

CHEMICAL DATA - Analytes tested for in a lab, 2009 - MVTL, New Ulm

RR1 - Primary Lower Redwood River at Redwood CR17 near Redwood Falls - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S001-679

FLOW TYPE	SAMP TYPE	DATE	TIME	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	E.COLI /100mL	TURBIDITY NTU	Sulfate MG/L	Chloride MG/L	Ammonia	Hardness -
																CaCO3 MG/L
Base Flow	Grab	1/21/2009	10:15	09-A2056	5	<2	1.9	4.74	1.13^	1.30^		5	591^	145	0.43	726
Base Flow	Grab	2/24/2009	10:45	09-A5988	6	3	1.4	4.62	1.01^	1.040		7	436^	106	1.02	634
Base Flow	Grab	3/16/2009	8:45	09-A8289	36	7*	2.0	2.65	0.671	0.803		26	220	44	<0.16	370
Snowmelt/tile	Grab	3/24/2009	8:30	09-A9612	576	400		6.12	0.526	1.220		400				
Base Flow	Grab	4/8/2009	8:45	09-A12459	41	7	1.4	4.32	0.344	0.441^		33	374^	47.2	<0.16	606
Base Flow	dup	4/8/2009	8:46	09-A12461	49	8		4.44	0.326	0.426^	47.3*	34				
Base Flow	Grab	4/23/2009	8:30	09-A15841	45	7	1.3	4.71	0.259^	0.353^		34				
Base Flow	dup	4/23/2009	8:31	09-A15827	43	9		4.76	0.258^	0.353^	14.8*	31				
Base Flow	Grab	5/1/2009	9:35	09-A17725	61	8	1.6	4.60	0.222^	0.332^		18*	382^	43.7	<0.16	613
Base Flow	Grab	5/1/2009	9:36	09-A17734							34.1					
Base Flow	Grab	5/7/2009	8:45	09-A18914	20	3	1.4	3.99	0.239^	0.324^		13				
Base Flow	dup	5/7/2009	8:46	09-A18915	18	5		3.93	0.232^	0.316^	18.1*	12				
Base Flow	Grab	5/27/2009	8:45	09-A22497	18	6	1.6	2.58	0.338^	0.421^		13				
Base Flow	Grab	5/27/2009	8:46	09-A22493							104.6*					
Base Flow	Grab	6/2/2009	9:15	09-A23460	24	3	1.5	2.23	0.394^	0.467^		13	429^	85.8	<0.16	667
Base Flow	Grab	6/2/2009	9:16	09-A23468							127.4*					
Storm Flow	Grab	6/8/2009	8:05	09-A24378	34	7	1.4	3.03	0.405^	0.589^		27	499^	125	<0.16	
Storm Flow	Grab	6/11/2009	8:30	09-A25422	51	7	1.7	7.32	0.354^	0.485^		33				
Storm Flow	Grab	6/15/2009	8:30	09-A25871	53	10	2.0	6.36	0.315^*	0.441^		28				
Storm Flow	dup	6/15/2009	8:31	09-A25863	38	6		6.51	0.340^*	0.428^		27				
Storm Flow	Grab	6/18/2009	8:00	09-A26778	69	12		5.03	0.359^	0.551^		41				
Storm Flow	Grab	6/18/2009	8:00	09-A26772							517.2*					
Storm Flow	Grab	6/26/2009	7:45	09-A28226	63	10	1.2	4.73	0.465^	0.616^		42				
Base Flow	Grab	7/9/2009	8:20	09-A30462	52	8	1.3	1.42	0.541^	0.655^		41	405^	69.9	<0.16	610
Base Flow	dup	7/9/2009	8:21	09-A30459	53	7		1.44	0.550^	0.657^	435.2*	40				
Base Flow	Grab	7/15/2009	8:10	09-A31422	86	14	1.6	3.74	0.515^	0.702^		64				
Base Flow	Grab	7/30/2009	8:50	09-A34421	40	11	1.0	0.21	0.541^	0.682^		23				
Base Flow	Grab	8/4/2009	8:15	09-A35126	42	8	1.3	0.49	0.510^	0.662^		33	491^	159	<0.16	622
Base Flow	Grab	8/10/2009	12:20	09-A36172	59	18	1.7	<0.2	0.390^	0.689^		38				
Base Flow	Grab	8/21/2009	7:35	09-A39358	40	11	0.9	<0.2	0.442^	0.560^		29				
Base Flow	Grab	8/26/2009	8:40	09-A39970	53	14	1.3	<0.2	0.372^	0.573^		40				
Base Flow	Grab	9/3/2009	7:45	09-A41339	54	15	1.4	<0.2	0.356^	0.564^		40	600^	141	<0.16	707
Base Flow	dup	9/3/2009	7:46	09-A41338	53	14		<0.2	0.362^	0.531^		39				
Base Flow	Grab	9/16/2009	8:10	09-A43276	19	6	1.4	<0.2	0.403^	0.583^		35				
Base Flow	Grab	9/16/2009	8:10	09-A43253							160.7*					
Base Flow	Grab	9/24/2009	7:55	09-A44701	42	11	1.2	<0.2	0.478^	0.694^		34				

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STORET CODE - S001-679

FLOW TYPE	SAMP TYPE	DATE	TIME	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	E.COLI /100mL	TURBIDITY NTU	Sulfate MG/L	Chloride MG/L	Ammonia	Hardness -
																CaCO3 MG/L
Storm Flow	Grab	10/2/2009	7:35	09-A46106	50	10	1.0	0.89	0.737^	0.958^		40	376^	93.7	<0.16	451
Storm Flow	Grab	10/5/2009	9:40	09-A46186	47	10		1.70	0.694^	0.837^		50				
Storm Flow	Grab	10/7/2009	8:35	09-A46941	93	17	2.0	2.84	0.851^	1.13^		70				
Storm Flow	dup	10/7/2009	8:35	09-A46943	67	13		2.86	0.857^	1.09^		71				
Storm Flow	Grab	10/8/2009	9:10	09-A47259	103	16	1.6	4.90	0.794^	1.17^		88				
Storm Flow	Grab	10/12/2009	8:20	09-A47872	28	6	2.0	5.23	0.642^	0.751^		20				
Storm Flow	dup	10/12/2009	8:21	09-A47871	23	5		5.24	0.646^	0.752^		20				
Storm Flow	Grab	10/22/2009	8:30	09-A50190	66	10	0.7	6.15	0.491^	0.607^		54				
Base Flow	Grab	11/10/2009	14:10	09-A53547	43	8	1.7	8.25	0.257^	0.361^		31				
Base Flow	Grab	11/23/2009	13:05	09-A55471	36	6	1.2	8.30	0.362	0.413^		26				
Base Flow	Grab	12/4/2009	10:15	09-A57143	8	2	1.3	8.18	0.277^	0.308^		6.3	556^	66.4	<0.16	844

^ Sample Diluted due to result above calibration or linear range

In CST, OK during winter, subtract 1 hr during daylight savings

* Sample Exceeded Holding Time

So, +1 hr from time noted for actual time in field.

CHEMICAL DATA - Analytes tested for in a lab, 2009 - MVTL, New Ulm

CC3 - Clear Creek in Seaforth - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S002-311

FLOW TYPE	SAMP TYPE	DATE	TIME	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	E.COLI /100mL	TURBIDITY NTU				
Snowmelt/tile	Grab	3/24/2009	8:55	09-A9614	400	57		10.00	0.498	1.040		280				
Base Flow	Grab	4/8/2009	9:15	09-A12462	6	<2		9.63	0.099	0.098	26.2*	5				
Base Flow	Grab	4/23/2009	9:00	09-A15828	25	6		9.23	0.013	0.057	43.9	13				
Base Flow	Grab	5/7/2009	9:15	09-A18916	21	4		7.89	0.008	0.051	150.0*	12				
Base Flow	Grab	5/27/2009	9:25	09-A22487	15	2		5.05	0.051	0.052	160.7*	13				
Base Flow	Grab	6/4/2009	8:25	09-A24055	30	6		2.51	0.039	0.076	150.0*	19				
Storm Flow	Grab	6/15/2009	9:10	09-A25864	9	2		11.50	0.042*	0.042		6.8				
Storm Flow	Grab	6/18/2009	8:25	09-A26773	24	5		13.60	0.110^	0.107	980.4*	8				
Storm Flow	Grab	6/25/2009	8:30	09-A27974	10	2		9.29	0.060	0.056		7.3				
Base Flow	Grab	7/9/2009	8:50	09-A30456	7	<2		7.32	0.104	0.108	488.4*	6.4				
Base Flow	Grab	7/15/2009	8:40	09-A31417	7	<2		3.60	0.117	0.127		7.9				
Base Flow	Grab	8/4/2009	8:45	09-A35120	18	4	<0.2		0.135	0.157	27.2*	17				
Base Flow	Grab	8/26/2009	9:00	09-A39973	18	5		0.28	0.216^	0.244^		14				
Base Flow	Grab	9/16/2009	8:40	09-A43243	13	3		0.21	0.244^	0.289^	344.8*	17				
Storm Flow	Grab	10/7/2009	9:00	09-A46944	37	8		11.20	0.200^	0.298^		25				

^ Sample Diluted due to result above calibration or linear range

* Sample Exceeded Holding Time

CHEMICAL DATA - Analytes tested for in a lab, 2009 - MVTL, New Ulm

TC4A - Three Mile Creek near Green Valley - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S002-313

FLOW TYPE	SAMP TYPE	DATE	TIME	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	E.COLI	TURBIDITY NTU
Snowmelt/tile	Grab	3/24/2009	9:45	09-A9613	247	35		4.94	0.277	0.547		140
Base Flow	Grab	4/8/2009	10:00	09-A12463	12	2		4.67	0.064	0.075	3.1	9
Base Flow	Grab	4/23/2009	9:45	09-A15829	29	6		4.33	0.028	0.065	25.9	19
Base Flow	Grab	5/7/2009	10:05	09-A18917	12	6		2.88	0.016	0.049	34.5	12
Base Flow	Grab	5/27/2009	10:20	09-A22488	19	3		1.44	0.055	0.059	12.7	18
Base Flow	Grab	6/4/2009	9:15	09-A24056	57	9		1.31	0.083	0.084	62.0*	39
Storm Flow	Grab	6/15/2009	10:00	09-A25865	43	7		1.55	0.073	0.115		36
Storm Flow	Grab	6/18/2009	9:30	09-A26774	55	10		1.84	0.091	0.133	2419.6*	28
Storm Flow	Grab	6/25/2009	9:15	09-A27975	37	6		3.41	0.140	0.148		31
Base Flow	Grab	7/9/2009	9:30	09-A30457	33	5		1.69	0.111	0.144	1299.7*	26
Base Flow	Grab	7/15/2009	9:15	09-A31418	36	6		1.84	0.139	0.162		37
Base Flow	Grab	8/4/2009	9:30	09-A35121	32	9		<0.2	0.064	0.111	16.9*	29
Base Flow	Grab	8/26/2009	9:45	09-A39974	8	3		0.24	0.049	0.058		7.2
Base Flow	Grab	9/16/2009	9:20	09-A43244	7	<2		<0.2	0.050	0.059	501.2*	8.4
Storm Flow	Grab	10/7/2009	9:50	09-A46945	14	3		1.92	0.129	0.167		9.7

^ Sample Diluted due to result above calibration or linear range

* Sample Exceeded Holding Time

CHEMICAL DATA - Analytes tested for in a lab, 2009 - MVTL, New Ulm

RRUS - Redwood River at Russell - Non-impacted stream/Western Corn Belt Plains

STORET CODE - S000-696

FLOW TYPE	SAMP TYPE	DATE	TIME	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	E.COLI	TURB NTU
Base Flow	Grab	4/8/2009	11:30	09-A12464	11	4		1.48	0.029	0.086	6.2	13
Base Flow	Grab	4/23/2009	11:20	09-A15830	5	5		1.41	0.009	0.029	16	5
Base Flow	Grab	5/7/2009	11:20	09-A18918	6	<2		1.17	0.007	0.031	34.5	5
Base Flow	Grab	5/27/2009	11:45	09-A22489	2	<2		0.75	0.023	0.029	77.6	3
Base Flow	Grab	6/4/2009	10:45	09-A24057	3	<2		0.40	0.019	0.038	53.7	2.3
Base Flow	Grab	6/15/2009	11:15	09-A25866	<2	<2		0.92	0.036	0.039		6.6
Storm Flow	Grab	6/18/2009	10:45	09-A26775	27	6		5.63	0.074	0.090	1413.6	16
Storm Flow	Grab	6/25/2009	10:15	09-A27976	25	4		2.75	0.106	0.123		16
Storm Flow	Grab	7/9/2009	10:45	09-A30458	51	6		3.17	0.144	0.195	980.4	38
Base Flow	Grab	7/15/2009	10:05	09-A31419	20	7		2.31	0.140	0.160		21
Base Flow	Grab	8/4/2009	10:45	09-A35122	6	2		<0.2	0.068	0.061	72.8	4.3
Base Flow	Grab	9/16/2009	10:50	09-A43245	8	4		<0.2	0.047	0.035	235.9	3.6
Base Flow	Grab	10/7/2009	10:30	09-A46946	13	<2		0.79	0.054	0.096		7.6

^ Sample Diluted due to result above calibration or linear range

* Sample Exceeded Holding Time