RJN Environmental Services, LLC
Surface Water Studies
Groundwater Studies
Site Investigations

May 15, 2018

Ms. Laura Chern, P.G.
Wisconsin Department of Natural Resources
PO Box 7921
Madison, Wisconsin 53707-7921

RE: Groundwater Monitoring Network Documentation
Results of Groundwater Sampling
Central Sands Dairy, LLC
WPDES Permit No. WI-00063533-02-1
Town of Armenia, Juneau County, Wisconsin

Dear Ms. Chern:

Pursuant to the groundwater monitoring schedule contained in WPDES Permit WI-0063533-02-1 for the Central Sands Dairy (CSD) facility, Robert Nauta, P.G. of RJN Environmental Services, LLC (RJN) sampled the groundwater monitoring wells on April 26, 2018. Water levels were also measured in all wells. The computer failed to dock with the data loggers in January, so the units were brought back to RJN's office for re-programming, and were re-installed in February. However, the logger in CSD-7S has been malfunctioning (-1.75 feet, every hour); consequently, that logger will be repaired or replaced.

Groundwater Flow

Table 1 summarizes groundwater elevations as measured during all sampling events since the first phase of the groundwater monitoring network was installed. Figure 1 shows the water table as measured on April 26, 2018. As in all past measurements, groundwater flow remains in a northwest-to-southeast direction, with a very uniform gradient across the site. Figure 2 presents hydrographs of all wells, dating back to the construction of the initial monitoring network in October 2014. As the figure shows, water levels have been declining in all wells since the May 2017 measurement, with a drop in water levels of nearly 4 feet.

Figure 3 shows the hydrographs from CSD-1S since the data logger was re-installed in February. This hydrograph shows a decline over most of the period, with a slight increase in elevation over the final few days of logging.

4811 Monona Drive, Monona, Wisconsin 53716
Phone: 608.576.3001

Groundwater Quality

The field data sheets for the sampling event are provided in Attachment A and water quality data are presented in Tables 2 through 13. Laboratory reports for the inorganic parameters are provided in Attachment B, and reports for total coliform and E. coli are provided in Attachment C.

Quarterly monitoring of all site wells will continue in July 2018.

Sincerely,
RJN ENVIRONMENTAL SERVICES, LLC

Robert J. Nauta, P.G.
Hydrogeologist

Cc: James Wysocki – Central Sands Dairy
Cameron Field, Esq. – Michael, Best & Friedrich

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
CENTRAL SANDS DAIRY, LLC

COMMON NAME	CSD-1S		CSD-1D		CSD-2		CSD-3S		CSD-3D		CSD-4	
UNIQUE NUMBER	VY778		VY779		VU928		VU925		VU926		VU927	
TOP OF CASING[1]	963.61		963.53		961.18		963.26		963.07		963.91	
DATE	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]
Dec 14	20.19	943.42	18.68	944.85	15.94	945.24	15.16	948.10	14.99	948.08	17.20	946.71
Apr 15	21.13	942.48	21.19	942.34	16.83	944.35	16.15	947.11	15.98	947.09	18.16	945.75
Jul 15	21.06	942.55	20.98	942.55	16.77	944.41	15.78	947.48	15.56	947.51	19.10	944.81
Oct 15	20.57	943.04	20.51	943.02	16.31	944.87	15.51	947.75	15.31	947.76	17.93	945.98
Dec-15	20.56	943.05	20.47	943.06	16.01	945.17	14.99	948.27	14.77	948.30	17.22	946.69
Mar-16	20.10	943.51	20.01	943.52	15.86	945.32	15.13	948.13	14.95	948.12	17.14	946.77
Jul-16	19.71	943.90	19.60	943.93	15.40	945.78	14.22	949.04	14.01	949.06	16.56	947.35
Aug-16	19.79	943.82	19.69	943.84	15.52	945.66	14.48	948.78	14.25	948.82	16.50	947.41
Aug-16	19.69	943.92	19.60	943.93	15.45	945.73	14.20	949.06	13.99	949.08	18.02	945.89
Sep-16	17.35	946.26	17.29	946.24	13.09	948.09	11.80	951.46	11.59	951.48	14.09	949.82
Nov-16	17.55	946.06	17.46	946.07	13.29	947.89	12.35	950.91	12.13	950.94	14.40	949.51
Nov-16	17.81	945.80	17.72	945.81	13.50	947.68	12.62	950.64	12.39	950.68	14.69	949.22
Dec-16	17.88	945.73	17.96	945.57	13.60	947.58	12.74	950.52	12.53	950.54	14.80	949.11
Jan-17	18.11	945.50	18.00	945.53	13.67	947.51	12.71	950.55	12.49	950.58	14.74	949.17
Feb-17	17.76	945.85	17.67	945.86	13.41	947.77	12.27	950.99	12.08	950.99	14.50	949.41
Mar-17	17.22	946.39	17.14	946.39	12.79	948.39	11.90	951.36	11.68	951.39	14.06	949.85
Apr-17	17.23	946.38	17.15	946.38	12.74	948.44	11.90	951.36	11.69	951.38	14.02	949.89
May-17	16.51	947.10	16.44	947.09	12.08	949.10	11.19	952.07	10.97	952.10	13.37	950.54
Jun-17	16.83	946.78	16.74	946.79	12.57	948.61	11.86	951.40	11.63	951.44	14.18	949.73
Jul-17	16.99	946.62	16.92	946.61	12.70	948.48	11.73	951.53	11.52	951.55	13.85	950.06
Aug-17	17.80	945.81	17.71	945.82	13.26	947.92	12.70	950.56	12.54	950.53	15.02	948.89
Sep-17	18.67	944.94	18.58	944.95	14.58	946.60	13.96	949.30	13.73	949.34	15.51	948.40

[1] FEET, MSL
[2] DEPTH TO WATER IN FEET BELOW TOP OF CASING
[3] GROUNDWATER ELEVATION IN FEET, MSL

TABLE 1
GROUNDWATER ELEVATIONS
CENTRAL SANDS DAIRY, LLC

COMMON NAME	CSD-1S		CSD-1D		CSD-2		CSD-3S		CSD-3D		CSD-4	
UNIQUE NUMBER	VY778		VY779		VU928		VU925		VU926		VU927	
TOP OF CASING[1]	963.61		963.53		961.18		963.26		963.07		963.91	
DATE	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]
Oct-17	18.43	945.18	18.32	945.21	14.30	946.88	13.50	949.76	13.28	949.79	16.22	947.69
Oct-17	18.31	945.30	18.20	945.33	14.12	947.06	13.41	949.85	13.18	949.89	15.33	948.58
Jan-18	19.37	944.24	19.26	944.27	15.26	945.92	14.70	948.56	14.49	948.58	16.57	947.34
Apr-18	20.23	943.38	20.17	943.36	15.75	945.43	14.95	948.31	14.72	948.35	17.05	946.86

[1] FEET, MSL

[2] DEPTH TO WATER IN FEET BELOW TOP OF CASING

[3] GROUNDWATER ELEVATION IN FEET, MSL

TABLE 1
GROUNDWATER ELEVATIONS
CENTRAL SANDS DAIRY, LLC

COMMON NAME	CSD-5		CSD-6		CSD-7S		CSD-7D		CSD-8		CSD-9	
UNIQUE NUMBER	VY742		VY715		VY713		VY979		VY744		VY811	
TOP OF CASING[1]	962.72		964.57		963.21		964.38		965.02		961.73	
DATE	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]	DTW[2]	GWE[3]
Aug-16	18.62	944.10	19.56	945.01	17.65	945.56			18.47	946.55		
Aug-16	18.53	944.19	19.50	945.07	17.64	945.57			18.55	946.47		
Sep-16	16.21	946.51	17.20	947.37	15.40	947.81			16.15	948.87		
Nov-16	16.36	946.36	17.36	947.21	15.49	947.72			16.35	948.67	15.20	946.53
Nov-16	16.65	946.07	17.59	946.98	15.75	947.46			16.63	948.39	15.35	946.38
Dec-16	16.71	946.01	17.77	946.80	15.84	947.37			16.77	948.25	15.61	946.12
Jan-17	16.86	945.86	17.90	946.67	15.95	947.26			16.74	948.28	15.72	946.01
Feb-17	16.50	946.22	17.67	946.90	15.76	947.45			16.56	948.46	15.46	946.27
Mar-17	16.02	946.70	17.08	947.49	15.19	948.02			16.05	948.97	14.94	946.79
Apr-17	16.04	946.68	17.10	947.47	15.13	948.08			16.01	949.01	14.95	946.78
May-17	15.30	947.42	16.38	948.19	14.44	948.77			15.36	949.66	14.24	947.49
Jun-17	15.65	947.07	16.70	947.87	14.85	948.36			15.89	949.13	14.55	947.18
Jul-17	15.78	946.94	16.87	947.70	14.95	948.26			15.84	949.18	14.70	947.03
Aug-17	16.55	946.17	17.67	946.90	15.53	947.68			16.74	948.28	15.52	946.21
Sep-17	17.52	945.20	18.56	946.01	16.75	946.46			17.72	947.30	16.41	945.32
Oct-17	17.27	945.45	18.31	946.26	16.50	946.71			17.44	947.58	16.15	945.58
Oct-17	16.96	945.76	18.17	946.40	16.34	946.87			17.28	947.74	15.71	946.02
Jan-18	18.20	944.52	19.25	945.32	17.41	945.80	18.60	945.78	18.38	946.64	17.11	944.62
Apr-18	18.99	943.73	20.10	944.47	18.20	945.01	19.42	944.96	19.10	945.92	17.97	943.76

[1] FEET, MSL

[2] DEPTH TO WATER IN FEET BELOW TOP OF CASING

[3] GROUNDWATER ELEVATION IN FEET, MSL

TABLE 2
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-1S

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Dec 14	16.8	16.9	**16.1**	3.01	4	192	*2.77*	3.5	**P**	A
Apr 15	18.4	21.1	**14.0**	2.61	2.11	210	*2.63*	<8.5	**P**	A
Jul 15	21	19	**24**	2.3	2.0	300	*2.6*	10	<1	<1
Oct 15	26	19	**22**	3.2	1.8	350	*3.3 B*	9.4 J	2	<1
Mar-16	26		**16**	1.6			*1.1 B*		1	<1
Jul-16	28		**18**	0.86 B			0.55 B		<1	<1
Aug-16	27	19	**17**	1.5 B	1.5	250	*1.3*	<6.1	<1	<1
Sep-16	24	16	**13**	1.9 BF1	3.3	200	*1.7*	9.0 J	<1	<1
Oct-16	21	13	**11**	2.0 B	1.5	280	*1.7*	<6.1	**3**	<1
Nov-16	22	16 B	**12**	2.8 B	1.5	160	*2.5*	<6.1	<1	<1
Dec-16	22	19 B	**16**	3.3 B	1.5	160	*3.1*	<6.1	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
F2 Exceedance of QA/QC control limit.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
P: Present
A: Absent
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 2
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-1S

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Jan-17	21	20 B	**16**	3.8 B F1 F2	2.2	220	*3.8*	7.2 J	<1	<1
Feb-17	19	14 B	**12**	2.7	2.2	130	*2.4*	14	<1	<1
Mar-17	18	16 B	**15**	1.8	2.0	140	*2.1*	8.0 J	<1	<1
Apr-17	15	13	**14**	1.7 B	1.8	170	*1.6*	8.2 J	<1	<1
May-17	17	20	**19**	2.0	1.5	230	*1.9*	8.3 J	<1	<1
Jun-17	17	21	**17**	2.0	2.2	220	*2.1 B*	8.1 J	**1**	<1
Oct-17	18	14	**13**	2.1	1.9	220	*2.2*	<6.0	<1	<1
Jan-18	27	16	**13**	1.3	1.2	190	0.87	8.8 J	**8**	<1
Apr-18	34	27	**27**	1.6	2.0	410	*1.3 B*	11	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
F2 Exceedance of QA/QC control limit.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 3
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-1D

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Dec 14	20.0	28.1	**14.9**	6.9	5	290	*6.44*	7.2	**P**	A
Apr 15	26.1	38.8	**11.9**	5.77	3.16	324	*5.77*	<8.5	**P**	A
Jul 15	33.0	42	**20**	6.5	3.2	480	*6.7*	9.8 J	**11**	<1
Oct 15	35.0	35	**21**	7.6	2.2	430	*9.5 B*	16	**6**	<1
Mar-16	29		**15**	6.1			*6.5 B*		**38**	<1
Jul-16	23		**21** B	4.2 B			*4.7 B*		**140**	<1
Aug-16	29	39	**19**	4.4 B	2.7	430	*5.6*	9.6 J	**55**	<1
Sep-16	26	38 B	**22**	3.0 B	3.4	450	*3.3*	12	**12**	<1
Oct-16	24	37	**24**	2.8 B	2.6	500	*2.2*	<6.1	**921**	<1
Nov-16	24	43 B	**25**	2.3 B	2.5	420	*1.8*	7.2 J	**11**	<1
Dec-16	28	41 B	**24**	2.3 B	2.2	350	*1.8*	7.8 J	**5**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 3
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-1D

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Jan-17	27	39 B	**24**	2.8 B	2.7	390	*2.5*	11	**7**	<1
Feb-17	27	39 F1 B	**24**	3.8	2.8	38	3.2	8.9 J	**1**	<1
Mar-17	29	38 B	**24**	4.6	2.7	330	5.7 B	<6.1	**3**	<1
Apr-17	39	42	**31**	9.3 B	2.3	410	**10**	9.1 J	**2**	<1
May-17	38	41	**38**	14	2.9	530	**16**	7.8 J	**31**	<1
Jun-17	38	40	**35**	10	3.2	510	**17 B**	11	**14**	<1
Oct-17	27	28	**19**	11	1.7	320	**13**	<6.0	**140**	<1
Jan-18	31	28	**19**	9.8	1.3	260	**10**	<6.0	**1**	<1
Apr-18	34	30	**24**	9.3	1.6	400	*9.4 B*	6.2 J	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 4
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-2

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Dec 14	9.4	8.6	**10.8**	0.27	4	158	0.03	5.8	**P**	A
Apr 15	9.38	6.11	*8.5*	0.212	2.31	132	<0.015	<8.5	**P**	A
Jul 15	8.4	7.0	*9.6*	0.54	2.0	130	<0.043	<6.1	<1	<1
Oct 15	8.9	5.4	**11**	0.76	1.5	180	0.057 JB	14	**1**	<1
Mar-16	7.1		*8.7*	0.54			0.12 JB		**9**	<1
Jul-16	7.4		*8.0*	0.48 B			0.16 JB		**6**	<1
Aug-16	7.6	7.7	*7.8*	0.53 B	1.4	160	<0.10	<6.1	**26**	<1
Sep-16	7.4	4.4	*4.1*	0.54 B	2.4	130	<0.10	15	**328**	<1
Oct-16	9.5	7.4	*9.4*	0.56 B	1.6	220	<0.10	<6.1	**39**	<1
Nov-16	9.6	9.3 B	**11**	0.62 B	1.6	140	<0.10	7.7 J	**2**	<1
Dec-16	9.5	8.2 B	*9.3*	0.51 B	1.6	98	<0.10	<6.1	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
P: Present
A: Absent
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 4
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-2

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Jan-17	8.9	7.3 B	*8.2*	0.53 B	1.7	100	0.12 J	12	**6**	**1**
Feb-17	7.7	6.9 B	*4.9*	0.35 J	2.1	64	<0.10	9.4 J	**579**	**1**
Mar-17	9.5	7.4 B	*7.5*	0.36 J	1.7	56	0.18 JB	7.0 J	<1	<1
Apr-17	8.3	7.4	*6.5*	0.72 B	1.6	120	0.12 J	15	**36**	<1
May-17	7.4	6.5	*4.6*	0.66	1.5	110	0.12 J	<6.0	<1	<1
Jun-17	7	5.4	*3.3*	0.41	1.6	74	<0.10	<6.0	<1	<1
Oct-17	7.8	3.8	*4.7*	0.31 J	1.1	110	<0.10	<6.0	**96**	<1
Jan-18	7.5	4.9	*4.0*	0.35 J	1.2	78	<0.10	7.7 J	<1	<1
Apr-18	5.9	2.6	*3.5*	0.40	1.7	58	0.14 J	9.8 J	<1	<1

(1): Presence indicates exceedance

F, J: Result between levels of detection and quantification

F1: MS and/or MSD recovery is outside acceptable limits.

B: Found in blank and sample.

PAL: Preventive action limit

ES: Enforcement standard

NS: No standards established

Itallics indicate PAL exceedance

Bold indicates ES exceedance

TABLE 5
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-3S

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Dec 14	7.1	35.2	**18.8**	0.21	3	216	0.02	6.1	**P**	A
Apr 15	5.06	63.5	**17.2**	0.222 F	1.79	306	<0.0150	<8.5	**P**	A
Jul 15	5.8	48	**24**	0.50	1.6	480	<0.043	11	**5**	**4**
Oct 15	6.7	34	**22**	0.71	1.5	360	0.05 JB	9.4 J	**2**	<1
Mar-16	5.8		**29**	0.62			0.12 JB		**12**	<1
Jul-16	5.7		**34 B**	0.61 B			0.089 JB		**33**	<1
Aug-16	5.6	26	**37**	0.83 B	1.9	410	<0.10	10	**5**	<1
Sep-16	7.0	17	**34**	0.88 B	2.1	350	<0.10	10	**1**	<1
Oct-16	9.4	16	**38**	0.41 B	1.9	470	<0.10	<6.1	**260**	<1
Nov-16	5.3	17 B	**35**	0.78 B	1.7	280	<0.10	7.2 J	<1	<1
Dec-16	6.1	19 B	**35**	0.56 B	1.7 B	220	0.11 J	<6.1	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
P: Present
A: Absent
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 5
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-3S

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Jan-17	5.9	17 B	**30**	1.0 B	1.7	270	0.28	8.3 J	**1**	<1
Feb-17	6.1	18 B	**26**	0.88	2.1	210	<0.10	8.4 J	**116**	<1
Mar-17	6.5	38 B	**24**	0.58	1.6	230	0.19 JB	8.0 J	<1	<1
Apr-17	6.2	35	**23**	1.0 B	1.6	270	<0.10	11	<1	<1
May-17	6.1	33	**17**	0.69	1.5	260	<0.10	10	<1	<1
Jun-17	5.3	33	**14**	0.55	1.6	200	<0.10	9.6 J	<1	<1
Oct-17	6.4	14	**18**	0.43	1.4	260	<0.10	<6.0	**1046**	<1
Jan-18	6.6	15	**19**	0.62	1.4	200	<0.10	8.3 J	**3**	<1
Apr-18	6	20	**15**	0.79	1.6	290	<0.10	<6.0	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 6
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-3D

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Dec 14	0.7	1.9	0.3	0.11	2	112	0.02	6.1	**P**	**P**
Apr 15	1.28	6.37	1.25	<0.110	1.03	136	0.0157 F	22.9 F	**P**	**P**
Jul 15	0.88	5.1	*2.3*	<0.29	0.65J	74	0.076 J	8.0 J	**210**	<1
Oct 15	0.54	5.2	1.7	0.57	0.33 J	150	0.056 JB	<6.1	**11**	<1
Mar-16	1.1		*9.1*	0.47			0.13 JB		**38**	<1
Jul-16	1.0		*8.4*	0.42 B			0.071 JB		**82**	<1
Aug-16	1.4	9.2	**19**	0.54 B	0.39 J	260	0.51	<6.1	**60**	<1
Sep-16	0.95	4.1 B	*6.1*	0.45 B	0.58 J	100	<0.10	8.5 J	**51**	<1
Oct-16	0.95	4.5	*7.7*	0.48 B	0.41 J	180	<0.10	<6.1	**50**	<1
Nov-16	7.2	5.7 B	*10*	0.38 JB	0.43 J	98	0.11 J	8.2 J	<1	<1
Dec-16	1.3	9.2 B	**17**	0.44 B	0.51 JB	110	<0.10	8.8 J	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
P: Present
A: Absent
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 6
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-3D

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Jan-17	1.4	8.8 B	**18**	0.53 B	0.32 J	180	0.17 J	<6.1	**248**	<1
Feb-17	1.5	10 B	**20**	0.60	0.53 J	150	<0.10	<6.1	<1	<1
Mar-17	1.6	10 B	**18**	0.36 J	0.53 J	120	0.19 J	<6.1	<1	<1
Apr-17	1.3	6.7	**12**	0.48 B	<0.47	130	<0.10	<6.0	<1	<1
May-17	1.1	5.1	*9.7*	0.66	0.48 J	120	<0.10	12	**19**	<1
Jun-17	1.2	7.5	**11**	0.53	<0.47	110	<0.10	<6.0	<1	<1
Oct-17	1.5	15	**19**	0.69	<0.47	230	<0.10	6.3 J	**1203**	<1
Jan-18	1.4	13	**13**	0.47	<0.47	140	<0.10	<6.0	**10**	<1
Apr-18	1.5	20	**15**	0.66	0.60 J	280	<0.10	<6.0	**1**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 7
GROUNDWATER QUALITY
CENTRAL SAND DAIRY, LLC
CSD-4

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Dec 14	31.1	50.4	**62.5**	0.63	6	628	0.01	12.4	**P**	A
	31.1	50.8	**60.0**	0.63	6	640	0.01	12.1	**P**	A
Apr 15	44.0	58.1	**69.5**	0.505	4.67	770	<0.0150	9.27 F	**P**	A
	44.1	58.0	**69.3**	0.132 F	4.55	704	<0.0150	9.98 F	**P**	A
Jul 15	44	52	**77**	1.2	4.0	790	<0.043	13	<1	<1
	46	51.0	**77**	1.1	4.0	830	<0.043	14	<1	<1
Oct 15	36	24	**38**	1.0	2.8	450	0.072	15	3	<1
	35	25	**36**	0.62	2.8	500	0.062 JB	15	1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
P: Present
A: Absent
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 7
GROUNDWATER QUALITY
CENTRAL SAND DAIRY, LLC
CSD-4

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Mar-16	40		**54**	1.1			0.15 JB		**24**	<1
	41		**46**	1.3			0.14 JB		**19**	<1
Jul-16	34		**48**	0.79 B			0.045 JB		**2**	<1
	33		**49 B**	0.74 B			0.045 JB		**5**	<1
Aug-16	23	17	**29**	0.87 B	2.1	380	<0.10	6.6 J	**14**	<1
	22	17	**27**	0.71 B	2.1	440	0.10 J	11	**9**	<1
Sep-16	34	43	**58**	1.3 B	3.1	670	<0.10	13	**5**	<1
	34	43 B	**53**	1.4 B	3.1	660	<0.10	14	**3**	<1
Oct-16	35	49	**58**	1.2 B	3.6	780	<0.10	12	**99**	<1
	31	49	**56**	0.86 B	3.6	820	0.12 J	6.7 J	**102**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 7
GROUNDWATER QUALITY
CENTRAL SAND DAIRY, LLC
CSD-4

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Nov-16	37	60 B	**70**	0.77 B	3.6	710	<0.10	7.7 J	**1**	<1
	43	52 B	**67**	0.95 B	3.6	680	0.11 J	11	**1**	<1
Dec-16	41	60 B	**75**	1.5 B	3.9 B	680	<0.10	19	<1	<1
	40	58 B	**69**	0.78 B	4.1 B	670	<0.10	11	<1	<1
Jan-17	37	44 B	**56**	0.99 B	4.0	720	0.14 J	13	<1	<1
	37	46 B	**58**	0.66 B	4.0	660	<0.10	14	<1	<1
Feb-17	40	48 B	**54**	0.71	4.1	570	<0.10	15	<1	<1
	39	47 B	**52**	0.86 F1 F2	4.2	590	<0.10	13	<1	<1
Mar-17	38	40 B	**40**	0.87	3.8	530	0.16 JB	13	<1	<1
	39	41 B	**42**	1.0	3.8	530	0.19 JB	14	<1	<1
Apr-17	35	36	**35**	0.96 B	3.1	470	0.13 J	17	<1	<1
	32	37	**38**	0.99 B	3.1	500	<0.10	17	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 7
GROUNDWATER QUALITY
CENTRAL SAND DAIRY, LLC
CSD-4

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
May-17	38	37	**38**	0.99	4.3	630	0.12 J	12	<1	<1
	39	36	**27**	0.96	4.3	620	0.11 J	11	**3**	<1
Jun-17	36	35	**44**	0.59	4.4	630	<0.10	15	**6**	<1
	36	36	**43**	1.1	4.3	610	<0.10	13	**5**	<1
Oct-17	35	43	**42**	1.1	2.9	620	<0.10	9.4 J	**1553**	<1
	35	39	**37**	1.1	2.9	630	<0.10	6.8 J	**1203**	<1
Jan-18	40	46	**36**	0.70	3.2	510	<0.10	11	**1**	<1
	38	44	**36**	1.0	3.2	530	<0.10	6.7 J	**2**	<1
Apr-18	34	32	**28**	1.2	3.2	510	0.16 JB	12	<1	<1
	34	31	**31**	0.83	3.2	590	0.11 JB	16	<1	<1

(1): Presence indicates exceedance

F, J: Result between levels of detection and quantification

F1: MS and/or MSD recovery is outside acceptable limits.

B: Found in blank and sample.

PAL: Preventive action limit

ES: Enforcement standard

NS: No standards established

Itallics indicate PAL exceedance

Bold indicates ES exceedance

TABLE 8
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-5

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Aug-16	24	54	**12**	3.1 B	1.8	280	*3.3*	15	**1986**	<1
Sep-16	37	43	*4.0*	3.6 B	2.6	200	*3.8*	12	**1414**	<1
Oct-16	24	37	*4.3*	2.7 B	2.3	290	*2.4*	<6.1	**155**	<1
Nov-16	27	50 B	*5.3*	1.9 B	2.3	230	*1.6*	12	**7**	<1
Dec-16	19	44 B	*3.3*	1.1 B	2.1 B	240	0.76	6.2 J	**4**	<1
Jan-17	13	19 B	1.8	0.69 B	1.6	140	0.43	9.8 J	**9**	<1
Feb-17	11	9.3 B	0.77	0.32 J	1.5	50	0.22	<6.1	**2**	<1
Mar-17	9.2	9.6 B	0.86	0.30 J	1.3	8.0 J	0.31 B	12	**2**	<1
Apr-17	10	15	0.91	0.53 B	1.5	100	0.18 J	11	**1**	<1
May-17	13	28	*2.4*	0.97	8.6	430	0.54	28	<1	<1
Jun-17	9.5	43	*2.8*	0.64	3.0	170	0.26	13	**1**	<1
Jul-17	11	46	*3.8*	0.98 F1	3.2	230	0.62	11	<1	<1
Oct-17	27	19	*2.8*	4.4	4.9	200	*4.1*	9.9 J	<1	<1
Jan-18	39	19	0.24	8.6	7.7	200	**11**	26	**3**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 8
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-5

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Apr-18	33	10	0.76	8.7	5.8	210	**11 B**	18	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 9
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-6

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Aug-16	110	40	**58**	0.96 B	5.2	790	<0.10	18	**>2420**	<1
Sep-16	100	33	**47**	1.2 B	4.3	620	<0.10	15	**488**	<1
Oct-16	100	47	**50**	1.0 B	4.8	730	<0.10	12	**67**	<1
Nov-16	84	33 B	**55**	0.72 B	3.8	510	<0.10	8.7 J	**22**	<1
Dec-16	71	27 B	**38**	0.93 B	4.6 B	430	<0.10	27	**28**	<1
Jan-17	72	22 B	**38**	1.1 B	3.2	460	<0.10	13	**27**	<1
Feb-17	69	40 B	**33**	0.47	4.0	560	<0.10	13	**1**	<1
Mar-17	73	33 B	**37**	0.58	3.5	360	0.19 JB	15	**6**	<1
Apr-17	73	37	**41**	1.1 B	3.0	510	<0.10	15	<1	<1
May-17	73	25	**37**	1.0	3.9	510	<0.10	10	**39**	<1
Jun-17	89	43	**48**	0.80	5.0	630	<0.10	15	**1**	<1
Jul-17	78	36	**42**	0.61	4.1	630	<0.10	17	**1**	**1**
Oct-17	100	31	*8.4*	0.97	4.0	650	<0.10	14	**214**	<1
Jan-18	72	19	**26**	0.91	3.4	430	<0.10	11	**29**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 9
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-6

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Apr-18	64	25	**34**	1.5	3.3	490	<0.10	10	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 10
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-7S

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Aug-16	65	28	**43**	1.8 B	14	540	0.22	33	**>2420**	<1
Sep-16	68	23	**39**	1.5 B	10	500	0.18 J	26	**>2420**	<1
Oct-16	80	32	**50**	1.6 B	8.7	670	0.32	22	**548**	**4**
Nov-16	85	31 B	**54**	1.7 B	10	590	0.59	29	**>2420**	**7**
Dec-16	88	61 B	**31**	9.7 B	180 B	720	0.86	520	**>2420**	**205**
Jan-17	71	48 B	**48**	2.1 B	13	610	0.49 B	40	**>2420**	**2**
Feb-17	76	24 B	**48**	1.4 B	11	360	0.22	32	**>2420**	<1
Mar-17	72	50 B	**44**	0.82	6	500	0.36 B	21	**921**	**12**
Apr-17	91	47	**59**	1.7 B	9.6	730	0.28	34	**308**	**1**
May-17	73	44	**58**	2.2	10.0	740	0.22	27	**172**	<1
Jun-17	59	61	**38**	1.0	5.9	570	0.39	17	**35**	<1
Jul-17	60	57	**43**	1.3	5.6	710	0.31	20	**131**	<1
Oct-17	88	62	**88**	2.6	22	1100	0.20	66	**1733**	**8**
Jan-18	52	42	**45**	1.3	2.7	460	0.46	8.8 J	**111**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 10
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-7S

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Apr-18	110	63	**20**	14	94	850	*6.8 B*	330	**>2419.6**	**>2419.6**

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 11
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-7D

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Jan-18	21	37	**39**	0.90	1.4	480	0.46	<6.0	**36**	<1
Apr-18	20	40	**56**	1.7	1.9	730	0.84 B	14	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 12
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-8

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Aug-16	42	23	**36**	0.85 B	4.1	620	<0.10	11	**921**	<1
Sep-16	51	22	**42**	0.83 BF1	3.8	580	<0.10	11	**25**	<1
Oct-16	63	31	**64**	0.78 B	5.2	850	0.11 J	10	**88**	<1
Nov-16	65	36 B	**48**	0.87 B	5.5	690	0.10 J	17	**1**	<1
Dec-16	63	43 B	**57**	1.5 B	4.9 B	560	<0.10	14	**1**	<1
Jan-17	65	39 B	**55**	1.3 B	6.0	760	0.23 B	22	**1**	<1
Feb-17	64	38 B	**45**	0.86 B	6.1	680	0.10 J	18	**4**	<1
Mar-17	64	40 B	**53**	0.72	5.5	590	<0.10	21	<1	<1
Apr-17	53	35	**48**	1.0 B	4.4	670	0.10 J	19	<1	<1
May-17	47	35	**40**	1.1	4.4	640	<0.10	9.1 J	<1	<1
Jun-17	44	29	**36**	0.84	4.3	550	<0.10	11	<1	<1
Jul-17	42	33	**36**	1.2	4.1	580	<0.10	14	**9**	<1
Oct-17	56	39	**39**	0.90	4.2	630	<0.10	9.4 J	**488**	<1
Jan-18	52	40	**31**	0.65	3.7	490	<0.10	16	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 12
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-8

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Apr-18	37	25	**27**	1.1	3.6	520	0.22 B	14	**4**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 13
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-9

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
Oct-16	24	6.8	*8.1*	0.58 B	4.1	260	0.10 J	8.2 J	**980**	<1
	25	7.0	*8.3*	0.68 B	4.1	240	<0.10	6.7 J	**613**	<1
Nov-16	28	12	**16**	0.73 B	3.5	200	<0.10	15	**>2420**	<1
	29	12	**14**	0.82 B	3.5	180	0.12 J	13	**>2420**	<1
Dec-16	22	7.9 B	*10*	0.50 B	2.7 B	110	<0.10	9.3 J	**81**	<1
	21	8.3 B	*9.9*	0.51 B	2.6 B	100	<0.10	8.3 J	**61**	<1
Jan-17	17	6.5 B	*8.1*	0.67 B	2.9	150	0.24 B	11	**12**	<1
	17	6.2 B	*6.2*	0.61 B	2.9	140	0.24 B	22	**20**	<1
Feb-17	15	6.0 B	*7.7*	0.66 B	2.4	78	<0.10	17	**6**	<1
	13	5.9 B	*7.3*	0.55 B	2.4	84	<0.10	8.9 J	**2**	<1
Mar-17	19	6.8 B	*9.1*	0.48	2.4	78	<0.10	10	**4**	<1
	18	7.3 B	*8.8*	0.50	2.4	70	<0.10	11	**5**	<1
Apr-17	21	6.3 F1	**14**	0.58	2.5	210	0.13 J	15	**20**	<1
	21	5.7	**14**	0.60	2.3	210	0.12 J	14	**10**	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

TABLE 13
GROUNDWATER QUALITY
CENTRAL SANDS DAIRY, LLC
CSD-9

	Potassium mg/L	Chloride mg/L	Nitrogen, NO_2+NO_3 mg/L	Total Kjeldahl nitrogen mg/L	Total organic carbon mg/L	Total dissolved solids mg/L	Ammonia (N) mg/L	Chemical oxygen demand mg/L	Total coliform bacteria	E. Coli
PAL	NS	125	2	NS	NS	NS	0.97	NS	(1)	(1)
ES	NS	250	10	NS	NS	NS	9.7	NS	(1)	(1)
May-17	21	7.9	*6.0*	0.58	3.0	180	<0.10	10	**5**	<1
	22	7.5	*6.4*	0.47	2.9	170	<0.10	8.6 J	**6**	<1
Jun-17	25	8.3	*8.3*	0.66	3.4	170	<0.10	12	**1733**	**4**
	27	8.5	*8.7*	0.57	3.4	150	<0.10	8.2 J	**1733**	**4**
Jul-17	27	9.7	*3.3*	0.51	4.1	440	<0.10	14	**5**	<1
	29	10.0	*3.2*	0.47	4.2	130	<0.10	14	**8**	<1
Aug-17	26	8.4	**17**	0.52	2.9	220	<0.10	11	**96**	<1
Sep-17	19	9.9	*7.8*	0.68	1.9	130	<0.10	8.6 J	**>2419.6**	<1
Oct-17	19	8.2	*5.0*	0.58	3.2	140	<0.10	8.4 J	**548**	<1
	20	8.3	*5.7*	0.62	3.2	130	<0.10	11	**866**	<1
Jan-18	16	4.0	**15**	0.50	1.3	140	<0.10	12	<1	<1
	16	4.1	**16**	0.73	1.3	150	<0.10	8.8 J	<1	<1
Apr-18	13	4.6	**14**	0.84	1.5	180	0.11 JB	6.2 J	<1	<1
	12	4.7	**14**	0.88	1.5	160	0.13 JB	<6.0	<1	<1

(1): Presence indicates exceedance
F, J: Result between levels of detection and quantification
F1: MS and/or MSD recovery is outside acceptable limits.
B: Found in blank and sample.
PAL: Preventive action limit
ES: Enforcement standard
NS: No standards established
Itallics indicate PAL exceedance
Bold indicates ES exceedance

FIGURES

WATER TABLE MONITORING WELL

946 GROUNDWATER ELEVATION (FT, MSL)

AERIAL PHOTO: GOOGLE MAPS

SCALE IN FEET

0 100 200 300 400

NORTH

RJN Environmental Services, LLC

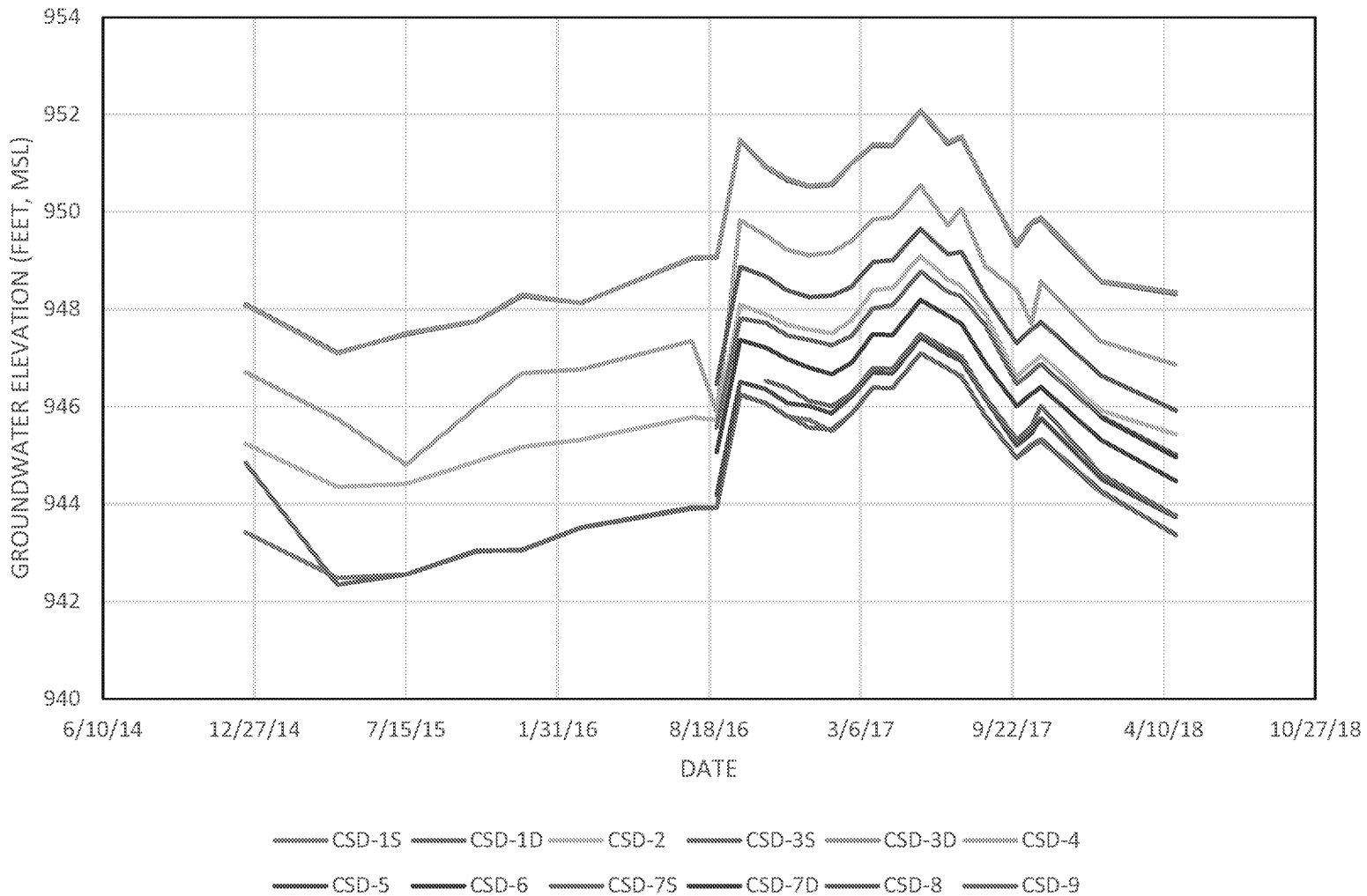
Surface Water Studies
Groundwater Studies
Site Investigations

4811 MONONA DRIVE, MONONA, WISCONSIN 53716

CENTRAL SANDS DAIRY, LLC
TOWN OF ARMENIA, WISCONSIN
WATER TABLE - 04/26/18

FIGURE 1

DRAWN BY	PROJ. No.	DATE	FILE
RN	14-203	13 MAY 18	WTR TBL 042618



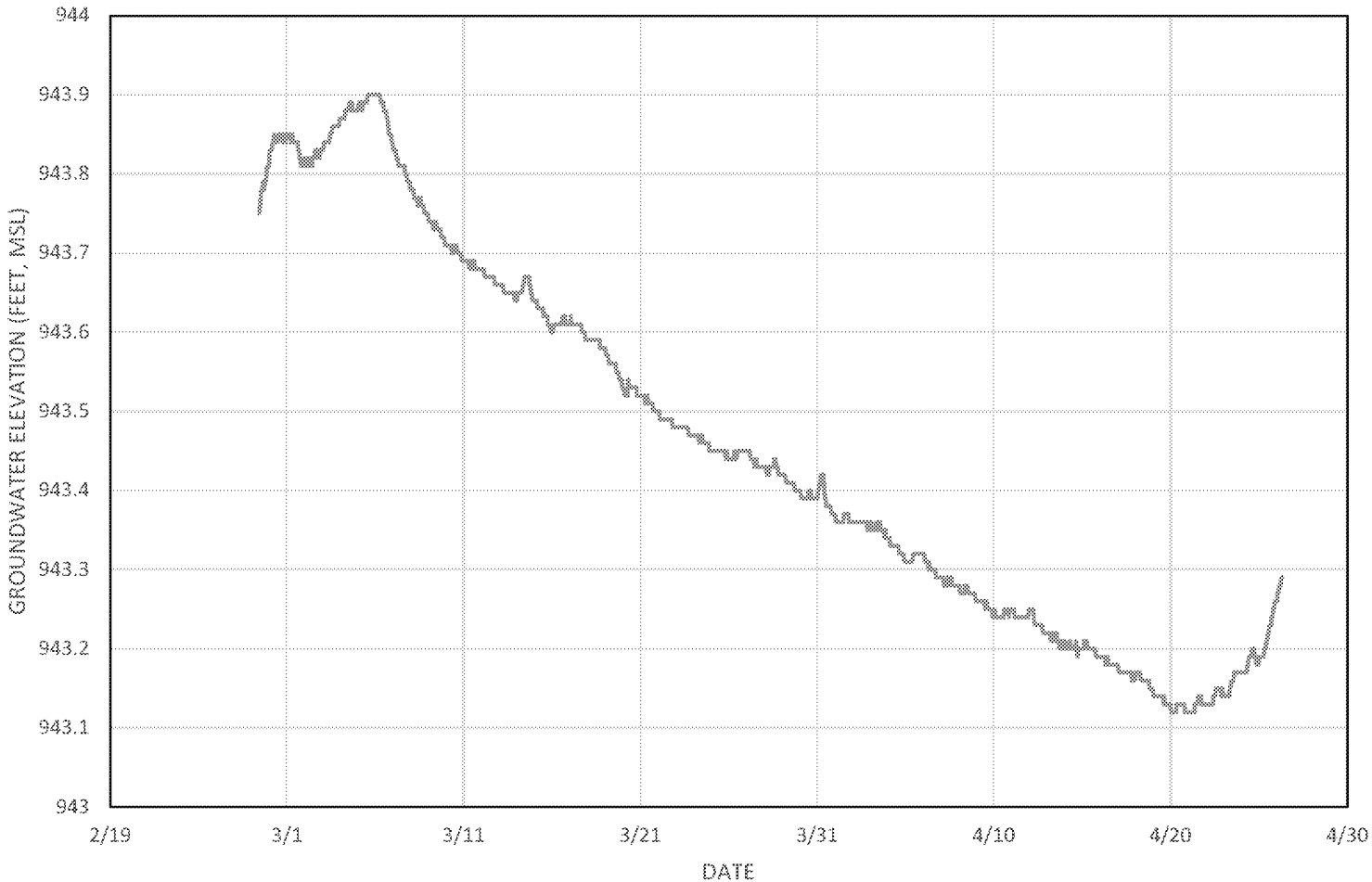
NOTE: WATER LEVELS IN WELLS CSD-3S AND CSD-3D ARE VIRTUALLY IDENTICAL, SO THEY APPEAR AS A SINGLE LINE.

RJN Environmental Services, LLC
Surface Water Studies
Groundwater Studies
Site Investigations
4811 MONONA DRIVE, MONONA, WISCONSIN 53716

CENTRAL SANDS DAIRY, LLC
TOWN OF ARMENIA, WISCONSIN
HYDROGRAPHS

FIGURE 2

DRAWN BY	PROJ. No.	DATE	FILE
RN	14-203	13 MAY 18	HYDROGRAPH



RJN Environmental Services, LLC
Surface Water Studies
Groundwater Studies
Site Investigations
4811 MONONA DRIVE, MONONA, WISCONSIN 53716

CENTRAL SANDS DAIRY, LLC
TOWN OF ARMENIA, WISCONSIN
HOURLY RECORDINGS OF WATER LEVELS
CSD-1S

FIGURE 3

DRAWN BY	PROJ. No.	DATE	FILE
RN	14-203	13 MAY 18	LOGGERS

ATTACHMENT A

FIELD NOTES

RJN Environmental Services, LLC

Well number:	CSD-1S VY778

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	4/24/18
Project No.:	14-203	Time start:	1415
Site Location:	Juneau County, WI	Finish:	1435
Wether conditions:	10/14/14		

Water Level Data: Well: X Piez: _____

Total Depth: 28.32 Diameter: 2" Water column: 8.09

Depth to water: 20.23 Well volume: 1.29 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 3.9 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
1.5	10.78	6.19	0.492
5.0	10.59	6.10	0.505
9.5	10.47	6.09	0.507

Sampled

By: Nauta

RJN Environmental Services, LLC

Well number:	CSD-1D
	VY779

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	4/26/18
Project No.:	14-203	Time start:	12 90
Site Location:	Juneau County, WI	Finish:	1355
Wether conditions:	10/19/14		

Water Level Data: Well: _____ Piez: X

Total Depth: 49.57 Diameter: 2" Water column: 29.4

Depth to water: 20.17 Well volume: 4.7 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 14.1 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
5	12.73	6.05	0.450
10	12.88	5.79	0.444
15	13.13	6.13	0.457

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-2
	VU928

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	4/26/18
Project No.:	14-203	Time start:	1455
Site Location:	Juneau County, WI	Finish:	1525
Wether conditions:	10/15/14		

Water Level Data: Well: X Piez: _____

Total Depth: 26.22 Diameter: 2" Water column: 10.47

Depth to water: 15.75 Well volume: 1.7 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 5.25 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
2	12.61	5.73	0.079
4	12.97	5.50	0.086
6	13.03	5.53	0.087
8	13.08	5.48	0.090

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-35
	VU925

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	9/20/18
Project No.:	14-203	Time start:	0940
Site Location:	Juneau County, WI	Finish:	0900
Wether conditions:	10/16/18		

Water Level Data: Well: X Piez: _____

Total Depth: 25.51 Diameter: 2" Water column: _____

Depth to water: 14.95 Well volume: 1.7 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 5.1 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
2	8.54	4.83	0.281
4	~~[illegible]~~	4.79	0.279
6	~~[illegible]~~	4.82	0.279

T = 8.50

T = 8.58

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-3D
	VU926

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	4/26/19
Project No.:	14-203	Time start:	0725
Site Location:	Juneau County, WI	Finish:	0835
Wether conditions:	10/16/14		

Water Level Data: Well: _____ Piez: X

Total Depth: 46.80 Diameter: 2" Water column: 32.08

Depth to water: 14.72 Well volume: 5.1 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 15.3 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
5	10.12	5.55	0.232
10.25	10.62	5.31	0.237
15.5	10.64	5.30	0.236
21.0	10.65	5.33	0.237

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-4
	VU927

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	9/26/18
Project No.:	14-203	Time start:	0910
Site Location:	Juneau County, WI	Finish:	0930
Wether conditions:	10/15/18		

Water Level Data: Well: X Piez: _____

Total Depth: 26.03 Diameter: 2" Water column: 8.98

Depth to water: 17.05 Well volume: 1.4 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 4.2 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
1.5	8.30	4.80	0.669
3.0	8.75	4.82	0.671
4.5	8.74	4.84	0.671

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-5
	VY742

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	4/26/18
Project No.:	14-203	Time start:	1545
Site Location:	Juneau County, WI	Finish:	1600
Wether conditions:	8/8/16		

Water Level Data: Well: X Piez: _____

Total Depth: 24.9 Diameter: 2" Water column: 5.91

Depth to water: 18.99 Well volume: 0.95 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 2.85 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
1	9.44	5.78	0.328
2	9.38	6.03	0.385
3	9.39	6.16	0.410
4	9.38	6.18	~~0.416~~ 0.414
5	9.37	6.21	0.419

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-6
	VY715

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	8/26/16
Project No.:	14-203	Time start:	1145
Site Location:	Juneau County, WI	Finish:	1155
Wether conditions:	8/8/16		

Water Level Data: Well: X Piez: _____

Total Depth: 23.7 Diameter: 2" Water column: 3.6

Depth to water: 20.10 Well volume: 0.6 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 1.8 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
0.75	10.35	4.84	0.642
1.5	10.59	4.84	0.640
2.25	10.89	4.84	0.635

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-7S VY713

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	9/26/18
Project No.:	14-203	Time start:	1120
Site Location:	Juneau County, WI	Finish:	1130
Wether conditions:	8/8/10		

Water Level Data: Well: X Piez: _____

Total Depth: 23.5 Diameter: 2" Water column: 5.3

Depth to water: 18.20 Well volume: 0.85 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 2.55 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
1	8.77	6.29	1.08
2	8.61	6.25	1.09
3	8.57	6.25	1.12

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-7D
	VY979

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	4/26/19
Project No.:	14-203	Time start:	1015
Site Location:	Juneau County, WI	Finish:	1110
Wether conditions:	12/18/17		

Water Level Data: Well: _____ Piez: X

Total Depth: 43.9 Diameter: 2" Water column: 24.48

Depth to water: 19.42 Well volume: 4 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 12 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
4	11.79	6.08	0.780
8	12.96	6.17	0.807
12	12.99	6.19	0.800
16	13.03	6.20	0.810

Sampled by: _____

RJN Environmental Services, LLC

Well number:	CSD-8
	VY744

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	9/26/18
Project No.:	14-203	Time start:	0945
Site Location:	Juneau County, WI	Finish:	1000
Wether conditions:	8/0/16		

Water Level Data: Well: X Piez: _____

Total Depth: 24.6 Diameter: 2" Water column: 5.5

Depth to water: 19.10 Well volume: 0.9 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 2.7 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
1	9.42	4.80	0.671
2	9.39	4.83	0.650
3	9.40	4.82	0.637
4	9.34	4.89	0.636

Sampled by: Nauta

RJN Environmental Services, LLC

Well number:	CSD-9
	VY811

Groundwater Sample Collection Record

Client:	Central Sands Dairy	Date:	4/26/13
Project No.:	14-203	Time start:	1210
Site Location:	Juneau County, WI	Finish:	1225
Wether conditions:	10/25/110		

Water Level Data: Well: X Piez: _____

Total Depth: 20.1 Diameter: 2" Water column: 2.13

Depth to water: 17.97 Well volume: 0.34 gal.

Purging data:

Method: Low flow

Acceptance criteria:

Minimum purge volume (3 volumes): 1.2 gal.

Stabilization: pH: +/- 0.1

Temp: +/- 10%

Cond: +/- 5%

Removed	T	pH	mS/cm
0.5	9.52	5.58	0.221
1.0	9.53	5.59	0.221
1.5	9.62	5.59	0.221

Sampled by: Nauta

ATTACHMENT B

TEST AMERICA

LAB REPORTS

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

TestAmerica Job ID: 500-144515-1
Client Project/Site: Central Sands Dairy

For:
RJN Environmental Services LLC
4631 County Road A
Oregon, Wisconsin 53575

Attn: Robert J Nauta

Sandie Fredrick

Authorized for release by:
5/14/2018 6:24:01 PM

Sandie Fredrick, Project Manager II
(920)261-1660
sandie.fredrick@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Detection Summary 4
Method Summary 8
Sample Summary 9
Client Sample Results 10
Definitions 15
QC Association 16
QC Sample Results 22
Chronicle 29
Certification Summary 35
Chain of Custody 36
Receipt Checklists 38

Job ID: 500-144515-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-144515-1

Comments
No additional comments.

Receipt
The samples were received on 4/28/2018 10:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.4º C and 0.5º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-1S — Lab Sample ID: 500-144515-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	34000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	27		2.5	1.0	mg/L	25		353.2	Total/NA
Nitrogen, Kjeldahl	1.6		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	2.0		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	410		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	27		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	1.3	B	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	11		10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-1D — Lab Sample ID: 500-144515-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	34000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	24		2.5	1.0	mg/L	25		353.2	Total/NA
Nitrogen, Kjeldahl	9.3		2.0	1.2	mg/L	5		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	1.6		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	400		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	30		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	9.4	B	0.40	0.20	mg/L	2		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	6.2	J	10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-2 — Lab Sample ID: 500-144515-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	5900		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	3.5		0.20	0.082	mg/L	2		353.2	Total/NA
Nitrogen, Kjeldahl	0.40		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	1.7		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	58		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	2.6		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	0.14	J	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	9.8	J	10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-3S — Lab Sample ID: 500-144515-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	6000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	15		1.0	0.41	mg/L	10		353.2	Total/NA
Nitrogen, Kjeldahl	0.79		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	1.6		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	290		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	20		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: CSD-3D — Lab Sample ID: 500-144515-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	1500		500	110	ug/L	1		6020	Total Recoverable

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-3D (Continued) — Lab Sample ID: 500-144515-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Nitrate Nitrite	15		1.0	0.41	mg/L	10		353.2	Total/NA
Nitrogen, Kjeldahl	0.66		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	0.60	J	1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	280		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	20		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA

Client Sample ID: CSD-4 — Lab Sample ID: 500-144515-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	34000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	28		2.5	1.0	mg/L	25		353.2	Total/NA
Nitrogen, Kjeldahl	1.2		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	3.2		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	510		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	32		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	0.16	J B	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	12		10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-4 DUP — Lab Sample ID: 500-144515-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	34000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	31		2.5	1.0	mg/L	25		353.2	Total/NA
Nitrogen, Kjeldahl	0.83		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	3.2		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	590		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	31		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	0.11	J B	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	16		10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-5 — Lab Sample ID: 500-144515-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	33000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	0.76		0.10	0.041	mg/L	1		353.2	Total/NA
Nitrogen, Kjeldahl	8.7		2.0	1.2	mg/L	5		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	5.8		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	210		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	10		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	11	B	1.0	0.50	mg/L	5		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	18		10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-6 — Lab Sample ID: 500-144515-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	64000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	34		2.5	1.0	mg/L	25		353.2	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-6 (Continued) — Lab Sample ID: 500-144515-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Kjeldahl	1.5		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	3.3		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	490		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	25		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Chemical Oxygen Demand	10		10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-7S — Lab Sample ID: 500-144515-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	110000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	20		2.0	0.82	mg/L	20		353.2	Total/NA
Nitrogen, Kjeldahl	14		4.0	2.4	mg/L	10		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	94		5.0	2.4	mg/L	5		9060A	Total/NA
Total Dissolved Solids	850		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	63		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	6.8	B	0.40	0.20	mg/L	2		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	330		100	60	mg/L	10		SM 5220C	Total/NA

Client Sample ID: CSD-7D — Lab Sample ID: 500-144515-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	20000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	56		5.0	2.1	mg/L	50		353.2	Total/NA
Nitrogen, Kjeldahl	1.7		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	1.9		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	730		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	40		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	0.84	B	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	14		10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-8 — Lab Sample ID: 500-144515-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	37000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	27		2.5	1.0	mg/L	25		353.2	Total/NA
Nitrogen, Kjeldahl	1.1		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	3.6		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	520		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	25		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	0.22	B	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	14		10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-9 — Lab Sample ID: 500-144515-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	13000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	14		1.0	0.41	mg/L	10		353.2	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-9 (Continued) — Lab Sample ID: 500-144515-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrogen, Kjeldahl	0.84		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	1.5		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	180		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	4.6		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	0.11	J B	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA
Chemical Oxygen Demand	6.2	J	10	6.0	mg/L	1		SM 5220C	Total/NA

Client Sample ID: CSD-9 DUP — Lab Sample ID: 500-144515-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	12000		500	110	ug/L	1		6020	Total Recoverable
Nitrogen, Nitrate Nitrite	14		1.0	0.41	mg/L	10		353.2	Total/NA
Nitrogen, Kjeldahl	0.88		0.40	0.24	mg/L	1		4500 NH3 G	Total/NA
Total Organic Carbon - Duplicates	1.5		1.0	0.47	mg/L	1		9060A	Total/NA
Total Dissolved Solids	160		10	4.3	mg/L	1		SM 2540C	Total/NA
Chloride	4.7		2.0	1.0	mg/L	1		SM 4500 Cl- E	Total/NA
Ammonia	0.13	J B	0.20	0.10	mg/L	1		SM 4500 NH3 G	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Method	Method Description	Protocol	Laboratory
6020	Metals (ICP/MS)	SW846	TAL CHI
353.2	Nitrogen, Nitrate-Nitrite	MCAWW	TAL CHI
4500 NH3 G	4500NH3 G - Nitrogen, Total Kjeldahl'	SM	TAL CHI
9060A	Organic Carbon, Total (TOC)	SW846	TAL CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	TAL CHI
SM 4500 Cl- E	Chloride, Total	SM	TAL CHI
SM 4500 NH3 G	Ammonia	SM	TAL CHI
SM 5220C	COD	SM	TAL CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL CHI
SM 4500 NH3 B	Distillation, Ammonia	SM	TAL CHI
SM 5220	COD	SM	TAL CHI
SM4500Norg_C	Preparation, Nitrogen -Total Kjeldahl	SM	TAL CHI

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
SM = "Standard Methods For The Examination Of Water And Wastewater"
SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-144515-1	CSD-1S	Water	04/26/18 14:35	04/28/18 10:30
500-144515-2	CSD-1D	Water	04/26/18 13:55	04/28/18 10:30
500-144515-3	CSD-2	Water	04/26/18 15:25	04/28/18 10:30
500-144515-4	CSD-3S	Water	04/26/18 09:00	04/28/18 10:30
500-144515-5	CSD-3D	Water	04/26/18 08:35	04/28/18 10:30
500-144515-6	CSD-4	Water	04/26/18 09:30	04/28/18 10:30
500-144515-7	CSD-4 DUP	Water	04/26/18 09:30	04/28/18 10:30
500-144515-8	CSD-5	Water	04/26/18 16:00	04/28/18 10:30
500-144515-9	CSD-6	Water	04/26/18 11:55	04/28/18 10:30
500-144515-10	CSD-7S	Water	04/26/18 11:30	04/28/18 10:30
500-144515-11	CSD-7D	Water	04/26/18 11:10	04/28/18 10:30
500-144515-12	CSD-8	Water	04/26/18 10:00	04/28/18 10:30
500-144515-13	CSD-9	Water	04/26/18 12:25	04/28/18 10:30
500-144515-14	CSD-9 DUP	Water	04/26/18 12:25	04/28/18 10:30

Client Sample Results

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-1S

Lab Sample ID: 500-144515-1
Matrix: Water

Date Collected: 04/26/18 14:35
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	34000		500	110	ug/L		04/30/18 08:08	04/30/18 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	27		2.5	1.0	mg/L			05/08/18 01:34	25
Nitrogen, Kjeldahl	1.6		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 10:32	1
Total Organic Carbon - Duplicates	2.0		1.0	0.47	mg/L			05/08/18 08:05	1
Total Dissolved Solids	410		10	4.3	mg/L			05/03/18 06:51	1
Chloride	27		2.0	1.0	mg/L			05/08/18 22:21	1
Ammonia	1.3	B	0.20	0.10	mg/L		05/08/18 18:00	05/09/18 18:02	1
Chemical Oxygen Demand	11		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:05	1

Client Sample ID: CSD-1D

Lab Sample ID: 500-144515-2
Matrix: Water

Date Collected: 04/26/18 13:55
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	34000		500	110	ug/L		04/30/18 08:08	04/30/18 19:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	24		2.5	1.0	mg/L			05/08/18 01:36	25
Nitrogen, Kjeldahl	9.3		2.0	1.2	mg/L		05/09/18 08:10	05/09/18 10:40	5
Total Organic Carbon - Duplicates	1.6		1.0	0.47	mg/L			05/08/18 08:23	1
Total Dissolved Solids	400		10	4.3	mg/L			05/03/18 06:59	1
Chloride	30		2.0	1.0	mg/L			05/08/18 22:24	1
Ammonia	9.4	B	0.40	0.20	mg/L		05/09/18 18:00	05/10/18 03:04	2
Chemical Oxygen Demand	6.2	J	10	6.0	mg/L		05/11/18 10:55	05/14/18 17:02	1

Client Sample ID: CSD-2

Lab Sample ID: 500-144515-3
Matrix: Water

Date Collected: 04/26/18 15:25
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	5900		500	110	ug/L		04/30/18 08:08	04/30/18 20:00	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	3.5		0.20	0.082	mg/L			05/08/18 02:50	2
Nitrogen, Kjeldahl	0.40		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 10:43	1
Total Organic Carbon - Duplicates	1.7		1.0	0.47	mg/L			05/08/18 08:40	1
Total Dissolved Solids	58		10	4.3	mg/L			05/03/18 07:01	1
Chloride	2.6		2.0	1.0	mg/L			05/08/18 22:25	1
Ammonia	0.14	J	0.20	0.10	mg/L		05/07/18 15:00	05/09/18 02:18	1
Chemical Oxygen Demand	9.8	J	10	6.0	mg/L		05/11/18 10:55	05/14/18 17:06	1

Client Sample Results

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-3S

Lab Sample ID: 500-144515-4
Matrix: Water

Date Collected: 04/26/18 09:00
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**6000**		500	110	ug/L		04/30/18 08:08	04/30/18 20:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	**15**		1.0	0.41	mg/L			05/08/18 02:52	10
Nitrogen, Kjeldahl	**0.79**		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 10:46	1
Total Organic Carbon - Duplicates	**1.6**		1.0	0.47	mg/L			05/08/18 09:16	1
Total Dissolved Solids	**290**		10	4.3	mg/L			05/03/18 07:04	1
Chloride	**20**		2.0	1.0	mg/L			05/08/18 22:26	1
Ammonia	<0.10		0.20	0.10	mg/L		05/07/18 15:00	05/09/18 02:20	1
Chemical Oxygen Demand	<6.0		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:07	1

Client Sample ID: CSD-3D

Lab Sample ID: 500-144515-5
Matrix: Water

Date Collected: 04/26/18 08:35
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**1500**		500	110	ug/L		04/30/18 08:08	04/30/18 20:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	**15**		1.0	0.41	mg/L			05/08/18 02:58	10
Nitrogen, Kjeldahl	**0.66**		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 10:49	1
Total Organic Carbon - Duplicates	**0.60**	J	1.0	0.47	mg/L			05/08/18 09:33	1
Total Dissolved Solids	**280**		10	4.3	mg/L			05/03/18 07:06	1
Chloride	**20**		2.0	1.0	mg/L			05/08/18 22:29	1
Ammonia	<0.10		0.20	0.10	mg/L		05/09/18 18:00	05/10/18 01:47	1
Chemical Oxygen Demand	<6.0		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:08	1

Client Sample ID: CSD-4

Lab Sample ID: 500-144515-6
Matrix: Water

Date Collected: 04/26/18 09:30
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**34000**		500	110	ug/L		04/30/18 08:08	04/30/18 20:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	**28**		2.5	1.0	mg/L			05/08/18 01:49	25
Nitrogen, Kjeldahl	**1.2**		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 10:52	1
Total Organic Carbon - Duplicates	**3.2**		1.0	0.47	mg/L			05/08/18 10:10	1
Total Dissolved Solids	**510**		10	4.3	mg/L			05/03/18 07:09	1
Chloride	**32**		2.0	1.0	mg/L			05/08/18 22:30	1
Ammonia	**0.16**	J B	0.20	0.10	mg/L		05/08/18 18:00	05/09/18 18:02	1
Chemical Oxygen Demand	**12**		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:09	1

Client Sample Results

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-4 DUP

Lab Sample ID: 500-144515-7
Matrix: Water

Date Collected: 04/26/18 09:30
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	34000		500	110	ug/L		04/30/18 08:08	04/30/18 20:15	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	31		2.5	1.0	mg/L			05/08/18 01:56	25
Nitrogen, Kjeldahl	0.83		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 11:00	1
Total Organic Carbon - Duplicates	3.2		1.0	0.47	mg/L			05/08/18 10:29	1
Total Dissolved Solids	590		10	4.3	mg/L			05/03/18 07:12	1
Chloride	31		2.0	1.0	mg/L			05/08/18 22:31	1
Ammonia	0.11	J B	0.20	0.10	mg/L		05/08/18 18:00	05/09/18 18:02	1
Chemical Oxygen Demand	16		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:10	1

Client Sample ID: CSD-5

Lab Sample ID: 500-144515-8
Matrix: Water

Date Collected: 04/26/18 16:00
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	33000		500	110	ug/L		04/30/18 08:08	04/30/18 20:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	0.76		0.10	0.041	mg/L			05/08/18 02:59	1
Nitrogen, Kjeldahl	8.7		2.0	1.2	mg/L		05/09/18 08:10	05/09/18 11:03	5
Total Organic Carbon - Duplicates	5.8		1.0	0.47	mg/L			05/09/18 03:10	1
Total Dissolved Solids	210		10	4.3	mg/L			05/03/18 07:14	1
Chloride	10		2.0	1.0	mg/L			05/08/18 22:31	1
Ammonia	11	B	1.0	0.50	mg/L		05/08/18 18:00	05/09/18 18:02	5
Chemical Oxygen Demand	18		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:11	1

Client Sample ID: CSD-6

Lab Sample ID: 500-144515-9
Matrix: Water

Date Collected: 04/26/18 11:55
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	64000		500	110	ug/L		04/30/18 08:08	04/30/18 20:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	34		2.5	1.0	mg/L			05/08/18 02:00	25
Nitrogen, Kjeldahl	1.5		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 11:06	1
Total Organic Carbon - Duplicates	3.3		1.0	0.47	mg/L			05/09/18 03:49	1
Total Dissolved Solids	490		10	4.3	mg/L			05/03/18 07:17	1
Chloride	25		2.0	1.0	mg/L			05/08/18 22:32	1
Ammonia	<0.10		0.20	0.10	mg/L		05/08/18 18:00	05/09/18 18:02	1
Chemical Oxygen Demand	10		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:12	1

Client Sample Results

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-7S

Lab Sample ID: 500-144515-10
Matrix: Water

Date Collected: 04/26/18 11:30
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	110000		500	110	ug/L		04/30/18 08:08	04/30/18 20:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	20		2.0	0.82	mg/L			05/08/18 03:00	20
Nitrogen, Kjeldahl	14		4.0	2.4	mg/L		05/09/18 08:10	05/09/18 11:09	10
Total Organic Carbon - Duplicates	94		5.0	2.4	mg/L			05/09/18 04:08	5
Total Dissolved Solids	850		10	4.3	mg/L			05/03/18 07:19	1
Chloride	63		2.0	1.0	mg/L			05/08/18 22:51	1
Ammonia	6.8	B	0.40	0.20	mg/L		05/08/18 18:00	05/09/18 18:02	2
Chemical Oxygen Demand	330		100	60	mg/L		05/11/18 10:55	05/11/18 14:08	10

Client Sample ID: CSD-7D

Lab Sample ID: 500-144515-11
Matrix: Water

Date Collected: 04/26/18 11:10
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	20000		500	110	ug/L		04/30/18 08:08	04/30/18 20:38	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	56		5.0	2.1	mg/L			05/08/18 03:01	50
Nitrogen, Kjeldahl	1.7		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 11:11	1
Total Organic Carbon - Duplicates	1.9		1.0	0.47	mg/L			05/09/18 04:26	1
Total Dissolved Solids	730		10	4.3	mg/L			05/03/18 07:22	1
Chloride	40		2.0	1.0	mg/L			05/08/18 22:33	1
Ammonia	0.84	B	0.20	0.10	mg/L		05/09/18 18:00	05/10/18 01:19	1
Chemical Oxygen Demand	14		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:12	1

Client Sample ID: CSD-8

Lab Sample ID: 500-144515-12
Matrix: Water

Date Collected: 04/26/18 10:00
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	37000		500	110	ug/L		04/30/18 08:08	04/30/18 20:42	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	27		2.5	1.0	mg/L			05/08/18 02:06	25
Nitrogen, Kjeldahl	1.1		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 11:14	1
Total Organic Carbon - Duplicates	3.6		1.0	0.47	mg/L			05/09/18 04:44	1
Total Dissolved Solids	520		10	4.3	mg/L			05/03/18 07:24	1
Chloride	25		2.0	1.0	mg/L			05/08/18 22:33	1
Ammonia	0.22	B	0.20	0.10	mg/L		05/09/18 18:00	05/10/18 01:28	1
Chemical Oxygen Demand	14		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:13	1

Client Sample Results

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-9

Lab Sample ID: 500-144515-13
Matrix: Water

Date Collected: 04/26/18 12:25
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	13000		500	110	ug/L		04/30/18 08:08	04/30/18 20:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	14		1.0	0.41	mg/L			05/08/18 03:02	10
Nitrogen, Kjeldahl	0.84		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 11:17	1
Total Organic Carbon - Duplicates	1.5		1.0	0.47	mg/L			05/09/18 05:00	1
Total Dissolved Solids	180		10	4.3	mg/L			05/03/18 07:27	1
Chloride	4.6		2.0	1.0	mg/L			05/08/18 22:34	1
Ammonia	0.11	J B	0.20	0.10	mg/L		05/09/18 18:00	05/10/18 01:30	1
Chemical Oxygen Demand	6.2	J	10	6.0	mg/L		05/11/18 10:55	05/14/18 17:14	1

Client Sample ID: CSD-9 DUP

Lab Sample ID: 500-144515-14
Matrix: Water

Date Collected: 04/26/18 12:25
Date Received: 04/28/18 10:30

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	12000		500	110	ug/L		04/30/18 08:08	04/30/18 20:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	14		1.0	0.41	mg/L			05/08/18 03:03	10
Nitrogen, Kjeldahl	0.88		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 11:20	1
Total Organic Carbon - Duplicates	1.5		1.0	0.47	mg/L			05/09/18 05:34	1
Total Dissolved Solids	160		10	4.3	mg/L			05/03/18 07:30	1
Chloride	4.7		2.0	1.0	mg/L			05/08/18 22:36	1
Ammonia	0.13	J B	0.20	0.10	mg/L		05/09/18 18:00	05/10/18 01:33	1
Chemical Oxygen Demand	<6.0		10	6.0	mg/L		05/08/18 11:39	05/09/18 16:31	1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Metals

Prep Batch: 429918

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total Recoverable	Water	3005A	
500-144515-2	CSD-1D	Total Recoverable	Water	3005A	
500-144515-3	CSD-2	Total Recoverable	Water	3005A	
500-144515-4	CSD-3S	Total Recoverable	Water	3005A	
500-144515-5	CSD-3D	Total Recoverable	Water	3005A	
500-144515-6	CSD-4	Total Recoverable	Water	3005A	
500-144515-7	CSD-4 DUP	Total Recoverable	Water	3005A	
500-144515-8	CSD-5	Total Recoverable	Water	3005A	
500-144515-9	CSD-6	Total Recoverable	Water	3005A	
500-144515-10	CSD-7S	Total Recoverable	Water	3005A	
500-144515-11	CSD-7D	Total Recoverable	Water	3005A	
500-144515-12	CSD-8	Total Recoverable	Water	3005A	
500-144515-13	CSD-9	Total Recoverable	Water	3005A	
500-144515-14	CSD-9 DUP	Total Recoverable	Water	3005A	
MB 500-429918/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-429918/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 430094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total Recoverable	Water	6020	429918
500-144515-2	CSD-1D	Total Recoverable	Water	6020	429918
500-144515-3	CSD-2	Total Recoverable	Water	6020	429918
500-144515-4	CSD-3S	Total Recoverable	Water	6020	429918
500-144515-5	CSD-3D	Total Recoverable	Water	6020	429918
500-144515-6	CSD-4	Total Recoverable	Water	6020	429918
500-144515-7	CSD-4 DUP	Total Recoverable	Water	6020	429918
500-144515-8	CSD-5	Total Recoverable	Water	6020	429918
500-144515-9	CSD-6	Total Recoverable	Water	6020	429918
500-144515-10	CSD-7S	Total Recoverable	Water	6020	429918
500-144515-11	CSD-7D	Total Recoverable	Water	6020	429918
500-144515-12	CSD-8	Total Recoverable	Water	6020	429918
500-144515-13	CSD-9	Total Recoverable	Water	6020	429918
500-144515-14	CSD-9 DUP	Total Recoverable	Water	6020	429918
MB 500-429918/1-A	Method Blank	Total Recoverable	Water	6020	429918
LCS 500-429918/2-A	Lab Control Sample	Total Recoverable	Water	6020	429918

General Chemistry

Analysis Batch: 430441

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	SM 2540C	
500-144515-2	CSD-1D	Total/NA	Water	SM 2540C	
500-144515-3	CSD-2	Total/NA	Water	SM 2540C	
500-144515-4	CSD-3S	Total/NA	Water	SM 2540C	
500-144515-5	CSD-3D	Total/NA	Water	SM 2540C	
500-144515-6	CSD-4	Total/NA	Water	SM 2540C	
500-144515-7	CSD-4 DUP	Total/NA	Water	SM 2540C	
500-144515-8	CSD-5	Total/NA	Water	SM 2540C	
500-144515-9	CSD-6	Total/NA	Water	SM 2540C	
500-144515-10	CSD-7S	Total/NA	Water	SM 2540C	

General Chemistry (Continued)

Analysis Batch: 430441 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-11	CSD-7D	Total/NA	Water	SM 2540C	
500-144515-12	CSD-8	Total/NA	Water	SM 2540C	
500-144515-13	CSD-9	Total/NA	Water	SM 2540C	
500-144515-14	CSD-9 DUP	Total/NA	Water	SM 2540C	
MB 500-430441/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-430441/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-144515-1 MS	CSD-1S	Total/NA	Water	SM 2540C	
500-144515-1 DU	CSD-1S	Total/NA	Water	SM 2540C	

Prep Batch: 431073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-3	CSD-2	Total/NA	Water	SM 4500 NH3 B	
500-144515-4	CSD-3S	Total/NA	Water	SM 4500 NH3 B	
MB 500-431073/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-431073/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
500-144515-4 MS	CSD-3S	Total/NA	Water	SM 4500 NH3 B	
500-144515-4 MSD	CSD-3S	Total/NA	Water	SM 4500 NH3 B	

Prep Batch: 431148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	SM4500Norg_C	
500-144515-2	CSD-1D	Total/NA	Water	SM4500Norg_C	
500-144515-3	CSD-2	Total/NA	Water	SM4500Norg_C	
500-144515-4	CSD-3S	Total/NA	Water	SM4500Norg_C	
500-144515-5	CSD-3D	Total/NA	Water	SM4500Norg_C	
500-144515-6	CSD-4	Total/NA	Water	SM4500Norg_C	
500-144515-7	CSD-4 DUP	Total/NA	Water	SM4500Norg_C	
500-144515-8	CSD-5	Total/NA	Water	SM4500Norg_C	
500-144515-9	CSD-6	Total/NA	Water	SM4500Norg_C	
500-144515-10	CSD-7S	Total/NA	Water	SM4500Norg_C	
500-144515-11	CSD-7D	Total/NA	Water	SM4500Norg_C	
500-144515-12	CSD-8	Total/NA	Water	SM4500Norg_C	
500-144515-13	CSD-9	Total/NA	Water	SM4500Norg_C	
500-144515-14	CSD-9 DUP	Total/NA	Water	SM4500Norg_C	
MB 500-431148/1-A	Method Blank	Total/NA	Water	SM4500Norg_C	
LCS 500-431148/2-A	Lab Control Sample	Total/NA	Water	SM4500Norg_C	
500-144515-1 MS	CSD-1S	Total/NA	Water	SM4500Norg_C	
500-144515-1 MSD	CSD-1S	Total/NA	Water	SM4500Norg_C	

Prep Batch: 431168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-14	CSD-9 DUP	Total/NA	Water	SM 5220	
MB 500-431168/1-A	Method Blank	Total/NA	Water	SM 5220	
LCS 500-431168/2-A	Lab Control Sample	Total/NA	Water	SM 5220	

Analysis Batch: 431266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	353.2	
500-144515-2	CSD-1D	Total/NA	Water	353.2	
500-144515-3	CSD-2	Total/NA	Water	353.2	
500-144515-4	CSD-3S	Total/NA	Water	353.2	

General Chemistry (Continued)

Analysis Batch: 431266 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-5	CSD-3D	Total/NA	Water	353.2	
500-144515-6	CSD-4	Total/NA	Water	353.2	
500-144515-7	CSD-4 DUP	Total/NA	Water	353.2	
500-144515-8	CSD-5	Total/NA	Water	353.2	
500-144515-9	CSD-6	Total/NA	Water	353.2	
500-144515-10	CSD-7S	Total/NA	Water	353.2	
500-144515-11	CSD-7D	Total/NA	Water	353.2	
500-144515-12	CSD-8	Total/NA	Water	353.2	
500-144515-13	CSD-9	Total/NA	Water	353.2	
500-144515-14	CSD-9 DUP	Total/NA	Water	353.2	
MB 500-431266/4	Method Blank	Total/NA	Water	353.2	
LCS 500-431266/5	Lab Control Sample	Total/NA	Water	353.2	
500-144515-4 MS	CSD-3S	Total/NA	Water	353.2	
500-144515-4 MSD	CSD-3S	Total/NA	Water	353.2	

Analysis Batch: 431274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	9060A	
500-144515-2	CSD-1D	Total/NA	Water	9060A	
500-144515-3	CSD-2	Total/NA	Water	9060A	
500-144515-4	CSD-3S	Total/NA	Water	9060A	
500-144515-5	CSD-3D	Total/NA	Water	9060A	
500-144515-6	CSD-4	Total/NA	Water	9060A	
500-144515-7	CSD-4 DUP	Total/NA	Water	9060A	
MB 500-431274/4	Method Blank	Total/NA	Water	9060A	
LCS 500-431274/5	Lab Control Sample	Total/NA	Water	9060A	
500-144515-5 MS	CSD-3D	Total/NA	Water	9060A	
500-144515-5 MSD	CSD-3D	Total/NA	Water	9060A	

Prep Batch: 431278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	SM 4500 NH3 B	
500-144515-6	CSD-4	Total/NA	Water	SM 4500 NH3 B	
500-144515-7	CSD-4 DUP	Total/NA	Water	SM 4500 NH3 B	
500-144515-8	CSD-5	Total/NA	Water	SM 4500 NH3 B	
500-144515-9	CSD-6	Total/NA	Water	SM 4500 NH3 B	
500-144515-10	CSD-7S	Total/NA	Water	SM 4500 NH3 B	
MB 500-431278/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-431278/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
500-144515-6 MS	CSD-4	Total/NA	Water	SM 4500 NH3 B	
500-144515-6 MSD	CSD-4	Total/NA	Water	SM 4500 NH3 B	

Analysis Batch: 431297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	SM 4500 Cl- E	
500-144515-2	CSD-1D	Total/NA	Water	SM 4500 Cl- E	
500-144515-3	CSD-2	Total/NA	Water	SM 4500 Cl- E	
500-144515-4	CSD-3S	Total/NA	Water	SM 4500 Cl- E	
500-144515-5	CSD-3D	Total/NA	Water	SM 4500 Cl- E	
500-144515-6	CSD-4	Total/NA	Water	SM 4500 Cl- E	
500-144515-7	CSD-4 DUP	Total/NA	Water	SM 4500 Cl- E	

General Chemistry (Continued)

Analysis Batch: 431297 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-8	CSD-5	Total/NA	Water	SM 4500 Cl- E	
500-144515-9	CSD-6	Total/NA	Water	SM 4500 Cl- E	
500-144515-10	CSD-7S	Total/NA	Water	SM 4500 Cl- E	
500-144515-11	CSD-7D	Total/NA	Water	SM 4500 Cl- E	
500-144515-12	CSD-8	Total/NA	Water	SM 4500 Cl- E	
500-144515-13	CSD-9	Total/NA	Water	SM 4500 Cl- E	
500-144515-14	CSD-9 DUP	Total/NA	Water	SM 4500 Cl- E	
MB 500-431297/4	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 500-431297/5	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
500-144515-1 MS	CSD-1S	Total/NA	Water	SM 4500 Cl- E	
500-144515-1 MSD	CSD-1S	Total/NA	Water	SM 4500 Cl- E	

Analysis Batch: 431414

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	4500 NH3 G	431148
500-144515-2	CSD-1D	Total/NA	Water	4500 NH3 G	431148
500-144515-3	CSD-2	Total/NA	Water	4500 NH3 G	431148
500-144515-4	CSD-3S	Total/NA	Water	4500 NH3 G	431148
500-144515-5	CSD-3D	Total/NA	Water	4500 NH3 G	431148
500-144515-6	CSD-4	Total/NA	Water	4500 NH3 G	431148
500-144515-7	CSD-4 DUP	Total/NA	Water	4500 NH3 G	431148
500-144515-8	CSD-5	Total/NA	Water	4500 NH3 G	431148
500-144515-9	CSD-6	Total/NA	Water	4500 NH3 G	431148
500-144515-10	CSD-7S	Total/NA	Water	4500 NH3 G	431148
500-144515-11	CSD-7D	Total/NA	Water	4500 NH3 G	431148
500-144515-12	CSD-8	Total/NA	Water	4500 NH3 G	431148
500-144515-13	CSD-9	Total/NA	Water	4500 NH3 G	431148
500-144515-14	CSD-9 DUP	Total/NA	Water	4500 NH3 G	431148
MB 500-431148/1-A	Method Blank	Total/NA	Water	4500 NH3 G	431148
LCS 500-431148/2-A	Lab Control Sample	Total/NA	Water	4500 NH3 G	431148
500-144515-1 MS	CSD-1S	Total/NA	Water	4500 NH3 G	431148
500-144515-1 MSD	CSD-1S	Total/NA	Water	4500 NH3 G	431148

Analysis Batch: 431462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-14	CSD-9 DUP	Total/NA	Water	SM 5220C	431168
MB 500-431168/1-A	Method Blank	Total/NA	Water	SM 5220C	431168
LCS 500-431168/2-A	Lab Control Sample	Total/NA	Water	SM 5220C	431168

Prep Batch: 431504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-2	CSD-1D	Total/NA	Water	SM 4500 NH3 B	
500-144515-5	CSD-3D	Total/NA	Water	SM 4500 NH3 B	
500-144515-11	CSD-7D	Total/NA	Water	SM 4500 NH3 B	
500-144515-12	CSD-8	Total/NA	Water	SM 4500 NH3 B	
500-144515-13	CSD-9	Total/NA	Water	SM 4500 NH3 B	
500-144515-14	CSD-9 DUP	Total/NA	Water	SM 4500 NH3 B	
MB 500-431504/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 B	
LCS 500-431504/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 B	
500-144515-11 MS	CSD-7D	Total/NA	Water	SM 4500 NH3 B	
500-144515-11 MSD	CSD-7D	Total/NA	Water	SM 4500 NH3 B	

QC Association Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Analysis Batch: 431674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	SM 4500 NH3 G	431278
500-144515-6	CSD-4	Total/NA	Water	SM 4500 NH3 G	431278
500-144515-7	CSD-4 DUP	Total/NA	Water	SM 4500 NH3 G	431278
500-144515-8	CSD-5	Total/NA	Water	SM 4500 NH3 G	431278
500-144515-9	CSD-6	Total/NA	Water	SM 4500 NH3 G	431278
500-144515-10	CSD-7S	Total/NA	Water	SM 4500 NH3 G	431278
MB 500-431278/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	431278
LCS 500-431278/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	431278
500-144515-6 MS	CSD-4	Total/NA	Water	SM 4500 NH3 G	431278
500-144515-6 MSD	CSD-4	Total/NA	Water	SM 4500 NH3 G	431278

Analysis Batch: 431696

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-2	CSD-1D	Total/NA	Water	SM 4500 NH3 G	431504
500-144515-5	CSD-3D	Total/NA	Water	SM 4500 NH3 G	431504
500-144515-11	CSD-7D	Total/NA	Water	SM 4500 NH3 G	431504
500-144515-12	CSD-8	Total/NA	Water	SM 4500 NH3 G	431504
500-144515-13	CSD-9	Total/NA	Water	SM 4500 NH3 G	431504
500-144515-14	CSD-9 DUP	Total/NA	Water	SM 4500 NH3 G	431504
MB 500-431504/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	431504
LCS 500-431504/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	431504
500-144515-11 MS	CSD-7D	Total/NA	Water	SM 4500 NH3 G	431504
500-144515-11 MSD	CSD-7D	Total/NA	Water	SM 4500 NH3 G	431504

Analysis Batch: 431706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-3	CSD-2	Total/NA	Water	SM 4500 NH3 G	431073
500-144515-4	CSD-3S	Total/NA	Water	SM 4500 NH3 G	431073
MB 500-431073/1-A	Method Blank	Total/NA	Water	SM 4500 NH3 G	431073
LCS 500-431073/2-A	Lab Control Sample	Total/NA	Water	SM 4500 NH3 G	431073
500-144515-4 MS	CSD-3S	Total/NA	Water	SM 4500 NH3 G	431073
500-144515-4 MSD	CSD-3S	Total/NA	Water	SM 4500 NH3 G	431073

Analysis Batch: 431712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-8	CSD-5	Total/NA	Water	9060A	
500-144515-9	CSD-6	Total/NA	Water	9060A	
500-144515-10	CSD-7S	Total/NA	Water	9060A	
500-144515-11	CSD-7D	Total/NA	Water	9060A	
500-144515-12	CSD-8	Total/NA	Water	9060A	
500-144515-13	CSD-9	Total/NA	Water	9060A	
500-144515-14	CSD-9 DUP	Total/NA	Water	9060A	
MB 500-431712/4	Method Blank	Total/NA	Water	9060A	
LCS 500-431712/5	Lab Control Sample	Total/NA	Water	9060A	
500-144515-8 MS	CSD-5	Total/NA	Water	9060A	
500-144515-8 MSD	CSD-5	Total/NA	Water	9060A	

Prep Batch: 431820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	SM 5220	
500-144515-2	CSD-1D	Total/NA	Water	SM 5220	
500-144515-3	CSD-2	Total/NA	Water	SM 5220	
500-144515-4	CSD-3S	Total/NA	Water	SM 5220	

General Chemistry (Continued)

Prep Batch: 431820 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-5	CSD-3D	Total/NA	Water	SM 5220	
500-144515-6	CSD-4	Total/NA	Water	SM 5220	
500-144515-7	CSD-4 DUP	Total/NA	Water	SM 5220	
500-144515-8	CSD-5	Total/NA	Water	SM 5220	
500-144515-9	CSD-6	Total/NA	Water	SM 5220	
500-144515-11	CSD-7D	Total/NA	Water	SM 5220	
500-144515-12	CSD-8	Total/NA	Water	SM 5220	
500-144515-13	CSD-9	Total/NA	Water	SM 5220	
MB 500-431820/1-A	Method Blank	Total/NA	Water	SM 5220	
LCS 500-431820/2-A	Lab Control Sample	Total/NA	Water	SM 5220	
500-144515-2 MS	CSD-1D	Total/NA	Water	SM 5220	
500-144515-2 MSD	CSD-1D	Total/NA	Water	SM 5220	

Prep Batch: 431821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-10	CSD-7S	Total/NA	Water	SM 5220	
MB 500-431821/1-A	Method Blank	Total/NA	Water	SM 5220	
LCS 500-431821/2-A	Lab Control Sample	Total/NA	Water	SM 5220	

Analysis Batch: 431879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-10	CSD-7S	Total/NA	Water	SM 5220C	431821
MB 500-431821/1-A	Method Blank	Total/NA	Water	SM 5220C	431821
LCS 500-431821/2-A	Lab Control Sample	Total/NA	Water	SM 5220C	431821

Analysis Batch: 432191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-144515-1	CSD-1S	Total/NA	Water	SM 5220C	431820
500-144515-2	CSD-1D	Total/NA	Water	SM 5220C	431820
500-144515-3	CSD-2	Total/NA	Water	SM 5220C	431820
500-144515-4	CSD-3S	Total/NA	Water	SM 5220C	431820
500-144515-5	CSD-3D	Total/NA	Water	SM 5220C	431820
500-144515-6	CSD-4	Total/NA	Water	SM 5220C	431820
500-144515-7	CSD-4 DUP	Total/NA	Water	SM 5220C	431820
500-144515-8	CSD-5	Total/NA	Water	SM 5220C	431820
500-144515-9	CSD-6	Total/NA	Water	SM 5220C	431820
500-144515-11	CSD-7D	Total/NA	Water	SM 5220C	431820
500-144515-12	CSD-8	Total/NA	Water	SM 5220C	431820
500-144515-13	CSD-9	Total/NA	Water	SM 5220C	431820
MB 500-431820/1-A	Method Blank	Total/NA	Water	SM 5220C	431820
LCS 500-431820/2-A	Lab Control Sample	Total/NA	Water	SM 5220C	431820
500-144515-2 MS	CSD-1D	Total/NA	Water	SM 5220C	431820
500-144515-2 MSD	CSD-1D	Total/NA	Water	SM 5220C	431820

QC Sample Results

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 500-429918/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 430094 — **Prep Batch: 429918**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	<110		500	110	ug/L		04/30/18 08:08	04/30/18 19:04	1

Lab Sample ID: LCS 500-429918/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 430094 — **Prep Batch: 429918**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Potassium	10000	9620		ug/L		96	80 - 120

Method: 353.2 - Nitrogen, Nitrate-Nitrite

Lab Sample ID: MB 500-431266/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431266

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Nitrate Nitrite	<0.041		0.10	0.041	mg/L			05/08/18 01:30	1

Lab Sample ID: LCS 500-431266/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431266

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate Nitrite	1.00	1.01		mg/L		101	90 - 110

Lab Sample ID: 500-144515-4 MS — **Client Sample ID: CSD-3S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431266

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Nitrate Nitrite	15		1.00	15.7	4	mg/L		50	90 - 110

Lab Sample ID: 500-144515-4 MSD — **Client Sample ID: CSD-3S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431266

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Nitrate Nitrite	15		1.00	15.9	4	mg/L		67	90 - 110	1	20

Method: 4500 NH3 G - 4500NH3 G - Nitrogen, Total Kjeldahl'

Lab Sample ID: MB 500-431148/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431414 — **Prep Batch: 431148**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrogen, Kjeldahl	<0.24		0.40	0.24	mg/L		05/09/18 08:10	05/09/18 10:26	1

Method: 4500 NH3 G - 4500NH3 G - Nitrogen, Total Kjeldahl' (Continued)

Lab Sample ID: LCS 500-431148/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431414 — **Prep Batch: 431148**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	2.50	2.21		mg/L		89	80 - 120

Lab Sample ID: 500-144515-1 MS — **Client Sample ID: CSD-1S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431414 — **Prep Batch: 431148**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrogen, Kjeldahl	1.6		2.50	3.95		mg/L		93	75 - 125

Lab Sample ID: 500-144515-1 MSD — **Client Sample ID: CSD-1S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431414 — **Prep Batch: 431148**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrogen, Kjeldahl	1.6		2.50	3.81		mg/L		87	75 - 125	4	20

Method: 9060A - Organic Carbon, Total (TOC)

Lab Sample ID: MB 500-431274/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431274

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	<0.47		1.0	0.47	mg/L			05/08/18 02:41	1

Lab Sample ID: LCS 500-431274/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431274

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	10.0	9.75		mg/L		98	80 - 120
TOC Result 1	10.0	9.73		mg/L		97	80 - 120
TOC Result 2	10.0	9.78		mg/L		98	80 - 120

Lab Sample ID: 500-144515-5 MS — **Client Sample ID: CSD-3D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431274

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	0.60	J	10.0	10.0		mg/L		94	75 - 125
TOC Result 1	0.60	J	10.0	10.0		mg/L		94	75 - 125
TOC Result 2	0.59	J	10.0	10.0		mg/L		94	75 - 125

Method: 9060A - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 500-144515-5 MSD — **Client Sample ID: CSD-3D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431274

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	0.60	J	10.0	10.0		mg/L		94	75 - 125	0	20
TOC Result 1	0.60	J	10.0	10.0		mg/L		94	75 - 125	0	20
TOC Result 2	0.59	J	10.0	10.0		mg/L		94	75 - 125	0	20

Lab Sample ID: MB 500-431712/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431712

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon - Duplicates	<0.47		1.0	0.47	mg/L			05/09/18 02:35	1

Lab Sample ID: LCS 500-431712/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431712

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	10.0	9.71		mg/L		97	80 - 120
TOC Result 1	10.0	9.85		mg/L		99	80 - 120
TOC Result 2	10.0	9.56		mg/L		96	80 - 120

Lab Sample ID: 500-144515-8 MS — **Client Sample ID: CSD-5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431712

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon - Duplicates	5.8		10.0	15.7		mg/L		99	75 - 125
TOC Result 1	5.7		10.0	15.7		mg/L		99	75 - 125
TOC Result 2	5.8		10.0	15.7		mg/L		99	75 - 125

Lab Sample ID: 500-144515-8 MSD — **Client Sample ID: CSD-5**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431712

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon - Duplicates	5.8		10.0	15.7		mg/L		99	75 - 125	0	20
TOC Result 1	5.7		10.0	15.7		mg/L		99	75 - 125	0	20
TOC Result 2	5.8		10.0	15.7		mg/L		99	75 - 125	0	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 500-430441/1 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 430441

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<4.3		10	4.3	mg/L			05/03/18 06:41	1

Lab Sample ID: LCS 500-430441/2 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 430441

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	250	280		mg/L		112	80 - 120

Lab Sample ID: 500-144515-1 MS — **Client Sample ID: CSD-1S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 430441

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Dissolved Solids	410		250	706		mg/L		118	75 - 125

Lab Sample ID: 500-144515-1 DU — **Client Sample ID: CSD-1S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 430441

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids	410		420		mg/L		2	5

Method: SM 4500 Cl- E - Chloride, Total

Lab Sample ID: MB 500-431297/4 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		2.0	1.0	mg/L			05/08/18 22:19	1

Lab Sample ID: LCS 500-431297/5 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	50.0	52.3		mg/L		105	85 - 115

Lab Sample ID: 500-144515-1 MS — **Client Sample ID: CSD-1S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431297

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	27		50.0	71.7		mg/L		89	75 - 125

Lab Sample ID: 500-144515-1 MSD — **Client Sample ID: CSD-1S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431297

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	27		50.0	71.8		mg/L		89	75 - 125	0	20

Method: SM 4500 NH3 G - Ammonia

Lab Sample ID: MB 500-431073/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431706 — **Prep Batch: 431073**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	<0.10		0.20	0.10	mg/L		05/07/18 15:00	05/09/18 01:10	1

Lab Sample ID: LCS 500-431073/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431706 — **Prep Batch: 431073**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.49		mg/L		99	80 - 120

Lab Sample ID: 500-144515-4 MS — **Client Sample ID: CSD-3S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431706 — **Prep Batch: 431073**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	<0.10		2.50	2.44		mg/L		98	75 - 125

Lab Sample ID: 500-144515-4 MSD — **Client Sample ID: CSD-3S**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431706 — **Prep Batch: 431073**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	<0.10		2.50	2.35		mg/L		94	75 - 125	4	20

Lab Sample ID: MB 500-431278/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431674 — **Prep Batch: 431278**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.125	J	0.20	0.10	mg/L		05/08/18 18:00	05/09/18 18:02	1

Lab Sample ID: LCS 500-431278/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431674 — **Prep Batch: 431278**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.52		mg/L		101	80 - 120

Lab Sample ID: 500-144515-6 MS — **Client Sample ID: CSD-4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431674 — **Prep Batch: 431278**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.16	J B	2.50	2.51		mg/L		94	75 - 125

Lab Sample ID: 500-144515-6 MSD — **Client Sample ID: CSD-4**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431674 — **Prep Batch: 431278**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.16	J B	2.50	2.61		mg/L		98	75 - 125	4	20

Lab Sample ID: MB 500-431504/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431696 — **Prep Batch: 431504**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	0.121	J	0.20	0.10	mg/L		05/09/18 18:00	05/10/18 01:13	1

Lab Sample ID: LCS 500-431504/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431696 — **Prep Batch: 431504**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.50	2.52		mg/L		101	80 - 120

Lab Sample ID: 500-144515-11 MS — **Client Sample ID: CSD-7D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431696 — **Prep Batch: 431504**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	0.84	B	2.50	3.33		mg/L		100	75 - 125

Lab Sample ID: 500-144515-11 MSD — **Client Sample ID: CSD-7D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431696 — **Prep Batch: 431504**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Ammonia	0.84	B	2.50	3.36		mg/L		101	75 - 125	1	20

Method: SM 5220C - COD

Lab Sample ID: MB 500-431168/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431462 — **Prep Batch: 431168**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<6.0		10	6.0	mg/L		05/08/18 11:39	05/09/18 16:23	1

Lab Sample ID: LCS 500-431168/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431462 — **Prep Batch: 431168**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	50.0	49.5		mg/L		99	85 - 115

Lab Sample ID: MB 500-431820/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 432191 — **Prep Batch: 431820**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<6.0		10	6.0	mg/L		05/11/18 10:55	05/14/18 17:01	1

Method: SM 5220C - COD (Continued)

Lab Sample ID: LCS 500-431820/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 432191 — **Prep Batch: 431820**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	50.0	55.2		mg/L		110	85 - 115

Lab Sample ID: 500-144515-2 MS — **Client Sample ID: CSD-1D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 432191 — **Prep Batch: 431820**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	6.2	J	50.0	53.1		mg/L		94	75 - 125

Lab Sample ID: 500-144515-2 MSD — **Client Sample ID: CSD-1D**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 432191 — **Prep Batch: 431820**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	6.2	J	50.0	57.2		mg/L		102	75 - 125	7	20

Lab Sample ID: MB 500-431821/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431879 — **Prep Batch: 431821**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	<60		100	60	mg/L		05/11/18 10:55	05/11/18 14:06	10

Lab Sample ID: LCS 500-431821/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 431879 — **Prep Batch: 431821**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	500	477		mg/L		95	85 - 115

Lab Chronicle

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-1S

Lab Sample ID: 500-144515-1
Matrix: Water

Date Collected: 04/26/18 14:35
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 19:53	FXG	TAL CHI
Total/NA	Analysis	353.2		25	431266	05/08/18 01:34	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 10:32	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431274	05/08/18 08:05	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 06:51	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:21	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431278	05/08/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431674	05/09/18 18:02	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:05	MAN	TAL CHI

Client Sample ID: CSD-1D

Lab Sample ID: 500-144515-2
Matrix: Water

Date Collected: 04/26/18 13:55
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 19:56	FXG	TAL CHI
Total/NA	Analysis	353.2		25	431266	05/08/18 01:36	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		5	431414	05/09/18 10:40	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431274	05/08/18 08:23	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 06:59	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:24	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431504	05/09/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		2	431696	05/10/18 03:04	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:02	MAN	TAL CHI

Client Sample ID: CSD-2

Lab Sample ID: 500-144515-3
Matrix: Water

Date Collected: 04/26/18 15:25
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:00	FXG	TAL CHI
Total/NA	Analysis	353.2		2	431266	05/08/18 02:50	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 10:43	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431274	05/08/18 08:40	HMW	TAL CHI

Lab Chronicle

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-2

Lab Sample ID: 500-144515-3
Matrix: Water

Date Collected: 04/26/18 15:25
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:01	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:25	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431073	05/07/18 15:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431706	05/09/18 02:18	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:06	MAN	TAL CHI

Client Sample ID: CSD-3S

Lab Sample ID: 500-144515-4
Matrix: Water

Date Collected: 04/26/18 09:00
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:04	FXG	TAL CHI
Total/NA	Analysis	353.2		10	431266	05/08/18 02:52	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 10:46	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431274	05/08/18 09:16	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:04	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:26	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431073	05/07/18 15:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431706	05/09/18 02:20	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:07	MAN	TAL CHI

Client Sample ID: CSD-3D

Lab Sample ID: 500-144515-5
Matrix: Water

Date Collected: 04/26/18 08:35
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:08	FXG	TAL CHI
Total/NA	Analysis	353.2		10	431266	05/08/18 02:58	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 10:49	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431274	05/08/18 09:33	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:06	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:29	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431504	05/09/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431696	05/10/18 01:47	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:08	MAN	TAL CHI

Lab Chronicle

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-4

Lab Sample ID: 500-144515-6
Matrix: Water

Date Collected: 04/26/18 09:30
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:11	FXG	TAL CHI
Total/NA	Analysis	353.2		25	431266	05/08/18 01:49	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 10:52	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431274	05/08/18 10:10	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:09	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:30	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431278	05/08/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431674	05/09/18 18:02	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:09	MAN	TAL CHI

Client Sample ID: CSD-4 DUP

Lab Sample ID: 500-144515-7
Matrix: Water

Date Collected: 04/26/18 09:30
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:15	FXG	TAL CHI
Total/NA	Analysis	353.2		25	431266	05/08/18 01:56	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 11:00	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431274	05/08/18 10:29	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:12	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:31	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431278	05/08/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431674	05/09/18 18:02	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:10	MAN	TAL CHI

Client Sample ID: CSD-5

Lab Sample ID: 500-144515-8
Matrix: Water

Date Collected: 04/26/18 16:00
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:19	FXG	TAL CHI
Total/NA	Analysis	353.2		1	431266	05/08/18 02:59	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		5	431414	05/09/18 11:03	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431712	05/09/18 03:10	HMW	TAL CHI

Lab Chronicle

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-5

Lab Sample ID: 500-144515-8
Matrix: Water

Date Collected: 04/26/18 16:00
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:14	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:31	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431278	05/08/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		5	431674	05/09/18 18:02	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:11	MAN	TAL CHI

Client Sample ID: CSD-6

Lab Sample ID: 500-144515-9
Matrix: Water

Date Collected: 04/26/18 11:55
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:23	FXG	TAL CHI
Total/NA	Analysis	353.2		25	431266	05/08/18 02:00	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 11:06	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431712	05/09/18 03:49	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:17	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:32	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431278	05/08/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431674	05/09/18 18:02	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:12	MAN	TAL CHI

Client Sample ID: CSD-7S

Lab Sample ID: 500-144515-10
Matrix: Water

Date Collected: 04/26/18 11:30
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:27	FXG	TAL CHI
Total/NA	Analysis	353.2		20	431266	05/08/18 03:00	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		10	431414	05/09/18 11:09	MTB	TAL CHI
Total/NA	Analysis	9060A		5	431712	05/09/18 04:08	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:19	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:51	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431278	05/08/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		2	431674	05/09/18 18:02	FJD	TAL CHI
Total/NA	Prep	SM 5220			431821	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		10	431879	05/11/18 14:08	MAN	TAL CHI

Lab Chronicle

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-7D

Lab Sample ID: 500-144515-11
Matrix: Water

Date Collected: 04/26/18 11:10
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:38	FXG	TAL CHI
Total/NA	Analysis	353.2		50	431266	05/08/18 03:01	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 11:11	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431712	05/09/18 04:26	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:22	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:33	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431504	05/09/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431696	05/10/18 01:19	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:12	MAN	TAL CHI

Client Sample ID: CSD-8

Lab Sample ID: 500-144515-12
Matrix: Water

Date Collected: 04/26/18 10:00
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:42	FXG	TAL CHI
Total/NA	Analysis	353.2		25	431266	05/08/18 02:06	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 11:14	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431712	05/09/18 04:44	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:24	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:33	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431504	05/09/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431696	05/10/18 01:28	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:13	MAN	TAL CHI

Client Sample ID: CSD-9

Lab Sample ID: 500-144515-13
Matrix: Water

Date Collected: 04/26/18 12:25
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:45	FXG	TAL CHI
Total/NA	Analysis	353.2		10	431266	05/08/18 03:02	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 11:17	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431712	05/09/18 05:00	HMW	TAL CHI

Lab Chronicle

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Client Sample ID: CSD-9

Lab Sample ID: 500-144515-13
Matrix: Water

Date Collected: 04/26/18 12:25
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:27	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:34	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431504	05/09/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431696	05/10/18 01:30	FJD	TAL CHI
Total/NA	Prep	SM 5220			431820	05/11/18 10:55	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	432191	05/14/18 17:14	MAN	TAL CHI

Client Sample ID: CSD-9 DUP

Lab Sample ID: 500-144515-14
Matrix: Water

Date Collected: 04/26/18 12:25
Date Received: 04/28/18 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			429918	04/30/18 08:08	SAH	TAL CHI
Total Recoverable	Analysis	6020		1	430094	04/30/18 20:49	FXG	TAL CHI
Total/NA	Analysis	353.2		10	431266	05/08/18 03:03	HMW	TAL CHI
Total/NA	Prep	SM4500Norg_C			431148	05/09/18 08:10	MTB	TAL CHI
Total/NA	Analysis	4500 NH3 G		1	431414	05/09/18 11:20	MTB	TAL CHI
Total/NA	Analysis	9060A		1	431712	05/09/18 05:34	HMW	TAL CHI
Total/NA	Analysis	SM 2540C		1	430441	05/03/18 07:30	CLB	TAL CHI
Total/NA	Analysis	SM 4500 Cl- E		1	431297	05/08/18 22:36	HMW	TAL CHI
Total/NA	Prep	SM 4500 NH3 B			431504	05/09/18 18:00	FJD	TAL CHI
Total/NA	Analysis	SM 4500 NH3 G		1	431696	05/10/18 01:33	FJD	TAL CHI
Total/NA	Prep	SM 5220			431168	05/08/18 11:39	MAN	TAL CHI
Total/NA	Analysis	SM 5220C		1	431462	05/09/18 16:31	MAN	TAL CHI

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: RJN Environmental Services LLC
Project/Site: Central Sands Dairy

TestAmerica Job ID: 500-144515-1

Laboratory: TestAmerica Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Wisconsin	State Program	5	999580010	08-31-18

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact
Company: Contact: Bob Nauta
Company: Rjn Env. Svc.
Address: 4811 Monona Drive
Address: Monona, WI 53716
Phone: 608-576-3001
Email: rjnesllc@charter.net
Fax:
E-Mail:

Bill To (optional)
Contact: Kathy Nauta
Email: chevelle7@charter.net
PO#/Reference#

Chain of Custody Record

Lab Job #: 500-144515
Chain of Custody Number:
Page 1 of 2 -1.1-70.4
Temperature °C of Cooler: -1.0-70.5

Client: RJN ENV. SVC.
Client Project #:
Project Name: CENTRAL SANDS DAIRY
Project Location/State: WI
Lab Project #:
Sampler: NAUTA
Lab PM:

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TDS (Preservative 8)	Chloride, N+N COD, NH3 TKN TOC (Preservative 2)	Potassium (Preservative 3)							Comments
1		CSD-1S	4/26	1435	4	W	X	X	X							
2		CSD-1D		1355	4	W	X	X	X							
3		CSD-2		1525	4	W	X	X	X							
4		CSD-3S		0900	4	W	X	X	X							
5		CSD-3D		0835	4	W	X	X	X							
6		CSD-4		0930	4	W	X	X	X							
7		CSD-4 DUP		~~1600~~	4	W	X	X	X							TIME = 0930
8		CSD-5		~~1155~~	4	W	X	X	X							TIME = 1600
9		CSD-6		1155	4	W	X	X	X							
10		CSD-7S		1130	4	W	X	X	X							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	RJN	4/27/18	~~0800~~ 1215	[signature]	TA	4-27-18	1215
[signature]	TA	4-27-18	1700	[signature]	TA	04/28/18	1030

Lab Courier
Shipped
Hand Delivered

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:
500-144515 COC

TAL-4124 5/14/2018

ED_004625A_00005807-00085

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact
Compar
Address
Address
Phone:
Fax:
E-Mail:

Contact: Bob Nauta
Company: Rjn Env. Svc.
Address: 4811 Monona Drive
Address: Monona, WI 53716
Phone: 608-576-3001
Email: rjnesllc@charter.net

Bill To (optional)

Contact: Kathy Nauta
Email: chevelle7@charter.net

PO#/Reference#

Chain of Custody Record

Lab Job #: 500-144515

Chain of Custody Number:

Page 2 of 2

Temperature °C of Cooler:

Client: RJN ENV. SVC.
Client Project #:
Project Name: CENTRAL SANDS DAIRY
Project Location/State:
Lab Project #:
Sampler:
Lab PM:

Preservative Key
1. HCL, Cool to 4°
2. H2SO4, Cool to 4°
3. HNO3, Cool to 4°
4. NaOH, Cool to 4°
5. NaOH/Zn, Cool to 4°
6. NaHSO4
7. Cool to 4°
8. None
9. Other

Lab ID	MS/MSD	Sample ID	Sampling Date	Sampling Time	# of Containers	Matrix	TDS (8)	CHLORIDE (2)	N+N COD NH3 TKN TOC (3)	POTASSIUM							Comments
11		CSD-7D	4/26	1110	4	W	X		X	X							
12		CSD-8	↓	1000	4	W	X		X	X							
13		CSD-9	↓	1225	4	W	X		X	X							
14		CSD-9 DUP	↓	1225	4	W	X		X	X							

Turnaround Time Required (Business Days)
___ 1 Day ___ 2 Days ___ 5 Days ___ 7 Days ___ 10 Days ___ 15 Days _____ Other
Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
[signature]	RJN	4/27/18	~~0800~~ 1215	[signature]	TA	4-27-18	1215
[signature]	TA	4-27-18	1700	[signature]	TA	04/20/18	1030

Lab Courier:
Shipped:
Hand Delivered:

Matrix Key
WW – Wastewater
W – Water
S – Soil
SL – Sludge
MS – Miscellaneous
OL – Oil
A – Air
SE – Sediment
SO – Soil
L – Leachate
WI – Wipe
DW – Drinking Water
O – Other

Client Comments

Lab Comments:

TAL-4124-500 (1209)

5/14/2018

ED_004625A_00005807-00086

Login Sample Receipt Checklist

Client: RJN Environmental Services LLC

Job Number: 500-144515-1

Login Number: 144515
List Number: 1
Creator: Kelsey, Shawn M

List Source: TestAmerica Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

ATTACHMENT C
WISCONSIN STATE LABORATORY OF HYGIENE REPORTS

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN–MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378523001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 2:35:00 PM
Owner:

Collected By: BOB NAUTA
Well Completion Date:

Unique Well #: VY778
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-1S MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378523001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378532001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 1:55:00 PM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 10/01/14

Unique Well #: VY779
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-1D MON WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378532001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378524001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 3:25:00 PM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 10/15/14

Unique Well #: VU928
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-2 MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378524001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378525001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 9:00:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 10/01/14

Unique Well #: VU925
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-3S MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378525001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN–MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378526001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 8:35:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 10/16/14

Unique Well #: VU926
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-3D MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378526001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378548001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 9:30:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 10/01/14

Unique Well #: VU927
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-4 MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378548001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378549001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 9:30:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 10/15/14

Unique Well #: VU927
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-4 DUP MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378549001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378550001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 4:00:00 PM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 08/08/16

Unique Well #: VY742
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-5 MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378550001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN–MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378519001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 11:55:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 08/08/16

Unique Well #: VY715
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-6 MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378519001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378518001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 11:30:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 08/08/16

Unique Well #: VY713
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/28/2018
Sample Reason: OTHER

Sample Comments

CSD-7S MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	>2419.6	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	>2419.6	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378518001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN–MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378530001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 11:10:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 12/18/17

Unique Well #: VY979
Well Construction:
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-7D MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378530001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378520001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 10:00:00 AM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 08/09/16

Unique Well #: VY744
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-8 MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	4	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378520001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378521001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 12:25:00 PM
Owner:

Collected By: BOB NAUTA
Well Completion Date: 10/01/14

Unique Well #: VY811
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location:
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-9 MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378521001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378522001

Report To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575

Invoice To:
RJN ENVIRONMENTAL SVCS
BOB NAUTA
4631 COUNTY RD A
OREGON, WI 53575
Customer ID: 340214

Collection Date: 4/26/2018 12:25:00 PM
Owner:

Collected By: BOB NAUTA
Well Completion Date:

Unique Well #: VY811
Well Construction: DRILLED
County: JUNEAU
Driller or Pump Installers License #:
Sampling Location: CENTRAL SANDS DAIRY
Sampling Point: OTHER

Date Received: 4/27/2018
Date Reported: 4/30/2018
Sample Reason: OTHER

Sample Comments

CSD-9 DUP MON. WELL

Microbiology

Analyte	Analysis Method	Result	Units	LOD	LOQ
Prep Date 04/27/18 Analysis Date 04/28/18					
Total Coliform - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1
E. Coli - Colilert-MPN QT	SM9223BMPN	<1	MPN/100 mL		1

Wisconsin State Laboratory of Hygiene
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Laboratory of Hygiene
2601 Agriculture Drive, PO Box 7996
Madison, WI 53707-7996
(800)442-4618 - FAX (608)224-6213
http://www.slh.wisc.edu

Laboratory Report

D.F. Kurtycz, M.D., Medical Director - Prof. James J. Schauer, Ph.D., Director

Environmental Health Division

WDNR LAB ID: 113133790 NELAP LAB ID: E37658 EPA LAB ID: WI00007, WI00008 WI DATCP ID: 105-415

WSLH Sample: 378522001

List of Abbreviations:

LOD = Level of detection
LOQ = Level of quantification
ND = None detected. Results are less than the LOD
F next to result = Result is between LOD and LOQ
Z next to result = Result is between 0 (zero) and LOD
if LOD=LOQ, Limits were not statistically derived

Test results for NELAP accredited tests are certified to meet the requirements of the NELAC standards. For a list of accredited analytes see http://www.slh.wisc.edu/about/compliance/nelac-laboratory-accreditation
Results, LOD and LOQ values have been adjusted for analytical dilutions and percent moisture where applicable.
Results relate only to the items tested.
This Laboratory Report shall not be reproduced except in full, without written approval of the laboratory.
The water microbiology unit analyzes samples as received and not all samples are tested for preservation before analysis is performed.

Responsible Party

Microbiology: Sharon Kluender, Lab Manager, 608-224-6262
Inorganic Chemistry: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Metals: DeWayne Kennedy-Parker, Lab Manager, 608-224-6282
Organic Chemistry: Al Spallato, Lab Manager, 608-224-6269
Emergency Chemical Response: Noel Stanton, Lab Manager, 608-224-6251
Environmental Toxicology: Tracy Hanke, Lab Manager, 608-224-6270