

**CHEMICAL DATA - Analytes tested for in a lab, 2014 - 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	FLOW (ft <sup>3</sup> /sec)	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	TURBIDITY NTU
Baseflow	Grab	1/24/2014	9:45		14-A2562	4	< 2	1.9	7.23	1.59^	1.99^	4.9
Baseflow	Grab	2/28/2014	11:00		14-A5892	< 2	< 2	2.6	6.20	1.62^	1.860	8.6
Snowmelt	Grab	3/13/2014	9:45		14-A7208	32	14	5.2	6.04	1.91^	2.14^	37
Snowmelt	Grab	3/17/2014	8:40		14-A7438	19	7	3.3	3.98	0.857^	1.100	22
Snowmelt	Grab	3/20/2014	10:15		14-A7993	21	9	2.7	3.71	0.643^	0.798	14
Snowmelt	Grab	3/28/2014	10:15		14-A8862	15	5	2.1	2.55	0.484	0.647	24
Snowmelt	Grab	4/9/2014	10:05		14-A10742	53	11	1.5	1.70	0.295	0.471	36
Baseflow	Grab	4/21/2014	9:50		14-A12341	54	18	1.8	0.68	0.222	0.485	33
Storm Event	Grab	5/1/2014	10:30		14-A14390	27	9	1.2	2.07	0.248	0.347	16
Storm Event	Dup	5/1/2014	10:35		14-A14396	28	12	1.4	2.10	0.251	0.349	18
Storm Event	Grab	5/3/2014	11:55		14-A14749	29	8	1.2	2.47	0.184*	0.328	19*
Storm Event	Grab	5/5/2014	11:45		14-A14756	26	8	1.0	2.24	0.191	0.323	18
Storm Event	Grab	5/13/2014	10:00		14-A16431	69	9	1.2	2.66	0.209	0.371	43
Storm Event	Grab	5/15/2014	11:30		14-A17090	96	24	1.7	3.95	0.147	0.355	57
Storm Event	Grab	5/16/2014	9:00		14-A17491	77	16	1.7	4.91	0.161	0.341	50
Baseflow	Grab	5/30/2014	8:55		14-A19717	47	13	0.7	1.81	0.258	0.382	28
Storm Event	Grab	6/2/2014	10:45		14-A19962	392	80	3.0	8.84	0.227	0.790^	210
Storm Event	Grab	6/3/2014	9:45		14-A20202	219	29	2.6	10.20	0.231	0.530^	130
Storm Event	Grab	6/6/2014	10:00		14-A21366	228	32	2.4	9.77	0.142	0.439	120
Storm Event	Grab	6/8/2014	13:15		14-A21580	261	125	2.7	9.81	0.144	0.473	150
Storm Event	Grab	6/12/2014	10:10		14-A22527	185	26	2.8	9.51	0.121	0.368	57
Storm Event	Dup	6/12/2014	10:15		14-A22532	178	24	2.5	9.43	0.142	0.350	97
Storm Event	Grab	6/15/2014	12:45		14-A23046	384	64	3.8	12.00	0.209*	0.730^	190
Storm Event	Grab	6/16/2014	10:15		14-A23056	266	48	3.1	11.60	0.207	0.690^	170
Storm Event	Grab	6/19/2014	11:05		14-A24010	380	56	2.6	5.55	0.292	0.780^	240
Storm Event	Grab	6/20/2014	10:50		14-A24306	122	24	1.3	5.48	0.178	0.389	79
Storm Event	Grab	6/22/2014	12:50		14-A24498	67	30	1.4	5.02	0.176	0.310	30
Storm Event	Grab	6/26/2014	11:10		14-A25627	29	6	1.5	3.97	0.123	0.188	10
Baseflow	Grab	7/7/2014	10:50		14-A27288	95	20	1.5	7.29	0.239^	0.345	52
Baseflow	Grab	7/30/2014	10:35		14-A32012	53	14	1.4	2.21	0.231*	0.361	31
Baseflow	Grab	8/13/2014	10:35		14-A34265	34	11	1.2	1.34	0.216	0.380	22
Baseflow	Grab	8/29/2014	9:25		14-A37101	60	17	1.4	0.32	0.110	0.311	42
Baseflow	Dup	8/29/2014	9:30		14-A37107	61	19	1.5	0.34	0.115	0.239	40
Baseflow	Grab	9/16/2014	10:05		14-A39991	44	17	1.9	0.41	0.069	0.283	28
Baseflow	Grab	9/29/2014	10:05		14-A42372	32	12	1.4	0.44	0.118	0.231	21
Baseflow	Grab	10/15/2014	10:05		14-A45631	17	8	1.2	1.44	0.425	0.640^	14
Baseflow	Grab	11/10/2014	11:10		14-A50991	8	4	1.3	2.33	0.798^	0.998^	2.9
Baseflow	Grab	12/29/2014	9:40		14-A56595	5	2	0.8	3.18	0.707^	0.704^	7.1

^ Sample Diluted due to result above calibration or linear range

\* Sample Exceeded Holding Time

**CHEMICAL DATA - Analytes tested for in a lab, 2014 - MVTL, New Ulm**

**NMRR2 - Redwood River, 0.5 mi North of Marshall on 300th Ave. - Non-impacted stream/Western Corn Belt Plains**

**STORET CODE - S001-203**

FLOW TYPE	SAMP TYPE	DATE	TIME	FLOW (ft <sup>3</sup> /sec)	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	TURBIDITY NTU
Snowmelt	Grab	3/11/2014	12:10		14-A6819	193	87	4.0	2.70	0.896^	1.50^	140
Snowmelt	Grab	3/13/2014	10:45		14-A7209	14	8	3.1	4.36	1.50^	1.66^	16
Snowmelt	Grab	3/20/2014	11:15		14-A7994	15	8	2.6	7.98	1.77^	2.000	6.3
Snowmelt	Grab	3/28/2014	9:20		14-A8863	50*	< 2*	2.1	4.49	0.850^	1.100	18
Base	Grab	4/9/2014	11:05		14-A10743	40	11	1.5	2.71	0.474	0.680^	26
Base	Grab	4/21/2014	10:45		14-A12342	15	8	1.4	2.62	0.564^	0.763	7.7
Storm Event	Grab	4/29/2014	11:30		14-A13712	34	9	1.5	2.81	0.613^	0.680^	25
Storm Event	Grab	5/1/2014	11:30		14-A14391	58	12	1.8	2.72	0.298	0.420	35
Storm Event	Dup	5/1/2014	11:35		14-A14397	57	15	1.7	2.75	0.284	0.420	34
Storm Event	Grab	5/3/2014	12:45		14-A14750	31	10	1.3	3.07	0.368*	0.535	17*
Storm Event	Grab	5/13/2014	10:55		14-A16432	104	14	1.2	2.31	0.188	0.398	49
Storm Event	Grab	5/16/2014	10:00		14-A17492	28	9	1.4	3.39	0.348^	0.441	17
Base	Grab	5/30/2014	10:05		14-A19718	33	8	0.7	2.16	0.578^	0.670^	15
Storm Event	Grab	6/2/2014	11:35		14-A19963	43	14	1.4	2.17	0.322	0.472	22
Storm Event	Grab	6/4/2014	11:35		14-A20784	140	30	2.3	7.44	0.157	0.346	68
Storm Event	Grab	6/6/2014	11:35		14-A21367	298	36	2.8	4.33	0.112	0.439	150
Storm Event	Grab	6/9/2014	12:00		14-A21581	171	24	1.8	5.18	0.117	0.325	42
Storm Event	Grab	6/15/2014	13:35		14-A23047	1140	152	4.6	3.86	0.063	1.16^	580
Storm Event	Dup	6/15/2014	13:40		14-A23052	1070	144	4.5	3.87	0.066	1.18^	540
Storm Event	Grab	6/16/2014	11:35		14-A23057	532	78	2.6	6.36	0.098	0.770^	350
Storm Event	Grab	6/18/2014	11:00		14-A23799	716	108	3.4	5.16	0.117	0.790^	410
Storm Event	Grab	6/22/2014	13:45		14-A24499	48	24	2.7	3.95	0.105	0.387	110
Rerun		6/22/2014			14-A24499	276	60					150
Base	Grab	7/9/2014	11:20		14-A27995	71	15	1.7	2.89	0.390^	0.498	37
Base	Grab	7/30/2014	11:50		14-A32013	24	10	1.4	2.66	0.426*	0.570^	8.6
Base	Grab	8/13/2014	11:55		14-A34266	20	6	1.4	4.81	0.188	0.298	11
Base	Grab	8/29/2014	10:55		14-A37102	6	4	1.1	4.36	0.536^	0.625^	3.2
Base	Grab	9/16/2014	11:00		14-A39992	5	5	1.4	4.66	0.586^	0.700^	3.3
Base	Dup	9/16/2014	11:05		14-A39996	7	6	1.5	4.59	0.559^	0.710^	5.4
Base	Grab	9/29/2014	11:00		14-A42373	< 2	< 2	1.1	6.08	2.36^	2.31^	1.5
Base	Grab	10/10/2014	9:45		14-A44913	7	5	1.2	6.96	2.54^	2.51^	1.4

^ Sample Diluted due to result above calibration or linear range

\* Sample Exceeded Holding Time

**CHEMICAL DATA - Analytes tested for in a lab, 2014 - 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	FLOW (ft <sup>3</sup> /sec)	LAB SAMPLE ID #	TSS MG/L	TSVS MG/L	TKN MG/L	N-NO2+NO3 MG/L	P-PO4 MG/L	TP MG/L	TURBIDITY NTU
Snowmelt	Grab	3/11/2014	11:30		14-A6820	48	32	3.4	1.84	0.871^	1.06^	24
Snowmelt	Grab	3/13/2014	11:30		14-A7210	10	8	3.3	3.40	0.636^	0.838^	17
Snowmelt	Grab	3/20/2014	12:00		14-A7995	12	4	2.3	2.98	0.350	0.474	7.1
Snowmelt	Grab	3/28/2014	8:30		14-A8864	69*	8*	1.7	2.11	0.196	0.314	16
Base	Grab	4/9/2014	11:40		14-A10749	17	9	1.7	1.46	0.048	0.148	20
Base	Grab	4/21/2014	11:25		14-A12343	12	7	1.2	< 0.2	< 0.005	0.058	6.8
Storm Event	Grab	4/29/2014	12:00		14-A13713	11	5	1.2	0.83	0.009	0.057	16
Storm Event	Grab	5/1/2014	12:05		14-A14392	22	10	2.1	2.58	0.028	0.087	13
Storm Event	Dup	5/1/2014	12:10		14-A14398	18	9	1.7	2.54	0.027	0.084	12
Storm Event	Grab	5/3/2014	13:25		14-A14751	9	6	1.1	1.68	0.008*	0.057	8.6*
Storm Event	Grab	5/13/2014	11:30		14-A16433	37	7	1.5	4.46	0.016	0.117	26
Storm Event	Grab	5/16/2014	10:50		14-A17493	9	5	1.2	2.42	0.007	0.037	6
Base	Grab	5/30/2014	11:15		14-A19719	8	6	0.9	0.39	0.007	0.034	3
Storm Event	Grab	6/2/2014	12:15		14-A19964	109	27	2.1	4.26	0.014	0.170	56
Storm Event	Grab	6/4/2014	12:15		14-A20785	65	21	2.2	6.14	0.076	0.186	27
Storm Event	Grab	6/6/2014	12:10		14-A21368	281	40	2.9	7.00	0.084	0.384	180
Storm Event	Grab	6/12/2014	11:25		14-A22528	59	11	1.5	3.54	0.029	0.121	37
Storm Event	Grab	6/15/2014	14:15		14-A23048	644	96	3.2	6.52	0.095	0.870^	380
Storm Event	Dup	6/15/2014	14:20		14-A23053	584	88	3.5	6.46	0.069	0.840^	360
Storm Event	Grab	6/16/2014	12:10		14-A23058	312	54	2.4	6.45	0.102	0.436	180
Storm Event	Grab	6/18/2014	11:40		14-A23800	632	112	2.5	5.28	0.107	0.453	200
Storm Event	Grab	6/22/2014	14:20		14-A24500	119	31	1.7	4.05	0.103	0.239	46
Base	Grab	7/9/2014	11:55		14-A27996	57	12	1.4	2.17	0.054	0.131	22
Base	Grab	7/30/2014	12:30		14-A32014	21	10	1.1	1.35	0.077*	0.142	13
Base	Grab	8/13/2014	12:30		14-A34267	16	8	1.4	2.30	0.091	0.158	13
Base	Grab	8/29/2014	11:30		14-A37103	8	6	0.9	0.43	0.092	0.139	5.5
Base	Grab	9/16/2014	11:35		14-A39993	4	4	1.1	1.89	0.024	0.053	5.9
Base	Dup	9/16/2014	11:40		14-A39997	4	4	1.1	1.89	0.026	0.054	5.5
Base	Grab	9/29/2014	11:40		14-A42374	4	3	0.7	0.22	0.031	0.038	2.5
Base	Grab	10/10/2014	10:45		14-A44914	< 2	< 2	0.7	< 0.2	0.021	0.018	1.9

^ Sample Diluted due to result above calibration or linear range

\* Sample Exceeded Holding Time