/30/18 15:34	05/31/18 12:30		JMH	SC-1	1	B015117

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816003-09	<b>Client Sample Name:</b> Manuel and Alda Lawrence Dairy, Field Duplicate, 5/17/2018 10:13:00AM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	87	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.040	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 09:12	EMW	IC8	5	B014281
2	SM-2540C	05/23/18 15:00	05/23/18 15:00	CAD	MANUAL	10	B014576
3	EPA-350.1	05/30/18 15:34	05/31/18 12:30	JMH	SC-1	1	B015117

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Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014281</b>						
Nitrate as N	B014281-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014576</b>						
Total Dissolved Solids @ 180 C	B014576-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015116</b>						
Ammonia as N	B015116-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B015117</b>						
Ammonia as N	B015117-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014281</b>										
Nitrate as N	B014281-BS1	LCS	5.1630	5.0000	mg/L	103		90 - 110		
<b>QC Batch ID: B014576</b>										
Total Dissolved Solids @ 180 C	B014576-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B015116</b>										
Ammonia as N	B015116-BS1	LCS	0.94400	1.0000	mg/L	94.4		90 - 110		
<b>QC Batch ID: B015117</b>										
Ammonia as N	B015117-BS1	LCS	0.95590	1.0000	mg/L	95.6		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B014281</b>		Used client sample: Y - Description: MAL-MW1, 05/17/2018 15:32								
Nitrate as N	DUP	1816003-01	30.380	30.135		mg/L	0.8		10	
	MS	1816003-01	30.380	57.020	25.253	mg/L		105		80 - 120
	MSD	1816003-01	30.380	57.116	25.253	mg/L	0.2	106	10	80 - 120
<b>QC Batch ID: B014576</b>		Used client sample: Y - Description: MAL-MW1, 05/17/2018 15:32								
Total Dissolved Solids @ 180 C	DUP	1816003-01	2060.0	2090.0		mg/L	1.4		10	
<b>QC Batch ID: B015116</b>		Used client sample: N								
Ammonia as N	DUP	1815971-02	0.066200	0.061100		mg/L	8.0		10	J
	MS	1815971-02	0.066200	1.1357	1.1111	mg/L		96.3		90 - 110
	MSD	1815971-02	0.066200	1.1460	1.1111	mg/L	0.9	97.2	10	90 - 110
<b>QC Batch ID: B015117</b>		Used client sample: Y - Description: MAL-MW4, 05/17/2018 14:57								
Ammonia as N	DUP	1816003-04	0.033100	0.047600		mg/L	35.9		10	J,A02
	MS	1816003-04	0.033100	1.1960	1.1111	mg/L		105		90 - 110
	MSD	1816003-04	0.033100	1.1243	1.1111	mg/L	6.2	98.2	10	90 - 110

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Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Manuel and Alda Lawrence Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Richmar Farm Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815686

Invoice ID: B305501

Enclosed are the results of analyses for samples received by the laboratory on 5/15/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815686

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b> 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		<b>Chain of Custody</b>																																																																																					
<b>Report to:</b> Reduced Constituent Suite		<b>Analysis Requested</b>																																																																																					
Name: Luhdorff and Scalmanini	Project: Dairy Representative Monitoring Program	From Filtered Sample:																																																																																					
Address: 500 First Street	Site: Richmar Farms Dairy	Ammonia-N, NO3-N, Total Dissolved Solids																																																																																					
City: Woodland	Samplers Name: Edward Her	<input type="checkbox"/> DIS-TRI-BUTION																																																																																					
State: CA	Global ID - WDR10038761	<input type="checkbox"/> SUB-OUT																																																																																					
Alt#: Till Angermann																																																																																							
<table border="1"> <thead> <tr> <th>Lab #</th> <th>Strike out non-sampled wells</th> <th>Date Sampled</th> <th>Time Sampled</th> <th>Matrix</th> <th>Qc Pts Unpreserved</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>RIC-MW1, RIC-MW2</td> <td>5-14-18</td> <td>1640</td> <td>W</td> <td>x</td> </tr> <tr> <td>2</td> <td>RIC-MW3, RIC-MW4</td> <td>5-14-18</td> <td>1755</td> <td>W</td> <td>x</td> </tr> <tr> <td>3</td> <td>RIC-MW5, RIC-MW6</td> <td>5-14-18</td> <td>1722</td> <td>W</td> <td>x</td> </tr> <tr> <td>4</td> <td>RIC-MW7s, RIC-MW7d</td> <td>5-14-18</td> <td>1603</td> <td>W</td> <td>x</td> </tr> <tr> <td>5</td> <td>RIC-MW8s, RIC-MW8d</td> <td>5-14-18</td> <td>1726</td> <td>W</td> <td>x</td> </tr> <tr> <td>6</td> <td>RIC-MW9s, RIC-MW9d</td> <td>5-14-18</td> <td>1520</td> <td>W</td> <td>x</td> </tr> <tr> <td>7</td> <td>-Field Duplicate-</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>11</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>12</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>13</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qc Pts Unpreserved	1	RIC-MW1, RIC-MW2	5-14-18	1640	W	x	2	RIC-MW3, RIC-MW4	5-14-18	1755	W	x	3	RIC-MW5, RIC-MW6	5-14-18	1722	W	x	4	RIC-MW7s, RIC-MW7d	5-14-18	1603	W	x	5	RIC-MW8s, RIC-MW8d	5-14-18	1726	W	x	6	RIC-MW9s, RIC-MW9d	5-14-18	1520	W	x	7	-Field Duplicate-					8						9						10						11						12						13								
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qc Pts Unpreserved																																																																																		
1	RIC-MW1, RIC-MW2	5-14-18	1640	W	x																																																																																		
2	RIC-MW3, RIC-MW4	5-14-18	1755	W	x																																																																																		
3	RIC-MW5, RIC-MW6	5-14-18	1722	W	x																																																																																		
4	RIC-MW7s, RIC-MW7d	5-14-18	1603	W	x																																																																																		
5	RIC-MW8s, RIC-MW8d	5-14-18	1726	W	x																																																																																		
6	RIC-MW9s, RIC-MW9d	5-14-18	1520	W	x																																																																																		
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<b>Comments:</b> 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, rbyson@lsc.com, pdh@lsc.com. 4) Send invoices to Jeanette Lovelis (jlovelis@lsc.com).		Relinquished by: (Signature) Relinquished by: (Signature) Relinquished by: (Signature)																																																																																					
(A)= Analysis (C)= Container (P)= Preservative		Received by: (Signature) Date & Time: 5/15/18 20:06 Received by: (Signature) Date & Time: 5/15/18 22:00																																																																																					

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1815686

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Containers: None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 205 Date/Time: 5/15/16 2:00

Temperature: (A) 1.7 °C / (C) 1.8 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B	B	B	B	B				
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 506/508/509/510										
QT EPA 515/518/519										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 5/15/2016 Rev 21 05/23/2016

A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815686-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	05/14/2018 16:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of GDTM	<b>Sample Type:</b>	Water
	<hr/>			
1815686-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	05/14/2018 07:55
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of GDTM	<b>Sample Type:</b>	Water
	<hr/>			
1815686-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	05/14/2018 17:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW5	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of GDTM	<b>Sample Type:</b>	Water
	<hr/>			
1815686-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	05/14/2018 16:03
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of GDTM	<b>Sample Type:</b>	Water
	<hr/>			
1815686-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	05/14/2018 14:26
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of GDTM	<b>Sample Type:</b>	Water
	<hr/>			
1815686-06	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Richmar Farms Dairy	<b>Sampling Date:</b>	05/14/2018 15:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	RIC-MW9s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of GDTM	<b>Sample Type:</b>	Water
	<hr/>			

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815686-01	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW1, 5/14/2018 4:40:00PM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.30	mg/L	0.10	0.018	EPA-350.1	0.042		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 13:43	EMW	IC1	1	B014001
2	SM-2540C	05/18/18 11:00	05/18/18 11:00	CAD	MANUAL	5	B014224
3	EPA-350.1	05/30/18 10:56	05/30/18 15:06	JMH	SC-1	1	B015066

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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815686-02	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW3, 5/14/2018 7:55:00AM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND	S05	1
<b>Total Dissolved Solids @ 180 C</b>	<b>1200</b>	<b>mg/L</b>	<b>50</b>	<b>50</b>	<b>SM-2540C</b>	ND		2
Ammonia as N	0.27	mg/L	0.10	0.018	EPA-350.1	0.042		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 15:07	EMW	IC1	1	B014001
2	SM-2540C	05/18/18 11:00	05/18/18 11:00	CAD	MANUAL	5	B014224
3	EPA-350.1	05/30/18 10:56	05/30/18 15:09	JMH	SC-1	1	B015066

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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815686-03	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW5, 5/14/2018 5:22:00PM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.61	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	320	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.059	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18	15:28	EMW	IC1	1	B014001
2	SM-2540C	05/18/18 11:00	05/18/18	11:00	CAD	MANUAL	2	B014224
3	EPA-350.1	05/30/18 10:56	05/30/18	15:11	JMH	SC-1	1	B015066

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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815686-04	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW7s, 5/14/2018 4:03:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.42	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.052	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 15:49	SAV	IC1	1	B014001
2	SM-2540C	05/18/18 11:00	05/18/18 11:00	CAD	MANUAL	5	B014224
3	EPA-350.1	05/30/18 10:56	05/30/18 15:13	JMH	SC-1	1	B015066

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815686-05	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW8s, 5/14/2018 2:26:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND	S05	1
<b>Total Dissolved Solids @ 180 C</b>	<b>700</b>	<b>mg/L</b>	<b>33</b>	<b>33</b>	<b>SM-2540C</b>	ND		2
Ammonia as N	0.077	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 16:10	SAV	IC1	1	B014001
2	SM-2540C	05/18/18 11:00	05/18/18 11:00	CAD	MANUAL	3.333	B014224
3	EPA-350.1	05/30/18 10:56	05/30/18 15:15	JMH	SC-1	1	B015066

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**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815686-06	<b>Client Sample Name:</b> Richmar Farms Dairy, RIC-MW9s, 5/14/2018 3:20:00PM, Edward Her
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	39	mg/L	0.20	0.042	EPA-300.0	ND	A07,S05	1
Total Dissolved Solids @ 180 C	970	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.050	mg/L	0.10	0.018	EPA-350.1	0.042	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 17:13	SAV	IC1	2	B014001
2	SM-2540C	05/18/18 11:00	05/18/18 11:00	CAD	MANUAL	5	B014224
3	EPA-350.1	05/30/18 10:56	05/30/18 15:15	JMH	SC-1	1	B015066

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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014001</b>						
Nitrate as N	B014001-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014224</b>						
Total Dissolved Solids @ 180 C	B014224-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015066</b>						
Ammonia as N	B015066-BLK1	0.042100	mg/L	0.10	0.018	J

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
Project: Dairy Representative Monitoring Program  
Project Number: Richmar Farm Dairy  
Project Manager: Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014001</b>										
Nitrate as N	B014001-BS1	LCS	5.0000	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B014224</b>										
Total Dissolved Solids @ 180 C	B014224-BS1	LCS	600.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B015066</b>										
Ammonia as N	B015066-BS1	LCS	1.0213	1.0000	mg/L	102		90 - 110		

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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B014001</b>		Used client sample: Y - Description: RIC-MW1, 05/14/2018 16:40								
Nitrate as N	DUP	1815686-01	ND	ND		mg/L			10	
	MS	1815686-01	ND	5.1566	5.0505	mg/L		102		80 - 120
	MSD	1815686-01	ND	5.0869	5.0505	mg/L	1.4	101	10	80 - 120
<b>QC Batch ID: B014224</b>		Used client sample: Y - Description: BEA-MW4d, 05/14/2018 17:40								
Total Dissolved Solids @ 180 C	DUP	1815493-04	955.00	965.00		mg/L	1.0		10	
<b>QC Batch ID: B015066</b>		Used client sample: Y - Description: RIC-MW1, 05/14/2018 16:40								
Ammonia as N	DUP	1815686-01	0.29760	0.27340		mg/L	8.5		10	
	MS	1815686-01	0.29760	1.4011	1.1111	mg/L		99.3		90 - 110
	MSD	1815686-01	0.29760	1.4249	1.1111	mg/L	1.7	101	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Richmar Farm Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- S05 The sample holding time was exceeded.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Sierra View Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815870

Invoice ID: B305590

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815870

Samples were filtered through a 0.45 micron filter prior to analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page    Of   

Submission #: 1815870

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> <u>W / S</u>
--	--	--	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match CDC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/16 2200

Temperature: (A) 0.3 °C / (C) 0.6 °C Analyst Init: GSP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B								
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 505/603/6090										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GSP Date/Time: 5/16 2218

A = Actual / C = Corrected

Rev 21 05/23/2016 [S:\WPDec\WordPerfect\LAB\_DOC\FORMS\SAMRECrev 20]



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sierra View Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815870-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Sierra View Dairy	<b>Sampling Date:</b>	05/16/2018 09:08
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SIE-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b>	Groundwater
1815870-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Sierra View Dairy	<b>Sampling Date:</b>	05/16/2018 08:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SIE-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Edward Her of DTO	<b>Sample Type:</b>	Groundwater

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sierra View Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815870-01	<b>Client Sample Name:</b> Sierra View Dairy, SIE-MW1, 5/16/2018 9:08:00AM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	34	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	570	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.029	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18	04:07	EMW	IC5	2	B014185
2	SM-2540C	05/22/18 13:30	05/22/18	13:30	CAD	MANUAL	3.333	B014466
3	EPA-350.1	05/30/18 15:31	05/31/18	10:58	JMH	SC-1	1	B015114

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sierra View Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815870-02	<b>Client Sample Name:</b> Sierra View Dairy, SIE-MW3, 5/16/2018 8:20:00AM, Edward Her
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	540	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18	04:25	EMW	IC5	2	B014185
2	SM-2540C	05/22/18 13:30	05/22/18	13:30	CAD	MANUAL	3.333	B014466
3	EPA-350.1	05/30/18 15:31	05/31/18	10:59	JMH	SC-1	1	B015114

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sierra View Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014185</b>						
Nitrate as N	B014185-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014466</b>						
Total Dissolved Solids @ 180 C	B014466-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015114</b>						
Ammonia as N	B015114-BLK1	ND	mg/L	0.10	0.018	

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sierra View Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014185</b>										
Nitrate as N	B014185-BS1	LCS	5.0170	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B014466</b>										
Total Dissolved Solids @ 180 C	B014466-BS1	LCS	570.00	586.00	mg/L	97.3		90 - 110		
<b>QC Batch ID: B015114</b>										
Ammonia as N	B015114-BS1	LCS	1.0544	1.0000	mg/L	105		90 - 110		

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Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sierra View Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B014185</b>		Used client sample: Y - Description: COR-MW1s, 05/16/2018 11:33								
Nitrate as N	DUP	1815865-01	50.290	50.700		mg/L	0.8		10	
	MS	1815865-01	50.290	75.833	25.253	mg/L		101		80 - 120
	MSD	1815865-01	50.290	75.884	25.253	mg/L	0.1	101	10	80 - 120
<b>QC Batch ID: B014466</b>		Used client sample: Y - Description: GOD-MW1s, 05/16/2018 17:07								
Total Dissolved Solids @ 180 C	DUP	1815868-01	1630.0	1640.0		mg/L	0.6		10	
<b>QC Batch ID: B015114</b>		Used client sample: Y - Description: FG2-MW2s, 05/16/2018 10:06								
Ammonia as N	DUP	1815869-02	0.045300	0.037400		mg/L	19.1		10	J,A02
	MS	1815869-02	0.045300	1.1628	1.1111	mg/L		101		90 - 110
	MSD	1815869-02	0.045300	1.1941	1.1111	mg/L	2.7	103	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:34  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sierra View Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/29/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Sozinho Jersey

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815238

Invoice ID: B305255

Enclosed are the results of analyses for samples received by the laboratory on 5/10/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815238

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b> 1815238 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		<b>Chain of Custody</b>																																																																			
<b>Report to:</b> Reduced Constituent Suite																																																																					
<b>Name:</b> Luhdorff and Scalmanini		<b>Analysis Requested</b>																																																																			
<b>Address:</b> 500 First Street		From Filtered Sample:																																																																			
<b>City:</b> Woodland		Ammonia-N, NO3-N, Total Dissolved Solids																																																																			
<b>State:</b> CA		CHRYBY <input checked="" type="checkbox"/> DISTRIBUTION																																																																			
<b>Attn:</b> Till Angermann		SUB-OUT <input type="checkbox"/>																																																																			
<b>Project:</b> Dairy Representative Monitoring Program		SHORT HOLDING TIME																																																																			
<b>Site:</b> Sozinito Jerseys		Cr <sup>6</sup> NO <sub>2</sub> NO <sub>3</sub> OP SG																																																																			
<b>Sampler Name:</b> Tony Davis Edward Her		DO Cl <sub>2</sub> BOD MBAS COT																																																																			
<b>Global ID:</b> WDD100006862		Received By: [Signature] Date & Time: 5-10-18 2020																																																																			
<table border="1"> <thead> <tr> <th>Lab #</th> <th>Strike out non-sampled wells</th> <th>Date Sampled</th> <th>Time Sampled</th> <th>Matrix</th> <th>Ct Pa Unpreserved</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>SOJ-MW4</td> <td></td> <td></td> <td></td> <td>x</td> </tr> <tr> <td>2</td> <td>SOJ-MW2</td> <td></td> <td></td> <td></td> <td>x</td> </tr> <tr> <td>3</td> <td>SOJ-MW3</td> <td></td> <td></td> <td></td> <td>x</td> </tr> <tr> <td>4</td> <td>SOJ-MW4</td> <td></td> <td></td> <td></td> <td>x</td> </tr> <tr> <td>5</td> <td>SOJ-MW5s, SOJ-MW5d</td> <td>5-10-18</td> <td>1520</td> <td>W</td> <td>x</td> </tr> <tr> <td>6</td> <td>SOJ-MW6s, SOJ-MW6d</td> <td>5-10-18</td> <td>1500</td> <td>W</td> <td>x</td> </tr> <tr> <td>7</td> <td>Field Duplicate</td> <td></td> <td></td> <td></td> <td>x</td> </tr> <tr> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>9</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>10</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pa Unpreserved	1	SOJ-MW4				x	2	SOJ-MW2				x	3	SOJ-MW3				x	4	SOJ-MW4				x	5	SOJ-MW5s, SOJ-MW5d	5-10-18	1520	W	x	6	SOJ-MW6s, SOJ-MW6d	5-10-18	1500	W	x	7	Field Duplicate				x	8						9						10						Relinquished by: [Signature] Date & Time: 5-10-18 2020	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pa Unpreserved																																																																
1	SOJ-MW4				x																																																																
2	SOJ-MW2				x																																																																
3	SOJ-MW3				x																																																																
4	SOJ-MW4				x																																																																
5	SOJ-MW5s, SOJ-MW5d	5-10-18	1520	W	x																																																																
6	SOJ-MW6s, SOJ-MW6d	5-10-18	1500	W	x																																																																
7	Field Duplicate				x																																																																
8																																																																					
9																																																																					
10																																																																					
<b>Comments:</b>		Relinquished by: [Signature] Date & Time: 5-10-18 2020																																																																			
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, pdhall@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeanette Lovell (jlovelis@lscce.com).		Relinquished by: [Signature] Date & Time: 5-10-18 2020																																																																			
(A)= Analysis (C)= Container (P)= Preservative		Relinquished by: [Signature] Date & Time: 5-10-18 2020																																																																			

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1815238

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W/S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals:  Containers Intact  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/10/2016

Temperature: (A) 0.1 °C / (C) 0.2 °C Analyst Init: BAP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS	B	B								
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBR										
8oz / 16oz / 32oz IAE										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GSD Date/Time: 5/10/2016 23:14 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sozinho Jersey  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815238-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2018 22:30
	<b>Project Number:</b>	Sozinho Jerseys	<b>Sampling Date:</b>	05/10/2018 15:20
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SOJ-MW5d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of GDTM	<b>Sample Type:</b>	Water
	<hr/>			
1815238-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2018 22:30
	<b>Project Number:</b>	Sozinho Jerseys	<b>Sampling Date:</b>	05/10/2018 15:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	SOJ-MW6d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Tony Dalri of GDTM	<b>Sample Type:</b>	Water
	<hr/>			

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Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sozinho Jersey  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815238-01	<b>Client Sample Name:</b> Sozinho Jerseys, SOJ-MW5d, 5/10/2018 3:20:00PM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.1	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	280	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.057	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 16:00	05/12/18 01:56		SAV	IC1	2	B013774
2	SM-2540C	05/16/18 11:30	05/16/18 11:30		CAD	MANUAL	2	B013950
3	EPA-350.1	05/25/18 13:55	05/25/18 15:27		JMH	SC-1	1	B014700

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Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sozinho Jersey  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815238-02	<b>Client Sample Name:</b> Sozinho Jerseys, SOJ-MW6d, 5/10/2018 3:00:00PM, Tony Dalri
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	62	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.059	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 16:00	05/12/18 13:59		SAV	IC1	5	B013774
2	SM-2540C	05/16/18 11:30	05/16/18 11:30		CAD	MANUAL	5	B013950
3	EPA-350.1	05/25/18 13:55	05/25/18 15:34		JMH	SC-1	1	B014700

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500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sozinho Jersey  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013774</b>						
Nitrate as N	B013774-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013950</b>						
Total Dissolved Solids @ 180 C	B013950-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014700</b>						
Ammonia as N	B014700-BLK1	ND	mg/L	0.10	0.018	

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500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sozinho Jersey  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013774</b>										
Nitrate as N	B013774-BS1	LCS	4.9710	5.0000	mg/L	99.4		90 - 110		
<b>QC Batch ID: B013950</b>										
Total Dissolved Solids @ 180 C	B013950-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B014700</b>										
Ammonia as N	B014700-BS1	LCS	0.94920	1.0000	mg/L	94.9		90 - 110		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sozinho Jersey  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013774</b>		Used client sample: Y - Description: SOJ-MW5d, 05/10/2018 15:20								
Nitrate as N	DUP	1815238-01	1.1160	1.1140		mg/L	0.2		10	
	MS	1815238-01	1.1160	10.911	10.101	mg/L		97.0		80 - 120
	MSD	1815238-01	1.1160	10.966	10.101	mg/L	0.5	97.5	10	80 - 120
<b>QC Batch ID: B013950</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1815218-05	1170.0	1185.0		mg/L	1.3		10	
<b>QC Batch ID: B014700</b>		Used client sample: Y - Description: SOJ-MW5d, 05/10/2018 15:20								
Ammonia as N	DUP	1815238-01	0.057100	0.061100		mg/L	6.8		10	J
	MS	1815238-01	0.057100	1.2113	1.1111	mg/L		104		90 - 110
	MSD	1815238-01	0.057100	1.2078	1.1111	mg/L	0.3	104	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Sozinho Jersey  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/30/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Zonneveld Dairy Complex

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815355

Invoice ID: B305480

Enclosed are the results of analyses for samples received by the laboratory on 5/11/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815355

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
<b>Report to:</b> 1815355 Lufthorff and Scalmaniini Reduced Constituent Suite		<b>Analysis Requested</b> From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids		CHK BY: <u>[Signature]</u> DISTRIBUTION <input type="checkbox"/> SUB-OUT <input type="checkbox"/>	
<b>Address:</b> 500 First Street <b>City:</b> Woodland <b>State:</b> CA <b>Attn:</b> Till Angermann		<b>Project:</b> Dairy Representative Monitoring Program <b>Site:</b> Zonneveld Dairy Complex <b>Samplers Name:</b> Tony Dalig Edward Her <b>Global ID:</b> WDR100038511		SHORT HOLDING TIME Cr+8 NO <input type="checkbox"/> NO <input type="checkbox"/> OP <input type="checkbox"/> SS <input type="checkbox"/> DO Ch BOB MBAS COT	
<b>Matrix</b> W W W W W W		<b>Time Sampled</b> 0937 1038 1005 0930 1055 -		<b>Cr Pe Unpreserved</b> x x x x x x	
<b>Date Sampled</b> 5-11-18 5-11-18 5-11-18 5-11-18 5-11-18 5-11-18		<b>Strike out non-sampled wells</b> ZON-MW1A, ZON-MW1B ZON-MW1C ZON-MW2A, ZON-MW2B ZON-MW3A, ZON-MW3B ZON-MW4A, ZON-MW4B ZON-MW5A, ZON-MW5B ZON-MW7 Field Duplicate Dup. 5		Received By: <u>[Signature]</u> 5-11-18 1500 Received By: <u>[Signature]</u> 5/11/18 181625 Received By: <u>[Signature]</u> 5/11/18 18:45 REL. <u>[Signature]</u> 5/11/18 2145 <u>[Signature]</u> 5/11/18 2145	
<b>Lab #</b> 1 2 3 4 5 6 7 8 9 10		<b>Comments:</b> 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Lufthorff and Scalmaniini Consulting Engineers via email: llvagnino@lisce.com, rbyson@lisce.com, pbrathwaite@lisce.com, jlovelis@lisce.com 4) Send invoices to Jeannette Lovelis (jlovelis@lisce.com). (A)= Analysis (C)= Container (P)= Preservative		Relinquished by: (Signature) <u>[Signature]</u> Relinquished by: (Signature) <u>[Signature]</u> Relinquished by: (Signature) <u>[Signature]</u>	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-15355

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> W / S
---	--	---	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals Ice Chest  Containers  None  Comments:

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match CDC? Yes  No

COC Received  YES  NO Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/11/2001 Analyst Init: GSP Temperature: (A) 0.4 °C / (C) 0.5 °C

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE	B	B	B	B	B	B				
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: Sample Numbering Completed By: [Signature] Date/Time: 5/11/2001 Rev 21 05/23/2016

A = Actual / C = Corrected [Barcode]

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815355-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b> 05/11/2018 09:37
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ZON-MW1C	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Tony D./Edward H of DTO	<b>Sample Type:</b> Water
1815355-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b> 05/11/2018 10:38
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ZON-MW2B	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Tony D./Edward H of DTO	<b>Sample Type:</b> Water
1815355-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b> 05/11/2018 10:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ZON-MW3B	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Tony D./Edward H of DTO	<b>Sample Type:</b> Water
1815355-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b> 05/11/2018 09:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ZON-MW4B	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Tony D./Edward H of DTO	<b>Sample Type:</b> Water
1815355-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b> 05/11/2018 10:55
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ZON-MW5B	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Tony D./Edward H of DTO	<b>Sample Type:</b> Water
1815355-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Zonneveld Dairy Complex	<b>Sampling Date:</b> 05/11/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	Field Duplicate Dup-5	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Tony D./Edward H of DTO	<b>Sample Type:</b> Water

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815355-01	<b>Client Sample Name:</b> Zonneveld Dairy Complex, ZON-MW1C, 5/11/2018 9:37:00AM, Tony D./Edward H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	29	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	720	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.024	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 13:36	SAV	IC2	2	B013749
2	SM-2540C	05/17/18 11:00	05/17/18 11:00	CAD	MANUAL	3.333	B014069
3	EPA-350.1	05/29/18 11:55	05/30/18 10:56	JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815355-02	<b>Client Sample Name:</b> Zonneveld Dairy Complex, ZON-MW2B, 5/11/2018 10:38:00AM, Tony D./Edward H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	370	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.018	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 14:58		SAV	IC2	2	B013749
2	SM-2540C	05/17/18 11:00	05/17/18 11:00		CAD	MANUAL	2	B014069
3	EPA-350.1	05/29/18 11:55	05/30/18 10:56		JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815355-03	<b>Client Sample Name:</b> Zonneveld Dairy Complex, ZON-MW3B, 5/11/2018 10:05:00AM, Tony D./Edward H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	750	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.028	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 15:19		SAV	IC2	10	B013749
2	SM-2540C	05/17/18 11:00	05/17/18 11:00		CAD	MANUAL	3.333	B014069
3	EPA-350.1	05/29/18 11:55	05/30/18 10:58		JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815355-04	<b>Client Sample Name:</b> Zonneveld Dairy Complex, ZON-MW4B, 5/11/2018 9:30:00AM, Tony D./Edward H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	780	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.043	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 15:40	SAV	IC2	10	B013749
2	SM-2540C	05/17/18 11:00	05/17/18 11:00	CAD	MANUAL	5	B014069
3	EPA-350.1	05/29/18 11:55	05/30/18 10:58	JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815355-05	<b>Client Sample Name:</b> Zonneveld Dairy Complex, ZON-MW5B, 5/11/2018 10:55:00AM, Tony D./Edward H
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	730	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.031	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 16:00		SAV	IC2	5	B013749
2	SM-2540C	05/17/18 11:00	05/17/18 11:00		CAD	MANUAL	3.333	B014069
3	EPA-350.1	05/29/18 11:55	05/30/18 11:00		JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815355-06	<b>Client Sample Name:</b> Zonneveld Dairy Complex, Field Duplicate Dup-5, 5/11/2018 12:00:00AM, Tony D./Edward H
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	780	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.035	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 22:45		SAV	IC2	5	B013749
2	SM-2540C	05/17/18 11:00	05/17/18 11:00		CAD	MANUAL	3.333	B014069
3	EPA-350.1	05/29/18 11:55	05/30/18 11:00		JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013749</b>						
Nitrate as N	B013749-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014069</b>						
Total Dissolved Solids @ 180 C	B014069-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014925</b>						
Ammonia as N	B014925-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013749</b>										
Nitrate as N	B013749-BS1	LCS	5.0670	5.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B014069</b>										
Total Dissolved Solids @ 180 C	B014069-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
<b>QC Batch ID: B014925</b>										
Ammonia as N	B014925-BS1	LCS	0.99930	1.0000	mg/L	99.9		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013749</b>		Used client sample: Y - Description: ZON-MW1C, 05/11/2018 09:37								
Nitrate as N	DUP	815355-01RE'	28.556	28.688		mg/L	0.5		10	
	MS	815355-01RE'	28.556	39.022	10.101	mg/L		104		80 - 120
	MSD	815355-01RE'	28.556	39.111	10.101	mg/L	0.2	104	10	80 - 120
<b>QC Batch ID: B014069</b>		Used client sample: Y - Description: ZON-MW4B, 05/11/2018 09:30								
Total Dissolved Solids @ 180 C	DUP	1815355-04	775.00	765.00		mg/L	1.3		10	
<b>QC Batch ID: B014925</b>		Used client sample: Y - Description: FG1-MW6s, 05/11/2018 11:42								
Ammonia as N	DUP	1815354-06	0.033500	0.041800		mg/L	22.0		10	J,A02
	MS	1815354-06	0.033500	1.0766	1.1111	mg/L		93.9		90 - 110
	MSD	1815354-06	0.033500	1.0786	1.1111	mg/L	0.2	94.1	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Zonneveld Dairy Complex  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

## Central Area

---





Date of Report: 05/29/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Albert Mendes Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815031

Invoice ID: B305254

Enclosed are the results of analyses for samples received by the laboratory on 5/9/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815031

Samples were filtered through a 0.45 micron filter prior to analysis.



18-15031

Chain of Custody

4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

BC Laboratories, Inc.

Analysis Requested

Report to:

Name: Lohdorff and Scalmanini		Reduced Constituent Suite		From Filtered Sample:	
Address: 500 First Street		Project: Dairy Representative Monitoring Program		Ammonia-N, NO3-N, Total Dissolved Solids	
City: Woodland		Site: Albert Mendes Dairy			
State: 95695		Samplers Name: Antonio DeTeeh			
Attn: Till Angermann		Global ID - GADAIRY00001			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	QI Pp Unpreserved
-1	MEN-MW1s, MEN-MW2d	5/9/18	926	6W	x
-2	MEN-MW2s, MEN-MW2d		944		x
-3	MEN-MW3s, MEN-MW3d		1136		x
-4	MEN-MW4s, MEN-MW4d		1152		x
-5	MEN-MW5s, MEN-MW5d		1102		x
-6	MEN-MW6s, MEN-MW6d		1016		x
-7	MEN-MW7s, MEN-MW7d		1043		x
-8	MEN-MW8s, MEN-MW8d		1119		x
-9	Field Duplicate #3				x
10					
11					
12					

SHORT TITLING TIME  
 C+16 NO2 NO3 OP SS  
 DO C/2 BOD MBAS COT

CHK BY [Signature]  
 DISTRIBUTION  
 SUB-OUT

Received By: [Signature] Date & Time: 5/9/18 17:00  
 Received By: [Signature] Date & Time: 5/9/18 19:10  
 Received By: [Signature] Date & Time: 5/9/18 22:30

Relinquished by: (Signature) 5/9/18 1700  
 Relinquished by: (Signature)  
 Relinquished by: (Signature)

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rnyson@lscce.com, pdhallwei@lscce.com, jlovelis@lscce.com  
 4) Send invoices to Jeanette Lovelis: jlovelis@lscce.com.

(A)= Analysis (C)= Container (P)= Preservative



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-15031

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Containers: 1 None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO

Emissivity: 0.97 Container: 18 Thermometer ID: 208 Date/Time: 5/19/18 2230

Temperature: (A) 1.2 °C / (C) 1.3 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/815										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
Box EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
Box / 16oz / 32oz AMBER										
Box / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 5/19/18 2237 Rev 21 05/23/2016

A = Actual / C = Corrected

IS:\AFD\Doc\WordPerfect\LAB\_DOC\FORMS\SMRCRev 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815031-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 09:26
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MEN-MW1s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		
	1815031-02	<b>COC Number:</b>	---
<b>Project Number:</b>		Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 09:44
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		MEN-MW2s	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
<hr/>			
1815031-03		<b>COC Number:</b>	---
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 11:36
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MEN-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		
	1815031-04	<b>COC Number:</b>	---
<b>Project Number:</b>		Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 11:52
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		MEN-MW4s	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
<hr/>			
1815031-05		<b>COC Number:</b>	---
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 11:02
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MEN-MW5s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		
	1815031-06	<b>COC Number:</b>	---
<b>Project Number:</b>		Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 10:16
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		MEN-MW6s	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
<hr/>			
1815031-07		<b>COC Number:</b>	---
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 10:43
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MEN-MW7s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815031-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 11:19
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MEN-MW8s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		
	1815031-09	<b>COC Number:</b>	---
<b>Project Number:</b>		Albert Mendes Dairy	<b>Sampling Date:</b> 05/09/2018 00:00
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		Field Duplicate #3	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
<hr/>			

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-01	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW1s, 5/9/2018 9:26:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	33	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4100	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	12	mg/L	2.0	0.36	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 05:35		EMW	IC8	5	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	20	B013847
3	EPA-350.1	05/25/18 10:59	05/25/18 16:39		JMH	SC-1	20	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-02	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW2s, 5/9/2018 9:44:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	59	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3300	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	1.8	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 05:56	EMW	IC8	5	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30	CAD	MANUAL	20	B013847
3	EPA-350.1	05/25/18 10:59	05/25/18 15:09	JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-03	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW3s, 5/9/2018 11:36:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.16	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 06:16		EMW	IC8	10	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	10	B013847
3	EPA-350.1	05/25/18 10:59	05/25/18 15:09		JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-04	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW4s, 5/9/2018 11:52:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.12	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 06:37		EMW	IC8	10	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	10	B013847
3	EPA-350.1	05/25/18 10:59	05/25/18 15:11		JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-05	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW5s, 5/9/2018 11:02:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	44	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.10	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 06:57		EMW	IC8	5	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	5	B013847
3	EPA-350.1	05/25/18 10:59	05/25/18 15:11		JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-06	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW6s, 5/9/2018 10:16:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	33	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.10	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 07:18		EMW	IC8	2	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	10	B013847
3	EPA-350.1	05/25/18 10:59	05/25/18 15:13		JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-07	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW7s, 5/9/2018 10:43:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	75	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.12	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 07:38		EMW	IC8	5	B013600
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	10	B013847
3	EPA-350.1	05/25/18 11:01	05/25/18 15:13		JMH	SC-1	1	B014566

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-08	<b>Client Sample Name:</b> Albert Mendes Dairy, MEN-MW8s, 5/9/2018 11:19:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.087	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Instrument	Dilution	QC
			Date/Time	Analyst			Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 07:59	EMW	IC8	2	B013600
2	SM-2540C	05/15/18 11:30	05/15/18 11:30	CAD	MANUAL	10	B013847
3	EPA-350.1	05/25/18 11:01	05/25/18 15:18	JMH	SC-1	1	B014566

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815031-09	<b>Client Sample Name:</b> Albert Mendes Dairy, Field Duplicate #3, 5/9/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	74	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.12	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 08:19		EMW	IC8	5	B013600
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	10	B013847
3	EPA-350.1	05/25/18 11:01	05/25/18 15:20		JMH	SC-1	1	B014566

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Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013600</b>						
Nitrate as N	B013600-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013601</b>						
Nitrate as N	B013601-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013847</b>						
Total Dissolved Solids @ 180 C	B013847-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014565</b>						
Ammonia as N	B014565-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B014566</b>						
Ammonia as N	B014566-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B013600</b>										
Nitrate as N	B013600-BS1	LCS	5.0080	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B013601</b>										
Nitrate as N	B013601-BS1	LCS	5.0040	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B013847</b>										
Total Dissolved Solids @ 180 C	B013847-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B014565</b>										
Ammonia as N	B014565-BS1	LCS	0.98910	1.0000	mg/L	98.9		90 - 110		
<b>QC Batch ID: B014566</b>										
Ammonia as N	B014566-BS1	LCS	0.97470	1.0000	mg/L	97.5		90 - 110		

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Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013600</b>		Used client sample: Y - Description: CAE-MW1d, 05/09/2018 14:03								
Nitrate as N	DUP	1815029-01	33.745	33.895		mg/L	0.4		10	
	MS	1815029-01	33.745	59.889	25.253	mg/L		104		80 - 120
	MSD	1815029-01	33.745	60.348	25.253	mg/L	0.8	105	10	80 - 120
<b>QC Batch ID: B013601</b>		Used client sample: Y - Description: BET-MW5s, 05/09/2018 16:30								
Nitrate as N	DUP	1815030-01	86.350	87.190		mg/L	1.0		10	
	MS	1815030-01	86.350	110.77	25.253	mg/L		96.7		80 - 120
	MSD	1815030-01	86.350	110.91	25.253	mg/L	0.1	97.3	10	80 - 120
<b>QC Batch ID: B013847</b>		Used client sample: Y - Description: MEN-MW1s, 05/09/2018 09:26								
Total Dissolved Solids @ 180 C	DUP	1815031-01	4120.0	4040.0		mg/L	2.0		10	
<b>QC Batch ID: B014565</b>		Used client sample: Y - Description: BET-MW5s, 05/09/2018 16:30								
Ammonia as N	DUP	1815030-01	0.085900	0.081100		mg/L	5.7		10	J
	MS	1815030-01	0.085900	1.2282	1.1111	mg/L		103		90 - 110
	MSD	1815030-01	0.085900	1.2903	1.1111	mg/L	4.9	108	10	90 - 110
<b>QC Batch ID: B014566</b>		Used client sample: Y - Description: MEN-MW7s, 05/09/2018 10:43								
Ammonia as N	DUP	1815031-07	0.11780	0.12180		mg/L	3.3		10	
	MS	1815031-07	0.11780	1.2770	1.1111	mg/L		104		90 - 110
	MSD	1815031-07	0.11780	1.3108	1.1111	mg/L	2.6	107	10	90 - 110

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Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Albert Mendes Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/30/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Anchor J. Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815353

Invoice ID: B305478

Enclosed are the results of analyses for samples received by the laboratory on 5/11/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815353

Samples were filtered through a 0.45 micron filter prior to analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-15353

SHIPPING INFORMATION
Fed Ex [ ] UPS [ ] Ontrac [ ] Hand Delivery [ ]
BC Lab Field Service [x] Other [ ] (Specify) \_\_\_\_\_

SHIPPING CONTAINER
Ice Chest [x] None [ ] Box [ ]
Other [ ] (Specify) \_\_\_\_\_

FREE LIQUID
YES [ ] NO [ ]
W / S

Refrigerant: Ice [x] Blue Ice [ ] None [ ] Other [ ] Comments: \_\_\_\_\_

Custody Seals Ice Chest [ ] Containers [ ]
Intact? Yes [ ] No [ ] Intact? Yes [ ] No [ ]
None [x] Comments: \_\_\_\_\_

All samples received? Yes [x] No [ ] All samples containers intact? Yes [x] No [ ] Description(s) match COC? Yes [x] No [ ]

COC Received
[x] YES [ ] NO

Emissivity: D.T.T Container: PE Thermometer ID: 208

Date/Time: 5/11 2:45

Temperature: (A) 0.9 °C / (C) 1.0 °C

Analyst Init: [Signature]

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc. Handwritten 'A' marks are present in the first few columns of the first row.

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature]
A = Actual / C = Corrected

Date/Time: 5/11 2:58

Rev 21 06/23/2016

IS:\WPDoc\Word\Facility\AR\_DOCS\FORMS\SAMREC1W 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815353-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b> 05/11/2018 15:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ANC-MW1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815353-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b> 05/11/2018 15:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ANC-MW2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815353-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b> 05/11/2018 17:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ANC-MW3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815353-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b> 05/11/2018 16:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ANC-MW4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815353-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b> 05/11/2018 16:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ANC-MW5d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815353-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b> 05/11/2018 15:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ANC-MW6s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815353-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b> 05/11/2018 14:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ANC-MW7s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815353-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/11/2018 21:45
	<b>Project Number:</b>	Anchor J. Dairy	<b>Sampling Date:</b>	05/11/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #6	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-01	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW1, 5/11/2018 3:50:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.10	0.021	EPA-300.0	ND		1
<b>Total Dissolved Solids @ 180 C</b>	<b>1800</b>	<b>mg/L</b>	<b>100</b>	<b>100</b>	<b>SM-2540C</b>	ND		2
Ammonia as N	0.048	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 02:09	SAV	IC2	1	B013747
2	SM-2540C	05/17/18 13:00	05/17/18 13:00	CAD	MANUAL	10	B014092
3	EPA-350.1	05/29/18 11:52	05/30/18 10:26	JMH	SC-1	1	B014923

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**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-02	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW2, 5/11/2018 3:30:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.070	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 02:29		SAV	IC2	5	B013747
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	10	B014092
3	EPA-350.1	05/29/18 11:52	05/30/18 10:27		JMH	SC-1	1	B014923

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-03	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW3, 5/11/2018 5:12:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.042	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 02:50		SAV	IC2	5	B013747
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	5	B014092
3	EPA-350.1	05/29/18 11:52	05/30/18 10:28		JMH	SC-1	1	B014923

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-04	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW4, 5/11/2018 4:22:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	960	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.066	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 03:11	SAV	IC2	5	B013747
2	SM-2540C	05/17/18 13:00	05/17/18 13:00	CAD	MANUAL	5	B014092
3	EPA-350.1	05/29/18 11:54	05/30/18 10:31	JMH	SC-1	1	B014924

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-05	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW5d, 5/11/2018 4:52:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.058	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 03:31		SAV	IC2	2	B013747
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	5	B014092
3	EPA-350.1	05/29/18 11:54	05/30/18 10:36		JMH	SC-1	1	B014924

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-06	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW6s, 5/11/2018 3:05:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	78	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.046	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 03:52		SAV	IC2	10	B013747
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	10	B014092
3	EPA-350.1	05/29/18 11:54	05/30/18 10:37		JMH	SC-1	1	B014924

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-07	<b>Client Sample Name:</b> Anchor J. Dairy, ANC-MW7s, 5/11/2018 2:40:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	750	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.028	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 04:54		SAV	IC2	5	B013747
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	5	B014092
3	EPA-350.1	05/29/18 11:54	05/30/18 10:38		JMH	SC-1	1	B014924

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815353-08	<b>Client Sample Name:</b> Anchor J. Dairy, Field Duplicate #6, 5/11/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	950	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.035	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18	05:14	SAV	IC2	2	B013747
2	SM-2540C	05/17/18 13:00	05/17/18	13:00	CAD	MANUAL	5	B014092
3	EPA-350.1	05/29/18 11:54	05/30/18	10:38	JMH	SC-1	1	B014924

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013747</b>						
Nitrate as N	B013747-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014092</b>						
Total Dissolved Solids @ 180 C	B014092-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014923</b>						
Ammonia as N	B014923-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B014924</b>						
Ammonia as N	B014924-BLK1	ND	mg/L	0.10	0.018	

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013747</b>										
Nitrate as N	B013747-BS1	LCS	5.4220	5.0000	mg/L	108		90 - 110		
<b>QC Batch ID: B014092</b>										
Total Dissolved Solids @ 180 C	B014092-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B014923</b>										
Ammonia as N	B014923-BS1	LCS	1.0122	1.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B014924</b>										
Ammonia as N	B014924-BS1	LCS	0.99750	1.0000	mg/L	99.8		90 - 110		

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B013747</b>		Used client sample: N								
Nitrate as N	DUP	1815336-01	0.67000	0.68000		mg/L	1.5		10	
	MS	1815336-01	0.67000	26.823	25.253	mg/L		104	80 - 120	
	MSD	1815336-01	0.67000	26.672	25.253	mg/L	0.6	103	10	80 - 120
<b>QC Batch ID: B014092</b>		Used client sample: Y - Description: ANC-MW1, 05/11/2018 15:50								
Total Dissolved Solids @ 180 C	DUP	1815353-01	1820.0	1800.0		mg/L	1.1		10	
<b>QC Batch ID: B014923</b>		Used client sample: Y - Description: PLS-MW1s, 05/10/2018 13:27								
Ammonia as N	DUP	1815240-01	0.049200	0.056500		mg/L	13.8		10	J,A02
	MS	1815240-01	0.049200	1.1667	1.1111	mg/L		101	90 - 110	
	MSD	1815240-01	0.049200	1.1871	1.1111	mg/L	1.7	102	10	90 - 110
<b>QC Batch ID: B014924</b>		Used client sample: Y - Description: ANC-MW4, 05/11/2018 16:22								
Ammonia as N	DUP	1815353-04	0.065800	0.047300		mg/L	32.7		10	J,A02
	MS	1815353-04	0.065800	1.1154	1.1111	mg/L		94.5	90 - 110	
	MSD	1815353-04	0.065800	1.1472	1.1111	mg/L	2.8	97.3	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Anchor J. Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 05/29/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Bettencourt & Marson Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815030

Invoice ID: B305253

Enclosed are the results of analyses for samples received by the laboratory on 5/9/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815030

Samples were filtered through a 0.45 micron filter prior to analysis.



18-15030

BC Laboratories, Inc.

Chain of Custody

4100 Atlas CL  
Bakersfield, CA 93308  
(661) 327-4911

Analysis Requested

Report to:

Name: Lufdorff and Sealmannini		Reduced Constituent Suite				
Address: 500 First Street		Project: Daily Representative Monitoring Program				
City: Woodland		Site: Beffencourt & Marson Dairy 2/24/2018				
State: 95695		Samplers Name: Analysis Del-Tech				
CA		Global ID - GADAIRY00003				
Attn: Tili Angermann						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct	Pe
1	BET-MW1s, BET-MW7d	5/9/18		6w	x	Unpreserved
2	BET-MW2s, BET-MW2d				x	
3	BET-MW3s, BET-MW3d				x	
4	BET-MW4s, BET-MW4d				x	
5	BET-MW5s, BET-MW5d -1	1630			x	
6	BET-MW6s, BET-MW6d -2	1610			x	
7	BET-MW7s, BET-MW7d				x	
8	BET-MW8s, BET-MW8d -3	1554			x	
9	-4 Field Duplicate #8				x	
10						
11						
12						

From Filtered Sample:  
Ammonia-N, NO3-N,  
Total Dissolved Solids

Relinquished by (Signature) 5/9/18 1700  
Relinquished by (Signature) 5/9/18 1900  
Relinquished by (Signature) 5/9/18 2230

Received By: 5/9/18 16:52  
Received By: 5/9/18 19:10  
Received By: 5/9/18 2230

CHK BY DISTRIBUTION  
658

DO Cl<sub>2</sub> BOD MBAS - COT

SHORT HOLDING TIME  
Cl<sup>-</sup> NO<sub>2</sub> NO<sub>3</sub> OP S-S

SUB-OUT

Comments:  
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
3) Send lab reports to Lufdorff and Sealmannini Consulting Engineers via email: llavegnino@lscce.com, rbyson@lscce.com, pdhatwal@lscce.com, jlovelis@lscce.com  
4) Send invoices to Jeannette Lovells (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC.		COOLER RECEIPT FORM		Page <u>1</u> Of <u>1</u>	
Submission #: <u>18-15030</u>					
SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____			SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input type="checkbox"/> <u>W</u> / S
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals   None <input checked="" type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>10</u> Thermometer ID: <u>208</u>		Date/Time: <u>5/1/18</u> <u>2230</u>	
		Temperature: (A) <u>1.2</u> °C / (C) <u>1.3</u> °C		Analyst Init: <u>JS</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 503/503/5050										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 881SM										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: JS Date/Time: 5/1/18 2237 Rev 21 05/23/2016

A = Actual / C = Corrected [S:\WPDoc\Word\Files\LAB\_DOCS\FORMS\ISAMRECw 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815030-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/09/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/09/2018 16:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815030-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/09/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/09/2018 16:10
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW6s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815030-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/09/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/09/2018 15:54
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815030-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/09/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/09/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #8	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815030-01	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW5s, 5/9/2018 4:30:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	86	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	980	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.086	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 03:32		EMW	IC8	5	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	3.333	B013847
3	EPA-350.1	05/25/18 10:59	05/25/18 15:00		JMH	SC-1	1	B014565

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500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815030-02	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW6s, 5/9/2018 4:10:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	49	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	610	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.080	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 03:53		EMW	IC8	5	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	2	B013848
3	EPA-350.1	05/25/18 10:59	05/25/18 15:04		JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815030-03	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW8s, 5/9/2018 3:54:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	26	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	380	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.072	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 04:13		EMW	IC8	5	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	2	B013848
3	EPA-350.1	05/25/18 10:59	05/25/18 15:04		JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815030-04	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, Field Duplicate #8, 5/9/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	86	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	980	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.068	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 05:15		EMW	IC8	5	B013601
2	SM-2540C	05/15/18 11:30	05/15/18 11:30		CAD	MANUAL	3.333	B013848
3	EPA-350.1	05/25/18 10:59	05/25/18 15:06		JMH	SC-1	1	B014565

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013601</b>						
Nitrate as N	B013601-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013847</b>						
Total Dissolved Solids @ 180 C	B013847-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B013848</b>						
Total Dissolved Solids @ 180 C	B013848-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014565</b>						
Ammonia as N	B014565-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013601</b>										
Nitrate as N	B013601-BS1	LCS	5.0040	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B013847</b>										
Total Dissolved Solids @ 180 C	B013847-BS1	LCS	580.00	586.00	mg/L	99.0		90 - 110		
<b>QC Batch ID: B013848</b>										
Total Dissolved Solids @ 180 C	B013848-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B014565</b>										
Ammonia as N	B014565-BS1	LCS	0.98910	1.0000	mg/L	98.9		90 - 110		

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**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B013601</b>		Used client sample: Y - Description: BET-MW5s, 05/09/2018 16:30								
Nitrate as N	DUP	1815030-01	86.350	87.190		mg/L	1.0		10	
	MS	1815030-01	86.350	110.77	25.253	mg/L		96.7		80 - 120
	MSD	1815030-01	86.350	110.91	25.253	mg/L	0.1	97.3	10	80 - 120
<b>QC Batch ID: B013847</b>		Used client sample: Y - Description: MEN-MW1s, 05/09/2018 09:26								
Total Dissolved Solids @ 180 C	DUP	1815031-01	4120.0	4040.0		mg/L	2.0		10	
<b>QC Batch ID: B013848</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1815043-01	2380.0	2370.0		mg/L	0.4		10	
<b>QC Batch ID: B014565</b>		Used client sample: Y - Description: BET-MW5s, 05/09/2018 16:30								
Ammonia as N	DUP	1815030-01	0.085900	0.081100		mg/L	5.7		10	J
	MS	1815030-01	0.085900	1.2282	1.1111	mg/L		103		90 - 110
	MSD	1815030-01	0.085900	1.2903	1.1111	mg/L	4.9	108	10	90 - 110

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Luhdorf & Scalmanini  
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**Reported:** 05/29/2018 10:42  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/29/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Bettencourt & Marson Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815239

Invoice ID: B305256

Enclosed are the results of analyses for samples received by the laboratory on 5/10/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815239

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b> 18-15239 Report to:		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		<b>Chain of Custody</b>	
<b>Analysis Requested</b>					
Name: Luhdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann		Project: Dairy Representative Monitoring Program Site: Bettencourt & Marson Dairy Samplers Name: Antonio / Del-Tech Global ID - GADAIRY00003		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Reduced Constituent Suite		Matrix: Gw		Q1 P6 Unpreserved	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	<input type="checkbox"/>	<input type="checkbox"/>
1	BET-MW1s, BET-MW1d -1	5/10/18	1101	x	x
2	BET-MW2s, BET-MW2d -2		1122	x	x
3	BET-MW3s, BET-MW3d -3		1140	x	x
4	BET-MW4s, BET-MW4d -4		1043	x	x
5	BET-MW6s, BET-MW6d			x	x
6	BET-MW6s, BET-MW6d			x	x
7	BET-MW7s, BET-MW7d -5		1016	x	x
8	BET-MW8s, BET-MW8d			x	x
9	Field Duplicate			x	x
10					
11					
12					

CHK BY: [Signature]

NO3

GUB-OUT

SHORT HOLDING TIME

C-16 NO2 (NO3) OP SS

BO Cl2 BOD MBAS COT

Relinquished by: (Signature)	Date & Time
[Signature]	5/10/18 1700
Relinquished by: (Signature)	Date & Time
[Signature]	5/10/18 1930
Relinquished by: (Signature)	Date & Time
[Signature]	5/10/18 2220

**Comments:**

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llsvagnino@lsce.com, rtrysen@lsce.com, pdhalliwal@lsce.com, jlovelis@lsce.com

4) Send invoices to Jeannette Lovelis (jlovelis@lsce.com).

(A)= Analysis (C)= ContAINER (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-15239

**SHIPPING INFORMATION**  
 Fed Ex  UPS  Ontrac  Hand Delivery   
 BC Lab Field Service  Other  (Specify) \_\_\_\_\_

**SHIPPING CONTAINER**  
 Ice Chest  None  Box   
 Other  (Specify) \_\_\_\_\_

**FREE LIQUID**  
 YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/10/2015  
 Temperature: (A) 0.3 °C / (C) 10.4 °C Analyst Init: BCP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
TYPE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: BCP Date/Time: 5/10/2015 Rev 21 05/23/2016  
 A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815239-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/10/2018 11:01
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815239-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/10/2018 11:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815239-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/10/2018 11:40
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815239-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/10/2018 10:43
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815239-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/10/2018 22:30
	<b>Project Number:</b>	Bettencourt & Marson Dairy	<b>Sampling Date:</b>	05/10/2018 10:16
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	BET-MW7s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815239-01	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW1s, 5/10/2018 11:01:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	64	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	810	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.072	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 17:00	05/11/18 23:38	SAV	IC8	5	B013751
2	SM-2540C	05/16/18 11:30	05/16/18 11:30	CAD	MANUAL	3.333	B013951
3	EPA-350.1	05/25/18 13:55	05/25/18 15:35	JMH	SC-1	1	B014700

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**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815239-02	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW2s, 5/10/2018 11:22:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.10	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	940	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.38	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 17:00	05/11/18 23:58		SAV	IC8	1	B013751
2	SM-2540C	05/16/18 11:30	05/16/18 11:30		CAD	MANUAL	5	B013951
3	EPA-350.1	05/25/18 13:55	05/25/18 15:36		JMH	SC-1	1	B014700

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**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815239-03	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW3s, 5/10/2018 11:40:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	59	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.10	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 17:00	05/12/18 00:19		SAV	IC8	5	B013751
2	SM-2540C	05/16/18 11:30	05/16/18 11:30		CAD	MANUAL	10	B013951
3	EPA-350.1	05/25/18 13:55	05/25/18 15:36		JMH	SC-1	1	B014700

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Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815239-04	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW4s, 5/10/2018 10:43:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.13	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 17:00	05/12/18 00:39	SAV	IC8	5	B013751
2	SM-2540C	05/16/18 11:30	05/16/18 11:30	CAD	MANUAL	10	B013951
3	EPA-350.1	05/25/18 13:55	05/25/18 15:38	JMH	SC-1	1	B014700

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Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815239-05	<b>Client Sample Name:</b> Bettencourt & Marson Dairy, BET-MW7s, 5/10/2018 10:16:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	48	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	620	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	0.081	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 17:00	05/12/18 01:00	SAV	IC8	5	B013751
2	SM-2540C	05/16/18 11:30	05/16/18 11:30	CAD	MANUAL	2	B013951
3	EPA-350.1	05/25/18 13:55	05/25/18 15:40	JMH	SC-1	1	B014700

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**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013751</b>						
Nitrate as N	B013751-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013951</b>						
Total Dissolved Solids @ 180 C	B013951-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014700</b>						
Ammonia as N	B014700-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013751</b>										
Nitrate as N	B013751-BS1	LCS	5.2410	5.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B013951</b>										
Total Dissolved Solids @ 180 C	B013951-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B014700</b>										
Ammonia as N	B014700-BS1	LCS	0.94920	1.0000	mg/L	94.9		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B013751</b>		Used client sample: N									
Nitrate as N	DUP	1815233-01	5.4050	5.4170		mg/L	0.2		10		
	MS	1815233-01	5.4050	10.831	5.0505	mg/L		107		80 - 120	
	MSD	1815233-01	5.4050	10.821	5.0505	mg/L	0.1	107	10	80 - 120	
<b>QC Batch ID: B013951</b>		Used client sample: Y - Description: BET-MW2s, 05/10/2018 11:22									
Total Dissolved Solids @ 180 C	DUP	1815239-02	940.00	930.00		mg/L	1.1		10		
<b>QC Batch ID: B014700</b>		Used client sample: Y - Description: SOJ-MW5d, 05/10/2018 15:20									
Ammonia as N	DUP	1815238-01	0.057100	0.061100		mg/L	6.8		10		J
	MS	1815238-01	0.057100	1.2113	1.1111	mg/L		104		90 - 110	
	MSD	1815238-01	0.057100	1.2078	1.1111	mg/L	0.3	104	10	90 - 110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:43  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Bettencourt & Marson Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 05/24/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Diepersloot Ranch

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1814823

Invoice ID: B305021

Enclosed are the results of analyses for samples received by the laboratory on 5/8/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1814823

Samples were filtered through a 0.45 micron filter prior to analysis.



18-14823

<b>BC Laboratories, Inc.</b>		<b>Chain of Custody</b>			
Name: Lohdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 Affn: Till Angermann		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
<b>Report to:</b>		<b>Analysis Requested</b>			
Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Diepersloot Ranch Samplers Name: <i>Del Tech / Steg Johns</i> Global ID - WDR100039237		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved
1	DIE-MW1	5-8-18	13:27	GW	x
2	DIE-MW2		14:17		x
3	DIE-MW3		13:49		x
4	DIE-MW4		13:09		x
5	Field Duplicate				x
6					
7					
8					
9					
10					
11					
12					

SHORT HOLDING TIME C-1E NO <sub>2</sub> (NO <sub>3</sub> ) OP SS DO Cl <sub>2</sub> BOB MBAS COI	CHK BY DISTRIBUTION <i>[Signature]</i>	SUB-OUT <input type="checkbox"/>	
--	---	----------------------------------	--

Relinquished by: (Signature) <i>[Signature]</i>	Received By: (Signature) <i>[Signature]</i>	Date & Time 5/8/18 20:45
Relinquished by: (Signature) <i>[Signature]</i>	Received By: (Signature) <i>[Signature]</i>	Date & Time 5/8/18 23:15

**Comments:**

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: [lavagnino@lsce.com](mailto:lavagnino@lsce.com), [rtyson@lsce.com](mailto:rtyson@lsce.com), [pdhalwal@lsce.com](mailto:pdhalwal@lsce.com), [jlovelis@lsce.com](mailto:jlovelis@lsce.com)
- Send invoices to Jeanette Lovelis ([jlovelis@lsce.com](mailto:jlovelis@lsce.com)).

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-14823

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Containers. None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97. Container: PS. Thermometer ID: 708. Date/Time: 5/18/16 23:15. Temperature: (A) 21 °C / (C) 2.2 °C. Analyst Init: [Signature]

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, QT INORGANIC CHEMICAL METALS, etc.

Comments: Sample Numbering Completed By: [Signature] Date/Time: 5/18/16 23:15. Rev 21 05/23/2016



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1814823-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/08/2018 23:15
	<b>Project Number:</b>	Diepersloot Ranch	<b>Sampling Date:</b> 05/08/2018 13:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DIE-MW1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b> Groundwater
1814823-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/08/2018 23:15
	<b>Project Number:</b>	Diepersloot Ranch	<b>Sampling Date:</b> 05/08/2018 14:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DIE-MW2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b> Groundwater
1814823-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/08/2018 23:15
	<b>Project Number:</b>	Diepersloot Ranch	<b>Sampling Date:</b> 05/08/2018 13:49
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DIE-MW3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b> Groundwater
1814823-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/08/2018 23:15
	<b>Project Number:</b>	Diepersloot Ranch	<b>Sampling Date:</b> 05/08/2018 13:09
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DIE-MW4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Stacy Young of DTO	<b>Sample Type:</b> Groundwater

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814823-01	<b>Client Sample Name:</b> Diepersloot Ranch, DIE-MW1, 5/8/2018 1:27:00PM, Del-Tech/Stacy Young
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.047	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 01:00	05/09/18 10:54		EMW	IC2	10	B013355
2	SM-2540C	05/14/18 10:30	05/14/18 10:30		CAD	MANUAL	5	B013685
3	EPA-350.1	05/24/18 10:54	05/24/18 11:58		JMH	SC-1	1	B014560

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814823-02	<b>Client Sample Name:</b> Diepersloot Ranch, DIE-MW2, 5/8/2018 2:17:00PM, Del-Tech/Stacy Young
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	16	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	580	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.025	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 01:00	05/09/18 11:14		EMW	IC2	1	B013355
2	SM-2540C	05/14/18 10:30	05/14/18 10:30		CAD	MANUAL	3.333	B013685
3	EPA-350.1	05/24/18 10:54	05/24/18 12:00		JMH	SC-1	1	B014560

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814823-03	<b>Client Sample Name:</b> Diepersloot Ranch, DIE-MW3, 5/8/2018 1:49:00PM, Del-Tech/Stacy Young
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	880	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.026	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 01:00	05/09/18 11:35		EMW	IC2	2	B013355
2	SM-2540C	05/14/18 10:30	05/14/18 10:30		CAD	MANUAL	5	B013685
3	EPA-350.1	05/24/18 10:54	05/24/18 12:01		JMH	SC-1	1	B014560

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814823-04	<b>Client Sample Name:</b> Diepersloot Ranch, DIE-MW4, 5/8/2018 1:09:00PM, Del-Tech/Stacy Young
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.035	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 01:00	05/09/18 11:55		EMW	IC2	2	B013355
2	SM-2540C	05/14/18 10:30	05/14/18 10:30		CAD	MANUAL	3.333	B013685
3	EPA-350.1	05/24/18 10:54	05/24/18 12:01		JMH	SC-1	1	B014560

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013355</b>						
Nitrate as N	B013355-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013685</b>						
Total Dissolved Solids @ 180 C	B013685-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014560</b>						
Ammonia as N	B014560-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013355</b>										
Nitrate as N	B013355-BS1	LCS	5.0660	5.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B013685</b>										
Total Dissolved Solids @ 180 C	B013685-BS1	LCS	610.00	586.00	mg/L	104		90 - 110		
<b>QC Batch ID: B014560</b>										
Ammonia as N	B014560-BS1	LCS	0.94140	1.0000	mg/L	94.1		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B013355</b>		Used client sample: N									
Nitrate as N	DUP	1814836-01	9.8220	9.8640		mg/L	0.4		10		
	MS	1814836-01	9.8220	15.022	5.0505	mg/L		103		80 - 120	
	MSD	1814836-01	9.8220	15.049	5.0505	mg/L	0.2	104	10	80 - 120	
<b>QC Batch ID: B013685</b>		Used client sample: Y - Description: DIE-MW1, 05/08/2018 13:27									
Total Dissolved Solids @ 180 C	DUP	1814823-01	1225.0	1210.0		mg/L	1.2		10		
<b>QC Batch ID: B014560</b>		Used client sample: N									
Ammonia as N	DUP	1816214-01	0.027000	0.027000		mg/L	0		10		J
	MS	1816214-01	0.027000	1.1448	1.1111	mg/L		101		90 - 110	
	MSD	1816214-01	0.027000	1.1546	1.1111	mg/L	0.9	101	10	90 - 110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Diepersloot Ranch  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 05/23/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Durrer Dairy 2nd Qtr.

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1814667

Invoice ID: B304795

Enclosed are the results of analyses for samples received by the laboratory on 5/7/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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<b>1814667-06 - DUR-MW7</b>	
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<b>1814667-07 - DUR-MW8</b>	
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<b>1814667-08 - DUR-MW9</b>	
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## Case Narratives

### Case Narrative for Work Order 1814667

Samples were filtered through a 0.45 micron filter prior to analysis.





# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-14667

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> (W) / S	
---	--	---	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Containers:  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/7/18 2130  
 Temperature: (A) 0.7 °C / (C) 0.5 °C Analyst Init: VR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	A
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
FT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT RPA 8015M										
QT RPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_ Date/Time: 5/7 2135 Rev 21 05/23/2016

Sample Numbering Completed By: VR BC LABORATORIES, INC. 1814667-2 (REV 05/23/2016) 200



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1814667-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/07/2018 21:30
	<b>Project Number:</b>	Durrer Dairy	<b>Sampling Date:</b> 05/07/2018 13:15
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DUR-MW1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Groundwater
	<hr/>		
	1814667-02	<b>COC Number:</b>	---
<b>Project Number:</b>		Durrer Dairy	<b>Sampling Date:</b> 05/07/2018 13:32
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		DUR-MW2	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Groundwater
<hr/>			
1814667-03		<b>COC Number:</b>	---
	<b>Project Number:</b>	Durrer Dairy	<b>Sampling Date:</b> 05/07/2018 11:42
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DUR-MW3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Groundwater
	<hr/>		
	1814667-04	<b>COC Number:</b>	---
<b>Project Number:</b>		Durrer Dairy	<b>Sampling Date:</b> 05/07/2018 12:55
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		DUR-MW4	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Groundwater
<hr/>			
1814667-05		<b>COC Number:</b>	---
	<b>Project Number:</b>	Durrer Dairy	<b>Sampling Date:</b> 05/07/2018 12:38
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DUR-MW6	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Groundwater
	<hr/>		
	1814667-06	<b>COC Number:</b>	---
<b>Project Number:</b>		Durrer Dairy	<b>Sampling Date:</b> 05/07/2018 14:23
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		DUR-MW7	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Groundwater
<hr/>			
1814667-07		<b>COC Number:</b>	---
	<b>Project Number:</b>	Durrer Dairy	<b>Sampling Date:</b> 05/07/2018 13:53
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	DUR-MW8	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Groundwater

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1814667-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2018 21:30
	<b>Project Number:</b>	Durrer Dairy	<b>Sampling Date:</b>	05/07/2018 14:53
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUR-MW9	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Groundwater
1814667-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2018 21:30
	<b>Project Number:</b>	Durrer Dairy	<b>Sampling Date:</b>	05/07/2018 12:21
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	DUR-MW10d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Groundwater
1814667-10	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2018 21:30
	<b>Project Number:</b>	Durrer Dairy	<b>Sampling Date:</b>	05/07/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Groundwater

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-01	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW1, 5/7/2018 1:15:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 01:30		EMW	IC1	10	B013203
2	SM-2540C	05/10/18 13:30	05/10/18 13:30		CAD	MANUAL	10	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18 15:52		JMH	SC-1	1	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-02	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW2, 5/7/2018 1:32:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.052	mg/L	0.10	0.021	EPA-300.0	ND	J	1
Total Dissolved Solids @ 180 C	2200	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	200	mg/L	25	4.5	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 02:54		EMW	IC1	1	B013203
2	SM-2540C	05/10/18 13:30	05/10/18 13:30		CAD	MANUAL	20	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18 17:09		JMH	SC-1	250	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-03	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW3, 5/7/2018 11:42:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.031	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 03:15		EMW	IC1	10	B013203
2	SM-2540C	05/10/18 13:30	05/10/18 13:30		CAD	MANUAL	10	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18 15:57		JMH	SC-1	1	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-04	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW4, 5/7/2018 12:55:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3300	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	88	mg/L	5.0	0.90	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 03:36		EMW	IC1	10	B013203
2	SM-2540C	05/10/18 13:30	05/10/18 13:30		CAD	MANUAL	20	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18 15:57		JMH	SC-1	50	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-05	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW6, 5/7/2018 12:38:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	89	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 03:57		EMW	IC1	10	B013203
2	SM-2540C	05/10/18 13:30	05/10/18 13:30		CAD	MANUAL	10	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18 15:59		JMH	SC-1	1	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-06	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW7, 5/7/2018 2:23:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	160	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2900	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.29	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18	05:00	EMW	IC1	10	B013203
2	SM-2540C	05/10/18 13:30	05/10/18	13:30	CAD	MANUAL	10	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18	15:59	JMH	SC-1	1	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-07	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW8, 5/7/2018 1:53:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	30	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	760	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	3.1	mg/L	0.50	0.090	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18	05:21	EMW	IC1	2	B013203
2	SM-2540C	05/10/18 13:30	05/10/18	13:30	CAD	MANUAL	3.333	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18	17:11	JMH	SC-1	5	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-08	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW9, 5/7/2018 2:53:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.5	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	640	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18	05:42	EMW	IC1	1	B013203
2	SM-2540C	05/10/18 13:30	05/10/18	13:30	CAD	MANUAL	3.333	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18	16:03	JMH	SC-1	1	B014248

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Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-09	<b>Client Sample Name:</b> Durrer Dairy, DUR-MW10d, 5/7/2018 12:21:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	76	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.020	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 06:03		EMW	IC1	10	B013203
2	SM-2540C	05/10/18 13:30	05/10/18 13:30		CAD	MANUAL	10	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18 16:04		JMH	SC-1	1	B014248

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814667-10	<b>Client Sample Name:</b> Durrer Dairy, Field Duplicate #1, 5/7/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	33	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	750	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	2.4	mg/L	0.50	0.090	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 11:40		EMW	IC1	2	B013203
2	SM-2540C	05/10/18 13:30	05/10/18 13:30		CAD	MANUAL	3.333	B013486
3	EPA-350.1	05/22/18 08:50	05/22/18 17:12		JMH2	SC-1	5	B014248

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**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013203</b>						
Nitrate as N	B013203-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013486</b>						
Total Dissolved Solids @ 180 C	B013486-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014248</b>						
Ammonia as N	B014248-BLK1	ND	mg/L	0.10	0.018	

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**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013203</b>										
Nitrate as N	B013203-BS1	LCS	5.1560	5.0000	mg/L	103		90 - 110		
<b>QC Batch ID: B013486</b>										
Total Dissolved Solids @ 180 C	B013486-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B014248</b>										
Ammonia as N	B014248-BS1	LCS	1.0336	1.0000	mg/L	103		90 - 110		

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**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013203</b>		Used client sample: Y - Description: DUR-MW1, 05/07/2018 13:15								
Nitrate as N	DUP	1814667-01	133.78	134.10		mg/L	0.2		10	
	MS	1814667-01	133.78	186.28	50.505	mg/L		104		80 - 120
	MSD	1814667-01	133.78	187.46	50.505	mg/L	0.6	106	10	80 - 120
<b>QC Batch ID: B013486</b>		Used client sample: Y - Description: DUR-MW1, 05/07/2018 13:15								
Total Dissolved Solids @ 180 C	DUP	1814667-01	1650.0	1680.0		mg/L	1.8		10	
<b>QC Batch ID: B014248</b>		Used client sample: Y - Description: DUR-MW1, 05/07/2018 13:15								
Ammonia as N	DUP	1814667-01	ND	ND		mg/L			10	
	MS	1814667-01	ND	1.0294	1.1111	mg/L		92.6		90 - 110
	MSD	1814667-01	ND	1.1784	1.1111	mg/L	13.5	106	10	90 - 110 Q02

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Durrer Dairy 2nd Qtr.  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q02 Matrix spike precision is not within the control limits.



Date of Report: 05/30/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Frank J. Gomes Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815354

Invoice ID: B305479

Enclosed are the results of analyses for samples received by the laboratory on 5/11/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815354

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:				Analysis Requested	
Name: Luhdorff and Scalmani		Reduced Constituent Suite			
Address: 500 First Street		Project: Dairy Representative Monitoring Program			
City: Woodland		Site: Frank J. Gomes Dairy #1			
State: 95695		Samplers Name: Antonio Del-Tea			
Attn: Till Angermann		Global ID - GADAIRY00004			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved
1	<del>FG1-MW1s, FG1-MW2d</del>	5/11/18	1340	6w	x
2	<del>FG1-MW2s, FG1-MW3d</del>	5/11/18	1258		x
3	<del>FG1-MW3s, FG1-MW4d</del>	5/11/18	1320		x
4	<del>FG1-MW4s, FG1-MW5d</del>	5/11/18	1217		x
5	<del>FG1-MW5s, FG1-MW6d</del>	5/11/18	1158		x
6	<del>FG1-MW6s, FG1-MW7d</del>	5/11/18	1142		x
7	<del>FG1-MW7s, FG1-MW8d</del>	5/11/18	1123		x
8	<del>FG1-MW8s, FG1-MW9d</del>	5/11/18	1107		x
9	<del>Field-Duplicate</del>	5/11/18	1046		x
10					
11					
12					
13					

Relinquished by: (Signature)	5/11/18	1730	Received By:	5/11/18	18145
Relinquished by: (Signature)	5/11/18	1840	Received By:	5/11/18	18145
Relinquished by: (Signature)	5/11/18	2115	Received By:	5/11/18	2115

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: llavagnino@lscce.com, rbyson@lscce.com, pdhalliwal@lscce.com, jlovelis@lscce.com
- Send invoices to Jeanette Lovells (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-15354

SHIPPING INFORMATION
Fed Ex [ ] UPS [ ] Ontrac [ ] Hand Delivery [ ]
BC Lab Field Service [x] Other [ ] (Specify)

SHIPPING CONTAINER
Ice Chest [x] None [ ] Box [ ]
Other [ ] (Specify)

FREE LIQUID
YES [ ] NO [ ]
W / S

Refrigerant: Ice [x] Blue Ice [ ] None [ ] Other [ ] Comments:

Custody Seals Ice Chest [ ] Containers [ ]
None [x] Comments:

All samples received? Yes [x] No [ ] All samples containers intact? Yes [x] No [ ] Description(s) match COC? Yes [x] No [ ]

COC Received
YES [x] NO [ ]

Emissivity: 0.97 Container: PE Thermometer ID: 208

Date/Time: 5/11/2015

Temperature: (A) 0.9 °C / 101.0 °C

Analyst Init: BST

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc. Handwritten 'A' marks are present in the first few columns for the first two rows.

Comments:

Sample Numbering Completed By: [Signature]
A = Actual / C = Corrected

Date/Time: 5/11/2015

Rev 21 05/23/2016

IS:\WPDoc\WordPerfect\LAB\_DOC\FORMS\SAMRECRev 200



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1815354-01	<b>COC Number:</b>	---		05/11/2018 21:45	
	<b>Project Number:</b>	Frank J. Gomes Dairy		<b>Sampling Date:</b>	05/11/2018 13:40
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW1s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815354-02	<b>COC Number:</b>	---		05/11/2018 21:45	
	<b>Project Number:</b>	Frank J. Gomes Dairy		<b>Sampling Date:</b>	05/11/2018 12:58
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW2d		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815354-03	<b>COC Number:</b>	---		05/11/2018 21:45	
	<b>Project Number:</b>	Frank J. Gomes Dairy		<b>Sampling Date:</b>	05/11/2018 13:20
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW3d		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815354-04	<b>COC Number:</b>	---		05/11/2018 21:45	
	<b>Project Number:</b>	Frank J. Gomes Dairy		<b>Sampling Date:</b>	05/11/2018 12:17
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW4s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815354-05	<b>COC Number:</b>	---		05/11/2018 21:45	
	<b>Project Number:</b>	Frank J. Gomes Dairy		<b>Sampling Date:</b>	05/11/2018 11:58
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW5s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815354-06	<b>COC Number:</b>	---		05/11/2018 21:45	
	<b>Project Number:</b>	Frank J. Gomes Dairy		<b>Sampling Date:</b>	05/11/2018 11:42
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW6s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815354-07	<b>COC Number:</b>	---		05/11/2018 21:45	
	<b>Project Number:</b>	Frank J. Gomes Dairy		<b>Sampling Date:</b>	05/11/2018 11:23
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG1-MW7s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815354-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Frank J. Gomes Dairy	<b>Sampling Date:</b> 05/11/2018 11:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	FG1-MW8s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815354-09	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/11/2018 21:45
	<b>Project Number:</b>	Frank J. Gomes Dairy	<b>Sampling Date:</b> 05/11/2018 10:46
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	FG1-MW9d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-01	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW1s, 5/11/2018 1:40:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.063	mg/L	0.10	0.021	EPA-300.0	ND	J	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.071	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 06:16	SAV	IC2	1	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00	CAD	MANUAL	10	B014093
3	EPA-350.1	05/29/18 11:54	05/30/18 10:40	JMH	SC-1	1	B014924

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-02	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW2d, 5/11/2018 12:58:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.035	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 07:39		SAV	IC2	5	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	5	B014093
3	EPA-350.1	05/29/18 11:54	05/30/18 10:40		JMH	SC-1	1	B014924

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-03	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW3d, 5/11/2018 1:20:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.1	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.035	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 07:59		SAV	IC2	1	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	5	B014093
3	EPA-350.1	05/29/18 11:54	05/30/18 10:42		JMH	SC-1	1	B014924

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-04	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW4s, 5/11/2018 12:17:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	63	mg/L	2.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.041	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 09:01	SAV	IC2	20	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00	CAD	MANUAL	5	B014093
3	EPA-350.1	05/29/18 11:54	05/30/18 10:44	JMH	SC-1	1	B014924

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-05	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW5s, 5/11/2018 11:58:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.079	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 09:22	SAV	IC2	2	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00	CAD	MANUAL	5	B014093
3	EPA-350.1	05/29/18 11:54	05/30/18 10:45	JMH	SC-1	1	B014924

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-06	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW6s, 5/11/2018 11:42:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.034	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 09:42		SAV	IC2	5	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	3.333	B014093
3	EPA-350.1	05/29/18 11:55	05/30/18 10:47		JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-07	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW7s, 5/11/2018 11:23:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	680	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.029	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 10:03		SAV	IC2	5	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	3.333	B014093
3	EPA-350.1	05/29/18 11:55	05/30/18 10:51		JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-08	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW8s, 5/11/2018 11:07:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.99	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	700	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.092	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 10:23		SAV	IC2	1	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00		CAD	MANUAL	3.333	B014093
3	EPA-350.1	05/29/18 11:55	05/30/18 10:53		JMH	SC-1	1	B014925

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815354-09	<b>Client Sample Name:</b> Frank J. Gomes Dairy, FG1-MW9d, 5/11/2018 10:46:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	13	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	670	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.043	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 21:00	05/12/18 10:44	SAV	IC2	1	B013748
2	SM-2540C	05/17/18 13:00	05/17/18 13:00	CAD	MANUAL	3.333	B014093
3	EPA-350.1	05/29/18 11:55	05/30/18 10:55	JMH	SC-1	1	B014925

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Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013748</b>						
Nitrate as N	B013748-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014093</b>						
Total Dissolved Solids @ 180 C	B014093-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014924</b>						
Ammonia as N	B014924-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B014925</b>						
Ammonia as N	B014925-BLK1	ND	mg/L	0.10	0.018	

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Woodland, CA 95695

**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013748</b>										
Nitrate as N	B013748-BS1	LCS	5.4310	5.0000	mg/L	109		90 - 110		
<b>QC Batch ID: B014093</b>										
Total Dissolved Solids @ 180 C	B014093-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B014924</b>										
Ammonia as N	B014924-BS1	LCS	0.99750	1.0000	mg/L	99.8		90 - 110		
<b>QC Batch ID: B014925</b>										
Ammonia as N	B014925-BS1	LCS	0.99930	1.0000	mg/L	99.9		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

Reported: 05/30/2018 20:02  
Project: Dairy Representative Monitoring Program  
Project Number: Frank J. Gomes Dairy  
Project Manager: Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B013748</b>		Used client sample: Y - Description: FG1-MW1s, 05/11/2018 13:40								
Nitrate as N	DUP	1815354-01	0.063000	0.050000		mg/L	23.0		10	J,A02
	MS	1815354-01	0.063000	5.3121	5.0505	mg/L		104	80 - 120	
	MSD	1815354-01	0.063000	5.3212	5.0505	mg/L	0.2	104	10 80 - 120	
<b>QC Batch ID: B014093</b>		Used client sample: Y - Description: FG1-MW1s, 05/11/2018 13:40								
Total Dissolved Solids @ 180 C	DUP	1815354-01	1370.0	1330.0		mg/L	3.0		10	
<b>QC Batch ID: B014924</b>		Used client sample: Y - Description: ANC-MW4, 05/11/2018 16:22								
Ammonia as N	DUP	1815353-04	0.065800	0.047300		mg/L	32.7		10	J,A02
	MS	1815353-04	0.065800	1.1154	1.1111	mg/L		94.5	90 - 110	
	MSD	1815353-04	0.065800	1.1472	1.1111	mg/L	2.8	97.3	10 90 - 110	
<b>QC Batch ID: B014925</b>		Used client sample: Y - Description: FG1-MW6s, 05/11/2018 11:42								
Ammonia as N	DUP	1815354-06	0.033500	0.041800		mg/L	22.0		10	J,A02
	MS	1815354-06	0.033500	1.0766	1.1111	mg/L		93.9	90 - 110	
	MSD	1815354-06	0.033500	1.0786	1.1111	mg/L	0.2	94.1	10 90 - 110	

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**Reported:** 05/30/2018 20:02  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: [none]

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815493

Invoice ID: B305500

Enclosed are the results of analyses for samples received by the laboratory on 5/14/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815493

Samples were filtered through a 0.45 micron filter prior to analysis.



18-15493

BC Laboratories, Inc.		Chain of Custody				
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911						
<b>Report to:</b>						
Reduced Constituent Suite						
Project: Dairy Representative Monitoring Program						
Site: Gallo Cattle Company Bear Creek <i>5/14/18</i>						
Samplers Name: <i>Antonio Pal-Tech</i>						
Global ID - GADAIRY00005						
Name: Luhdorff and Scalmanini		From Filtered Sample:				
Address: 500 First Street		Ammonia-N, NO3-N,				
City: Woodland		Total Dissolved Solids				
State: 95695						
Attn: Till Angermann						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt/Ps Unpreserved	Analysis Requested
1	BEA-MW4s, BEA-MW4d, BEA-MW1dd	5/14/18	1702	GW	x	
2	BEA-MW2s, BEA-MW2d, BEA-MW2dd		1802		x	
3	BEA-MW3s, BEA-MW3d		1718		x	
4	BEA-MW4s, BEA-MW4d		1740		x	
5	Field Duplicate				x	
6						
7						
8						
9						
10						
11						
<b>Comments:</b> 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: lluvagnino@lscs.com, rbyson@lscs.com, pdhalival@lscs.com, jlovelis@lscs.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscs.com). (A)= Analysis (C)= Container (P)= Preservative						SHORT HOLDING TIME <input type="checkbox"/> Cr <sup>6</sup> <input type="checkbox"/> NO <sub>2</sub> <input checked="" type="checkbox"/> NO <sub>3</sub> <input type="checkbox"/> OP <input type="checkbox"/> SS <input type="checkbox"/> DO <input type="checkbox"/> Cl <sub>2</sub> <input type="checkbox"/> BOD <input type="checkbox"/> MBAS <input type="checkbox"/> COT  <input type="checkbox"/> CHLBY <input type="checkbox"/> DISTRIBUTION <input checked="" type="checkbox"/> SUB-OUT
Relinquished by: (Signature) <i>Ant. Pal-Tech</i> 5/14/18 1820 Relinquished by: (Signature) <i>Antonio Pal-Tech</i> 5/14/18 1847 Relinquished by: (Signature) <i>Antonio Pal-Tech</i> 5/14/18 2200						Received By: <i>Antonio Pal-Tech</i> 5/14/18 1802 Received by: <i>Antonio Pal-Tech</i> 5/14/18 18:45 Received By: <i>Antonio Pal-Tech</i> 5/14/18 2200

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**COOLER RECEIPT FORM**

Submission #: 18-15493 Page 1 of 1

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 20px; height: 20px; display: inline-block; text-align: center; vertical-align: middle;">W/S</div>	
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: <span style="border: 1px solid black; padding: 2px;">Seal(s) Intact? Yes <input type="checkbox"/> No <input type="checkbox"/></span> <span style="border: 1px solid black; padding: 2px;">Containers Intact? Yes <input type="checkbox"/> No <input type="checkbox"/></span> None <input type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>208</u> Temperature: (A) <u>0.4</u> °C / (C) <u>0.7</u> °C		Date/Time: <u>5/14/18 2200</u> Analyst Init: <u>VSR</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A						
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/6150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
YT EPA 601504										
YT EPA 3270										
1oz / 16oz / 32oz AMBER										
oz / 16oz / 32oz JAK										
OIL SLEEVE										
CB VIAL										
LASTIC BAG										
EDLAR BAG										
ERROUS IRON										
VCORE										
SMART KIT										
MMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: VSR Date/Time: 5/14/18 2210

Actual / C = Corrected

Rev 21 05/23/2016  
 IS:\WP\Del\Work\Perfect\LAB\_DOC\FORMS\ISAMR\Rev 20)

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815493-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> BEA-MW1dd <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 17:02 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00005 Location ID (FieldPoint): BEA-MW1dd Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815493-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> BEA-MW2dd <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 18:02 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00005 Location ID (FieldPoint): BEA-MW2dd Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815493-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> BEA-MW3d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 17:18 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00005 Location ID (FieldPoint): BEA-MW3d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815493-04</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 05/14/2018 22:00
	<b>Project Number:</b> Dairy Representative Monitoring Program	<b>Sampling Date:</b> 05/14/2018 17:40
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> BEA-MW4d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Delivery Work Order:
		Global ID: GADAIRY00005
		Location ID (FieldPoint): BEA-MW4d
		Matrix: WG
		Sample QC Type (SACode): CS
		Cooler ID:

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815493-01	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, BEA-MW1dd, 5/14/2018 5:02:00PM, Del- Tech/Antonio
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.088	mg/L	0.10	0.021	EPA-300.0	ND	J	1
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	18	mg/L	2.5	0.45	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 11:43		EMW	IC1	1	B013828
2	SM-2540C	05/18/18 11:00	05/18/18 11:00		CAD	MANUAL	3.333	B014224
3	EPA-350.1	05/30/18 10:55	05/30/18 16:08		JMH	SC-1	25	B015065

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815493-02	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, BEA-MW2dd, 5/14/2018 6:02:00PM, Del- Tech/Antonio
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.0	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	240	mg/L	20	20	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 12:04		EMW	IC1	1	B013828
2	SM-2540C	05/18/18 11:00	05/18/18 11:00		CAD	MANUAL	2	B014224
3	EPA-350.1	05/30/18 10:55	05/30/18 15:00		JMH	SC-1	1	B015065

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815493-03	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, BEA-MW3d, 5/14/2018 5:18:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	130	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.033	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 12:25		EMW	IC1	10	B013828
2	SM-2540C	05/18/18 11:00	05/18/18 11:00		CAD	MANUAL	10	B014224
3	EPA-350.1	05/30/18 10:55	05/30/18 15:02		JMH	SC-1	1	B015065

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815493-04	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, BEA-MW4d, 5/14/2018 5:40:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	8.2	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	960	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.046	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 12:46		EMW	IC1	1	B013828
2	SM-2540C	05/18/18 11:00	05/18/18 11:00		CAD	MANUAL	5	B014224
3	EPA-350.1	05/30/18 10:55	05/30/18 15:04		JMH	SC-1	1	B015065

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013828</b>						
Nitrate as N	B013828-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014224</b>						
Total Dissolved Solids @ 180 C	B014224-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015065</b>						
Ammonia as N	B015065-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013828</b>										
Nitrate as N	B013828-BS1	LCS	5.0150	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B014224</b>										
Total Dissolved Solids @ 180 C	B014224-BS1	LCS	600.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B015065</b>										
Ammonia as N	B015065-BS1	LCS	0.99050	1.0000	mg/L	99.0		90 - 110		

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**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B013828</b>		Used client sample: Y - Description: SAN-MW1d, 05/14/2018 14:52								
Nitrate as N	DUP	1815491-01	37.530	37.980		mg/L	1.2		10	
	MS	1815491-01	37.530	64.131	25.253	mg/L		105		80 - 120
	MSD	1815491-01	37.530	64.838	25.253	mg/L	1.1	108	10	80 - 120
<b>QC Batch ID: B014224</b>		Used client sample: Y - Description: BEA-MW4d, 05/14/2018 17:40								
Total Dissolved Solids @ 180 C	DUP	1815493-04	955.00	965.00		mg/L	1.0		10	
<b>QC Batch ID: B015065</b>		Used client sample: Y - Description: COT-MW9, 05/14/2018 10:40								
Ammonia as N	DUP	1815492-02	0.022500	0.018800		mg/L	17.9		10	J,A02
	MS	1815492-02	0.022500	1.1151	1.1111	mg/L		98.3		90 - 110
	MSD	1815492-02	0.022500	1.1266	1.1111	mg/L	1.0	99.4	10	90 - 110

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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: [none]

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815492

Invoice ID: B305499

Enclosed are the results of analyses for samples received by the laboratory on 5/14/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815492

Samples were filtered through a 0.45 micron filter prior to analysis.



18-15492

BC Laboratories, Inc.		Chain of Custody				
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		<b>Analysis Requested</b>				
Report to:						
Reduced Constituent Suite						
Name:	Luhdorff and Scalmanini	Project:	Dairy Representative Monitoring Program			
Address:	500 First Street	Client:	Gallo Cattle Company Cottonwood			
City:	Woodland	State:	CA			
State:	CA	City:	Woodland			
Zip:	95695	Country:	USA			
Attn:	Till Angermann	Sampler Name:	Antonio Del-Tech			
		Global ID:	GADAIRY00068			
		From Filtered Sample:	Ammonia-N, NO3-N, Total Dissolved Solids			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved	Analysis Requested
1	COT-MW1, COT-MW1d -1	5/14/18	13:22	bw	x	
2	COT-MW2				x	
3	COT-MW3				x	
4	COT-MW4				x	
5	COT-MW5				x	
6	COT-MW6				x	
7	COT-MW7				x	
8	COT-MW8				x	
9	COT-MW9 -2				x	
10	COT-MW10 -3				x	
11	COT-MW11, COT-MW11d -4		10:40		x	
12	COT-MW12, COT-MW12d -5		1:08		x	
13	COT-MW13, COT-MW13d -6		1:31		x	
14	COT-MW14, COT-MW14d -7		1:33		x	
15	Field Duplicate				x	
16						
17						
18						

SHORT  HOLDING TIME  
 Cr<sup>6+</sup>  NO<sub>2</sub>  OP  SS  
 DO  Cl<sub>2</sub>  BOD  MBAS  COT

CHK BY  DISTRIBUTION  
 SUB-OUT

Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)
Ant. H. Moral 5/14/18 18:20	Antonio Del-Tech 5/14/18 18:45	Antonio Del-Tech 5/14/18 18:45
Date & Time	Date & Time	Date & Time
5/14/18 18:20	5/14/18 18:45	5/14/18 18:45

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sample wells exactly as shown on this CoC.  
 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnina@lscs.com, rbryson@lscs.com, pdchalwal@lscs.com, jlovells@lscs.com  
 4) Send invoices to Jeanette Lovells (jlovells@lscs.com).

(A) = Analysis (C) = Container (P) = Preservative

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**COOLER RECEIPT FORM**

Submission #: 18-15492 Page 1 Of 1

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 20px; margin: 0 auto;">W/S</div>	
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: <span style="border: 1px solid black; padding: 2px;">Ice Chest</span> <span style="border: 1px solid black; padding: 2px;">Containers</span> None <input type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>208</u> Temperature: (A) <u>0.4</u> °C / (C) <u>0.7</u> °C		Date/Time: <u>5/14/18 2200</u> Analyst Init: <u>VSL</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
3oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
3oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 505/605/805										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
PT EPA 8015M										
PT EPA 8270										
1oz / 16oz / 32oz AMBER										
oz / 16oz / 32oz JAR										
OIL SLEEVE										
CB VIAL										
LASTIC BAG										
EDLAR BAG										
IRROUS IRON										
VCORE										
GART KIT										
DMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 5/14/18 2210  
 Actual / C = Corrected

Rev 21 05/23/2016  
 I:\1\WPDoc\WordPerfect\LAB\_DOCS\FORMS\SAMRECrev 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815492-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> COT-MW1d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 13:22 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00006 Location ID (FieldPoint): COT-MW1d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1815492-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> COT-MW9 <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 10:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00006 Location ID (FieldPoint): COT-MW9 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815492-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> COT-MW10 <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 10:08 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00006 Location ID (FieldPoint): COT-MW10 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815492-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> COT-MW11d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 13:01 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00006 Location ID (FieldPoint): COT-MW11d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815492-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> COT-MW12d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 12:41 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00006 Location ID (FieldPoint): COT-MW12d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815492-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> COT-MW13d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 12:13 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00006 Location ID (FieldPoint): COT-MW13d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815492-07</b>	<b>COC Number:</b> ---	<b>Receive Date:</b> 05/14/2018 22:00
	<b>Project Number:</b> Dairy Representative Monitoring Program	<b>Sampling Date:</b> 05/14/2018 11:38
	<b>Sampling Location:</b> ---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b> COT-MW14d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
		Delivery Work Order:
		Global ID: GADAIRY00006
		Location ID (FieldPoint): COT-MW14d
		Matrix: WG
		Sample QC Type (SACode): CS
		Cooler ID:

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815492-01	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, COT-MW1d, 5/14/2018 1:22:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	42	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.022	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 04:01		EMW	IC1	5	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:54	05/30/18 14:46		JMH	SC-1	1	B015063

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815492-02	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, COT-MW9, 5/14/2018 10:40:00AM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	70	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.022	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 04:22		EMW	IC1	10	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:55	05/30/18 14:49		JMH	SC-1	1	B015065

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815492-03	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, COT-MW10, 5/14/2018 10:08:00AM, Del- Tech/Antonio
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	11	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	720	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18	05:25	EMW	IC1	5	B013827
2	SM-2540C	05/17/18 15:00	05/17/18	15:00	CAD	MANUAL	3.333	B014096
3	EPA-350.1	05/30/18 10:55	05/30/18	14:55	JMH	SC-1	1	B015065

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815492-04	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, COT-MW 11d, 5/14/2018 1:01:00PM, Del-Tech/Antonio
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.7	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	630	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.076	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18	05:46	EMW	IC1	1	B013827
2	SM-2540C	05/17/18 15:00	05/17/18	15:00	CAD	MANUAL	3.333	B014096
3	EPA-350.1	05/30/18 10:55	05/30/18	14:55	JMH	SC-1	1	B015065

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815492-05	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, COT-MW12d, 5/14/2018 12:41:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	69	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 06:07		EMW	IC1	10	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:55	05/30/18 14:57		JMH	SC-1	1	B015065

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815492-06	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, COT-MW13d, 5/14/2018 12:13:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.018	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 06:28	EMW	IC1	5	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00	CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:55	05/30/18 14:57	JMH	SC-1	1	B015065

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815492-07	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, COT-MW14d, 5/14/2018 11:38:00AM, Del-Tech/Antonio
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.036	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 06:49	EMW	IC1	10	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00	CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:55	05/30/18 14:58	JMH	SC-1	1	B015065

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013827</b>						
Nitrate as N	B013827-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014096</b>						
Total Dissolved Solids @ 180 C	B014096-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015063</b>						
Ammonia as N	B015063-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B015065</b>						
Ammonia as N	B015065-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013827</b>										
Nitrate as N	B013827-BS1	LCS	5.0260	5.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B014096</b>										
Total Dissolved Solids @ 180 C	B014096-BS1	LCS	615.00	586.00	mg/L	105		90 - 110		
<b>QC Batch ID: B015063</b>										
Ammonia as N	B015063-BS1	LCS	0.98590	1.0000	mg/L	98.6		90 - 110		
<b>QC Batch ID: B015065</b>										
Ammonia as N	B015065-BS1	LCS	0.99050	1.0000	mg/L	99.0		90 - 110		

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Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B013827</b>		Used client sample: Y - Description: WOO-MW1, 05/13/2018 14:40									
Nitrate as N	DUP	1815490-01	27.885	27.940		mg/L	0.2		10		
	MS	1815490-01	27.885	54.505	25.253	mg/L		105		80 - 120	
	MSD	1815490-01	27.885	54.616	25.253	mg/L	0.2	106	10	80 - 120	
<b>QC Batch ID: B014096</b>		Used client sample: Y - Description: WOO-MW1, 05/13/2018 14:40									
Total Dissolved Solids @ 180 C	DUP	1815490-01	1035.0	1040.0		mg/L	0.5		10		
<b>QC Batch ID: B015063</b>		Used client sample: Y - Description: WOO-MW1, 05/13/2018 14:40									
Ammonia as N	DUP	1815490-01	0.025300	ND		mg/L			10		
	MS	1815490-01	0.025300	1.0498	1.1111	mg/L		92.2		90 - 110	
	MSD	1815490-01	0.025300	1.0498	1.1111	mg/L	0	92.2	10	90 - 110	
<b>QC Batch ID: B015065</b>		Used client sample: Y - Description: COT-MW9, 05/14/2018 10:40									
Ammonia as N	DUP	1815492-02	0.022500	0.018800		mg/L	17.9		10		J,A02
	MS	1815492-02	0.022500	1.1151	1.1111	mg/L		98.3		90 - 110	
	MSD	1815492-02	0.022500	1.1266	1.1111	mg/L	1.0	99.4	10	90 - 110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:20  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: [none]

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815491

Invoice ID: B305498

Enclosed are the results of analyses for samples received by the laboratory on 5/14/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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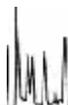
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## Case Narratives

### Case Narrative for Work Order 1815491

Samples were filtered through a 0.45 micron filter prior to analysis.



18-15491

BC Laboratories, Inc.

Chain of Custody

4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

Report to:				Analysis Requested			
Name: Luhdorff and Scalmanini				From Filtered Sample:			
Address: 500 First Street				Ammonia-N, NO3-N, Total Dissolved Solids			
City: Woodland							
State: 95695							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: Gallo Cattle Company Santa Rita							
Samplers Name: Antonio Del-Tech							
Global ID - GADAIRY00007							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Pe Unpreserved		
1	SAN-MW1s, SAN-MW1d -1	5/14/18	1450	6W	x		
2	SAN-MW2s, SAN-MW2d				x		
3	SAN-MW3s, SAN-MW3d				x		
4	SAN-MW4s, SAN-MW4d -2		1431		x		
5	SAN-MW5s, SAN-MW5d -3		1616		x		
6	SAN-MW6s, SAN-MW6d -4		1551		x		
7	SAN-MW7s, SAN-MW7d -5		1533		x		
8	SAN-MW8s, SAN-MW8d -0		1517		x		
9	Field Duplicate				x		
10							
11							
12							

SHORT HOLDING TIME

Cr-6 NO2 NO3 OP SS

DO Cl2 BOD MBAS COT

CHICKEN DISTRIBUTION

SUB-OUT

Relinquished by: (Signature) *[Signature]* Date & Time 5/14/18 1820

Relinquished by: (Signature) *[Signature]* Date & Time 5/14/18 1845

Relinquished by: (Signature) *[Signature]* Date & Time 5/14/18 2200

Comments:

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lsce.com, rbyson@lsce.com, pdhalliwal@lsce.com, jlovelis@lsce.com

4) Send invoices to Jeanette Lovelis (jlovelis@lsce.com).

(A)= Analysis (C)= Container (P)= Preservative

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**COOLER RECEIPT FORM**

Submission #: 18-15491 Page 1 of 1

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> W / S	
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: Ice Chest <input checked="" type="checkbox"/> Containers <input checked="" type="checkbox"/> None <input type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>205</u> Temperature: (A) <u>0.4</u> °C / (C) <u>0.7</u> °C		Date/Time: <u>5/14/18 2200</u> Analyst Init: <u>VSL</u>	

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1654										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
oz / 16oz / 32oz AMBER										
oz / 16oz / 32oz JAF										
OIL SLEEVE										
CB VIAL										
LASTIC BAG										
EDLAR BAG										
ERRORS IRON										
CORE										
ART KIT										
NMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 5/14/18 2210  
 Actual / C = Corrected

Rev 21 05/23/2016  
 IS:\WPDoc\Word\Pericod\LAB\_DOC\FORMS\SAMRECrev 20

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815491-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> SAN-MW1d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 14:52 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00007 Location ID (FieldPoint): SAN-MW1d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1815491-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> SAN-MW4d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 14:31 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00007 Location ID (FieldPoint): SAN-MW4d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1815491-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> SAN-MW5d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 16:16 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00007 Location ID (FieldPoint): SAN-MW5d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815491-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> SAN-MW6s <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 15:51 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00007 Location ID (FieldPoint): SAN-MW6s Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1815491-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> SAN-MW7s <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 15:33 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00007 Location ID (FieldPoint): SAN-MW7s Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>1815491-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> SAN-MW8d <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/14/2018 15:17 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00007 Location ID (FieldPoint): SAN-MW8d Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815491-01	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, SAN-MW1d, 5/14/2018 2:52:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	38	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 07:52		EMW	IC1	5	B013828
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	5	B014097
3	EPA-350.1	05/30/18 10:54	05/30/18 14:41		JMH	SC-1	1	B015063

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815491-02	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, SAN-MW4d, 5/14/2018 2:31:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	62	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.050	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 09:58	EMW	IC1	5	B013828
2	SM-2540C	05/17/18 15:00	05/17/18 15:00	CAD	MANUAL	5	B014097
3	EPA-350.1	05/30/18 10:54	05/30/18 14:42	JMH	SC-1	1	B015063

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815491-03	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, SAN-MW5d, 5/14/2018 4:16:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	54	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.024	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 10:19	EMW	IC1	5	B013828
2	SM-2540C	05/17/18 15:00	05/17/18 15:00	CAD	MANUAL	5	B014097
3	EPA-350.1	05/30/18 10:54	05/30/18 14:42	JMH	SC-1	1	B015063

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Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815491-04	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, SAN-MW6s, 5/14/2018 3:51:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	55	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 10:40		EMW	IC1	5	B013828
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	10	B014097
3	EPA-350.1	05/30/18 10:54	05/30/18 14:44		JMH	SC-1	1	B015063

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Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815491-05	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, SAN-MW7s, 5/14/2018 3:33:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.027	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 11:01	EMW	IC1	5	B013828
2	SM-2540C	05/17/18 15:00	05/17/18 15:00	CAD	MANUAL	5	B014097
3	EPA-350.1	05/30/18 10:54	05/30/18 14:44	JMH	SC-1	1	B015063

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**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815491-06	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, SAN-MW8d, 5/14/2018 3:17:00PM, Del- Tech/Antonio
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.024	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 11:22		EMW	IC1	5	B013828
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	5	B014097
3	EPA-350.1	05/30/18 10:54	05/30/18 14:46		JMH	SC-1	1	B015063

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**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013828</b>						
Nitrate as N	B013828-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014097</b>						
Total Dissolved Solids @ 180 C	B014097-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015063</b>						
Ammonia as N	B015063-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013828</b>										
Nitrate as N	B013828-BS1	LCS	5.0150	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B014097</b>										
Total Dissolved Solids @ 180 C	B014097-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B015063</b>										
Ammonia as N	B015063-BS1	LCS	0.98590	1.0000	mg/L	98.6		90 - 110		

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Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B013828</b>		Used client sample: Y - Description: SAN-MW1d, 05/14/2018 14:52								
Nitrate as N	DUP	1815491-01	37.530	37.980		mg/L	1.2		10	
	MS	1815491-01	37.530	64.131	25.253	mg/L		105		80 - 120
	MSD	1815491-01	37.530	64.838	25.253	mg/L	1.1	108	10	80 - 120
<b>QC Batch ID: B014097</b>		Used client sample: Y - Description: SAN-MW1d, 05/14/2018 14:52								
Total Dissolved Solids @ 180 C	DUP	1815491-01	1395.0	1390.0		mg/L	0.4		10	
<b>QC Batch ID: B015063</b>		Used client sample: Y - Description: WOO-MW1, 05/13/2018 14:40								
Ammonia as N	DUP	1815490-01	0.025300	ND		mg/L			10	
	MS	1815490-01	0.025300	1.0498	1.1111	mg/L		92.2		90 - 110
	MSD	1815490-01	0.025300	1.0498	1.1111	mg/L	0	92.2	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/23/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Genasci Dairy 2nd Qtr

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1814668

Invoice ID: B304796

Enclosed are the results of analyses for samples received by the laboratory on 5/7/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1814668

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b> 18-14668		<b>Chain of Custody</b>	
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Analysis Requested	
Name: Lohdorff and Scalmanini Address: 500 First Street City: Woodland State: 95695 Attn: Till Angermann		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids	
Report to: Reduced Constituent Suite Project: Dairy Representative Monitoring Program Site: Genasci Dairy Samplers Name: Antonio Del-Tech Global ID - WDR100037667		Date Sampled: 5/7/18 Time Sampled: 1604 Matrix: GW Date & Time: 5/7/18 17:30	
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled
1	GEN-MW1	5/7/18	1604
2	GEN-MW2		1627
3	GEN-MW3		
4	GEN-MW5		
5	GEN-MW6		
6	GEN-MW7		
7	GEN-MW8		
8	GEN-MW9		
9	GEN-MW10		
10	GEN-MW11s, GEN-MW11d		
11	GEN-MW12s, GEN-MW12d		
12	Field Duplicate		
13			
14			
15			
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: lsc@lscce.com, lsc@lscce.com, polihalwa@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).		Received By: [Signature] Date & Time: 5/7/18 18:25	
		Received By: [Signature] Date & Time: 5/7/18 18:25	
		Received By: [Signature] Date & Time: 5/7/18 18:25	

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-14668

SHIPPING INFORMATION		SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____		Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/> Box <input type="checkbox"/>
			Other <input type="checkbox"/> (Specify) _____	(W) / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match CDC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PB Thermometer ID: 108 Date/Time: 5/7/18 2:30

Temperature: (A) 0.7 °C (C) 0.9 °C Analyst Init: VR

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 3270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_ Date/Time: 5/7 2:35

Sample Numbering Completed By: Rev 21 05/23/2016



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1814668-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2018 21:30
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	05/07/2018 16:04
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW9	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Groundwater
1814668-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2018 21:30
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	05/07/2018 16:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW10	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Groundwater
1814668-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/07/2018 21:30
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b>	05/07/2018 16:49
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW12s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814668-01	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW9, 5/7/2018 4:04:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	150	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.022	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 07:28		EMW	IC1	10	B013204
2	SM-2540C	05/10/18 14:30	05/10/18 14:30		CAD	MANUAL	10	B013487
3	EPA-350.1	05/22/18 08:50	05/22/18 16:10		JMH	SC-1	1	B014250

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814668-02	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW10, 5/7/2018 4:27:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.082	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 09:34		EMW	IC1	5	B013204
2	SM-2540C	05/10/18 14:30	05/10/18 14:30		CAD	MANUAL	10	B013487
3	EPA-350.1	05/22/18 08:50	05/22/18 16:10		JMH	SC-1	1	B014250

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814668-03	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW12s, 5/7/2018 4:49:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	73	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/08/18 00:05	05/08/18 09:55		EMW	IC1	5	B013204
2	SM-2540C	05/10/18 14:30	05/10/18 14:30		CAD	MANUAL	5	B013487
3	EPA-350.1	05/22/18 08:50	05/22/18 16:11		JMH	SC-1	1	B014250

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Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013204</b>						
Nitrate as N	B013204-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013487</b>						
Total Dissolved Solids @ 180 C	B013487-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014250</b>						
Ammonia as N	B014250-BLK1	ND	mg/L	0.10	0.018	

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Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013204</b>										
Nitrate as N	B013204-BS1	LCS	4.9860	5.0000	mg/L	99.7		90	110	
<b>QC Batch ID: B013487</b>										
Total Dissolved Solids @ 180 C	B013487-BS1	LCS	590.00	586.00	mg/L	101		90	110	
<b>QC Batch ID: B014250</b>										
Ammonia as N	B014250-BS1	LCS	1.0350	1.0000	mg/L	104		90	110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits			
								Percent Recovery	RPD	Percent Recovery	Lab Quals
<b>QC Batch ID: B013204</b>		Used client sample: Y - Description: GEN-MW9, 05/07/2018 16:04									
Nitrate as N	DUP	1814668-01	154.91	154.84		mg/L	0.0		10		
	MS	1814668-01	154.91	204.19	50.505	mg/L		97.6		80 - 120	
	MSD	1814668-01	154.91	204.61	50.505	mg/L	0.2	98.4	10	80 - 120	
<b>QC Batch ID: B013487</b>		Used client sample: Y - Description: GEN-MW9, 05/07/2018 16:04									
Total Dissolved Solids @ 180 C	DUP	1814668-01	2070.0	2050.0		mg/L	1.0		10		
<b>QC Batch ID: B014250</b>		Used client sample: N									
Ammonia as N	DUP	1814721-01	0.21580	0.20840		mg/L	3.5		10		
	MS	1814721-01	0.21580	1.1669	1.1111	mg/L		85.6		90 - 110	Q03
	MSD	1814721-01	0.21580	1.2057	1.1111	mg/L	3.3	89.1	10	90 - 110	Q03

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**Reported:** 05/23/2018 13:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy 2nd Qtr  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- Q03 Matrix spike recovery(s) is(are) not within the control limits.



Date of Report: 05/24/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Genasci Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1814822

Invoice ID: B305012

Enclosed are the results of analyses for samples received by the laboratory on 5/8/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Quality Control Reports

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## Case Narratives

### Case Narrative for Work Order 1814822

Samples were filtered through a 0.45 micron filter prior to analysis.



18-14822

**BC Laboratories, Inc.**

4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

**Chain of Custody**

---

**Report to:**

Reduced Constituent Suite

Project: Daily Representative Monitoring Program *2018*

Site: *Genasci Dairy*

Samplers Name: *Arbonne Det-Tech*

Global ID - WDR100037667

**Analysis Requested**

From Filtered Sample:

Ammonia-N, NO3-N,  
Total Dissolved Solids

Received By: *[Signature]* Date & Time: *5/8/18 1730*

Received By: *[Signature]* Date & Time: *5/8/18 1955*

Received By: *[Signature]* Date & Time: *5/8/18 2310*

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pc Unpreserved
- 1	GEN-MW1	5/8/18	1007	GW	X
- 2	GEN-MW2		1136		X
- 3	GEN-MW3		944		X
- 4	GEN-MW5		1111		X
- 5	GEN-MW6		1233		X
- 6	GEN-MW7		1042		X
- 7	GEN-MW8		1201		X
- 8	GEN-MW9				X
- 9	GEN-MW10				X
- 10	GEN-MW11s, GEN-MW11d		904		X
- 11	GEN-MW12s, GEN-MW12d				X
- 12	Field-Duplicate				X
13					
14					
15					

**Comments:**

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: [lsc@lscce.com](mailto:lsc@lscce.com), [brysan@lscce.com](mailto:brysan@lscce.com), [pdlatival@lscce.com](mailto:pdlatival@lscce.com), [jlovelis@lscce.com](mailto:jlovelis@lscce.com)

4) Send invoices to: Jeannette Lovelis ([jlovelis@lscce.com](mailto:jlovelis@lscce.com)).

(A) = Analysis (C) = Container (P) = Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-14822

SHIPPING INFORMATION		SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>		Other <input type="checkbox"/> (Specify) _____		<u>W</u> / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals:  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 708 Date/Time: 5/18/18 2315

Temperature: (A) 1.4 °C / (C) 1.7 °C Analyst Init: VBS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A	A	A	A
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 503/603/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: VBS Date/Time: 5/18/18 2327 Rev 21 05/23/2016

A = Actual / C = Corrected

(S:\WP\Dev\WordPerfect\LAB\_COCC\FORMS\ISAMRECrev 20)



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1814822-01	<b>COC Number:</b>	---		05/08/2018 23:15	
	<b>Project Number:</b>	Genasci Dairy		<b>Sampling Date:</b>	05/08/2018 10:07
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW1		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1814822-02	<b>COC Number:</b>	---		05/08/2018 23:15	
	<b>Project Number:</b>	Genasci Dairy		<b>Sampling Date:</b>	05/08/2018 11:36
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW2		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1814822-03	<b>COC Number:</b>	---		05/08/2018 23:15	
	<b>Project Number:</b>	Genasci Dairy		<b>Sampling Date:</b>	05/08/2018 09:44
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW3		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1814822-04	<b>COC Number:</b>	---		05/08/2018 23:15	
	<b>Project Number:</b>	Genasci Dairy		<b>Sampling Date:</b>	05/08/2018 11:11
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW5		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1814822-05	<b>COC Number:</b>	---		05/08/2018 23:15	
	<b>Project Number:</b>	Genasci Dairy		<b>Sampling Date:</b>	05/08/2018 12:33
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW6		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1814822-06	<b>COC Number:</b>	---		05/08/2018 23:15	
	<b>Project Number:</b>	Genasci Dairy		<b>Sampling Date:</b>	05/08/2018 10:42
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW7		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1814822-07	<b>COC Number:</b>	---		05/08/2018 23:15	
	<b>Project Number:</b>	Genasci Dairy		<b>Sampling Date:</b>	05/08/2018 12:01
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GEN-MW8		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1814822-08	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/08/2018 23:15
	<b>Project Number:</b>	Genasci Dairy	<b>Sampling Date:</b> 05/08/2018 09:04
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	GEN-MW11s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-01	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW1, 5/8/2018 10:07:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	4.3	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	1.7	mg/L	0.10	0.018	EPA-350.1	0.041		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18 01:33		EMW	IC5	1	B013442
2	SM-2540C	05/11/18 16:30	05/11/18 16:30		CAD	MANUAL	10	B013653
3	EPA-350.1	05/24/18 10:52	05/24/18 11:43		JMH	SC-1	1	B014559

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Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-02	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW2, 5/8/2018 11:36:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	57	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.047	mg/L	0.10	0.018	EPA-350.1	0.041	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18 01:51		EMW	IC5	5	B013442
2	SM-2540C	05/11/18 16:30	05/11/18 16:30		CAD	MANUAL	10	B013653
3	EPA-350.1	05/24/18 10:52	05/24/18 11:45		JMH	SC-1	1	B014559

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Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-03	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW3, 5/8/2018 9:44:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	530	mg/L	5.0	1.0	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	6800	mg/L	500	500	SM-2540C	ND		2
Ammonia as N	0.27	mg/L	0.10	0.018	EPA-350.1	0.041		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18 02:08		EMW	IC5	50	B013442
2	SM-2540C	05/11/18 16:30	05/11/18 16:30		CAD	MANUAL	50	B013653
3	EPA-350.1	05/24/18 10:52	05/24/18 11:45		JMH	SC-1	1	B014559

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Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-04	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW5, 5/8/2018 11:11:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	170	mg/L	2.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2100	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.071	mg/L	0.10	0.018	EPA-350.1	0.041	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18 02:26		EMW	IC5	20	B013442
2	SM-2540C	05/11/18 16:30	05/11/18 16:30		CAD	MANUAL	10	B013653
3	EPA-350.1	05/24/18 10:52	05/24/18 11:47		JMH	SC-1	1	B014559

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Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-05	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW6, 5/8/2018 12:33:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	78	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	940	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.032	mg/L	0.10	0.018	EPA-350.1	0.041	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18 02:44		EMW	IC5	5	B013442
2	SM-2540C	05/11/18 16:30	05/11/18 16:30		CAD	MANUAL	5	B013653
3	EPA-350.1	05/24/18 10:52	05/24/18 11:49		JMH	SC-1	1	B014559

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-06	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW7, 5/8/2018 10:42:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	31	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	670	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.040	mg/L	0.10	0.018	EPA-350.1	0.041	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18 03:02		EMW	IC5	2	B013442
2	SM-2540C	05/11/18 16:30	05/11/18 16:30		CAD	MANUAL	3.333	B013653
3	EPA-350.1	05/24/18 10:52	05/24/18 11:50		JMH	SC-1	1	B014559

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500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-07	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW8, 5/8/2018 12:01:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.0	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	33	mg/L	2.0	0.36	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18	03:20	EMW	IC5	1	B013442
2	SM-2540C	05/11/18 16:30	05/11/18	16:30	CAD	MANUAL	10	B013653
3	EPA-350.1	05/24/18 10:54	05/24/18	11:56	JMH	SC-1	20	B014560

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814822-08	<b>Client Sample Name:</b> Genasci Dairy, GEN-MW11s, 5/8/2018 9:04:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	140	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.064	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 17:00	05/10/18 03:38		EMW	IC5	10	B013442
2	SM-2540C	05/11/18 16:30	05/11/18 16:30		CAD	MANUAL	10	B013653
3	EPA-350.1	05/24/18 10:54	05/24/18 11:56		JMH	SC-1	1	B014560

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Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013442</b>						
Nitrate as N	B013442-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013653</b>						
Total Dissolved Solids @ 180 C	B013653-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014559</b>						
Ammonia as N	B014559-BLK1	0.040600	mg/L	0.10	0.018	J
<b>QC Batch ID: B014560</b>						
Ammonia as N	B014560-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013442</b>										
Nitrate as N	B013442-BS1	LCS	5.0860	5.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B013653</b>										
Total Dissolved Solids @ 180 C	B013653-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B014559</b>										
Ammonia as N	B014559-BS1	LCS	1.0452	1.0000	mg/L	105		90 - 110		
<b>QC Batch ID: B014560</b>										
Ammonia as N	B014560-BS1	LCS	0.94140	1.0000	mg/L	94.1		90 - 110		

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Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab
									RPD	Percent Recovery	
<b>QC Batch ID: B013442</b>		Used client sample: Y - Description: GEN-MW2, 05/08/2018 11:36									
Nitrate as N	DUP	1814822-02	56.860	57.080		mg/L	0.4		10		
	MS	1814822-02	56.860	82.707	25.253	mg/L		102		80 - 120	
	MSD	1814822-02	56.860	82.636	25.253	mg/L	0.1	102	10	80 - 120	
<b>QC Batch ID: B013653</b>		Used client sample: Y - Description: GEN-MW1, 05/08/2018 10:07									
Total Dissolved Solids @ 180 C	DUP	1814822-01	1790.0	1780.0		mg/L	0.6		10		
<b>QC Batch ID: B014559</b>		Used client sample: N									
Ammonia as N	DUP	1816345-04	0.35550	0.36980		mg/L	3.9		10		
	MS	1816345-04	0.35550	1.4110	1.1111	mg/L		95.0		90 - 110	
	MSD	1816345-04	0.35550	1.4759	1.1111	mg/L	4.5	101	10	90 - 110	
<b>QC Batch ID: B014560</b>		Used client sample: N									
Ammonia as N	DUP	1816214-01	0.027000	0.027000		mg/L	0		10		J
	MS	1816214-01	0.027000	1.1448	1.1111	mg/L		101		90 - 110	
	MSD	1816214-01	0.027000	1.1546	1.1111	mg/L	0.9	101	10	90 - 110	

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500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 15:23  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Genasci Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/24/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: J. Troost Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1814824

Invoice ID: B305022

Enclosed are the results of analyses for samples received by the laboratory on 5/8/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1814824

Samples were filtered through a 0.45 micron filter prior to analysis.



18-14824

Chain of Custody

4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

BC Laboratories, Inc.

4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

Analysis Requested

Report to:

Reduced Constituent Suite

Name: Luhdorff and Scalmanini

Address: 500 First Street

Project: Dairy Representative Monitoring Program

City: Woodland

Site: J. Troost Dairy

State: 95695

Samplers Name: Del Peck / Steg Zyng

Attn: Till Angermann

Global ID - WDR100038424

From Filtered Sample:  
Ammonia-N, NO3-N,  
Total Dissolved Solids

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	QI Pe Unpreserved
-1	TRO-MW1	5-8-18	11:33	GW	x
-2	TRO-MW2	10:19	10:19	L	x
-3	TRO-MW3	10:51	10:51	L	x
4	<del>Field Duplicate</del>				x
5					x
6					x
7					x
8					x
9					x
10					x
11					x
12					x

SHORT HOLDING TIME  
Cl<sup>-</sup> NO<sub>2</sub> NO<sub>3</sub> OF SS  
DU Cl<sub>2</sub> BOD MBAS GOT

CHK BY DISTRIBUTION  
SUB-OUT

Comments:  
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llvegino@lsce.com, rbryson@lsce.com, pdhalliwal@lsce.com, jlovelis@lsce.com  
4) Send invoices to Jeannette Lovelis (jlovelis@lsce.com).

Relinquished by: (Signature)  
Relinquished by: (Signature)  
Relinquished by: (Signature)

Received By: [Signature] Date & Time: 5/8/18 20:45  
Received by: [Signature] Date & Time: 5/8/18 23:15  
Received by: [Signature] Date & Time: 5/8/18 23:15

(A)= Analysis (C)= Container (P)= Preservative



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-14824

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> W S	
---	--	---	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 708 Date/Time: 5/8/16 2315  
 Temperature: (A) 21 °C / (C) 22 °C Analyst Init: VS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/509/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 543										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: VS Date/Time: 5/8/16 2320 Rev 21 05/23/2016  
 A = Actual / C = Corrected

IS:\NFD\cd\l\end\Peric\LAB\_DCS\FORMS\CSMREC\rev 20



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1814824-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/08/2018 23:15
	<b>Project Number:</b>	J. Troost Dairy	<b>Sampling Date:</b>	05/08/2018 11:33
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TRO-MW1	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1814824-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/08/2018 23:15
	<b>Project Number:</b>	J. Troost Dairy	<b>Sampling Date:</b>	05/08/2018 10:19
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TRO-MW2	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1814824-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/08/2018 23:15
	<b>Project Number:</b>	J. Troost Dairy	<b>Sampling Date:</b>	05/08/2018 10:51
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	TRO-MW3	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814824-01	<b>Client Sample Name:</b> J. Troost Dairy, TRO-MW1, 5/8/2018 11:33:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	15	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	690	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.050	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 16:00	05/09/18 18:02		SAV	IC1	1	B013435
2	SM-2540C	05/11/18 13:00	05/11/18 13:00		CAD	MANUAL	3.333	B013584
3	EPA-350.1	05/24/18 10:54	05/24/18 12:03		JMH	SC-1	1	B014560

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**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814824-02	<b>Client Sample Name:</b> J. Troost Dairy, TRO-MW2, 5/8/2018 10:19:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	88	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.041	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 16:00	05/09/18 23:17		EMW	IC1	5	B013435
2	SM-2540C	05/11/18 13:00	05/11/18 13:00		CAD	MANUAL	5	B013584
3	EPA-350.1	05/24/18 10:54	05/24/18 12:03		JMH	SC-1	1	B014560

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Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814824-03	<b>Client Sample Name:</b> J. Troost Dairy, TRO-MW3, 5/8/2018 10:51:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	36	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	740	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.034	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 16:00	05/09/18 23:59		EMW	IC1	2	B013435
2	SM-2540C	05/11/18 13:00	05/11/18 13:00		CAD	MANUAL	3.333	B013584
3	EPA-350.1	05/24/18 10:54	05/24/18 12:05		JMH	SC-1	1	B014560

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500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013435</b>						
Nitrate as N	B013435-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013584</b>						
Total Dissolved Solids @ 180 C	B013584-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014560</b>						
Ammonia as N	B014560-BLK1	ND	mg/L	0.10	0.018	

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Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013435</b>										
Nitrate as N	B013435-BS1	LCS	4.8460	5.0000	mg/L	96.9		90 - 110		
<b>QC Batch ID: B013584</b>										
Total Dissolved Solids @ 180 C	B013584-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B014560</b>										
Ammonia as N	B014560-BS1	LCS	0.94140	1.0000	mg/L	94.1		90 - 110		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/24/2018 16:54  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits		Lab Quals
									RPD	Percent Recovery	
<b>QC Batch ID: B013435</b>		Used client sample: N									
Nitrate as N	DUP	1814884-02	2.4590	2.4300		mg/L	1.2		10		
	MS	1814884-02	2.4590	7.6293	5.0505	mg/L		102		80 - 120	
	MSD	1814884-02	2.4590	7.6020	5.0505	mg/L	0.4	102	10	80 - 120	
<b>QC Batch ID: B013584</b>		Used client sample: Y - Description: TRO-MW2, 05/08/2018 10:19									
Total Dissolved Solids @ 180 C	DUP	1814824-02	1350.0	1360.0		mg/L	0.7		10		
<b>QC Batch ID: B014560</b>		Used client sample: N									
Ammonia as N	DUP	1816214-01	0.027000	0.027000		mg/L	0		10		J
	MS	1816214-01	0.027000	1.1448	1.1111	mg/L		101		90 - 110	
	MSD	1816214-01	0.027000	1.1546	1.1111	mg/L	0.9	101	10	90 - 110	

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**Project:** Dairy Representative Monitoring Program  
**Project Number:** J. Troost Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/30/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: P&L Souza Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815240

Invoice ID: B305477

Enclosed are the results of analyses for samples received by the laboratory on 5/10/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815240

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		Chain of Custody			
18-15240		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Report to:					
Reduced Constituent Suite					
Name: Lohdorff and Scalmanini		Analysis Requested			
Address: 500 First Street		From Filtered Sample:			
City: Woodland		Ammonia-N, NO3-N, Total Dissolved Solids			
State: 95695					
CA:					
Attn: Tili Angermann					
Project: Dairy Representative Monitoring Program					
Site: P & L Souza Dairy					
Samplers Name: Antonio Del-Tech					
Global ID - GADAIRY00008					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt P# Unpreserved
1	PLS-MW1s, PLS-MW1d	5/10/18	1327	6w	x
2	PLS-MW2s, PLS-MW2d		1310		x
3	PLS-MW3s, PLS-MW3d		1440		x
4	PLS-MW4s, PLS-MW4d		1341		x
5	PLS-MW5s, PLS-MW5d		1253		x
6	PLS-MW6s, PLS-MW6d		1403		x
7	PLS-MW7s, PLS-MW7d		1420		x
8	Field Duplicate				x
9					
10					
11					
12					

CHK BY: [Signature] [Signature]

ANALYSIS HOLDING TIME

OP SS

DO Cl<sub>2</sub> BOD MBAS COT

Relinquished by: (Signature)	5/10/18	Received By:	5/10/18
Relinquished by: (Signature)	1700	Received by:	5/10/18
Relinquished by: (Signature)	1920	Received By:	5/10/18
Relinquished by: (Signature)		Received By:	5/10/18 2230

**Comments:**

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: lsc@lsc.com, lbryson@lsc.com, pthall@lsc.com.
- Send invoices to Jeannette Lovells (jlovels@lsc.com).

(A)= Analysis (C)= ContAINER (P)= Preservative

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 1815240

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_

SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_

FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Containers: None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received: YES  NO  Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/10/2015 Analyst Init: GSP

Temperature: (A) 0.3 °C / (C) 10.4 °C

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/508/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLRVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GSP Date/Time: 5/10/2015 Rev 21 05/23/2016

λ = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			Receive Date:	
1815240-01	<b>COC Number:</b>	---		05/10/2018 22:30	
	<b>Project Number:</b>	P&L Souza Dairy		<b>Sampling Date:</b>	05/10/2018 13:27
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW1s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815240-02	<b>COC Number:</b>	---		05/10/2018 22:30	
	<b>Project Number:</b>	P&L Souza Dairy		<b>Sampling Date:</b>	05/10/2018 13:10
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW2s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815240-03	<b>COC Number:</b>	---		05/10/2018 22:30	
	<b>Project Number:</b>	P&L Souza Dairy		<b>Sampling Date:</b>	05/10/2018 14:40
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW3s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815240-04	<b>COC Number:</b>	---		05/10/2018 22:30	
	<b>Project Number:</b>	P&L Souza Dairy		<b>Sampling Date:</b>	05/10/2018 13:41
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW4s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815240-05	<b>COC Number:</b>	---		05/10/2018 22:30	
	<b>Project Number:</b>	P&L Souza Dairy		<b>Sampling Date:</b>	05/10/2018 12:53
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW5s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815240-06	<b>COC Number:</b>	---		05/10/2018 22:30	
	<b>Project Number:</b>	P&L Souza Dairy		<b>Sampling Date:</b>	05/10/2018 14:03
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW6s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater
1815240-07	<b>COC Number:</b>	---		05/10/2018 22:30	
	<b>Project Number:</b>	P&L Souza Dairy		<b>Sampling Date:</b>	05/10/2018 14:20
	<b>Sampling Location:</b>	---		<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	PLS-MW7s		<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO		<b>Sample Type:</b>	Groundwater

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815240-01	<b>Client Sample Name:</b> P&L Souza Dairy, PLS-MW1s, 5/10/2018 1:27:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	120	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.049	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 16:00	05/11/18 22:40		SAV	IC1	10	B013773
2	SM-2540C	05/16/18 14:30	05/16/18 14:30		CAD	MANUAL	10	B013975
3	EPA-350.1	05/29/18 11:52	05/30/18 10:15		JMH	SC-1	1	B014923

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815240-02	<b>Client Sample Name:</b> P&L Souza Dairy, PLS-MW2s, 5/10/2018 1:10:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	68	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.058	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 16:00	05/11/18 23:01	SAV	IC1	5	B013773
2	SM-2540C	05/16/18 14:30	05/16/18 14:30	CAD	MANUAL	10	B013975
3	EPA-350.1	05/29/18 11:52	05/30/18 10:19	JMH	SC-1	1	B014923

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815240-03	<b>Client Sample Name:</b> P&L Souza Dairy, PLS-MW3s, 5/10/2018 2:40:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	47	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.068	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 16:00	05/11/18 23:22		SAV	IC1	10	B013773
2	SM-2540C	05/16/18 14:30	05/16/18 14:30		CAD	MANUAL	10	B013975
3	EPA-350.1	05/29/18 11:52	05/30/18 10:20		JMH	SC-1	1	B014923

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815240-04	<b>Client Sample Name:</b> P&L Souza Dairy, PLS-MW4s, 5/10/2018 1:41:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.14	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 16:00	05/11/18	23:43	SAV	IC1	5	B013773
2	SM-2540C	05/16/18 14:30	05/16/18	14:30	CAD	MANUAL	10	B013975
3	EPA-350.1	05/29/18 11:52	05/30/18	10:22	JMH	SC-1	1	B014923

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815240-05	<b>Client Sample Name:</b> P&L Souza Dairy, PLS-MW5s, 5/10/2018 12:53:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	86	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.049	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 16:00	05/12/18 00:04		SAV	IC1	10	B013773
2	SM-2540C	05/16/18 14:30	05/16/18 14:30		CAD	MANUAL	5	B013975
3	EPA-350.1	05/29/18 11:52	05/30/18 10:24		JMH	SC-1	1	B014923

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Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815240-06	<b>Client Sample Name:</b> P&L Souza Dairy, PLS-MW6s, 5/10/2018 2:03:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	37	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.052	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 16:00	05/12/18 00:25	SAV	IC1	5	B013773
2	SM-2540C	05/16/18 14:30	05/16/18 14:30	CAD	MANUAL	10	B013975
3	EPA-350.1	05/29/18 11:52	05/30/18 10:24	JMH	SC-1	1	B014923

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815240-07	<b>Client Sample Name:</b> P&L Souza Dairy, PLS-MW7s, 5/10/2018 2:20:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	170	mg/L	2.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2200	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.064	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 16:00	05/12/18 00:46	SAV	IC1	20	B013773
2	SM-2540C	05/16/18 14:30	05/16/18 14:30	CAD	MANUAL	10	B013975
3	EPA-350.1	05/29/18 11:52	05/30/18 10:25	JMH	SC-1	1	B014923

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013773</b>						
Nitrate as N	B013773-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013975</b>						
Total Dissolved Solids @ 180 C	B013975-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014923</b>						
Ammonia as N	B014923-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013773</b>										
Nitrate as N	B013773-BS1	LCS	4.9640	5.0000	mg/L	99.3		90 - 110		
<b>QC Batch ID: B013975</b>										
Total Dissolved Solids @ 180 C	B013975-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B014923</b>										
Ammonia as N	B014923-BS1	LCS	1.0122	1.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B013773</b>		Used client sample: Y - Description: PLS-MW1s, 05/10/2018 13:27								
Nitrate as N	DUP	1815240-01	117.49	116.77		mg/L	0.6		10	
	MS	1815240-01	117.49	167.62	50.505	mg/L		99.2		80 - 120
	MSD	1815240-01	117.49	166.68	50.505	mg/L	0.6	97.4	10	80 - 120
<b>QC Batch ID: B013975</b>		Used client sample: Y - Description: PLS-MW1s, 05/10/2018 13:27								
Total Dissolved Solids @ 180 C	DUP	1815240-01	1890.0	1900.0		mg/L	0.5		10	
<b>QC Batch ID: B014923</b>		Used client sample: Y - Description: PLS-MW1s, 05/10/2018 13:27								
Ammonia as N	DUP	1815240-01	0.049200	0.056500		mg/L	13.8		10	J,A02
	MS	1815240-01	0.049200	1.1667	1.1111	mg/L		101		90 - 110
	MSD	1815240-01	0.049200	1.1871	1.1111	mg/L	1.7	102	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/30/2018 20:01  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** P&L Souza Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 05/29/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Paul Caetano Dairy  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1815029  
Invoice ID: B305252

Enclosed are the results of analyses for samples received by the laboratory on 5/9/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815029

Samples were filtered through a 0.45 micron filter prior to analysis.



18-15029

Chain of Custody

4100 Atlas Ct.  
Bakersfield, CA 93308  
(661) 327-4911

BC Laboratories, Inc.

Analysis Requested

Report to:

Name: Luthdorff and Scalimantini  
Address: 500 First Street  
City: Woodland  
State: 95695  
CA  
Attn: Till Angermann

Reduced Constituent Suite  
Project: Dairy Representative Monitoring Program  
Site: Paul Caetano Dairy  
Samplers Name: Antonio Per-Tech  
Global ID - GADAIRY00009

From Filtered Sample:  
Ammonia-N, NO3-N,  
Total Dissolved Solids

Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1, P6 Unpreserved
1	CAE-MW1d	5/9/18	1403	6w	x
2	CAE-MW2s, CAE-MW2d		1447		x
3	CAE-MW3s, CAE-MW3d		1505		x
4	CAE-MW4s, CAE-MW4d		1431		x
5	CAE-MW5s, CAE-MW5d		1336		x
6	CAE-MW6s, CAE-MW6d		1321		x
7	Field Duplicate #2				x
8					
9					
10					
11					
12					

SHORT HOLDING TIME  
Cr<sup>6</sup> NO<sub>2</sub> (NO<sub>3</sub>) OP SS  
DO Cl<sub>2</sub> ROS MBAS COT

CHRYBY DISTRIBUTION  
650  
SUB-OUT

Relinquished by: (Signature) *[Signature]* Date & Time 5/9/18 1650  
 Relinquished by: (Signature) *[Signature]* Date & Time 5/9/18 19:10  
 Relinquished by: (Signature) *[Signature]* Date & Time 5/9/18 2230

Comments:  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Luthdorff and Scalimantini Consulting Engineers via email: llavagnino@lscce.com, rlryson@lscce.com, pnhellwa@lscce.com, jlovelis@lscce.com  
 4) Send invoices to Janelle Lovelis (jlovelis@lscce.com).

(A) Analysis (C) Container (P) Preservative



BC LABORATORIES INC. COOLER RECEIPT FORM Page 2 of 2

Submission #: 18-15029

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> W / S	
---	--	---	--	---	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PS Thermometer ID: 205 Date/Time: 5/19/18 2230  
 Temperature: (A) 1.2 °C (C) 1.3 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz C <sup>+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 6015M										
QT EPA 6270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz IAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 5/19/18 2237 Rev 21 05/23/2016

A = Actual / C = Corrected [B:\WP\Doc\Word\Excel\LAB\_DOC\FORMS\ISAN\REV 20]



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815029-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b> 05/09/2018 14:03
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	CAE-MW1d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815029-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b> 05/09/2018 14:47
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	CAE-MW2s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815029-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b> 05/09/2018 15:05
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	CAE-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815029-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b> 05/09/2018 14:31
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	CAE-MW4d	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815029-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b> 05/09/2018 13:36
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	CAE-MW5s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815029-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b> 05/09/2018 13:21
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	CAE-MW6s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815029-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/09/2018 22:30
	<b>Project Number:</b>	Paul Caetano Dairy	<b>Sampling Date:</b> 05/09/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	Field Duplicate #2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815029-01	<b>Client Sample Name:</b> Paul Caetano Dairy, CAE-MW1d, 5/9/2018 2:03:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	34	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	150	mg/L	20	3.6	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 01:09		EMW	IC8	5	B013600
2	SM-2540C	05/14/18 16:00	05/14/18 16:00		CAD	MANUAL	10	B013727
3	EPA-350.1	05/25/18 10:57	05/25/18 16:37		JMH	SC-1	200	B014562

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815029-02	<b>Client Sample Name:</b> Paul Caetano Dairy, CAE-MW2s, 5/9/2018 2:47:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	48	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	840	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 01:29		EMW	IC8	5	B013600
2	SM-2540C	05/14/18 16:00	05/14/18 16:00		CAD	MANUAL	5	B013727
3	EPA-350.1	05/25/18 10:57	05/25/18 14:51		JMH	SC-1	1	B014562

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815029-03	<b>Client Sample Name:</b> Paul Caetano Dairy, CAE-MW3s, 5/9/2018 3:05:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	100	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 10:02		SAV	IC8	10	B013600
2	SM-2540C	05/14/18 16:00	05/14/18 16:00		CAD	MANUAL	10	B013727
3	EPA-350.1	05/25/18 10:57	05/25/18 14:51		JMH	SC-1	1	B014562

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815029-04	<b>Client Sample Name:</b> Paul Caetano Dairy, CAE-MW4d, 5/9/2018 2:31:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	210	mg/L	2.0	0.42	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.13	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 10:23		SAV	IC8	20	B013600
2	SM-2540C	05/14/18 16:00	05/14/18 16:00		CAD	MANUAL	10	B013727
3	EPA-350.1	05/25/18 10:57	05/25/18 14:53		JMH	SC-1	1	B014562

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815029-05	<b>Client Sample Name:</b> Paul Caetano Dairy, CAE-MW5s, 5/9/2018 1:36:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	52	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	790	mg/L	33	33	SM-2540C	ND		2
Ammonia as N	0.084	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 02:31	EMW	IC8	5	B013600
2	SM-2540C	05/14/18 16:00	05/14/18 16:00	CAD	MANUAL	3.333	B013727
3	EPA-350.1	05/25/18 10:57	05/25/18 14:53	JMH	SC-1	1	B014562

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815029-06	<b>Client Sample Name:</b> Paul Caetano Dairy, CAE-MW6s, 5/9/2018 1:21:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	70	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.098	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 02:51		EMW	IC8	5	B013600
2	SM-2540C	05/14/18 16:00	05/14/18 16:00		CAD	MANUAL	5	B013727
3	EPA-350.1	05/25/18 10:57	05/25/18 14:55		JMH	SC-1	1	B014562

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815029-07	<b>Client Sample Name:</b> Paul Caetano Dairy, Field Duplicate #2, 5/9/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	65	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.12	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/11/18 00:10	05/11/18 03:12		EMW	IC8	5	B013600
2	SM-2540C	05/14/18 16:00	05/14/18 16:00		CAD	MANUAL	5	B013727
3	EPA-350.1	05/25/18 10:57	05/25/18 14:57		JMH	SC-1	1	B014562

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013600</b>						
Nitrate as N	B013600-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013727</b>						
Total Dissolved Solids @ 180 C	B013727-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014562</b>						
Ammonia as N	B014562-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
Project: Dairy Representative Monitoring Program  
Project Number: Paul Caetano Dairy  
Project Manager: Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013600</b>										
Nitrate as N	B013600-BS1	LCS	5.0080	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B013727</b>										
Total Dissolved Solids @ 180 C	B013727-BS1	LCS	595.00	586.00	mg/L	102		90 - 110		
<b>QC Batch ID: B014562</b>										
Ammonia as N	B014562-BS1	LCS	0.96520	1.0000	mg/L	96.5		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B013600</b>		Used client sample: Y - Description: CAE-MW1d, 05/09/2018 14:03								
Nitrate as N	DUP	1815029-01	33.745	33.895		mg/L	0.4		10	
	MS	1815029-01	33.745	59.889	25.253	mg/L		104		80 - 120
	MSD	1815029-01	33.745	60.348	25.253	mg/L	0.8	105	10	80 - 120
<b>QC Batch ID: B013727</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1815249-15	4440.0	4360.0		mg/L	1.8		10	
<b>QC Batch ID: B014562</b>		Used client sample: N								
Ammonia as N	DUP	1815101-01	0.063500	0.065100		mg/L	2.5		10	J
	MS	1815101-01	0.063500	1.2096	1.1111	mg/L		103		90 - 110
	MSD	1815101-01	0.063500	1.2770	1.1111	mg/L	5.4	109	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/29/2018 10:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Paul Caetano Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 06/12/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Robert Gieoletti Son Dairy  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1814821  
Invoice ID: B304797

Enclosed are the results of analyses for samples received by the laboratory on 5/8/2018. If you have any questions concerning this report, please feel free to contact me.

Revised Report: This report supercedes Report ID 1000755077

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Quality Control Reports

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gieoletti Son Dairy  
**Project Manager:** Till Angermann

### Case Narrative

#### Sample Receipt

COC Number:

Samples received refrigerated to 1.7 °C

#### Sample List

<u>Lab Number</u>	<u>Date/Time Sampled</u>	<u>Sample Name</u>
1814821-01	05/08/2018 14:09	ROB-MW1s
1814821-02	05/08/2018 14:26	ROB-MW2s
1814821-03	05/08/2018 14:49	ROB-MW3s
1814821-04	05/08/2018 15:11	ROB-MW4s
1814821-05	05/08/2018 13:49	ROB-MW5s
1814821-06	05/08/2018 16:13	ROB-MW6s
1814821-07	05/08/2018 15:53	ROB-MW7s
1814821-08	05/08/2018 15:32	ROB-MW8s
1814821-09	05/08/2018 00:00	Field Duplicate #4

#### Requested Analysis

EPA-300.0, EPA-350.1, SM-2540C

<u>Sample</u>	<u>Analyte</u>	<u>Flag</u>
<b>Sample Qualifier Summary</b>		
1814821-05	EPA-300.0	Nitrate as N S01
1814821-05	EPA-300.0	Nitrate as N Z2

#### Holding Times

All holding time requirements were met.

#### Method Blanks

There were no detections in the Method Blank(s).

#### Matrix Spikes

Precision and accuracy requirements are within QC limits.

#### LCS

The LCS recoveries are within QC limits.

#### Discussion

Samples were filtered through a 0.45 micron filter prior to analysis. Sample #1814821-05 was re-analyzed past hold time to confirm over calibration result for nitrate, the recheck result was consistent.

#### Summary of Flags

S01	Sample result is not within the quantitation range of the method.
Z2	Sample was re-analyzed past hold time to confirm result ,recheck result was consistent.

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18-14821

<b>BC Laboratories, Inc.</b>		<b>Chain of Custody</b>			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911					
<b>Report to:</b>					
Reduced Constituent Suite					
Project: Dairy Representative Monitoring Program					
Site: Robert Gioletti & Sons Dairy					
Samplers Name: Antonio Del-Tech					
Global ID - GADAIRY00010					
Name: Luhdorff and Scalmanini		Analysis Requested			
Address: 500 First Street		From Filtered Sample:			
City: Woodland		Ammonia-N, NO3-N, Total Dissolved Solids			
State: 95695					
Attn: Till Angermann					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1/Pc Unpreserved
- 1	ROB-MW1s, ROB-MW4d	5/18/18	1409	6w	x
- 2	ROB-MW2s, ROB-MW2d		1406		x
- 3	ROB-MW3s, ROB-MW3d		1449		x
- 4	ROB-MW4s, ROB-MW4d		1511		x
- 5	ROB-MW5s, ROB-MW5d		1249		x
- 6	ROB-MW6s, ROB-MW6d		1613		x
- 7	ROB-MW7s, ROB-MW7d		1553		x
- 8	ROB-MW8s, ROB-MW8d		1532		x
- 9	Field Duplicate #4				x
10					
11					
12					

SHORT HOLDING TIME  
Cr<sup>16</sup> NO<sub>2</sub> (NO<sub>3</sub>) OF SS  
DO Cl<sub>2</sub> BOD MBAS COT

CHK BY DISTRIBUTION  
SUB-OUT

Requisitioned by: (Signature) Date & Time  
 Received by: (Signature) Date & Time  
 Requisitioned by: (Signature) Date & Time  
 Received by: (Signature) Date & Time

**Comments:**  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: jlavelles@lscce.com, rbryson@lscce.com, puthaiwai@lscce.com.  
 4) Send invoices to Jeanelle Lovell (jlovelles@lscce.com).

(A) = Analysis (C) = Container (P) = Preservative

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# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-14821

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> <u>(W) / S</u>
---	--	---	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 708 Date/Time: 5/18/18 2315

Temperature: (A) 1.4 °C / (C) 1.7 °C Analyst Init: VOS

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNFRES	A	A	A	A	A	A	A	A	A	
4oz / 8oz / 16oz PE UNFRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
45ml VOA VIAL TRAVEL BLANK										
45ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
45 ml VOA VIAL- 504										
QT EPA 518/519/520										
QT EPA 515/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
45ml EPA 547										
40ml EPA 531.1										
5oz EPA 548										
QT EPA 549										
QT EPA 501SM										
QT EPA 820										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 5/18/18 2317 Rev 21 05/23/2016

A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1814821-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/08/2018 23:15
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b> 05/08/2018 14:09
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ROB-MW1s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		
	1814821-02	<b>COC Number:</b>	---
<b>Project Number:</b>		Robert Gioletti & Son Dairy	<b>Sampling Date:</b> 05/08/2018 14:26
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		ROB-MW2s	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
<hr/>			
1814821-03		<b>COC Number:</b>	---
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b> 05/08/2018 14:49
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ROB-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		
	1814821-04	<b>COC Number:</b>	---
<b>Project Number:</b>		Robert Gioletti & Son Dairy	<b>Sampling Date:</b> 05/08/2018 15:11
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		ROB-MW4s	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
<hr/>			
1814821-05		<b>COC Number:</b>	---
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b> 05/08/2018 13:49
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ROB-MW5s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
	<hr/>		
	1814821-06	<b>COC Number:</b>	---
<b>Project Number:</b>		Robert Gioletti & Son Dairy	<b>Sampling Date:</b> 05/08/2018 16:13
<b>Sampling Location:</b>		---	<b>Sample Depth:</b> ---
<b>Sampling Point:</b>		ROB-MW6s	<b>Lab Matrix:</b> Water
<b>Sampled By:</b>		Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
<hr/>			
1814821-07		<b>COC Number:</b>	---
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b> 05/08/2018 15:53
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	ROB-MW7s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

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Luhdorf & Scalmanini  
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Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1814821-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/08/2018 23:15
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	05/08/2018 15:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	ROB-MW8s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1814821-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/08/2018 23:15
	<b>Project Number:</b>	Robert Gioletti & Son Dairy	<b>Sampling Date:</b>	05/08/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #4	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-01	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW1s, 5/8/2018 2:09:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	110	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	14	mg/L	2.5	0.45	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 15:23		EMW	IC5	10	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30		CAD	MANUAL	10	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 17:14		JMH	SC-1	25	B014449

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-02	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW2s, 5/8/2018 2:26:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	190	mg/L	1.0	0.21	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	10	mg/L	2.5	0.45	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 15:59	SAV	IC5	10	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30	CAD	MANUAL	10	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 17:16	JMH	SC-1	25	B014449

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-03	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW3s, 5/8/2018 2:49:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 16:17		SAV	IC5	5	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30		CAD	MANUAL	10	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 16:33		JMH	SC-1	1	B014449

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-04	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW4s, 5/8/2018 3:11:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.018	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 16:35	SAV	IC5	5	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30	CAD	MANUAL	10	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 16:40	JMH	SC-1	1	B014449

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-05	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW5s, 5/8/2018 1:49:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	73	mg/L	0.20	0.042	EPA-300.0	ND	A07,S01,Z2	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.034	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 13:11	EMW	IC5	2	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30	CAD	MANUAL	10	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 16:40	JMH	SC-1	1	B014449

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-06	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW6s, 5/8/2018 4:13:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.92	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	130	mg/L	25	4.5	EPA-350.1	ND	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	
1	EPA-300.0	05/09/18 10:00	05/09/18 13:29		EMW	IC5	2	B013360	
2	SM-2540C	05/11/18 16:00	05/11/18 16:30		CAD	MANUAL	10	B013652	
3	EPA-350.1	05/22/18 08:50	05/22/18 17:18		JMH	SC-1	250	B014449	

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500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-07	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW7s, 5/8/2018 3:53:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	69	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.14	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 16:53		SAV	IC5	5	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30		CAD	MANUAL	5	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 16:42		JMH	SC-1	1	B014449

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Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-08	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, ROB-MW8s, 5/8/2018 3:32:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	59	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 19:16		SAV	IC5	5	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30		CAD	MANUAL	10	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 16:44		JMH	SC-1	1	B014449

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Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1814821-09	<b>Client Sample Name:</b> Robert Gioletti & Son Dairy, Field Duplicate #4, 5/8/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	53	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	ND	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/09/18 10:00	05/09/18 20:15		SAV	IC5	5	B013360
2	SM-2540C	05/11/18 16:00	05/11/18 16:30		CAD	MANUAL	10	B013652
3	EPA-350.1	05/22/18 08:50	05/22/18 16:46		JMH	SC-1	1	B014449

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Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013360</b>						
Nitrate as N	B013360-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B013652</b>						
Total Dissolved Solids @ 180 C	B013652-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B014449</b>						
Ammonia as N	B014449-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
Project: Dairy Representative Monitoring Program  
Project Number: Robert Gieoletti Son Dairy  
Project Manager: Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013360</b>										
Nitrate as N	B013360-BS1	LCS	4.7510	5.0000	mg/L	95.0		90 - 110		
<b>QC Batch ID: B013652</b>										
Total Dissolved Solids @ 180 C	B013652-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B014449</b>										
Ammonia as N	B014449-BS1	LCS	1.0521	1.0000	mg/L	105		90 - 110		

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Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gieoletti Son Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013360</b>		Used client sample: Y - Description: ROB-MW7s, 05/08/2018 15:53								
Nitrate as N	DUP	1814821-07	69.285	69.255		mg/L	0.0		10	
	MS	1814821-07	69.285	92.667	25.253	mg/L		92.6		80 - 120
	MSD	1814821-07	69.285	92.717	25.253	mg/L	0.1	92.8	10	80 - 120
<b>QC Batch ID: B013652</b>		Used client sample: Y - Description: ROB-MW1s, 05/08/2018 14:09								
Total Dissolved Solids @ 180 C	DUP	1814821-01	1860.0	1870.0		mg/L	0.5		10	
<b>QC Batch ID: B014449</b>		Used client sample: Y - Description: ROB-MW3s, 05/08/2018 14:49								
Ammonia as N	DUP	1814821-03	ND	0.023200		mg/L			10	J
	MS	1814821-03	ND	1.0879	1.1111	mg/L		97.9		90 - 110
	MSD	1814821-03	ND	1.1299	1.1111	mg/L	3.8	102	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 06/12/2018 9:37  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Robert Gioletti Son Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
- S01 Sample result is not within the quantitation range of the method.
- Z2 Sample was re-analyzed past hold time to confirm result , recheck result was consistent.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: [none]

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815490

Invoice ID: B305497

Enclosed are the results of analyses for samples received by the laboratory on 5/14/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815490

Samples were filtered through a 0.45 micron filter prior to analysis.



18-15490

BC Laboratories, Inc.

4100 Atlas Ct  
Bakersfield, CA 93308  
(661) 327-4911

Chain of Custody

Analysis Requested

Report to:

Name: Luhdorff and Scalmani		Reduced Constituent Suite		From Filtered Sample:	
Address: 500 First Street		Project: Dairy Representative Monitoring Program		Ammonia-N, NO3-N, Total Dissolved Solids	
City: Woodland		Site: Woods Dairy			
State: 95695		Samplers Name: DON LIGHT / DETECTA			
CA		Global ID - WDR100039199			
Attn: Till Angermann					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct Fe Unpreserved
1	WOO-MW1	5/13/18	1446	EW	x
2	WOO-MW2	5/13/18	1523	L	x
3	WOO-MW3	5/13/18	1612	L	x
4	Field Duplicate				x
5					
6					
7					
8					
9					
10					
11					
12					

SHORT HOLDING TIME

Cr<sup>6</sup> NO<sub>2</sub> NO<sub>3</sub> OP SS

DO Cl<sub>2</sub> BOD MBAS COT

CHK BY: [Signature]

DISTRIBUTION

SUB-OUT

Received By: [Signature] Date & Time: 5/14/18

Received By: [Signature] Date & Time: 5/14/18 18:45

Received By: [Signature] Date & Time: 5/14/18 22:00

Comments:

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Luhdorff and Scalmani Consulting Engineers via email: lsc@lsc.com, rbryson@lsc.com, pohnsai@lsc.com, jlovelis@lsc.com

4) Send invoices to Jeanette Lovells (jlovelis@lsc.com).

(A)= Analysis (C)= Container (P)= Preservative



BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-15490

SHIPPING INFORMATION
Fed Ex [ ] UPS [ ] Ontrac [ ] Hand Delivery [ ]
BC Lab Field Service [x] Other [ ] (Specify) \_\_\_\_\_

SHIPPING CONTAINER
Ice Chest [x] None [ ] Box [ ]
Other [ ] (Specify) \_\_\_\_\_

FREE LIQUID
YES [ ] NO [ ]
(W) / S

Refrigerant: Ice [x] Blue Ice [ ] None [ ] Other [ ] Comments:

Custody Seals Ice Chest [ ] Containers [ ] None [ ]
Intact? Yes [ ] No [ ] Intact? Yes [ ] No [ ]

All samples received? Yes [x] No [ ] All samples containers intact? Yes [x] No [ ] Description(s) match COC? Yes [x] No [ ]

COC Received [ ] YES [ ] NO
Emissivity: 0.97 Container: PE Thermometer ID: 7086 Date/Time: 5/14/18 2200
Temperature: (A) 0.0 °C / (C) 0.7 °C Analyst Init: VSR

Table with columns for Sample Containers and Sample Numbers (1-10). Rows include various sample types like QT PE UNPRES, PT INORGANIC CHEMICAL METALS, etc. Sample 1, 2, and 3 are marked with 'A'.

Comments:
Sample Numbering Completed By: [Signature] Date/Time: 5/14/18 2210 Rev 21 05/23/2016
A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815490-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> WOO-MW1 <b>Sampled By:</b> Del-Tech/Don Light of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/13/2018 14:40 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: WDR100039199 Location ID (FieldPoint): WOO-MW1 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815490-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> WOO-MW2 <b>Sampled By:</b> Del-Tech/Don Light of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/13/2018 15:23 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: WDR100039199 Location ID (FieldPoint): WOO-MW2 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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<b>1815490-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> Dairy Representative Monitoring Program <b>Sampling Location:</b> --- <b>Sampling Point:</b> WOO-MW3 <b>Sampled By:</b> Del-Tech/Don Light of DTO	<b>Receive Date:</b> 05/14/2018 22:00 <b>Sampling Date:</b> 05/13/2018 16:12 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: WDR100039199 Location ID (FieldPoint): WOO-MW3 Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815490-01	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, WOO-MW1, 5/13/2018 2:40:00PM, Del-Tech/Don Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	28	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1000	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.025	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 01:54		EMW	IC1	5	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:54	05/30/18 14:33		JMH	SC-1	1	B015063

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815490-02	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, WOO-MW2, 5/13/2018 3:23:00PM, Del-Tech/Don Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	800	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.022	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 03:19		EMW	IC1	5	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00		CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:54	05/30/18 14:37		JMH	SC-1	1	B015063

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Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815490-03	<b>Client Sample Name:</b> Dairy Representative Monitoring Program, WOO-MW3, 5/13/2018 4:12:00PM, Del-Tech/Don Light
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	51	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1100	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.032	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/15/18 00:30	05/15/18 03:40	EMW	IC1	5	B013827
2	SM-2540C	05/17/18 15:00	05/17/18 15:00	CAD	MANUAL	5	B014096
3	EPA-350.1	05/30/18 10:54	05/30/18 14:39	JMH	SC-1	1	B015063

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Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B013827</b>						
Nitrate as N	B013827-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014096</b>						
Total Dissolved Solids @ 180 C	B014096-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015063</b>						
Ammonia as N	B015063-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B013827</b>										
Nitrate as N	B013827-BS1	LCS	5.0260	5.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B014096</b>										
Total Dissolved Solids @ 180 C	B014096-BS1	LCS	615.00	586.00	mg/L	105		90 - 110		
<b>QC Batch ID: B015063</b>										
Ammonia as N	B015063-BS1	LCS	0.98590	1.0000	mg/L	98.6		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B013827</b>		Used client sample: Y - Description: WOO-MW1, 05/13/2018 14:40								
Nitrate as N	DUP	1815490-01	27.885	27.940		mg/L	0.2		10	
	MS	1815490-01	27.885	54.505	25.253	mg/L		105		80 - 120
	MSD	1815490-01	27.885	54.616	25.253	mg/L	0.2	106	10	80 - 120
<b>QC Batch ID: B014096</b>		Used client sample: Y - Description: WOO-MW1, 05/13/2018 14:40								
Total Dissolved Solids @ 180 C	DUP	1815490-01	1035.0	1040.0		mg/L	0.5		10	
<b>QC Batch ID: B015063</b>		Used client sample: Y - Description: WOO-MW1, 05/13/2018 14:40								
Ammonia as N	DUP	1815490-01	0.025300	ND		mg/L			10	
	MS	1815490-01	0.025300	1.0498	1.1111	mg/L		92.2		90 - 110
	MSD	1815490-01	0.025300	1.0498	1.1111	mg/L	0	92.2	10	90 - 110

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Woodland, CA 95695

**Reported:** 05/31/2018 10:19  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** [none]  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 06/01/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Antone L Gomes & Sons Dairy  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1815689  
Invoice ID: B305681

Enclosed are the results of analyses for samples received by the laboratory on 5/15/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815689

Samples were filtered through a 0.45 micron filter prior to analysis.





BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1  
 Submission #: 1815689

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_  
 SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_  
 FREE LIQUID: YES  NO  W / S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals: Ice Chest  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO  
 Emissivity: 0.97 Container: PS Thermometer ID: 205 Date/Time: 5/15/18 2200  
 Temperature: (A) 15 °C / (C) 1.0 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A	A			
4oz / 8oz / 16oz PE UNPRES										
2oz Cr*										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/513/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
3oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: [Signature] Date/Time: 5/15 2215 Rev 21 05/23/2016  
 A = Actual / C = Corrected [ID: \\NF001\Work\PerfectLAB\_DOCS\FORMS\FAMREC\rev 20]



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500 First Street  
Woodland, CA 95695

**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815689-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Antone L Gomes & Sons Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ANT-MW1d <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 13:51 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00011 Location ID (FieldPoint): ANT-MW1d Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815689-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Antone L Gomes & Sons Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ANT-MW2s <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 13:34 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00011 Location ID (FieldPoint): ANT-MW2s Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815689-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> Antone L Gomes & Sons Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ANT-MW3s <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 14:52 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00011 Location ID (FieldPoint): ANT-MW3s Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

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Woodland, CA 95695

**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815689-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> Antone L Gomes & Sons Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ANT-MW4d <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 15:13 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00011 Location ID (FieldPoint): ANT-MW4d Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815689-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> Antone L Gomes & Sons Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ANT-MW5d <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 14:18 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00011 Location ID (FieldPoint): ANT-MW5d Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

<b>1815689-06</b>	<b>COC Number:</b> --- <b>Project Number:</b> Antone L Gomes & Sons Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> ANT-MW6s <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 14:35 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00011 Location ID (FieldPoint): ANT-MW6s Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	---	---

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**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

1815689-07

**COC Number:** ---  
**Project Number:** Antone L Gomes & Sons Dairy  
**Sampling Location:** ---  
**Sampling Point:** Field Duplicate #5  
**Sampled By:** Del-Tech/Antonio Morales of GDTM

**Receive Date:** 05/15/2018 22:00  
**Sampling Date:** 05/15/2018 00:00  
**Sample Depth:** ---  
**Lab Matrix:** Water  
**Sample Type:** Water  
Delivery Work Order:  
Global ID: GADAIRY00011  
Location ID (FieldPoint): Field Duplicate #5  
Matrix: W  
Sample QC Type (SACode): CS  
Cooler ID:

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**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815689-01	<b>Client Sample Name:</b> Antone L Gomes & Sons Dairy, ANT-MW1d, 5/15/2018 1:51:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	52	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.056	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 16:42	SAV	IC8	5	B014006
2	SM-2540C	05/21/18 11:30	05/21/18 11:30	CAD	MANUAL	5	B014345
3	EPA-350.1	05/30/18 10:58	05/30/18 15:27	JMH	SC-1	1	B015067

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**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815689-02	<b>Client Sample Name:</b> Antone L Gomes & Sons Dairy, ANT-MW2s, 5/15/2018 1:34:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	57	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.050	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 21:17		SAV	IC8	5	B014006
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	5	B014345
3	EPA-350.1	05/30/18 10:58	05/30/18 15:27		JMH	SC-1	1	B015067

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**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815689-03	<b>Client Sample Name:</b> Antone L Gomes & Sons Dairy, ANT-MW3s, 5/15/2018 2:52:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	55	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.036	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 18:28		SAV	IC8	5	B014006
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	5	B014345
3	EPA-350.1	05/30/18 10:58	05/30/18 15:29		JMH	SC-1	1	B015067

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**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815689-04	<b>Client Sample Name:</b> Antone L Gomes & Sons Dairy, ANT-MW4d, 5/15/2018 3:13:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.048	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 19:12		SAV	IC8	2	B014006
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	5	B014345
3	EPA-350.1	05/30/18 10:58	05/30/18 15:29		JMH	SC-1	1	B015067

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**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815689-05	<b>Client Sample Name:</b> Antone L Gomes & Sons Dairy, ANT-MW5d, 5/15/2018 2:18:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.8	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	860	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.035	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 19:55		SAV	IC8	2	B014006
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	5	B014345
3	EPA-350.1	05/30/18 10:58	05/30/18 15:31		JMH	SC-1	1	B015067

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Woodland, CA 95695

**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815689-06	<b>Client Sample Name:</b> Antone L Gomes & Sons Dairy, ANT-MW6s, 5/15/2018 2:35:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	21	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	850	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.044	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 20:15		SAV	IC8	2	B014006
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	5	B014345
3	EPA-350.1	05/30/18 10:58	05/30/18 15:56		JMH	SC-1	1	B015067

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**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815689-07	<b>Client Sample Name:</b> Antone L Gomes & Sons Dairy, Field Duplicate #5, 5/15/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	58	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.044	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 20:36	SAV	IC8	5	B014006
2	SM-2540C	05/21/18 11:30	05/21/18 11:30	CAD	MANUAL	10	B014345
3	EPA-350.1	05/30/18 10:58	05/30/18 15:33	JMH	SC-1	1	B015067

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**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014006</b>						
Nitrate as N	B014006-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014345</b>						
Total Dissolved Solids @ 180 C	B014345-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015067</b>						
Ammonia as N	B015067-BLK1	0.026200	mg/L	0.10	0.018	J

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**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014006</b>										
Nitrate as N	B014006-BS1	LCS	4.8470	5.0000	mg/L	96.9		90 - 110		
<b>QC Batch ID: B014345</b>										
Total Dissolved Solids @ 180 C	B014345-BS1	LCS	605.00	586.00	mg/L	103		90 - 110		
<b>QC Batch ID: B015067</b>										
Ammonia as N	B015067-BS1	LCS	0.97380	1.0000	mg/L	97.4		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B014006</b>		Used client sample: Y - Description: TON-MW7s, 05/15/2018 16:39								
Nitrate as N	DUP	1815690-01	0.10600	0.11400		mg/L	7.3		10	J
	MS	1815690-01	0.10600	10.554	10.101	mg/L		103	80 - 120	
	MSD	1815690-01	0.10600	10.554	10.101	mg/L	0	103	10 80 - 120	
<b>QC Batch ID: B014345</b>		Used client sample: Y - Description: ANT-MW1d, 05/15/2018 13:51								
Total Dissolved Solids @ 180 C	DUP	1815689-01	1255.0	1270.0		mg/L	1.2		10	
<b>QC Batch ID: B015067</b>		Used client sample: Y - Description: Field Duplicate, 05/15/2018 17:03								
Ammonia as N	DUP	1815688-04	0.043000	0.043000		mg/L	0		10	J
	MS	1815688-04	0.043000	1.1638	1.1111	mg/L		101	90 - 110	
	MSD	1815688-04	0.043000	1.1628	1.1111	mg/L	0.1	101	10 90 - 110	

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Woodland, CA 95695

**Reported:** 06/01/2018 15:44  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Antone L Gomes & Sons Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Correia Family Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815865

Invoice ID: B305585

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815865

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		Chain of Custody	
Report to:		Analysis Requested			
Reduced Constituent Suite		From Filtered Sample:			
Project: Dairy Representative Monitoring Program		Ammonia-N, NO3-N, Total Dissolved Solids			
Site: Correia Family Dairy					
Samplers Name: Antonio / DetTech					
Global ID - GADAIRY00012					
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt Pe Unpreserved
1	COR-MW1s, COR-MW4d	5/16/18	1133	GLW	x
2	COR-MW2s, COR-MW3s		1242		x
3	COR-MW3s, COR-MW4d		1224		x
4	COR-MW4s, COR-MW4d		1150		x
5	COR-MW5s, COR-MW5d		1207		x
6	Field-Duplicator				x
7					
8					
9					
10					
11					

CHIC BY: <u>GLW</u>	DISTRIBUTION
SUB-OUT <input type="checkbox"/>	
SIGHT HOLDING TIME	
Cr-H	NO <sub>2</sub> (NO <sub>3</sub> )
DO	Cl <sub>2</sub> BOD MBAS COT

Relinquished by: (Signature) <u>[Signature]</u>	Date & Time <u>5/16/18 1730</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date & Time <u>5/16/18 1750</u>
Relinquished by: (Signature) <u>[Signature]</u>	Date & Time <u>5/16/18 2200</u>

**Comments:**  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lufdorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, puthellval@lscce.com, jlovelis@lscce.com  
 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative



BC LABORATORIES, INC. COOLER RECEIPT FORM Page 1 of 1

Submission #: 18-15865

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> (W) S	
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals   None <input checked="" type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PE</u> Thermometer ID: <u>208</u>		Date/Time: <u>5/16 2200</u>	
Temperature: (A) <u>0.3</u> °C / (C) <u>0.4</u> °C Analyst Init: <u>GSP</u>					

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 546										
QT EPA 549										
QT EPA 8915M										
QT EPA 8270										
8oz / 16oz / 32oz AMBR										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: GSP Date/Time: 5/16 2215  
 A = Actual / C = Corrected



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815865-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b> 05/16/2018 11:33
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COR-MW1s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815865-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b> 05/16/2018 12:42
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COR-MW2s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815865-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b> 05/16/2018 12:24
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COR-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815865-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b> 05/16/2018 11:50
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COR-MW4s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815865-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Correia Family Dairy	<b>Sampling Date:</b> 05/16/2018 12:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	COR-MW5s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815865-01	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW1s, 5/16/2018 11:33:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2900	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.047	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18 01:08		EMW	IC5	5	B014185
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	20	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18 10:22		JMH	SC-1	1	B015111

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Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815865-02	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW2s, 5/16/2018 12:42:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	10	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.036	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18 02:56		EMW	IC5	2	B014185
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	10	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18 10:24		JMH	SC-1	1	B015111

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**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815865-03	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW3s, 5/16/2018 12:24:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	4.7	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.036	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18 03:14	EMW	IC5	2	B014185
2	SM-2540C	05/22/18 12:30	05/22/18 12:30	CAD	MANUAL	5	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18 10:26	JMH	SC-1	1	B015111

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Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815865-04	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW4s, 5/16/2018 11:50:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	5.8	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.024	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18 03:32		EMW	IC5	2	B014185
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	5	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18 10:26		JMH	SC-1	1	B015111

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Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815865-05	<b>Client Sample Name:</b> Correia Family Dairy, COR-MW5s, 5/16/2018 12:07:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.2	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.14	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18	03:49	EMW	IC5	2	B014185
2	SM-2540C	05/22/18 12:30	05/22/18	12:30	CAD	MANUAL	10	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18	10:28	JMH	SC-1	1	B015111

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Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014185</b>						
Nitrate as N	B014185-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014464</b>						
Total Dissolved Solids @ 180 C	B014464-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015111</b>						
Ammonia as N	B015111-BLK1	ND	mg/L	0.10	0.018	

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Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014185</b>										
Nitrate as N	B014185-BS1	LCS	5.0170	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B014464</b>										
Total Dissolved Solids @ 180 C	B014464-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B015111</b>										
Ammonia as N	B015111-BS1	LCS	1.0130	1.0000	mg/L	101		90 - 110		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B014185</b>		Used client sample: Y - Description: COR-MW1s, 05/16/2018 11:33								
Nitrate as N	DUP	1815865-01	50.290	50.700		mg/L	0.8		10	
	MS	1815865-01	50.290	75.833	25.253	mg/L		101	80 - 120	
	MSD	1815865-01	50.290	75.884	25.253	mg/L	0.1	101	10	80 - 120
<b>QC Batch ID: B014464</b>		Used client sample: Y - Description: COR-MW1s, 05/16/2018 11:33								
Total Dissolved Solids @ 180 C	DUP	1815865-01	2860.0	2840.0		mg/L	0.7		10	
<b>QC Batch ID: B015111</b>		Used client sample: Y - Description: TON-MW5s, 05/15/2018 18:48								
Ammonia as N	DUP	1815864-05	0.041800	0.046200		mg/L	10.0		10	J
	MS	1815864-05	0.041800	1.2088	1.1111	mg/L		105	90 - 110	
	MSD	1815864-05	0.041800	1.2088	1.1111	mg/L	0	105	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:26  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Correia Family Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Frank J. Gomes Dairy #2  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1815869  
Invoice ID: B305589

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815869

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b>		<b>Chain of Custody</b>				
18-15869 Report to:		Analysis Requested				
Name: Luhdorff and Scalimantini		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				
Address: 900 First Street		From Filtered Sample:				
City: Woodland		Ammonia-N, NO3-N, Total Dissolved Solids				
State: 95695						
Attn: Till Angermann						
Project: Dairy Representative Monitoring Program						
Site: Frank J. Gomes Dairy #2						
Samplers Name: Antonio Del-Tech						
Global ID - GADAIRY00013						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P0 Unpreserved	
1	FG2-MW1s, FG2-MW2s	5/16/18	9:24	GW	x	
2	FG2-MW2s, FG2-MW3s		1:06		x	
3	FG2-MW3s, FG2-MW4s		9:45		x	
4	FG2-MW4s, FG2-MW5s		10:29		x	
5	FG2-MW5s, Field-Duplicate		10:52		x	
6						
7						
8						
9						
10						
11						
12						
Comments:		Relinquished by: (Signature)		Date & Time		
1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.		Ant. H. M... 5/16/18		1730		
2) Lab reports shall identify sampled wells exactly as shown on this CoC.		Relinquished by: (Signature)		Date & Time		
3) Send lab reports to Luhdorff and Scalimantini Consulting Engineers via email: llavagnino@lisce.com, rbyson@lisce.com, pdhall@lisce.com		Ant. H. M... 5/16/18		1750		
4) Send invoices to Jeanette Lovells (jlovells@lisce.com).		Relinquished by: (Signature)		Date & Time		
		Ant. H. M... 5/16/18		17:50		
		Relinquished by: (Signature)		Date & Time		
		Ant. H. M... 5/16/18		2200		

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Submission #: 1815869 COOLER RECEIPT FORM Page 1 of 1

SHIPPING INFORMATION Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		SHIPPING CONTAINER Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		FREE LIQUID YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> (W) / S
--	--	--	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals:  Chest Intact  Container Intact  None  Comments:

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time: 5/16 2200

Temperature: (A) 0.3 °C / (C) 0.4 °C Analyst Init: GSP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PTA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL - 504										
QT EPA 518/508/5090										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 535 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 551.1										
8oz EPA 563										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMERR										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GSP Date/Time: 5/16 2215 Rev 21 05/23/2016

A = Actual / C = Corrected

15:\WPDec\Work\Project\LAB\_DOC\FORMS\SAMREC1v 201



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:30  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815869-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b>	05/16/2018 09:24
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG2-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815869-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b>	05/16/2018 10:06
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG2-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815869-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b>	05/16/2018 09:45
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG2-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815869-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b>	05/16/2018 10:29
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG2-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815869-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Frank J. Gomes Dairy #2	<b>Sampling Date:</b>	05/16/2018 10:52
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	FG2-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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Woodland, CA 95695

**Reported:** 05/31/2018 17:30  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815869-01	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW1s, 5/16/2018 9:24:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
<b>Total Dissolved Solids @ 180 C</b>	<b>4500</b>	<b>mg/L</b>	<b>200</b>	<b>200</b>	<b>SM-2540C</b>	ND		2
Ammonia as N	0.056	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 12:43		EMW	IC5	5	B014130
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	20	B014465
3	EPA-350.1	05/30/18 15:30	05/31/18 10:47		JMH	SC-1	1	B015113

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**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815869-02	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW2s, 5/16/2018 10:06:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.2	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2200	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.045	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 13:55		EMW	IC5	2	B014130
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	10	B014465
3	EPA-350.1	05/30/18 15:31	05/31/18 10:49		JMH	SC-1	1	B015114

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**Reported:** 05/31/2018 17:30  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815869-03	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW3s, 5/16/2018 9:45:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	6.6	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4200	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.040	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 14:13		EMW	IC5	2	B014130
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	20	B014465
3	EPA-350.1	05/30/18 15:31	05/31/18 10:53		JMH	SC-1	1	B015114

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**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815869-04	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW4s, 5/16/2018 10:29:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	19	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.043	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 14:31	EMW	IC5	2	B014130
2	SM-2540C	05/22/18 12:30	05/22/18 12:30	CAD	MANUAL	10	B014465
3	EPA-350.1	05/30/18 15:31	05/31/18 10:55	JMH	SC-1	1	B015114

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**Reported:** 05/31/2018 17:30  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815869-05	<b>Client Sample Name:</b> Frank J. Gomes Dairy #2, FG2-MW5s, 5/16/2018 10:52:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	4.8	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2400	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.038	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 14:49		EMW	IC5	2	B014130
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	10	B014465
3	EPA-350.1	05/30/18 15:31	05/31/18 10:57		JMH	SC-1	1	B015114

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**Reported:** 05/31/2018 17:30  
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**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014130</b>						
Nitrate as N	B014130-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014465</b>						
Total Dissolved Solids @ 180 C	B014465-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015113</b>						
Ammonia as N	B015113-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B015114</b>						
Ammonia as N	B015114-BLK1	ND	mg/L	0.10	0.018	

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**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014130</b>										
Nitrate as N	B014130-BS1	LCS	5.1070	5.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B014465</b>										
Total Dissolved Solids @ 180 C	B014465-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
<b>QC Batch ID: B015113</b>										
Ammonia as N	B015113-BS1	LCS	1.0104	1.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B015114</b>										
Ammonia as N	B015114-BS1	LCS	1.0544	1.0000	mg/L	105		90 - 110		

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**Reported:** 05/31/2018 17:30  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Frank J. Gomes Dairy #2  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B014130</b>		Used client sample: Y - Description: FG2-MW1s, 05/16/2018 09:24								
Nitrate as N	DUP	1815869-01	ND	ND		mg/L			10	
	MS	1815869-01	ND	25.253	25.253	mg/L		100		80 - 120
	MSD	1815869-01	ND	25.232	25.253	mg/L	0.1	99.9	10	80 - 120
<b>QC Batch ID: B014465</b>		Used client sample: Y - Description: NUN-MW1s, 05/16/2018 13:48								
Total Dissolved Solids @ 180 C	DUP	1815867-01	4760.0	4740.0		mg/L	0.4		10	
<b>QC Batch ID: B015113</b>		Used client sample: Y - Description: MAC-MW4s, 05/16/2018 15:59								
Ammonia as N	DUP	1815866-04	0.12370	0.12010		mg/L	3.0		10	
	MS	1815866-04	0.12370	1.3467	1.1111	mg/L		110		90 - 110
	MSD	1815866-04	0.12370	1.3144	1.1111	mg/L	2.4	107	10	90 - 110
<b>QC Batch ID: B015114</b>		Used client sample: Y - Description: FG2-MW2s, 05/16/2018 10:06								
Ammonia as N	DUP	1815869-02	0.045300	0.037400		mg/L	19.1		10	J,A02
	MS	1815869-02	0.045300	1.1628	1.1111	mg/L		101		90 - 110
	MSD	1815869-02	0.045300	1.1941	1.1111	mg/L	2.7	103	10	90 - 110

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**Project:** Dairy Representative Monitoring Program  
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**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Godinho Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815868

Invoice ID: B305588

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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### Quality Control Reports

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## Case Narratives

### Case Narrative for Work Order 1815868

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b>		<b>Chain of Custody</b>			
Name: <b>18-15868</b> Address: 500 First Street City: Woodland State: 95695 CA Attn: Till Angermann		4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911			
Report to: <b>Reduced Constituent Suite</b> Project: Dairy Representative Monitoring Program Site: Godinho Dairy <b>20th 2018</b> Samplers Name: <b>Antonio / Del-Tech</b> Global ID - GADAIRY00014		<b>Analysis Requested</b> From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids			
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved
1	GOD-MW1s, GOD-MW7d	5/16/18	1707	GW	x
2	GOD-MW2e, GOD-MW2d				x
3	GOD-MW3e, GOD-MW3d				x
4	GOD-MW4s, GOD-MW4d		1722		x
5	GOD-MW5s, GOD-MW5d				x
6	GOD-MW6s, GOD-MW6d				x
7	GOD-MW7s, GOD-MW7d				x
8	Field-Duplicate				x
9					
10					
11					
12					

CHK BY: **MAF** DISTRIBUTION

Sub-OUT: **MAF**

SHORT HOLDING TIME

Q1 P6 NO<sub>2</sub> NO<sub>3</sub> OP SS

DO Cl<sub>2</sub> SOD MEAS COT

Relinquished by: (Signature) <b>[Signature]</b>	Date & Time <b>5/16/18 1730</b>
Relinquished by: (Signature) <b>[Signature]</b>	Date & Time <b>5/16/18 1750</b>
Relinquished by: (Signature) <b>[Signature]</b>	Date & Time <b>5/16/18 2000</b>

**Comments:**  
 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.  
 2) Lab reports shall identify sampled wells exactly as shown on this CoC.  
 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: llavagnino@isce.com, rbryson@isce.com, pdhalwa@isce.com  
 4) Send Invoices to Jeannette Lovells (jlovells@isce.com).

(A)= Analysis (C)= Container (P)= Preservative

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Submission #: 1815868 COOLER RECEIPT FORM Page 1 of 1

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, Other. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: Containers, None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emissivity: 0.97. Container: PE. Thermometer ID: 708. Date/Time: 5/16/2008. Temperature: (A) 0.3 °C / (C) 0.4 °C. Analyst Init: GSP

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc.

Comments: Sample Numbering Completed By: GSP Date/Time: 5/16/2008 Rev 21 06/23/2016



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815868-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	05/16/2018 17:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815868-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Godinho Dairy	<b>Sampling Date:</b>	05/16/2018 17:22
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	GOD-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815868-01	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW1s, 5/16/2018 5:07:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.8	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.039	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 16:36		SAV	IC5	2	B014130
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	10	B014466
3	EPA-350.1	05/30/18 15:30	05/31/18 10:44		JMH	SC-1	1	B015113

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815868-02	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW4s, 5/16/2018 5:22:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	15	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2800	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.038	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 11:00	05/17/18 16:54		SAV	IC5	2	B014130
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	20	B014466
3	EPA-350.1	05/30/18 15:30	05/31/18 10:46		JMH	SC-1	1	B015113

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014130</b>						
Nitrate as N	B014130-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014466</b>						
Total Dissolved Solids @ 180 C	B014466-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015113</b>						
Ammonia as N	B015113-BLK1	ND	mg/L	0.10	0.018	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014130</b>										
Nitrate as N	B014130-BS1	LCS	5.1070	5.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B014466</b>										
Total Dissolved Solids @ 180 C	B014466-BS1	LCS	570.00	586.00	mg/L	97.3		90 - 110		
<b>QC Batch ID: B015113</b>										
Ammonia as N	B015113-BS1	LCS	1.0104	1.0000	mg/L	101		90 - 110		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014130</b>		Used client sample: Y - Description: FG2-MW1s, 05/16/2018 09:24								
Nitrate as N	DUP	1815869-01	ND	ND		mg/L			10	
	MS	1815869-01	ND	25.253	25.253	mg/L		100		80 - 120
	MSD	1815869-01	ND	25.232	25.253	mg/L	0.1	99.9	10	80 - 120
<b>QC Batch ID: B014466</b>		Used client sample: Y - Description: GOD-MW1s, 05/16/2018 17:07								
Total Dissolved Solids @ 180 C	DUP	1815868-01	1630.0	1640.0		mg/L	0.6		10	
<b>QC Batch ID: B015113</b>		Used client sample: Y - Description: MAC-MW4s, 05/16/2018 15:59								
Ammonia as N	DUP	1815866-04	0.12370	0.12010		mg/L	3.0		10	
	MS	1815866-04	0.12370	1.3467	1.1111	mg/L		110		90 - 110
	MSD	1815866-04	0.12370	1.3144	1.1111	mg/L	2.4	107	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.

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Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Godinho Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1816001

Invoice ID: B305595

Enclosed are the results of analyses for samples received by the laboratory on 5/17/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1816001

Samples were filtered through a 0.45 micron filter prior to analysis.



18-16001

<b>BC Laboratories, Inc.</b> 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		<b>Chain of Custody</b>				
<b>Report to:</b> Reduced Constituent Suite						
Name: Luhdorff and Scalmanini						
Address: 500 First Street						
City: Woodland						
State: 95695						
Attn: Till Angermann						
Project: Daily Representative Monitoring Program						
Site: Godinho Dairy						
Samplers Name: Antonio Del-Tech						
Global ID - GADAIRY00014						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1/Pc Unpreserved	From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids
1	GOD-MW1s, GOD-MW4d	5/16/18		GW	x	x
2	GOD-MW2s, GOD-MW2d		1758		x	x
3	GOD-MW3s, GOD-MW3d		1737		x	x
4	GOD-MW4s, GOD-MW4d				x	x
5	GOD-MW5s, GOD-MW5d		1709		x	x
6	GOD-MW6s, GOD-MW6d		1822		x	x
7	GOD-MW7s, GOD-MW7d		1843		x	x
8	Field Duplicate				x	x
9						
10						
11						
12						

SHORT HOLDING TIME

Cr<sup>6</sup> NO<sub>2</sub> (mg) OF SS

DO Cl<sub>2</sub> BOD MBAS COT

CHICK BY DISTRIBUTION

661

SLIP-OUT

Relinquished by: (Signature) <i>A. H. Moral</i>	Date & Time 5/17/18 16:05
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 5/17/18 23:30
Relinquished by: (Signature) <i>[Signature]</i>	Date & Time 5/17/18 23:30

**Comments:**

1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.

2) Lab reports shall identify sampled wells exactly as shown on this CoC.

3) Send lab reports to Luhdorff and Scalmanini Consulting Engineers via email: llavagnino@lscce.com, rbryson@lscce.com, pdhalvhal@lscce.com, jlovelis@lscce.com

4) Send invoices to Jeanette Lovellis (jlovelis@lscce.com).

(A)= Analysis (C)= Container (P)= Preservative

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# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 18-16001

SHIPPING INFORMATION		SHIPPING CONTAINER		FREE LIQUID
Fed Ex <input type="checkbox"/>	UPS <input type="checkbox"/>	Ontrac <input type="checkbox"/>	Hand Delivery <input type="checkbox"/>	YES <input type="checkbox"/> NO <input type="checkbox"/>
BC Lab Field Service <input checked="" type="checkbox"/>	Other <input type="checkbox"/> (Specify) _____	Ice Chest <input checked="" type="checkbox"/>	None <input type="checkbox"/> Box <input type="checkbox"/>	(W) S
		Other <input type="checkbox"/> (Specify) _____		

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match CDC? Yes  No

COC Received  YES  NO Emissivity: 0.97 Container: PS Thermometer ID: 2005 Date/Time: 5/17/18 2330  
Temperature: (A) 0.9 °C / (C) 1.0 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6+</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE/NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/509/8080										
QT RPA 515.16150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
Sample Numbering Completed By: [Signature] Date/Time: 5/17/18 2345 Rev 21 05/23/2016  
A = Actual / C = Corrected

IS:\NFP\Doc\Work\Pericci\LAB\_DOC\5\GRAMSISAMR\Crez 20

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1816001-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Godinho Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> GOD-MW2s <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/17/2018 23:30 <b>Sampling Date:</b> 05/16/2018 17:58 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00014 Location ID (FieldPoint): GOD-MW2s Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1816001-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Godinho Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> GOD-MW3s <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/17/2018 23:30 <b>Sampling Date:</b> 05/16/2018 17:37 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00014 Location ID (FieldPoint): GOD-MW3s Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1816001-03</b>	<b>COC Number:</b> --- <b>Project Number:</b> Godinho Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> GOD-MW5s <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/17/2018 23:30 <b>Sampling Date:</b> 05/16/2018 17:09 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00014 Location ID (FieldPoint): GOD-MW5s Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1816001-04</b>	<b>COC Number:</b> --- <b>Project Number:</b> Godinho Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> GOD-MW6s <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/17/2018 23:30 <b>Sampling Date:</b> 05/16/2018 18:22 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00014 Location ID (FieldPoint): GOD-MW6s Matrix: WG Sample QC Type (SACode): CS Cooler ID:
-------------------	--	--

<b>1816001-05</b>	<b>COC Number:</b> --- <b>Project Number:</b> Godinho Dairy <b>Sampling Location:</b> --- <b>Sampling Point:</b> GOD-MW7s <b>Sampled By:</b> Del-Tech/Antonio Morales of DTO	<b>Receive Date:</b> 05/17/2018 23:30 <b>Sampling Date:</b> 05/16/2018 18:43 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Groundwater Delivery Work Order: Global ID: GADAIRY00014 Location ID (FieldPoint): GOD-MW7s Matrix: WG Sample QC Type (SACode): CS Cooler ID:
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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816001-01	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW2s, 5/16/2018 5:58:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2300	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.050	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 00:59		EMW	IC8	5	B014186
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	10	B014467
3	EPA-350.1	05/30/18 15:33	05/31/18 12:10		JMH	SC-1	1	B015116

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816001-02	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW3s, 5/16/2018 5:37:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	22	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.067	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 01:20		EMW	IC8	2	B014186
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	5	B014467
3	EPA-350.1	05/30/18 15:33	05/31/18 12:12		JMH	SC-1	1	B015116

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816001-03	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW5s, 5/16/2018 5:09:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.037	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 01:40		EMW	IC8	1	B014186
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	10	B014467
3	EPA-350.1	05/30/18 15:33	05/31/18 12:12		JMH	SC-1	1	B015116

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816001-04	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW6s, 5/16/2018 6:22:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	50	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.037	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 02:01		EMW	IC8	5	B014186
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	20	B014467
3	EPA-350.1	05/30/18 15:33	05/31/18 12:14		JMH	SC-1	1	B015116

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**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1816001-05	<b>Client Sample Name:</b> Godinho Dairy, GOD-MW7s, 5/16/2018 6:43:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.6	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	2700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.048	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 19:00	05/18/18 02:21		EMW	IC8	1	B014186
2	SM-2540C	05/22/18 13:30	05/22/18 13:30		CAD	MANUAL	10	B014467
3	EPA-350.1	05/30/18 15:33	05/31/18 12:14		JMH	SC-1	1	B015116

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**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014186</b>						
Nitrate as N	B014186-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014467</b>						
Total Dissolved Solids @ 180 C	B014467-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015116</b>						
Ammonia as N	B015116-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014186</b>										
Nitrate as N	B014186-BS1	LCS	5.0140	5.0000	mg/L	100		90 - 110		
<b>QC Batch ID: B014467</b>										
Total Dissolved Solids @ 180 C	B014467-BS1	LCS	585.00	586.00	mg/L	99.8		90 - 110		
<b>QC Batch ID: B015116</b>										
Ammonia as N	B015116-BS1	LCS	0.94400	1.0000	mg/L	94.4		90 - 110		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014186</b>		Used client sample: N								
Nitrate as N	DUP	815971-02RE2	46.205	46.125		mg/L	0.2		10	
	MS	815971-02RE2	46.205	71.566	25.253	mg/L		100		80 - 120
	MSD	815971-02RE2	46.205	71.813	25.253	mg/L	0.3	101	10	80 - 120
<b>QC Batch ID: B014467</b>		Used client sample: Y - Description: GOD-MW2s, 05/16/2018 17:58								
Total Dissolved Solids @ 180 C	DUP	1816001-01	2290.0	2300.0		mg/L	0.4		10	
<b>QC Batch ID: B015116</b>		Used client sample: N								
Ammonia as N	DUP	1815971-02	0.066200	0.061100		mg/L	8.0		10	J
	MS	1815971-02	0.066200	1.1357	1.1111	mg/L		96.3		90 - 110
	MSD	1815971-02	0.066200	1.1460	1.1111	mg/L	0.9	97.2	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 18:15  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Godinho Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: John Machado Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815866

Invoice ID: B305586

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815866

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b>		<b>Chain of Custody</b>					
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911							
<b>1815866 Report to:</b>							
Name: Lohdorff and Scalmanini		Analysis Requested					
Address: 500 First Street		From Filtered Sample:					
City: Woodland		Ammonia-N, NO3-N, Total Dissolved Solids					
State: 95695							
Attn: Till Angermann							
Project: Dairy Representative Monitoring Program							
Site: John Machado Dairy							
Samplers Name: Antonio / Oel-Tech							
Global ID - GADAIRY00015							
Reduced Constituent Suite							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Ct	Pe	Unpreserved
1	MAC-MW1s, MAG-MW1s	5/16/18	1456	6W	x		x
2	MAC-MW2s, MAG-MW2s		1511		x		x
3	MAC-MW3s, MAG-MW3s		1629		x		x
4	MAC-MW4s, MAG-MW4s		1559		x		x
5	MAC-MW5s, MAG-MW5s		1535		x		x
6	Field Duplicate				x		x
7							
8							
9							
10							
11							
12							
Comments: 1) Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity. 2) Lab reports shall identify sampled wells exactly as shown on this CoC. 3) Send lab reports to Lohdorff and Scalmanini Consulting Engineers via email: jlavagnino@lscce.com, rbvysom@lscce.com, pdhathwa@lscce.com, jlovelis@lscce.com 4) Send invoices to Jeanette Lovelis (jlovelis@lscce.com).		Requisitioned by: (Signature) At H. Mond 5/16/18 1730 Date & Time 5/16/18 1730					
Requisitioned by: (Signature) [Signature] 5/16/18 1750 Date & Time 5/16/18 1750		Received By: [Signature] 5/16/18 2200 Date & Time 5/16/18 2200					
(A)= Analysis (C)= Container (P)= Preservative							

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Submission #: 1815866 COOLER RECEIPT FORM Page 1 of 1

SHIPPING INFORMATION: Fed Ex, UPS, Ontrac, Hand Delivery, BC Lab Field Service. SHIPPING CONTAINER: Ice Chest, None, Box, Other. FREE LIQUID: YES, NO, W, S.

Refrigerant: Ice, Blue Ice, None, Other. Comments:

Custody Seals: None. Comments:

All samples received? Yes, No. All samples containers intact? Yes, No. Description(s) match COC? Yes, No.

COC Received: YES, NO. Emmissivity: 0.91. Container: PE. Thermometer ID: 208. Date/Time: 5/16 2200. Analyst Init: GSP. Temperature: (A) 0.3 °C / (C) 0.4 °C.

Table with columns for SAMPLE CONTAINERS and SAMPLE NUMBERS (1-10). Rows include various sample types like QT PE UNPRES, INORGANIC CHEMICAL METALS, etc. Handwritten 'A' marks are present in the first five columns of the first row.

Comments: Sample Numbering Completed By: GSP Date/Time: 5/16 2215 Rev 21 05/23/2016



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815866-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	John Machado	<b>Sampling Date:</b>	05/16/2018 14:56
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815866-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	John Machado	<b>Sampling Date:</b>	05/16/2018 15:11
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815866-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	John Machado	<b>Sampling Date:</b>	05/16/2018 16:29
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815866-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	John Machado	<b>Sampling Date:</b>	05/16/2018 15:59
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815866-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	John Machado	<b>Sampling Date:</b>	05/16/2018 15:35
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MAC-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815866-01	<b>Client Sample Name:</b> John Machado, MAC-MW1s, 5/16/2018 2:56:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1800	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.036	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18 23:03		EMW	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	10	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18 10:28		JMH	SC-1	1	B015111

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815866-02	<b>Client Sample Name:</b> John Machado, MAC-MW2s, 5/16/2018 3:11:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	35	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.032	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18 23:21		EMW	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	10	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18 10:29		JMH	SC-1	1	B015111

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**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815866-03	<b>Client Sample Name:</b> John Machado, MAC-MW3s, 5/16/2018 4:29:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	59	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	5200	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.046	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18 23:39		EMW	IC5	5	B014184
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	20	B014464
3	EPA-350.1	05/30/18 15:29	05/31/18 10:30		JMH	SC-1	1	B015111

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815866-04	<b>Client Sample Name:</b> John Machado, MAC-MW4s, 5/16/2018 3:59:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	18	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.12	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18	23:57	EMW	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18	12:30	CAD	MANUAL	20	B014464
3	EPA-350.1	05/30/18 15:30	05/31/18	10:33	JMH	SC-1	1	B015113

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815866-05	<b>Client Sample Name:</b> John Machado, MAC-MW5s, 5/16/2018 3:35:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	19	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3000	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.053	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/18/18 00:15		EMW	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18 12:30		CAD	MANUAL	20	B014464
3	EPA-350.1	05/30/18 15:30	05/31/18 10:38		JMH	SC-1	1	B015113

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014184</b>						
Nitrate as N	B014184-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014464</b>						
Total Dissolved Solids @ 180 C	B014464-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015111</b>						
Ammonia as N	B015111-BLK1	ND	mg/L	0.10	0.018	
<b>QC Batch ID: B015113</b>						
Ammonia as N	B015113-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014184</b>										
Nitrate as N	B014184-BS1	LCS	5.1410	5.0000	mg/L	103		90 - 110		
<b>QC Batch ID: B014464</b>										
Total Dissolved Solids @ 180 C	B014464-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B015111</b>										
Ammonia as N	B015111-BS1	LCS	1.0130	1.0000	mg/L	101		90 - 110		
<b>QC Batch ID: B015113</b>										
Ammonia as N	B015113-BS1	LCS	1.0104	1.0000	mg/L	101		90 - 110		

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**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B014184</b>		Used client sample: Y - Description: NUN-MW1s, 05/16/2018 13:48								
Nitrate as N	DUP	1815867-01	2.5480	2.4580		mg/L	3.6		10	
	MS	1815867-01	2.5480	12.667	10.101	mg/L		100		80 - 120
	MSD	1815867-01	2.5480	12.685	10.101	mg/L	0.1	100	10	80 - 120
<b>QC Batch ID: B014464</b>		Used client sample: Y - Description: COR-MW1s, 05/16/2018 11:33								
Total Dissolved Solids @ 180 C	DUP	1815865-01	2860.0	2840.0		mg/L	0.7		10	
<b>QC Batch ID: B015111</b>		Used client sample: Y - Description: TON-MW5s, 05/15/2018 18:48								
Ammonia as N	DUP	1815864-05	0.041800	0.046200		mg/L	10.0		10	J
	MS	1815864-05	0.041800	1.2088	1.1111	mg/L		105		90 - 110
	MSD	1815864-05	0.041800	1.2088	1.1111	mg/L	0	105	10	90 - 110
<b>QC Batch ID: B015113</b>		Used client sample: Y - Description: MAC-MW4s, 05/16/2018 15:59								
Ammonia as N	DUP	1815866-04	0.12370	0.12010		mg/L	3.0		10	
	MS	1815866-04	0.12370	1.3467	1.1111	mg/L		110		90 - 110
	MSD	1815866-04	0.12370	1.3144	1.1111	mg/L	2.4	107	10	90 - 110

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**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** John Machado Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Jose Nunes Dairy  
BCL Project: Dairy Representative Monitoring Program  
BCL Work Order: 1815867  
Invoice ID: B305587

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815867

Samples were filtered through a 0.45 micron filter prior to analysis.



BC Laboratories, Inc.				Chain of Custody			
4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911				Analysis Requested			
Report to: 1815867				Reduced Constituent Suite			
Name: Luthdorff and Scalimantini				Project: Dairy Representative Monitoring Program			
Address: 500 First Street				Site: Jose Nunes Dairy			
City: Woodland				Samplers Name: Antonio / Del-Tech			
State: 95695				Global ID - GADAIRY00016			
Attn: Till Angermann							
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Qt/Pc Unpreserved	From Filtered Sample:	CHK BY
1	NUN-MW1s, NUN-MW2s	5/16/18	1343	6W	x		God
2	NUN-MW2s, NUN-MW2s		1430		x		
3	NUN-MW3s, NUN-MW3s		1332		x		
4	NUN-MW4s, NUN-MW4s		1317		x		
5	NUN-MW5s, NUN-MW5s		1406		x		
6	FIBER OPTIC				x		
7							
8							
9							
10							
11							
12							

Relinquished by: (Signature)	Relinquished by: (Signature)	Relinquished by: (Signature)
<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>
Date & Time: 5/16/18 1730	Date & Time: 5/16/18 1750	Date & Time: 5/16/18 2200

Comments:

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luthdorff and Scalimantini Consulting Engineers via email: llavagnino@lscs.com, rbyson@lscs.com, pdhalwal@lscs.com, jlovelis@lscs.com
- Send invoices to: Jeanette Lovelis (jlovelis@lscs.com).

(A) = Analysis (C) = Container (P) = Preservative

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Submission #: 18-15867 Page 1 of 1

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input type="checkbox"/> (W) S
---	--	---	--	---

Refrigerant: Ice  Blue Ice  None  Other  Comments:

Custody Seals: [Seal 1] [Seal 2] None  Comments:

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received  YES  NO

Emissivity: 0.91 Container: PE Thermometer ID: 208 Date/Time: 5/16 2200

Temperature: (A) 0.3 °C / (C) 0.4 °C Analyst Init: GSP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A					
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS doz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOUR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 918/908/9080										
QT EPA 515/18150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: GSP Date/Time: 5/16 2215

A = Actual / C = Corrected

Rev 21 06/23/2016 [S:\WPDoc\WordPerfect\LAB\_DOC\FORMS\5AMRCH01]



Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815867-01	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	05/16/2018 13:48
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW1s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815867-02	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	05/16/2018 14:30
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW2s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815867-03	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	05/16/2018 13:32
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW3s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815867-04	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	05/16/2018 13:17
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW4s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater
1815867-05	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/16/2018 22:00
	<b>Project Number:</b>	Jose Nunes Dairy	<b>Sampling Date:</b>	05/16/2018 14:06
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	NUN-MW5s	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b>	Groundwater

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815867-01	<b>Client Sample Name:</b> Jose Nunes Dairy, NUN-MW1s, 5/16/2018 1:48:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.5	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4800	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.044	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18 20:04	SAV	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18 12:30	CAD	MANUAL	20	B014465
3	EPA-350.1	05/30/18 15:30	05/31/18 10:39	JMH	SC-1	1	B015113

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Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815867-02	<b>Client Sample Name:</b> Jose Nunes Dairy, NUN-MW2s, 5/16/2018 2:30:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.4	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.044	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18	21:16	SAV	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18	12:30	CAD	MANUAL	10	B014465
3	EPA-350.1	05/30/18 15:30	05/31/18	10:40	JMH	SC-1	1	B015113

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Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815867-03	<b>Client Sample Name:</b> Jose Nunes Dairy, NUN-MW3s, 5/16/2018 1:32:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	12	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	5100	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.040	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18	21:34	SAV	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18	12:30	CAD	MANUAL	20	B014465
3	EPA-350.1	05/30/18 15:30	05/31/18	10:40	JMH	SC-1	1	B015113

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Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815867-04	<b>Client Sample Name:</b> Jose Nunes Dairy, NUN-MW4s, 5/16/2018 1:17:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	1.2	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	12000	mg/L	500	500	SM-2540C	ND		2
Ammonia as N	0.36	mg/L	0.10	0.018	EPA-350.1	ND		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18 21:52	SAV	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18 12:30	CAD	MANUAL	50	B014465
3	EPA-350.1	05/30/18 15:30	05/31/18 10:42	JMH	SC-1	1	B015113

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Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815867-05	<b>Client Sample Name:</b> Jose Nunes Dairy, NUN-MW5s, 5/16/2018 2:06:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	ND	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
<b>Total Dissolved Solids @ 180 C</b>	<b>7000</b>	<b>mg/L</b>	<b>500</b>	<b>500</b>	<b>SM-2540C</b>	ND		2
Ammonia as N	0.039	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/17/18 18:00	05/17/18 22:09	SAV	IC5	2	B014184
2	SM-2540C	05/22/18 12:30	05/22/18 12:30	CAD	MANUAL	50	B014465
3	EPA-350.1	05/30/18 15:30	05/31/18 10:42	JMH	SC-1	1	B015113

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**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014184</b>						
Nitrate as N	B014184-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014465</b>						
Total Dissolved Solids @ 180 C	B014465-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015113</b>						
Ammonia as N	B015113-BLK1	ND	mg/L	0.10	0.018	

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Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
Project: Dairy Representative Monitoring Program  
Project Number: Jose Nunes Dairy  
Project Manager: Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014184</b>										
Nitrate as N	B014184-BS1	LCS	5.1410	5.0000	mg/L	103		90 - 110		
<b>QC Batch ID: B014465</b>										
Total Dissolved Solids @ 180 C	B014465-BS1	LCS	565.00	586.00	mg/L	96.4		90 - 110		
<b>QC Batch ID: B015113</b>										
Ammonia as N	B015113-BS1	LCS	1.0104	1.0000	mg/L	101		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B014184</b>		Used client sample: Y - Description: NUN-MW1s, 05/16/2018 13:48								
Nitrate as N	DUP	1815867-01	2.5480	2.4580		mg/L	3.6		10	
	MS	1815867-01	2.5480	12.667	10.101	mg/L		100		80 - 120
	MSD	1815867-01	2.5480	12.685	10.101	mg/L	0.1	100	10	80 - 120
<b>QC Batch ID: B014465</b>		Used client sample: Y - Description: NUN-MW1s, 05/16/2018 13:48								
Total Dissolved Solids @ 180 C	DUP	1815867-01	4760.0	4740.0		mg/L	0.4		10	
<b>QC Batch ID: B015113</b>		Used client sample: Y - Description: MAC-MW4s, 05/16/2018 15:59								
Ammonia as N	DUP	1815866-04	0.12370	0.12010		mg/L	3.0		10	
	MS	1815866-04	0.12370	1.3467	1.1111	mg/L		110		90 - 110
	MSD	1815866-04	0.12370	1.3144	1.1111	mg/L	2.4	107	10	90 - 110

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:29  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Jose Nunes Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Moonshine Dairy

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815691

Invoice ID: B305505

Enclosed are the results of analyses for samples received by the laboratory on 5/15/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda

Client Service Rep

Stuart Buttram

Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815691

Samples were filtered through a 0.45 micron filter prior to analysis.





COOLER RECEIPT FORM

Submission #: 1815691 Page 1 of 1

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> W / S	
Refrigerant: Ice <input checked="" type="checkbox"/> Blue Ice <input type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/> Comments: _____					
Custody Seals: <input checked="" type="checkbox"/> (Intact) <input type="checkbox"/> (Broken) <input type="checkbox"/> (None) <input type="checkbox"/> (Other) <input type="checkbox"/> (Specify) _____ None <input checked="" type="checkbox"/> Comments: _____					
All samples received? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> All samples containers intact? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Description(s) match COC? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
COC Received <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		Emissivity: <u>0.97</u> Container: <u>PS</u> Thermometer ID: <u>205</u>		Date/Time: <u>5/15/16 2200</u> Analyst Init: <u>[Signature]</u>	
Temperature: (A) <u>15</u> °C / (C) <u>1.0</u> °C					

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	B	A	B	A	B	A	B	A	B
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>6</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 505/505/5050										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 5015M										
QT EPA 3270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: 65P Date/Time: 5/15 2215  
 A = Actual / C = Corrected

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815691-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b> 05/15/2018 09:51
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MOO-MW1	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1815691-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b> 05/15/2018 12:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MOO-MW2	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1815691-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b> 05/15/2018 11:49
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MOO-MW3	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1815691-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b> 05/15/2018 10:37
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MOO-MW4	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1815691-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b> 05/15/2018 10:58
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MOO-MW5s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1815691-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b> 05/15/2018 12:23
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MOO-MW6s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		
1815691-07	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b> 05/15/2018 12:42
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	MOO-MW7s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b> Water
	<hr/>		
	<hr/>		

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500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1815691-08	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	05/15/2018 13:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	MOO-MW8d	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Water
1815691-09	<b>COC Number:</b>	---	<b>Receive Date:</b>	05/15/2018 22:00
	<b>Project Number:</b>	Moonshine Dairy	<b>Sampling Date:</b>	05/15/2018 00:00
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b>	---
	<b>Sampling Point:</b>	Field Duplicate #7	<b>Lab Matrix:</b>	Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of GDTM	<b>Sample Type:</b>	Water

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**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-01	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW1, 5/15/2018 9:51:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.3	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.11	mg/L	0.10	0.018	EPA-350.1	0.021		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18	13:26	EMW	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18	11:30	CAD	MANUAL	10	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18	15:40	JMH	SC-1	1	B015068

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**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-02	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW2, 5/15/2018 12:12:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	20	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.039	mg/L	0.10	0.018	EPA-350.1	0.021	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 14:38		EMW	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	10	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18 15:44		JMH	SC-1	1	B015068

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Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-03	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW3, 5/15/2018 11:49:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	3.6	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1400	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.036	mg/L	0.10	0.018	EPA-350.1	0.021	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 14:56		EMW	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	10	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18 15:45		JMH	SC-1	1	B015068

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Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-04	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW4, 5/15/2018 10:37:00AM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.5	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1300	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.042	mg/L	0.10	0.018	EPA-350.1	0.021	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 15:14		EMW	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	5	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18 15:45		JMH	SC-1	1	B015068

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Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-05	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW5s, 5/15/2018 10:58:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	14	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.046	mg/L	0.10	0.018	EPA-350.1	0.021	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 15:32		EMW	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	10	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18 15:47		JMH	SC-1	1	B015068

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-06	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW6s, 5/15/2018 12:23:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.94	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1200	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.047	mg/L	0.10	0.018	EPA-350.1	0.021	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 16:25		SAV	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	5	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18 15:49		JMH	SC-1	1	B015068

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Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-07	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW7s, 5/15/2018 12:42:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	32	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.049	mg/L	0.10	0.018	EPA-350.1	0.021	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 16:43		SAV	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	10	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18 15:51		JMH	SC-1	1	B015068

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**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-08	<b>Client Sample Name:</b> Moonshine Dairy, MOO-MW8d, 5/15/2018 1:07:00PM, Del-Tech/Antonio Morales
----------------------------------	---

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.050	mg/L	0.10	0.018	EPA-350.1	0.021	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18 17:01		SAV	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18 11:30		CAD	MANUAL	10	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18 15:51		JMH	SC-1	1	B015068

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815691-09	<b>Client Sample Name:</b> Moonshine Dairy, Field Duplicate #7, 5/15/2018 12:00:00AM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	2.2	mg/L	0.20	0.042	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1600	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.10	mg/L	0.10	0.018	EPA-350.1	0.021		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 12:00	05/16/18	17:19	SAV	IC5	2	B014000
2	SM-2540C	05/21/18 11:30	05/21/18	11:30	CAD	MANUAL	10	B014346
3	EPA-350.1	05/30/18 11:00	05/30/18	15:52	JMH	SC-1	1	B015068

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

#### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014000</b>						
Nitrate as N	B014000-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014346</b>						
Total Dissolved Solids @ 180 C	B014346-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015068</b>						
Ammonia as N	B015068-BLK1	0.020600	mg/L	0.10	0.018	J

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
Project: Dairy Representative Monitoring Program  
Project Number: Moonshine Dairy  
Project Manager: Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014000</b>										
Nitrate as N	B014000-BS1	LCS	4.8160	5.0000	mg/L	96.3		90 - 110		
<b>QC Batch ID: B014346</b>										
Total Dissolved Solids @ 180 C	B014346-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B015068</b>										
Ammonia as N	B015068-BS1	LCS	1.0157	1.0000	mg/L	102		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B014000</b>		Used client sample: Y - Description: MOO-MW1, 05/15/2018 09:51								
Nitrate as N	DUP	1815691-01	2.2560	2.1800		mg/L	3.4		10	
	MS	1815691-01	2.2560	12.234	10.101	mg/L		98.8		80 - 120
	MSD	1815691-01	2.2560	12.269	10.101	mg/L	0.3	99.1	10	80 - 120
<b>QC Batch ID: B014346</b>		Used client sample: Y - Description: MOO-MW1, 05/15/2018 09:51								
Total Dissolved Solids @ 180 C	DUP	1815691-01	1630.0	1580.0		mg/L	3.1		10	
<b>QC Batch ID: B015068</b>		Used client sample: Y - Description: MOO-MW1, 05/15/2018 09:51								
Ammonia as N	DUP	1815691-01	0.10740	0.095200		mg/L	12.0		10	J,A02
	MS	1815691-01	0.10740	1.2301	1.1111	mg/L		101		90 - 110
	MSD	1815691-01	0.10740	1.2684	1.1111	mg/L	3.1	104	10	90 - 110

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Moonshine Dairy  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Tony L. Lopes Dairy LP

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815690

Invoice ID: B305504

Enclosed are the results of analyses for samples received by the laboratory on 5/15/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815690

Samples were filtered through a 0.45 micron filter prior to analysis.





# Laboratories, Inc.

Environmental Testing Laboratory Since 1949

COOLER RECEIPT FORM Page 1 Of 1

Submission #: 1815690

<b>SHIPPING INFORMATION</b> Fed Ex <input type="checkbox"/> UPS <input type="checkbox"/> Ontrac <input type="checkbox"/> Hand Delivery <input type="checkbox"/> BC Lab Field Service <input checked="" type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>SHIPPING CONTAINER</b> Ice Chest <input checked="" type="checkbox"/> None <input type="checkbox"/> Box <input type="checkbox"/> Other <input type="checkbox"/> (Specify) _____		<b>FREE LIQUID</b> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> W / S	
---	--	---	--	--	--

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match CDC? Yes  No

COC Received  YES  NO Emissivity: 0.97 Container: PS Thermometer ID: 205 Date/Time: 5/15/16 2200  
 Temperature: (A) 15 °C / (C) 1.0 °C Analyst Init: [Signature]

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	<u>1</u>	<u>2</u>								
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/509/5080										
QT EPA 515.1/5150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M										
QT EPA 8270										
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_

Sample Numbering Completed By: [Signature] Date/Time: 5/15 2215 Rev 21 05/23/2016  
 A = Actual / C = Corrected [Barcode]

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information
------------	---------------------------

<b>1815690-01</b>	<b>COC Number:</b> --- <b>Project Number:</b> Tony L. Lopes Dairy LP <b>Sampling Location:</b> --- <b>Sampling Point:</b> TON-MW7s <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 16:39 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00018 Location ID (FieldPoint): TON-MW7s Matrix: W Sample QC Type (SACode): CS Cooler ID:
-------------------	--	---

<b>1815690-02</b>	<b>COC Number:</b> --- <b>Project Number:</b> Tony L. Lopes Dairy LP <b>Sampling Location:</b> --- <b>Sampling Point:</b> TON-MW8s <b>Sampled By:</b> Del-Tech/Antonio Morales of GDTM	<b>Receive Date:</b> 05/15/2018 22:00 <b>Sampling Date:</b> 05/15/2018 17:00 <b>Sample Depth:</b> --- <b>Lab Matrix:</b> Water <b>Sample Type:</b> Water Delivery Work Order: Global ID: GADAIRY00018 Location ID (FieldPoint): TON-MW8s Matrix: W Sample QC Type (SACode): CS Cooler ID:
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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815690-01	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW7s, 5/15/2018 4:39:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	0.11	mg/L	0.20	0.042	EPA-300.0	ND	J,A07	1
Total Dissolved Solids @ 180 C	880	mg/L	50	50	SM-2540C	ND		2
Ammonia as N	0.022	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 15:00	EMW	IC8	2	B014006
2	SM-2540C	05/19/18 11:30	05/19/18 11:30	CAD	MANUAL	5	B014299
3	EPA-350.1	05/30/18 10:58	05/30/18 15:35	JMH	SC-1	1	B015067

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815690-02	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW8s, 5/15/2018 5:00:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	24	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	4100	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	0.055	mg/L	0.10	0.018	EPA-350.1	0.026	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 09:00	05/16/18 16:22	SAV	IC8	5	B014006
2	SM-2540C	05/19/18 11:30	05/19/18 11:30	CAD	MANUAL	20	B014299
3	EPA-350.1	05/30/18 10:58	05/30/18 15:36	JMH	SC-1	1	B015067

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014006</b>						
Nitrate as N	B014006-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014299</b>						
Total Dissolved Solids @ 180 C	B014299-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015067</b>						
Ammonia as N	B015067-BLK1	0.026200	mg/L	0.10	0.018	J

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014006</b>										
Nitrate as N	B014006-BS1	LCS	4.8470	5.0000	mg/L	96.9		90 - 110		
<b>QC Batch ID: B014299</b>										
Total Dissolved Solids @ 180 C	B014299-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B015067</b>										
Ammonia as N	B015067-BS1	LCS	0.97380	1.0000	mg/L	97.4		90 - 110		

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	RPD	
<b>QC Batch ID: B014006</b>		Used client sample: Y - Description: TON-MW7s, 05/15/2018 16:39								
Nitrate as N	DUP	1815690-01	0.10600	0.11400		mg/L	7.3		10	J
	MS	1815690-01	0.10600	10.554	10.101	mg/L		103	80 - 120	
	MSD	1815690-01	0.10600	10.554	10.101	mg/L	0	103	10 80 - 120	
<b>QC Batch ID: B014299</b>		Used client sample: N								
Total Dissolved Solids @ 180 C	DUP	1815590-02	675.00	685.00		mg/L	1.5		10	
<b>QC Batch ID: B015067</b>		Used client sample: Y - Description: Field Duplicate, 05/15/2018 17:03								
Ammonia as N	DUP	1815688-04	0.043000	0.043000		mg/L	0		10	J
	MS	1815688-04	0.043000	1.1638	1.1111	mg/L		101	90 - 110	
	MSD	1815688-04	0.043000	1.1628	1.1111	mg/L	0.1	101	10 90 - 110	

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 10:52  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.



Date of Report: 05/31/2018

Till Angermann

Luhdorf & Scalmanini

500 First Street

Woodland, CA 95695

Client Project: Tony L. Lopes Dairy LP

BCL Project: Dairy Representative Monitoring Program

BCL Work Order: 1815864

Invoice ID: B305584

Enclosed are the results of analyses for samples received by the laboratory on 5/16/2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Contact Person: Natalie Serda  
Client Service Rep

Stuart Buttram  
Technical Director

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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## Case Narratives

### Case Narrative for Work Order 1815864

Samples were filtered through a 0.45 micron filter prior to analysis.



<b>BC Laboratories, Inc.</b> 4100 Atlas Ct. Bakersfield, CA 93308 (661) 327-4911		<b>Chain of Custody</b>				
<b>Report to:</b> 18-15864 Luhdorff and Scallamhinn (Reduced Constituent Suite)		<b>Analysis Requested</b>				
Name: Luhdorff and Scallamhinn		From Filtered Sample: Ammonia-N, NO3-N, Total Dissolved Solids				
Address: 500 First Street						
City: Woodland						
State: 95695						
Airtm: Till Angermann						
Project: Daily Representative Monitoring Program						
Site: Tony L. Lopes Dairy LP						
Samplers Name: Antonio Del-Tech						
Global ID - GADAIRY00018						
Lab #	Strike out non-sampled wells	Date Sampled	Time Sampled	Matrix	Q1 P6 Unpreserved	
1	<del>TON-MW1s, TON-MW1d</del>	5/15/18	1748	6W	x	
2	<del>TON-MW2s, TON-MW2d</del>	5/15/18	1912		x	
3	<del>TON-MW3s, TON-MW3d</del>		1827		x	
4	<del>TON-MW4s, TON-MW4d</del>		1807		x	
5	<del>TON-MW5s, TON-MW5d</del>		1847		x	
6	<del>TON-MW6s, TON-MW6d</del>		1726		x	
7	<del>TON-MW7e, TON-MW7d</del>				x	
8	<del>TON-MW8s, TON-MW8d</del>				x	
9	Field Duplicate				x	
10						
11						
12						

**Comments:**

- Where indicated, samples shall be filtered (0.45µm) in the lab to remove turbidity.
- Lab reports shall identify sampled wells exactly as shown on this CoC.
- Send lab reports to Luhdorff and Scallamhinn Consulting Engineers via email: [luvdorff@lscs.com](mailto:luvdorff@lscs.com), [kroyan@lscs.com](mailto:kroyan@lscs.com), [publittat@lscs.com](mailto:publittat@lscs.com), [jlovelis@lscs.com](mailto:jlovelis@lscs.com)
- Send invoices to: Jeanette Lovelis ([jlovelis@lscs.com](mailto:jlovelis@lscs.com)).

(C)= Container (P)= Preservative

Relinquished by: (Signature) *Antonio Del-Tech* Date & Time 5/16/18 17:30

Relinquished by: (Signature) *Antonio Del-Tech* Date & Time 5/16/18 17:56

Relinquished by: (Signature) *Antonio Del-Tech* Date & Time 5/16/18 17:56

CRIBBY DISTRIBUTION  
661

SHORT HOLDING TIME  
Cr+6 NO2 (NO3) OP SS  
DO CLS #00 MBAS COT

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1  
 Submission #: 1815864

SHIPPING INFORMATION: Fed Ex  UPS  Ontrac  Hand Delivery  BC Lab Field Service  Other  (Specify) \_\_\_\_\_  
 SHIPPING CONTAINER: Ice Chest  None  Box  Other  (Specify) \_\_\_\_\_  
 FREE LIQUID: YES  NO  (W) S

Refrigerant: Ice  Blue Ice  None  Other  Comments: \_\_\_\_\_

Custody Seals:  Containers  None  Comments: \_\_\_\_\_

All samples received? Yes  No  All samples containers intact? Yes  No  Description(s) match COC? Yes  No

COC Received:  YES  NO  
 Emissivity: 0.91 Container: PE Thermometer ID: 208 Date/Time: 5/16 2200  
 Temperature: (A) 0.3 °C / (C) 0.4 °C Analyst Init: GSP

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT PE UNPRES	A	A	A	A	A	A				
4oz / 8oz / 16oz PE UNPRES										
2oz Cr <sup>4</sup>										
QT INORGANIC CHEMICAL METALS										
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL										
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/808										
QT EPA 515.1/815										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 3015M										
QT EPA 3270										
3oz / 16oz / 32oz AMBER										
3oz / 16oz / 32oz JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments: \_\_\_\_\_  
 Sample Numbering Completed By: GSP Date/Time: 5/16 2215  
 A = Actual / C = Corrected

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Luhdorf & Scalmanini  
500 First Street  
Woodland, CA 95695

**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information		
1815864-01	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b> 05/15/2018 17:48
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TON-MW1s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815864-02	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b> 05/15/2018 19:12
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TON-MW2s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815864-03	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b> 05/15/2018 18:27
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TON-MW3s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815864-04	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b> 05/15/2018 18:07
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TON-MW4s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815864-05	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b> 05/15/2018 18:48
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TON-MW5s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater
1815864-06	<b>COC Number:</b>	---	<b>Receive Date:</b> 05/16/2018 22:00
	<b>Project Number:</b>	Tony L. Lopes Dairy LP	<b>Sampling Date:</b> 05/15/2018 17:26
	<b>Sampling Location:</b>	---	<b>Sample Depth:</b> ---
	<b>Sampling Point:</b>	TON-MW6s	<b>Lab Matrix:</b> Water
	<b>Sampled By:</b>	Del-Tech/Antonio Morales of DTO	<b>Sample Type:</b> Groundwater

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Woodland, CA 95695

**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815864-01	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW1s, 5/15/2018 5:48:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	9.0	mg/L	0.10	0.021	EPA-300.0	ND		1
Total Dissolved Solids @ 180 C	1900	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	59	mg/L	10	1.8	EPA-350.1	4.4	A07	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 23:00	05/17/18 04:37		EMW	IC8	1	B014128
2	SM-2540C	05/21/18 14:30	05/21/18 14:30		CAD	MANUAL	10	B014363
3	EPA-350.1	05/30/18 13:14	05/30/18 17:29		JMH	SC-1	100	B015097

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Woodland, CA 95695

**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815864-02	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW2s, 5/15/2018 7:12:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3100	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	1.7	mg/L	0.10	0.018	EPA-350.1	0.044		3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 23:00	05/17/18 04:57	EMW	IC8	5	B014128
2	SM-2540C	05/21/18 14:30	05/21/18 14:30	CAD	MANUAL	20	B014363
3	EPA-350.1	05/30/18 13:14	05/30/18 16:48	JMH	SC-1	1	B015097

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Woodland, CA 95695

**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815864-03	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW3s, 5/15/2018 6:27:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	7.6	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	3100	mg/L	200	200	SM-2540C	ND		2
Ammonia as N	2.0	mg/L	0.10	0.018	EPA-350.1	0.044		3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC	
			Date/Time					Batch ID	
1	EPA-300.0	05/16/18 23:00	05/17/18	05:18	EMW	IC8	5	B014128	
2	SM-2540C	05/21/18 14:30	05/21/18	14:30	CAD	MANUAL	20	B014363	
3	EPA-350.1	05/30/18 13:14	05/30/18	16:51	JMH	SC-1	1	B015097	

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**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815864-04	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW4s, 5/15/2018 6:07:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	45	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2500	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.047	mg/L	0.10	0.018	EPA-350.1	0.044	J	3

Run #	Method	Prep Date	Run		Analyst	Instrument	Dilution	QC
			Date/Time					Batch ID
1	EPA-300.0	05/16/18 23:00	05/17/18 05:38		EMW	IC8	5	B014128
2	SM-2540C	05/21/18 14:30	05/21/18 14:30		CAD	MANUAL	10	B014363
3	EPA-350.1	05/30/18 13:14	05/30/18 16:52		JMH	SC-1	1	B015097

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Woodland, CA 95695

**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815864-05	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW5s, 5/15/2018 6:48:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	65	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	2000	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.042	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 23:00	05/17/18 05:59	EMW	IC8	5	B014128
2	SM-2540C	05/21/18 14:30	05/21/18 14:30	CAD	MANUAL	10	B014363
3	EPA-350.1	05/30/18 15:29	05/31/18 10:17	JMH	SC-1	1	B015111

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**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

### Water Analysis (General Chemistry)

<b>BCL Sample ID:</b> 1815864-06	<b>Client Sample Name:</b> Tony L. Lopes Dairy LP, TON-MW6s, 5/15/2018 5:26:00PM, Del-Tech/Antonio Morales
----------------------------------	--

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Nitrate as N	17	mg/L	0.50	0.10	EPA-300.0	ND	A07	1
Total Dissolved Solids @ 180 C	1700	mg/L	100	100	SM-2540C	ND		2
Ammonia as N	0.051	mg/L	0.10	0.018	EPA-350.1	ND	J	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-300.0	05/16/18 23:00	05/17/18 06:19	EMW	IC8	5	B014128
2	SM-2540C	05/21/18 14:30	05/21/18 14:30	CAD	MANUAL	10	B014363
3	EPA-350.1	05/30/18 15:29	05/31/18 10:21	JMH	SC-1	1	B015111

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**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
<b>QC Batch ID: B014128</b>						
Nitrate as N	B014128-BLK1	ND	mg/L	0.10	0.021	
<b>QC Batch ID: B014363</b>						
Total Dissolved Solids @ 180 C	B014363-BLK1	ND	mg/L	6.7	6.7	
<b>QC Batch ID: B015097</b>						
Ammonia as N	B015097-BLK1	0.044000	mg/L	0.10	0.018	J
<b>QC Batch ID: B015111</b>						
Ammonia as N	B015111-BLK1	ND	mg/L	0.10	0.018	

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**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits		Lab
								Percent Recovery	RPD	
<b>QC Batch ID: B014128</b>										
Nitrate as N	B014128-BS1	LCS	4.9930	5.0000	mg/L	99.9		90 - 110		
<b>QC Batch ID: B014363</b>										
Total Dissolved Solids @ 180 C	B014363-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
<b>QC Batch ID: B015097</b>										
Ammonia as N	B015097-BS1	LCS	1.0185	1.0000	mg/L	102		90 - 110		
<b>QC Batch ID: B015111</b>										
Ammonia as N	B015111-BS1	LCS	1.0130	1.0000	mg/L	101		90 - 110		

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**Reported:** 05/31/2018 17:14  
**Project:** Dairy Representative Monitoring Program  
**Project Number:** Tony L. Lopes Dairy LP  
**Project Manager:** Till Angermann

## Water Analysis (General Chemistry)

### Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Control Limits		Lab Quals
								Percent Recovery	Percent Recovery	
<b>QC Batch ID: B014128</b>		Used client sample: N								
Nitrate as N	DUP	1815860-04	0.063000	0.060000		mg/L	4.9		10	J
	MS	1815860-04	0.063000	5.1091	5.0505	mg/L		99.9	80 - 120	
	MSD	1815860-04	0.063000	5.1394	5.0505	mg/L	0.6	101	10	80 - 120
<b>QC Batch ID: B014363</b>		Used client sample: Y - Description: TON-MW1s, 05/15/2018 17:48								
Total Dissolved Solids @ 180 C	DUP	1815864-01	1900.0	1930.0		mg/L	1.6		10	
<b>QC Batch ID: B015097</b>		Used client sample: N								
Ammonia as N	DUP	1815759-01	0.063500	0.032800		mg/L	63.8		10	J,A02
	MS	1815759-01	0.063500	1.1856	1.1111	mg/L		101	90 - 110	
	MSD	1815759-01	0.063500	1.1223	1.1111	mg/L	5.5	95.3	10	90 - 110
<b>QC Batch ID: B015111</b>		Used client sample: Y - Description: TON-MW5s, 05/15/2018 18:48								
Ammonia as N	DUP	1815864-05	0.041800	0.046200		mg/L	10.0		10	J
	MS	1815864-05	0.041800	1.2088	1.1111	mg/L		105	90 - 110	
	MSD	1815864-05	0.041800	1.2088	1.1111	mg/L	0	105	10	90 - 110

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**Notes And Definitions**

- J Estimated Value (CLP Flag)
- MDL Method Detection Limit
- ND Analyte Not Detected
- PQL Practical Quantitation Limit
- A02 The difference between duplicate readings is less than the quantitation limit.
- A07 Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.