

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

**PLC001 - Primary Lower Cottonwood River near New Ulm - Non-impacted stream/Western Corn Belt Plains**

**STORET CODE - S001-918**

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	Chloride MG/L	Sulfate MG/L	Ammonia MG/L	Hardness CaCO3 - MG/L
Base Flow	Grab	1/21/2009	11:35	09-A2057	4	<2	0.9	2.55	0.021	0.032		3	29.4	250	0.43	586
Base Flow	Grab	2/24/2009	12:00	09-A5989	13	3	1.6	3.66	0.198	0.221		7	24	243	0.59	464
Base Flow	Grab	3/16/2009	11:00	09-A8290	81	8*	1.7	2.27	0.298	0.413		41	17.3	161	<0.16	351
Snowmelt/Tile	Grab	3/24/2009	13:15	09-A9611	303	32		2.71	0.166	0.483		170				
Base Flow	Grab	4/9/2009	13:55	09-A12878							<1					
Base Flow	Grab	4/9/2009	13:56	09-A12873	25*	8*	0.9	3.72	0.065	0.114		18	28.1	286	<0.16	591
Base Flow	Grab	4/21/2009	14:15	09-A15282	21	10	1.4	1.93	0.014	0.067		11				
Base Flow	Grab	4/21/2009	14:16	09-A15273							4.1					
Base Flow	Grab	5/1/2009	13:50	09-A17726	54	9	1.6	2.69	0.012	0.062		17*	29.8	299	<0.16	508
Base Flow	Dup	5/1/2009	13:51	09-A17733	23	6		2.61	0.012	0.062		18*				
Base Flow	Grab	5/1/2009	13:52	09-A17735							8.5					
Base Flow	Grab	5/14/2009	13:05	09-A20536	24	22	2.9	4.77	0.012	0.066		11				
Base Flow	Grab	5/14/2009	13:06	09-A20804							18.5					
Base Flow	Grab	5/26/2009	13:45	09-A22100	24	5	1.6	1.98	0.012	0.052		14				
Base Flow	Dup	5/26/2009	13:46	09-A22094	21	5		1.96	0.010	0.049	16.0	12				
Base Flow	Grab	6/2/2009	12:30	09-A23461	22	6	1.0	1.18	0.018	0.057		7.5	33.2	291^	<0.16	518
Base Flow	Dup	6/2/2009	12:31	09-A23469	16	7		1.15	0.018	0.054	21.6	7.4				
Storm Flow	Grab	6/8/2009	11:45	09-A24379	41	9	0.9	0.88	0.034	0.103		32	26.3	261	<0.16	
Storm Flow	Dup	6/8/2009	11:46	09-A24386	43	10		0.88	0.031	0.087		34				
Storm Flow	Grab	6/11/2009	14:05	09-A25423	78	9	1.7	8.05	0.041	0.100		39				
Storm Flow	Grab	6/15/2009	14:40	09-A25872	29	7	1.7	8.46	0.037	0.094		24				
Storm Flow	Grab	6/18/2009	14:45	09-A26779	65	12	1.9	6.13	0.042	0.107		28				
Storm Flow	Dup	6/18/2009	14:46	09-A26769	76	14		6.10	0.042	0.108		30				
Storm Flow	Grab	6/26/2009	11:55	09-A28228	84	15	1.7	4.74	0.054	0.086		44				
Storm Flow	Dup	6/26/2009	11:56	09-A28225	65	11		4.73	0.052	0.116		35				
Base Flow	Grab	7/9/2009	14:40	09-A30463	58	20	1.6	<0.2	0.035	0.118		30	27.1	278	<0.16	447
Base Flow	Grab	7/9/2009	14:40	09-A30455							16.9					
Base Flow	Grab	7/15/2009	13:20	09-A31423	39	16	1.4	<0.2	0.048	0.118		32				
Base Flow	Dup	7/15/2009	13:21	09-A31421	51	18		<0.2	0.049	0.119		27				
Base Flow	Grab	7/21/2009	14:25	09-A32507	35	11	1.0	<0.2	0.036	0.083		18				
Base Flow	Dup	7/21/2009	14:26	09-A32503	33	15		<0.2	0.038	0.084		18				
Base Flow	Grab	7/30/2009	11:50	09-A34422	28	11	0.7	<0.2	0.057	0.099		15				
Base Flow	Grab	8/4/2009	14:40	09-A35127	31	13	1.5	<0.2	0.041	0.095		16	27.4	207	<0.16	402
Base Flow	Dup	8/4/2009	14:41	09-A35118	30	12		<0.2	0.044	0.097	5.2	16				
Base Flow	Grab	8/10/2009	13:50	09-A36174	20	8	1.2	<0.2	0.045	0.090		13				
Base Flow	Grab	8/21/2009	12:15	09-A39360	49	17	1.0	<0.2	0.045	0.142		26				
Base Flow	Dup	8/21/2009	12:16	09-A39357	47	18		<0.2	0.044	0.142		20				

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**STORET CODE - S001-918**

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	Chloride MG/L	Sulfate MG/L	Ammonia MG/L	Hardness CaCO3 - MG/L
Base Flow	Grab	8/26/2009	15:05	09-A39971	38	19	0.9	<0.2	0.033	0.118		23				
Base Flow	Dup	8/26/2009	15:06	09-A39979	46	19		<0.2	0.030	0.119		23				
Base Flow	Grab	9/3/2009	11:35	09-A41341	20	11	1.1	0.25	0.032	0.073		8.5	40.1	176	<0.16	365
Base Flow	Grab	9/16/2009	15:20	09-A43277	12	7	1.4	<0.2	0.031	0.063		8.9				
Base Flow	Dup	9/16/2009	15:21	09-A43249	13	5		<0.2	0.032	0.069	77.6	9.2				
Base Flow	Grab	9/24/2009	12:10	09-A44703	12	6	0.6	0.43	0.008	0.080		5.2				
Base Flow	Dup	9/24/2009	12:11	09-A44700	6	2		0.44	0.012	0.082		6				
Storm Flow	Grab	10/2/2009	14:30	09-A46108	47	8	0.6	0.36	0.029	0.102		32	44.1	138	<0.16	279
Storm Flow	Dup	10/2/2009	14:31	09-A46105	51	8		0.35		0.098						
Storm Flow	Grab	10/5/2009	10:45	09-A46187	19	6		1.27	0.024	0.073		11				
Storm Flow	Grab	10/7/2009	14:05	09-A46942	76	10	1.3	2.39	0.066	0.178		41				
Storm Flow	Grab	10/8/2009	12:50	09-A47261	47	6	1.7	4.25	0.079	0.177		41				
Storm Flow	Dup	10/8/2009	12:51	09-A47282	67	9		4.24	0.079	0.181		42				
Storm Flow	Grab	10/12/2009	12:15	09-A47874	10	<2	1.9	5.30	0.037	0.082		6.3				
Storm Flow	Grab	10/22/2009	9:35	09-A50191	18	3	0.4	5.75	0.019	0.074		13				
Base Flow	Grab	11/10/2009	15:15	09-A53548	20	5.0	1.2	8.11	0.020	0.062		13				
Base Flow	Grab	11/23/2009	14:10	09-A55472	10	3.0	1.4	7.08	0.012	0.033		3.4				
Base Flow	Grab	12/4/2009	11:20	09-A57144	6	<2	1.3	8.31	0.018	0.036		5.6	34.7	357^	0.17	648

^ 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**

**PLS005 - Primary Lower Sleepy Eye Creek near Cobden - Non-impacted stream/Western Corn Belt Plains**

**STORET CODE - S001-919**

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	TURB. NTU
Snowmelt/Tile	Grab	3/24/2009	12:30	09-A9610	239	33		8.34	0.40	0.68		180
Base Flow	Grab	4/9/2009	13:05	09-A12877	3*	3*		8.57	0.08	0.09	<1	6
Base Flow	Grab	4/21/2009	13:20	09-A15272	3	3		7.54	0.01	0.03	19.7	7
Base Flow	Grab	5/14/2009	11:45	09-A20532	11	8		10.70	0.02	0.05	44.1	6.1
Base Flow	Dup.	5/14/2009	11:46	09-A20533	13	6		10.60	0.02	0.05		7.1
Base Flow	Grab	5/26/2009	12:45	09-A22093	20	6		5.40	0.03	0.11	83.3	12
Base Flow	Grab	6/4/2009	13:35	09-A24063	23	9		3.33	0.04	0.08	40.2	13
Storm Flow	Grab	6/11/2009	12:35	09-A25419	34	8		14.60	0.10	0.11		22
Storm Flow	Grab	6/15/2009	13:15	09-A25868	21	4		13.20	0.08	0.10		13
Storm Flow	Grab	6/18/2009	13:45	09-A26765	32	5		11.70	0.092^	0.10	980.4	19
Base Flow	Grab	6/25/2009	12:35	09-A27980	16	<2		8.80	0.13	0.15		12
Base Flow	Grab	7/9/2009	13:40	09-A30452	11	3		1.81	0.11	0.13	231.0	7.6
Base Flow	Grab	7/21/2009	13:10	09-A32502	9	5		0.20	0.05	0.08		6
Base Flow	Grab	8/4/2009	13:40	09-A35117	59	20		<0.2	0.04	0.198^	20.2	26
Base Flow	Grab	8/21/2009	11:10	09-A39356	37	15		<0.2	0.07	0.239^		16
Base Flow	Grab	8/26/2009	13:10	09-A39978	34	12		<0.2	0.05	0.205^		17
Base Flow	Grab	9/16/2009	13:15	09-A43248	19	7		<0.2	0.04	0.10	461.1	13
Storm Flow	Grab	10/2/2009	12:25	09-A46104	5	<2		0.63		0.13		
Storm Flow	Grab	10/7/2009	12:45	09-A46950	14	7		6.57	0.16	0.224^		9.4
Storm Flow	Grab	10/12/2009	11:20	09-A47870	3	<2		9.04	0.08	0.10		2.8

^ 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**

**PLC010 - Primary Lower Cottonwood River near Leavenworth - Non-impacted stream/Western Corn Belt Plains**

**STORET CODE - S001-920**

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	12:15	09-A9609	76	13		2.56	0.135	0.295		72
Base Flow	Grab	4/9/2009	12:45	09-A12876	29*	8*		2.79	0.060	0.115	2.0	17
Base Flow	Grab	4/21/2009	13:00	09-A15271	28	10		1.47	0.015	0.074	5.2	14
Base Flow	Grab	5/14/2009	11:20	09-A20531	21	6		4.28	0.015	0.054	22.6	6.2
Base Flow	Grab	5/26/2009	12:30	09-A22092	12	5		1.80	0.013	0.044	53.8	5.9
Base Flow	Grab	6/4/2009	13:20	09-A24062	19	6		1.01	0.022	0.073	27.8	6.7
Storm Flow	Grab	6/11/2009	12:20	09-A25420	47	7		5.05	0.055	0.106		20
Storm Flow	Grab	6/15/2009	12:55	09-A25867	26	6		6.98	0.054	0.099		15
Storm Flow	Grab	6/18/2009	13:20	09-A26764	41	10		6.41	0.079	0.110	1,119.9	15
Storm Flow	Grab	6/25/2009	12:15	09-A27979	70	13		4.32	0.063	0.198^		38
Base Flow	Grab	7/9/2009	13:20	09-A30451	50	12		0.68	0.046	0.158	285.1	29
Base Flow	Grab	7/21/2009	12:50	09-A32501	43	16	<0.2		0.039	0.141		23
Base Flow	Grab	8/4/2009	13:20	09-A35116	45	15	<0.2		0.046	0.161	18.7	28
Base Flow	Grab	8/21/2009	10:55	09-A39355	12	4		0.36	0.057	0.094		9.5
Base Flow	Grab	8/26/2009	12:55	09-A39977	14	8	<0.2		0.047	0.127		10
Base Flow	Grab	9/16/2009	12:55	09-A43247	8	4	<0.2		0.035	0.070	191.8	9.2
Storm Flow	Grab	10/2/2009	12:10	09-A46103	7	3		0.82		0.143		
Storm Flow	Grab	10/7/2009	12:30	09-A46949	20	6		4.95	0.123	0.210^		21
Storm Flow	Grab	10/12/2009	11:00	09-A47869	5	2		3.36	0.056	0.096		5

^ 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**

**PMC020 - Primary Middle Cottonwood River near Lambertton - Non-impacted stream/Western Corn Belt Plains**

**STORET CODE - S002-247**

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	11:20	09-A9608	96	15		2.25	0.122	0.254		65
Base Flow	Grab	4/9/2009	12:00	09-A12875	14*	5*		2.17	0.050	0.079	7.4	16
Base Flow	Grab	4/21/2009	12:15	09-A15270	16	6		1.28	0.019	0.055	16.0	9
Base Flow	Grab	5/14/2009	10:40	09-A20530	16	4		3.31	0.014	0.044	29.1	6.1
Base Flow	Grab	5/26/2009	11:45	09-A22091	11	5		1.03	0.020	0.065	73.3	8.8
Base Flow	Grab	6/4/2009	12:40	09-A24061	16	8		0.65	0.036	0.074	39.3	9.2
Storm Flow	Grab	6/18/2009	12:40	09-A26763	38	10		4.39	0.084	0.116	461.1	21
Storm Flow	Grab	6/25/2009	11:40	09-A27978	54	9		2.36	0.093	0.194		35
Base Flow	Grab	7/9/2009	12:40	09-A30450	38	9		0.23	0.073	0.180	307.6	29
Base Flow	Grab	7/21/2009	12:15	09-A32500	33	13		<0.2	0.053	0.138		22
Base Flow	Grab	8/4/2009	12:40	09-A35115	15	5		<0.2	0.056	0.116	116.0	10
Base Flow	Grab	8/26/2009	12:15	09-A39976	5	3		<0.2	0.066	0.088		7.4
Base Flow	Grab	9/16/2009	12:15	09-A43246	9	3		<0.2	0.072	0.099	488.4	10
Storm Flow	Grab	10/2/2009	11:35	09-A46102	11	3		<0.2		0.143		
Storm Flow	Grab	10/7/2009	11:50	09-A46948	16	5		0.32	0.086	0.144		11
Storm Flow	Grab	10/12/2009	10:20	09-A47868	4	2		1.59	0.067	0.101		3.8

^ Sample Diluted due to result above calibration or linear range

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

**TUP - Tertiary Plum Creek near Walnut Grove - Non-impacted stream/Western Corn Belt Plains**

**STORET CODE - S001-913**

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	10:45	09-A9607	152	23		2.92	0.097	0.334		120
Base Flow	Grab	4/9/2009	11:05	09-A12874	5*	4*		2.80	0.039	0.047	9.8	7
Base Flow	Grab	4/21/2009	11:20	09-A15269	<2	<2		3.34	0.018	0.019		4
Base Flow	Grab	5/14/2009	9:50	09-A20529	6	2		5.17	0.016	0.030	866.4*	3.2
Base Flow	Grab	5/26/2009	11:00	09-A22090	10	5		2.58	0.037	0.044	238.2	6.1
Base Flow	Grab	6/4/2009	11:45	09-A24060	8	<2		1.16	0.042	0.055	161.6	5.6
Storm Flow	Grab	6/18/2009	11:45	09-A26762	56	14		5.65	0.081	0.119	1,413.6	29
Storm Flow	Grab	6/25/2009	11:10	09-A27977	33	6		3.21	0.117	0.123		25
Base Flow	Grab	7/9/2009	11:45	09-A30449	18	4		0.74	0.090	0.098	980.4	12
Base Flow	Grab	7/21/2009	11:25	09-A32499	12	5		0.23	0.048	0.060		7.8
Base Flow	Grab	8/4/2009	11:45	09-A35114	12	6		0.47	0.065	0.076	85.5	6.6
Base Flow	Grab	8/26/2009	11:25	09-A39975	20	4		0.28	0.077	0.087		13
Zero Flow	Grab	9/16/2009	11:35	No Flow, No Sample								
Storm Flow	Grab	10/2/2009	11:10	09-A46101	11	2		<0.2		0.094		
Storm Flow	Grab	10/7/2009	11:20	09-A46947	10	3		<0.2	0.042	0.070		7.1
Storm Flow	Grab	10/12/2009	9:50	09-A47867	6	3		0.21	0.031	0.061		4.9

^ Sample Diluted due to result above calibration or linear range

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