The Ozarks Environmental and Water Resources Institute (OEWRI)

Environmental Data Report

for

Geospatial Database and Water Quality Baseline Development for the Upper White River Basin, Missouri and Arkansas

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Scope and Objectives

The Upper White River Basin (UWRB), located in the Ozarks Plateaus region of southwest Missouri and northwest Arkansas, has become increasingly vulnerable to water quality degradation due to population growth and urban development in the region. The UWRB (≈ 21,000 km^2) covers 21 counties in Missouri and Arkansas. Also included in the basin are some of the fastest growing cities in the nation including Springfield, Branson, Ozark, and Nixa, Missouri and Fayetteville, Arkansas. Moreover, the UWRB is home to three large reservoirs (Beaver, Table Rock, and Bull Shoals Lake) that help drive the tourism and recreation economy of the region. Since the local economy relies on the quality of the water in the rivers and lakes, area businesses, leaders, and residents have expressed concerns over high nutrient levels in local streams and lakes and are now working together to restore and protect the water quality of the Ozarks.

A Watershed Initiative grant from the Environmental Protection Agency was awarded to the Upper White River Basin Foundation (UWRBF) to support basinwide cooperation and water quality management plans to improve water quality. One component of the project involved the collaboration between the Ozarks Environmental and Water Resources Institute (OEWRI) at Missouri State University and the Arkansas Water Resources Center at the University of Arkansas to develop a comprehensive environmental database and implement a baseline nutrient monitoring program that "seamlessly" crosses state borders within the UWRB.

The role of OEWRI in this project is to:

1. Assess existing water quality data availability and quality in the basin;
2. Perform a baseline water quality monitoring study; and
3. Develop and support an online geospatial/water quality database.

This report provides the results data for the baseline water quality monitoring (item # 2 above). The objective is to evaluate the monthly trends of total nitrogen (TN) and total phosphorus (TP) during baseflow conditions at existing USGS gaging stations. Along with the results, this report provides a brief description of the sample collection and analytical methods used for this project.

Methods

This section describes methods used for water quality sample collection and water quality analysis. For more details on these methods the approved Quality Assurance Project Plan (QAPP) and Standard Operating Procedures (SOPs) for this project are available on our website at http://www.oewri.missouristate.edu .

Sample Collection

This project sampled water quality at 19 United States Geological Survey (USGS) gaging stations once a month during the period of March 2005 to February 2006 at baseflow conditions for both nutrients and water chemistry. Water chemistry was measured at each site by a Horbia U22 multi-probe meter. Water chemistry parameters

measured include temperature, dissolved oxygen, turbidity, conductivity, and pH. Grab samples were collected at each site in 500mL containers, preserved and cooled in the field.

Nutrient Analysis
Samples were analyzed at Missouri State University Chemistry Laboratory. Total nitrogen (TN) was analyzed by a Hitachi UV-2001 Spectrophotometer and total phosphorus (TP) was analyzed by a Spectronic Genesys 20 Spectrophotometer. Average detection limits were 0.2 mg/L TN and 3 ug/L TP with accuracy within the range of + or – 20%.

Water Quality Data Organization

Sample Sites
This study sampled water quality at 19 USGS discharge gaging stations within the UWRB (Map 1). The data sheets provides the project site number, the USGS gage number, location description of the site, 8 digit Hydrological Unit Code (HUC) name/code, and historical hydrology records for that site. All discharge data are presented in cubic meters per second (m^3/s). Important conversion to flow in other units are given below:

1 m^3/s = 35.31 ft^3/s
1 m^3/s = 22.83 million gallons/day

Click here for map

Data by Site
Data sheets are available for each site describing each parameter measured at that site during this study along with summary statistics. This includes the date and time the sample was collected, the data value for that parameter, and the discharge (m^3/s) at the time the sample was collected. Data collected in the spring and fall has been highlighted for the reader to make seasonal comparisons. Viewing data by site allows the reader to compare parameter data within a site.

Click here for data

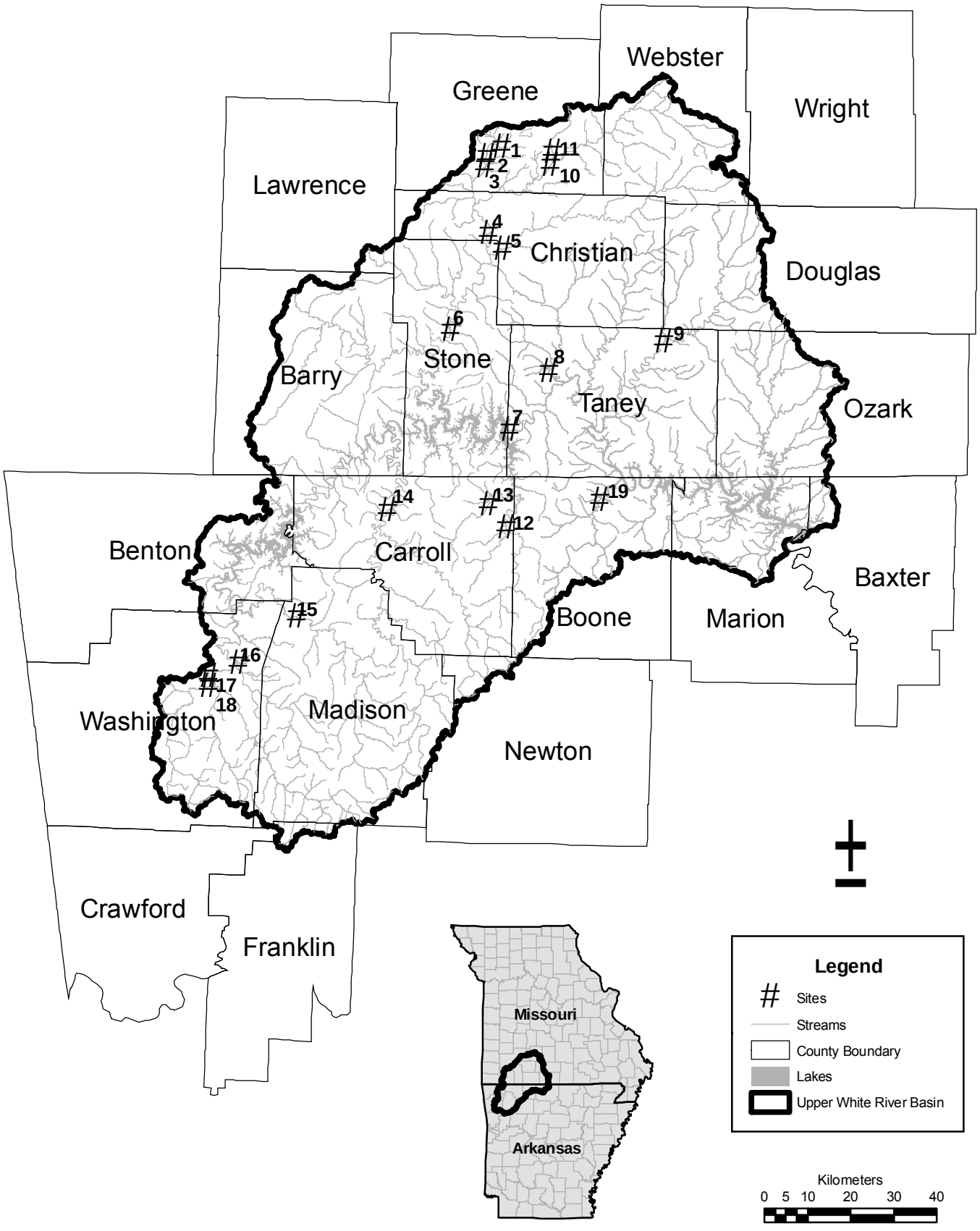
Data by Parameter
Data sheets are available for each parameter showing all sites for each sampling date along with summary statistics. These sheets include detection limits and accuracy information for nutrient analysis. Data collected in the spring and fall has been highlighted for the reader to make seasonal comparisons. Viewing data by parameter allows the reader to compare a particular parameter between sites.

Click here for data

Definitions
Mean – Average concentration from all samples
Med – Median, middle value of rank order data
Min – Minimum value in the dataset
Max – Maximum value in the dataset
SD – Standard deviation, how much values deviate from the mean
CV% - Coefficient of variation percentage, the SD as a percentage from the mean

Upper White River Basin

Water Quality Sampling Sites



Sample Site Descriptions with Hydrology Data

Site #	Location	USGS Gage #	HUC Name	HUC #	A_d km^2	Start Year	Yrs of Record	Low Flow on Record (m^3/s)	Date of Low Flow	90% Exceeds (m^3/s)	50% Exceeds (m^3/s)	Mean (m^3/s)	10% Exceeds (m^3/s)	Max Flow on Record (m^3/s)	Date of Max Flow
1	Wilson C. at Scenic Ave. MO	7052000	James River	11010002	46	1932	17	0.009	9/29/2004	0.08	0.24	0.52	1.05	191	7/12/2000
2	Wilson C. at Co Rd. 156 MO	7052100	James River	11010002	81	1972	17	0.000	many	0.00	0.16	0.59	1.25	155	7/12/2000
3	Wilson C. below WWT plant MO	7052152	James River	11010002	116	2001	4	0.028	4/13/2004	0.96	1.25	1.76	2.41	unk	5/8/2002
4	James R. Boaz MO	7052250	James River	11010002	1,197	1972	12	0.991	9/19/2002	1.90	6.74	14.39	30.30	615	5/8/2002
5	Finley C. Riverdale Rd. MO	7052345	James River	11010002	676	2001	4	0.309	8/28/2003	0.68	2.55	5.95	12.26	606	5/8/2002
6	James R. Galena MO	7052500	James River	11010002	2,556	1921	84	0.283	9/20/1954	3.43	12.06	27.73	60.32	2,073	9/25/1993
7	Below TableRock Dam MO	7053400	Beaver Reservoir	10010001	10,412	1956	49	na	na	na	na	na	na	na	na
8	Bull C. Walnut Shade MO	7053810	Bull Shoals Reservoir	11010003	495	1994	10	0.004	9/13/2004	0.16	1.90	5.92	12.77	unk	5/8/2002
9	Beaver C. Bradleyville MO	7054080	Bull Shoals Reservoir	11010003	772	1994	11	0.396	9/7/2001	0.82	2.80	7.53	16.51	589	5/8/2002
10	James R. Kinser Bridge MO	7050700	James River	11010002	637	1955	50	0.003	9/16/1956	0.34	2.07	6.54	14.05	1,164	9/25/1993
11	Pearson C. D Hwy. MO	7050690	James River	11010002	54	1999	6	0.040	9/7/2002	0.09	0.26	0.57	1.13	62	7/12/2000
12	Long C. Denver AR	7053207	Beaver Reservoir	11010001	269	2001	3	0.088	8/11/2003	0.21	1.22	2.86	4.70	476	6/10/2002
13	Yocum C. off Hwy 311 AR	7053250	Beaver Reservoir	11010001	137	1993	12	0.065	2/9/1998	0.22	0.54	1.28	2.92	266	4/24/2004
14	Kings R. Berryville AR	7050500	Beaver Reservoir	11010001	1,365	1939	46	0.003	8/27/1954	0.59	4.98	16.26	36.82	1,869	11/19/1985
15	War Eagle C. Hiland AR	7049000	Beaver Reservoir	11010001	681	1952	45	0.006	8/18/1954	0.28	2.21	7.90	16.23	1,388	11/19/1985
16	Richland C. Goshen AR	7048800	Beaver Reservoir	11010001	357	1998	7	0.010	9/3/2005	0.05	1.33	4.87	8.84	2,172	4/24/2004
17	White R. Fayettville AR	7048600	Beaver Reservoir	11010001	1,036	1963	38	0.002	10/22/1991	0.18	4.96	15.58	35.40	3,965	4/24/2004
18	W. Fork White R. Fayettville AR	7048550	Beaver Reservoir	11010001	319	2001	4	0.000	1/1/2003	0.10	1.27	5.15	8.69	1,696	4/24/2004
19	Bear C. Hwy 14 Omaha AR	7054410	Bull Shoals Reservoir	11010003	344	2001	3	0.028	8/21/2003	0.22	1.05	3.31	5.66	532	4/24/2004

Notes

na = Data not applicable due to reservoir releases

unk = Unknown Q at high flows

A_d = Drainage Area (km^2)

Discharge Records are provided in m^3/s

Conversion Factors:

1 m^3/s = 35.31 ft^3/s

1 m^3/s = 22.83 million gallons/day

Site 1 Wilson C. at Scenic Ave. MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/5/2005	11:03:32	2.45	16.8	7.4	0.73	7.2	13.1	9.2	0.18
4/15/2005	11:46:54	1.95	23.3	7.7	0.76	7.8	12.0	15.1	0.31
5/14/2005	13:46:14	0.98	60.2	7.8	0.31	12	8.7	19.5	2.92
6/4/2005	13:31:50	1.21	29.6	8.0	1.08	18	13.7	23.1	0.10
7/9/2005	10:36:36	1.12	97.3	7.8	0.76	5.5	6.1	22.3	0.05
8/1/2005	10:12:38	1.10	42.8	7.4	0.68	7.1	4.5	22.9	0.04
9/9/2005	11:29:12	0.91	79.2	7.6	0.70	6.8	6.0	21.4	0.04
10/1/2005	12:00:50	1.76	194.2	7.4	0.72	31.3	7.7	16.4	0.07
11/12/2005	10:25:14	0.82	31.0	7.4	0.87	5.8	5.2	11.9	0.91
12/17/2005	10:33:50	1.27	74.8	6.5	0.99	6.2	11.5	2.5	0.06
1/14/2006	11:25:58	1.23	< 2.8	7.1	0.70	44.5	7.8	3.9	0.08
2/4/2006	11:11:58	1.54	21.6	7.0	0.78	61.1	8.9	4.1	0.06
	Mean	1.36	61.0	7.4	0.76	17.8	8.8	14.4	0.40
	Min	0.82	16.8	6.5	0.31	5.5	4.5	2.5	0.04
	Max	2.45	194.2	8.0	1.08	61.1	13.7	23.1	2.92
	Median	1.22	42.8	7.4	0.74	7.5	8.2	15.7	0.08
	Std-dev	0.48	51.7	0.4	0.19	18.3	3.1	7.9	0.83
	Cv%	35	85	5	25	103	36	55	206

Shaded areas represent spring and fall samples

Site 2 Wilson C. at Co Rd. 156 MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/5/2005	11:29:00	2.30	13.0	8.0	0.67	6.1	13.6	9.7	0.001
4/15/2005	11:29:16	1.87	17.6	8.2	0.70	7.8	13.7	14.0	0.20
5/14/2005	13:28:12	0.96	72.0	7.9	0.27	15.3	8.8	19.6	2.83
6/4/2005	14:18:06	0.56	94.1	8.2	0.86	11.7	9.7	25.5	0.001
7/9/2005	10:51:52	2.26	61.1	8.0	0.35	15.3	8.1	21.7	0.001
8/1/2005	10:32:52	0.83	105.3	7.9	0.35	8.8	6.7	22.8	0.001
9/9/2005	12:05:18	NS	NS	NS	NS	NS	NS	NS	NS
10/1/2005	12:24:06	0.55	31.2	8.2	0.66	19.5	9.5	19.2	0.001
11/12/2005	10:48:28	0.68	186.0	7.3	0.90	6.7	0.0	10.6	0.31
12/17/2005	10:50:16	0.77	37.6	6.6	0.90	6.4	17.6	3.9	0.001
1/14/2006	11:43:20	1.12	< 2.8	7.9	0.72	30.3	7.8	4.4	0.001
2/4/2006	11:32:42	0.88	32.0	8.2	0.30	77.9	11.1	4.1	0.001
	Mean	1.16	65.0	7.9	0.61	18.7	9.7	14.1	0.30
	Min	0.55	13.0	6.6	0.27	6.1	0.0	3.9	0.001
	Max	2.30	186.0	8.2	0.90	77.9	17.6	25.5	2.83
	Median	0.88	49.3	8.0	0.67	11.7	9.5	14.0	0.001
	Std-dev	0.66	52.8	0.5	0.25	20.9	4.5	8.1	0.84
	CV%	57	81	6	41	112	47	57	277

NS = No Sample

Shaded areas represent spring and fall samples

Site 3 Wilson C. below WWT plant MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/5/2005	11:52:50	12.40	123.7	7.4	0.96	4.0	21.7	13.4	1.33
4/15/2005	11:05:02	2.49	80.1	7.4	0.84	18.4	17.0	15.2	1.87
5/14/2005	13:04:24	12.93	250.6	7.3	0.56	25.1	18.5	18.8	3.54
6/4/2005	14:49:16	7.47	325.2	8.2	0.47	18.5	10.1	25.1	1.10
7/9/2005	11:11:58	21.30	206.1	7.6	1.15	4.9	14.3	22.6	1.02
8/1/2005	11:01:40	17.67	223.9	7.5	0.96	16.9	15.3	23.2	1.05
9/9/2005	12:47:04	10.67	156.2	8.1	1.00	12.2	16.1	23.3	1.08
10/1/2005	12:42:48	13.98	193.4	7.9	1.10	16.8	14.0	23.2	0.91
11/12/2005	11:16:42	6.81	264.9	7.5	1.52	0.0	15.1	20.3	0.96
12/17/2005	11:03:26	8.00	138.0	6.7	1.23	0.3	20.0	15.1	0.93
1/14/2006	11:56:22	11.50	34.8	7.7	1.25	31.8	15.9	14.8	0.71
2/4/2006	11:48:26	15.90	100.0	7.3	0.90	29.0	16.3	14.8	0.91
	Mean	11.76	174.7	7.5	0.99	14.8	16.2	19.1	1.28
	Min	2.49	34.8	6.7	0.47	0.0	10.1	13.4	0.71
	Max	21.30	325.2	8.2	1.52	31.8	21.7	25.1	3.54
	Median	11.95	174.8	7.5	0.98	16.9	16.0	19.5	1.03
	Std-dev	5.17	84.6	0.4	0.29	10.8	3.0	4.3	0.77
	CV%	44	48	5	29	73	19	22	60

Shaded areas represent spring and fall samples

Site 4 James R. Boaz MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/5/2005	13:02:22	2.37	35.1	8.4	0.60	5.6	17.0	13.3	9.94
4/15/2005	10:20:20	1.61	43.3	7.8	0.50	19.0	9.8	15.3	19.74
5/14/2005	11:14:48	4.21	172.3	7.9	0.61	31.2	8.7	20.4	9.37
6/4/2005	15:28:46	4.45	201.9	8.4	0.56	11.3	10.6	26.9	2.61
7/9/2005	18:19:30	14.58	326.9	8.2	0.92	9.3	9.0	28.1	2.04
8/1/2005	11:49:16	5.23	237.1	7.9	0.95	11.7	7.8	25.5	1.44
9/9/2005	13:23:04	4.12	184.7	8.1	0.50	2.8	9.2	24.1	1.64
10/1/2005	13:36:28	5.10	115.7	8.2	0.83	23.7	9.2	18.5	2.41
11/12/2005	12:09:26	9.37	89.9	7.9	1.11	6.9	9.2	12.9	2.24
12/17/2005	11:35:56	8.75	33.3	7.9	0.90	10.5	15.6	3.4	1.87
1/14/2006	12:35:22	7.35	12.3	8.2	1.00	23.7	9.8	5.6	2.86
2/4/2006	12:25:06	7.84	51.3	7.4	0.85	55.2	10.8	6.7	3.14
	Mean	6.25	125.3	8.0	0.78	17.6	10.6	16.7	4.94
	Min	1.61	12.3	7.4	0.50	2.8	7.8	3.4	1.44
	Max	14.58	326.9	8.4	1.11	55.2	17.0	28.1	19.74
	Median	5.16	102.8	8.0	0.84	11.5	9.5	16.9	2.51
	Std-dev	3.57	98.9	0.3	0.21	14.6	2.8	8.6	5.49
	CV%	57	79	4	27	83	27	51	111

Shaded areas represent spring and fall samples

Site 5 Finley C. Riverdale Rd. MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/5/2005	13:30:02	1.50	8.2	8.3	0.41	3.1	16.1	10.8	6.46
4/15/2005	9:48:34	1.07	14.0	8.0	0.38	11.2	10.7	12.6	11.67
5/14/2005	10:40:02	1.05	47.5	7.9	0.39	12.6	8.6	18.1	6.32
6/4/2005	16:16:02	0.56	36.7	7.9	0.32	93.1	11.6	8.5	1.23
7/9/2005	18:45:18	1.02	25.7	8.0	0.50	6.5	9.2	27.1	0.49
8/1/2005	12:30:26	1.09	29.6	7.9	0.49	10.5	9.6	26.2	0.54
9/9/2005	14:00:28	0.69	50.7	8.6	0.68	0.0	10.6	26.3	0.50
10/1/2005	14:32:28	0.97	39.4	8.2	0.48	17.9	8.9	19.7	0.86
11/12/2005	13:05:58	1.24	43.8	7.7	0.61	2.7	9.0	13.3	0.81
12/17/2005	12:11:24	1.01	17.6	8.3	0.69	2.2	16.2	3.1	0.51
1/14/2006	13:03:50	1.37	< 2.8	8.3	0.58	24.8	10.4	4.4	0.48
2/4/2006	12:55:00	1.08	22.0	8.1	0.49	44.1	11.2	5.5	0.47
	Mean	1.05	30.5	8.1	0.50	19.1	11.0	14.6	2.53
	Min	0.56	8.2	7.7	0.32	0.0	8.6	3.1	0.47
	Max	1.50	50.7	8.6	0.69	93.1	16.2	27.1	11.67
	Median	1.06	29.6	8.1	0.49	10.9	10.5	12.9	0.68
	Std-dev	0.26	14.2	0.3	0.12	26.4	2.6	8.8	3.64
	CV%	24	47	3	23	138	24	60	144

Shaded areas represent spring and fall samples

Site 6 James R. Galena MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/5/2005	14:09:56	2.02	11.0	8.6	0.46	5.3	16.3	12.1	27.92
4/15/2005	9:13:46	1.50	35.4	7.9	0.43	13.6	8.6	13.6	59.18
5/14/2005	9:58:10	2.38	62.7	7.8	0.49	3.9	6.5	20.6	17.36
6/4/2005	18:33:24	1.40	91.1	8.3	0.53	6.7	8.9	25.6	5.83
7/9/2005	19:19:10	2.09	91.1	8.4	0.59	2.7	10.7	28.9	4.59
8/1/2005	13:07:50	4.72	124.6	8.4	0.73	2.7	10.1	28.3	3.71
9/9/2005	14:44:42	2.57	93.2	7.9	0.33	62.9	9.8	26.5	3.31
10/1/2005	15:56:40	2.93	81.6	8.5	0.61	18.1	9.8	20.7	4.73
11/12/2005	13:46:54	2.02	50.3	8.2	0.80	2.6	11.6	12.8	3.45
12/17/2005	12:43:14	1.06	6.9	8.7	0.97	2.1	16.9	2.2	3.37
1/14/2006	13:39:16	6.57	4.0	8.7	0.88	4.2	11.8	5.2	3.85
2/4/2006	13:37:06	3.89	20.6	8.6	0.60	46.2	12.1	6.8	5.10
	Mean	2.76	56.0	8.3	0.62	14.3	11.1	16.9	11.87
	Min	1.06	4.0	7.8	0.33	2.1	6.5	2.2	3.31
	Max	6.57	124.6	8.7	0.97	62.9	16.9	28.9	59.18
	Median	2.23	56.5	8.4	0.59	4.8	10.4	17.1	4.66
	Std-dev	1.59	40.6	0.3	0.19	19.8	3.0	9.4	16.68
	CV%	57	72	4	31	139	27	56	141

Shaded areas represent spring and fall samples

Site 7 Below Table Rock Dam MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/5/2005	15:12:58	0.76	9.2	8.0	0.32	20.5	14.6	7.4	117.77
4/15/2005	8:26:20	0.69	7.2	7.9	0.32	11.4	8.6	8.2	121.14
5/14/2005	9:09:40	0.99	12.3	7.2	0.32	8.4	9.2	8.5	100.24
6/4/2005	19:16:56	0.67	7.0	8.2	0.44	4.6	8.8	7.3	86.17
7/9/2005	20:00:38	1.13	14.0	8.0	0.35	71.8	12.8	9.4	79.52
8/1/2005	14:08:32	1.13	13.1	7.8	0.32	71.6	9.5	9.2	62.31
9/9/2005	15:56:50	1.03	10.2	8.0	0.44	3.3	8.7	9.5	61.20
10/1/2005	16:50:24	0.99	8.6	7.8	0.32	25.5	7.9	10.5	52.12
11/12/2005	14:49:00	0.82	12.0	7.6	0.36	4.2	5.0	10.4	46.23
12/17/2005	13:45:54	0.48	8.3	8.5	0.41	3.1	12.1	9.5	26.22
1/14/2006	14:32:06	0.53	4.4	8.6	0.34	14.1	12.1	10.1	25.57
2/4/2006	14:45:26	1.00	24.6	8.6	0.29	32.8	12.3	9.7	26.51
	Mean	0.85	10.9	8.0	0.35	22.6	10.1	9.1	67.08
	Min	0.48	4.4	7.2	0.29	3.1	5.0	7.3	25.57
	Max	1.13	24.6	8.6	0.44	71.8	14.6	10.5	121.14
	Median	0.91	9.7	8.0	0.33	12.8	9.4	9.4	61.76
	Std-dev	0.23	5.2	0.4	0.05	24.8	2.7	1.1	34.20
	CV%	27	47	5	15	110	26	12	51

Shaded areas represent spring and fall samples

Site 8 Bull C. Walnut Shade MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/5/2005	15:45:48	0.60	2.3	8.3	0.43	4.4	13.9	11.3	4.16
4/15/2005	15:39:56	< 0.25	< 1.2	8.4	0.45	10.6	13.9	15.6	6.51
5/14/2005	17:10:28	0.48	10.9	8.3	0.42	4.4	9.5	22.6	2.55
6/4/2005	10:49:44	< 0.14	< 3.2	7.9	0.49	11.0	6.4	22.1	0.62
7/10/2005	10:29:08	0.64	8.2	7.9	0.49	4.6	8.1	25.4	0.26
8/1/2005	14:39:28	0.31	10.6	7.9	0.43	3.4	7.9	28.3	0.15
9/9/2005	16:48:30	< 0.23	11.2	8.4	0.49	8.0	8.7	26.7	0.04
10/1/2005	17:27:00	0.22	3.1	8.2	0.46	15.4	8.6	22.9	0.13
11/12/2005	15:37:00	0.15	7.4	7.9	0.57	0.1	8.4	12.6	0.25
12/17/2005	14:12:10	0.23	7.3	8.5	0.69	2.0	14.7	3.0	0.25
1/14/2006	15:13:16	0.17	< 2.8	8.5	0.52	2.7	10.4	6.2	0.31
2/4/2006	15:15:38	1.09	11.3	8.3	0.51	33.9	11.5	6.8	1.64
	Mean	0.43	8.0	8.2	0.49	8.4	10.2	17.0	1.41
	Min	0.15	2.3	7.9	0.42	0.1	6.4	3.0	0.04
	Max	1.09	11.3	8.5	0.69	33.9	14.7	28.3	6.51
	Median	0.31	8.2	8.3	0.49	4.5	9.1	18.8	0.28
	Std-dev	0.31	3.4	0.2	0.07	9.2	2.7	8.8	2.04
	CV%	71	43	3	15	109	27	52	145

Shaded areas represent spring and fall samples

Site 9 Beaver C. Bradleyville MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/5/2005	16:32:04	0.62	4.8	8.4	0.49	3.0	14.6	12.1	6.99
4/15/2005	14:49:54	0.69	9.0	8.3	0.47	7.3	13.4	15.5	17.61
5/14/2005	16:09:24	0.32	11.3	8.4	0.49	2.0	10.8	22.4	4.45
6/4/2005	10:33:34	0.40	8.9	8.1	0.58	22.1	8.8	19.5	2.01
7/10/2005	9:46:02	0.66	6.9	8.2	0.54	1.4	9.6	24.7	1.39
8/1/2005	15:29:50	0.22	14.6	8.4	0.49	5.7	9.8	29.3	0.82
9/9/2005	18:15:36	< 0.23	24.7	7.9	0.53	13.7	8.6	23.0	0.71
10/1/2005	18:21:42	0.24	3.4	8.3	0.48	20.0	8.6	20.6	1.27
11/12/2005	16:29:48	0.15	10.6	8.1	0.57	7.3	10.1	14.0	0.79
12/17/2005	14:52:20	0.42	9.4	8.6	0.66	1.0	15.7	4.3	1.25
1/14/2006	15:54:10	0.45	< 2.8	8.6	0.57	16.0	11.0	7.0	1.02
2/4/2006	15:58:04	0.88	13.6	8.3	0.53	25.2	12.0	7.6	2.21
	Mean	0.46	10.6	8.3	0.53	10.4	11.1	16.7	3.38
	Min	0.15	3.4	7.9	0.47	1.0	8.6	4.3	0.71
	Max	0.88	24.7	8.6	0.66	25.2	15.7	29.3	17.61
	Median	0.42	9.4	8.3	0.53	7.3	10.4	17.5	1.33
	Std-dev	0.23	5.7	0.2	0.06	8.7	2.4	7.9	4.85
	CV%	50	54	3	10	83	22	47	144

Shaded areas represent spring and fall samples

Site 10 James R. Kinser Bridge MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/5/2005	17:36:18	0.56	6.1	8.3	0.42	7.1	15.3	10.4	3.26
4/15/2005	13:28:38	1.01	12.9	8.1	0.40	9.0	13.2	13.9	7.08
5/14/2005	15:04:12	1.00	24.4	7.9	0.45	8.4	9.1	19.6	2.12
6/4/2005	13:08:14	1.09	24.4	9.0	0.32	68.4	16.1	23.9	0.76
7/9/2005	9:59:08	1.08	35.7	7.8	0.53	6.9	7.3	23.3	0.42
8/1/2005	16:34:12	1.03	13.9	7.9	0.57	19.4	9.4	25.3	0.16
9/9/2005	18:31:36	0.83	33.2	8.1	0.60	17.1	10.6	21.2	0.17
10/2/2005	9:12:48	1.14	21.6	7.9	0.61	20.6	8.0	17.3	0.45
11/12/2005	17:39:28	0.45	20.3	7.6	0.59	7.6	6.6	12.6	0.19
12/17/2005	15:52:14	0.69	8.7	8.5	0.67	3.8	15.7	3.9	0.23
1/14/2006	16:55:34	0.78	< 2.8	8.2	0.57	1.3	9.7	6.7	0.17
2/4/2006	17:03:20	1.00	15.6	8.1	0.49	14.1	11.3	5.7	0.76
	Mean	0.89	19.7	8.1	0.52	15.3	11.0	15.3	1.32
	Min	0.45	6.1	7.6	0.32	1.3	6.6	3.9	0.16
	Max	1.14	35.7	9.0	0.67	68.4	16.1	25.3	7.08
	Median	1.00	20.3	8.1	0.55	8.7	10.1	15.6	0.44
	Std-dev	0.22	9.4	0.4	0.10	17.8	3.3	7.5	2.05
	CV%	25	48	4	20	116	30	49	156

Shaded areas represent spring and fall samples

Site 11 Pearson C. D Hwy. MO

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/5/2005	17:52:54	2.75	< 1.6	8.0	0.54	5.0	14.3	11.6	0.51
4/15/2005	13:09:24	2.44	10.8	7.8	0.58	16.3	14.1	13.9	0.82
5/14/2005	14:45:02	2.40	29.2	7.9	0.58	6.0	10.2	17.8	0.45
6/4/2005	11:22:42	2.41	35.6	7.9	0.74	6.7	7.2	21.8	0.12
7/9/2005	9:40:26	2.05	13.2	7.4	0.61	13.2	8.1	19.1	0.10
8/1/2005	16:48:20	2.02	43.1	8.0	0.58	25.1	10.3	23.7	0.07
9/10/2005	11:46:30	1.85	310.2	7.7	0.46	8.1	7.1	20.8	0.12
10/2/2005	9:31:22	2.12	26.4	7.7	0.52	22.6	7.5	18.3	0.12
11/12/2005	18:00:32	1.74	34.5	7.8	0.42	155.0	8.4	14.5	0.06
12/17/2005	16:07:04	2.09	12.3	8.5	0.77	98.0	16.7	7.1	0.05
1/14/2006	17:10:50	2.13	3.7	8.5	0.65	NS	10.7	9.2	0.03
2/4/2006	17:17:54	2.35	20.6	8.3	0.62	14.7	11.9	8.1	0.04
	Mean	2.20	49.0	8.0	0.59	33.7	10.5	15.5	0.21
	Min	1.74	3.7	7.4	0.42	5.0	7.1	7.1	0.03
	Max	2.75	310.2	8.5	0.77	155.0	16.7	23.7	0.82
	Median	2.12	26.4	7.9	0.58	14.7	10.2	16.2	0.11
	Std-dev	0.28	87.5	0.3	0.10	48.1	3.2	5.6	0.25
	CV%	13	178	4	17	143	30	36	120

Shaded areas represent spring and fall samples

Site 12 Long C. Denver AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/6/2005	11:55:12	1.42	14.1	8.1	0.45	6.5	15.0	11.4	2.07
4/16/2005	10:19:44	1.21	53.3	8.2	0.43	9.0	13.6	13.7	3.79
5/15/2005	10:44:28	1.56	53.3	7.8	0.41	5.2	9.3	17.8	1.16
6/5/2005	10:42:04	1.49	69.6	7.7	0.42	9.0	8.4	21.4	0.51
7/10/2005	11:37:32	1.39	63.2	7.7	0.45	6.8	10.0	23.2	0.40
8/2/2005	11:27:04	1.20	106.4	7.6	0.47	13.9	9.5	22.1	0.37
9/10/2005	12:13:44	1.18	22.7	8.0	0.44	4.9	9.1	22.8	0.71
10/2/2005	11:01:10	2.33	146.4	7.7	0.40	21.3	7.4	19.9	0.48
11/13/2005	10:37:30	1.36	433.1	7.3	0.58	6.0	6.4	14.2	0.45
12/18/2005	12:50:02	2.33	591.9	7.5	0.54	45.9	10.5	7.3	0.31
1/15/2006	10:54:24	2.45	373.3	7.8	0.59	32.1	9.7	7.8	0.36
2/5/2006	11:32:48	2.01	205.6	7.9	0.51	96.0	9.9	6.2	0.39
	Mean	1.66	177.7	7.8	0.47	21.4	9.9	15.6	0.92
	Min	1.18	14.1	7.3	0.40	4.9	6.4	6.2	0.31
	Max	2.45	591.9	8.2	0.59	96.0	15.0	23.2	3.79
	Median	1.45	88.0	7.7	0.45	9.0	9.6	16.0	0.47
	Std-dev	0.48	187.9	0.3	0.07	26.7	2.4	6.4	1.04
	CV%	29	106	3	14	125	24	41	113

Shaded areas represent spring and fall samples

Site 13 Yocum C. off Hwy 311 AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/6/2005	11:04:48	5.59	24.1	7.8	0.37	6.5	14.7	10.6	1.08
4/16/2005	9:51:34	17.43	16.5	7.9	0.33	11.0	12.9	13.8	2.27
5/15/2005	11:08:02	4.09	65.4	8.0	0.46	4.7	9.9	17.5	0.37
6/5/2005	11:11:18	4.06	55.9	8.0	0.46	6.5	9.6	20.5	0.11
7/10/2005	12:00:52	3.21	34.4	8.0	0.49	4.5	10.3	22.8	0.24
8/2/2005	11:53:08	2.72	46.7	7.9	0.45	8.0	10.3	24.1	0.34
9/10/2005	13:02:00	2.12	52.2	8.6	0.43	5.9	9.4	28.2	0.11
10/2/2005	11:31:20	1.28	37.5	8.0	0.44	20.6	8.1	21.1	0.11
11/13/2005	11:07:52	2.52	45.3	7.8	0.51	2.5	10.2	14.6	0.11
12/18/2005	13:36:58	2.78	12.3	8.4	0.52	56.0	12.0	4.3	0.10
1/15/2006	11:17:02	2.82	< 2.8	8.2	0.51	8.3	11.6	7.5	0.11
2/5/2006	12:02:18	2.99	29.3	8.2	0.46	82.4	12.3	6.8	0.11
	Mean	4.30	38.1	8.1	0.45	18.1	11.0	16.0	0.42
	Min	1.28	12.3	7.8	0.33	2.5	8.1	4.3	0.10
	Max	17.43	65.4	8.6	0.52	82.4	14.7	28.2	2.27
	Median	2.90	37.5	8.0	0.46	7.3	10.3	16.0	0.11
	Std-dev	4.28	16.8	0.2	0.06	25.0	1.8	7.6	0.64
	CV%	99	44	3	13	138	17	48	154

Shaded areas represent spring and fall samples

Site 14 Kings R. Berryville AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/6/2005	18:12:40	0.57	2.3	8.8	0.30	17.7	17.2	11.4	12.52
4/16/2005	11:48:54	0.35	23.6	8.4	0.28	12.4	13.4	14.9	19.85
5/15/2005	11:58:16	0.73	144.4	8.3	0.34	3.0	9.6	21.3	13.42
6/5/2005	11:59:46	0.47	122.6	8.3	0.34	10.2	8.8	25.0	3.43
7/10/2005	13:34:14	0.30	< 1.4	8.5	0.40	4.8	9.4	28.1	1.19
8/2/2005	13:09:24	0.44	144.6	8.5	0.49	10.7	10.2	31.0	0.54
9/10/2005	13:52:32	< 0.23	160.7	8.1	0.41	13.4	8.9	25.5	0.51
10/2/2005	13:18:58	0.34	118.3	8.4	0.41	20.5	8.2	23.9	1.27
11/13/2005	11:56:04	0.22	108.8	8.0	0.53	8.0	9.9	14.8	0.96
12/18/2005	14:27:24	< 0.19	29.8	8.3	0.47	46.9	12.0	3.9	0.88
1/15/2006	12:01:14	0.14	< 2.8	8.5	0.51	11.0	10.7	6.2	0.68
2/5/2006	12:45:44	0.76	65.3	8.4	0.36	83.0	11.4	5.3	2.61
	Mean	0.43	92.0	8.4	0.40	20.1	10.8	17.6	4.82
	Min	0.14	2.3	8.0	0.28	3.0	8.2	3.9	0.51
	Max	0.76	160.7	8.8	0.53	83.0	17.2	31.0	19.85
	Median	0.39	113.5	8.4	0.40	11.7	10.0	18.1	1.23
	Std-dev	0.21	57.2	0.2	0.08	22.8	2.5	9.5	6.58
	CV%	48	62	2	21	113	23	54	136

Shaded areas represent spring and fall samples

Site 15 War Eagle C. Hiland AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/6/2005	13:22:46	0.96	1.7	8.3	0.21	13.1	15.6	10.2	6.71
4/16/2005	13:09:46	0.55	22.6	8.0	0.18	22.2	12.9	15.6	11.52
5/15/2005	12:52:16	1.25	53.3	7.9	0.27	6.0	9.7	19.8	4.53
6/5/2005	12:53:42	1.13	48.1	7.7	0.30	14.8	7.4	23.0	1.42
7/10/2005	14:28:26	1.08	13.6	8.0	0.40	26.7	8.7	26.0	0.62
8/2/2005	14:00:20	0.84	14.6	8.1	0.37	9.6	9.9	27.6	0.34
9/10/2005	14:19:58	0.38	24.2	8.6	0.28	9.4	9.0	27.1	0.31
10/2/2005	14:14:00	0.94	31.6	7.9	0.45	36.1	8.0	21.3	0.31
11/13/2005	12:45:58	0.97	67.8	7.7	0.56	11.5	9.4	13.9	0.54
12/18/2005	14:53:18	1.06	41.2	8.2	0.38	24.9	10.2	6.2	0.31
1/15/2006	12:51:28	1.40	56.9	8.5	0.54	9.0	11.3	5.4	0.31
2/5/2006	13:36:24	1.17	98.6	7.9	0.28	88.4	10.9	4.8	0.54
	Mean	0.98	39.5	8.1	0.35	22.6	10.2	16.7	2.29
	Min	0.38	1.7	7.7	0.18	6.0	7.4	4.8	0.31
	Max	1.40	98.6	8.6	0.56	88.4	15.6	27.6	11.52
	Median	1.02	36.4	8.0	0.33	14.0	9.8	17.7	0.54
	Std-dev	0.29	27.3	0.3	0.12	22.6	2.2	8.6	3.55
	CV%	29	69	4	34	100	22	51	155

Shaded areas represent spring and fall samples

Site 16 Richland C. Goshen AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/6/2005	14:51:34	0.65	< 1.6	9.1	0.17	5.0	17.6	13.1	10.11
4/16/2005	13:46:16	0.36	7.2	8.6	0.15	15.3	13.4	17.4	16.32
5/15/2005	13:23:42	0.89	14.4	8.3	0.24	7.5	11.7	19.3	6.59
6/5/2005	13:25:44	0.57	3.7	8.3	0.24	8.3	10.0	25.2	3.29
7/10/2005	15:05:18	0.20	17.3	8.4	0.31	10.6	10.9	29.9	1.40
8/2/2005	14:28:06	0.50	12.8	8.5	0.27	11.6	10.9	32.2	0.65
9/10/2005	14:40:30	< 0.23	23.7	8.8	0.25	23.1	9.1	25.7	0.60
10/2/2005	15:30:24	0.21	12.3	8.6	0.28	23.4	9.6	26.7	0.20
11/13/2005	13:20:30	0.25	15.6	7.9	0.39	2.8	10.4	17.0	0.30
12/18/2005	15:16:14	< 0.19	10.1	8.1	0.45	38.5	9.9	4.6	0.40
1/15/2006	13:15:58	0.08	4.8	8.5	0.38	12.5	11.1	8.6	0.03
2/5/2006	14:03:22	0.96	16.0	8.0	0.36	78.1	11.0	6.0	0.78
	Mean	0.47	12.5	8.4	0.29	19.7	11.3	18.8	3.39
	Min	0.08	3.7	7.9	0.15	2.8	9.1	4.6	0.03
	Max	0.96	23.7	9.1	0.45	78.1	17.6	32.2	16.32
	Median	0.43	12.8	8.5	0.27	12.1	10.9	18.4	0.72
	Std-dev	0.30	5.9	0.3	0.09	20.9	2.3	9.4	5.12
	CV%	64	47	4	31	106	20	50	151

Shaded areas represent spring and fall samples

Site 17 White R. Fayettville AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m^3/s
3/6/2005	15:13:56	0.43	2.3	8.2	0.14	16.8	14.7	11.2	2.29
4/16/2005	14:11:50	0.36	7.2	7.9	0.12	19.1	12.1	16.9	5.18
5/15/2005	13:43:28	0.42	16.8	7.9	0.14	10.5	9.0	22.7	3.09
6/5/2005	13:47:40	0.22	3.3	7.9	0.20	23.9	8.6	25.3	1.50
7/10/2005	15:39:24	0.41	31.5	8.3	0.26	13.1	10.4	27.9	0.04
8/2/2005	14:59:00	0.56	19.6	8.2	0.30	20.2	9.8	29.1	0.14
9/10/2005	14:51:44	< 0.23	31.2	7.7	0.33	13.6	6.8	30.5	0.16
10/2/2005	15:53:48	0.54	15.7	8.0	0.30	38.0	8.4	24.0	0.11
11/13/2005	13:45:42	0.41	24.2	7.4	0.37	12.1	5.4	15.1	0.16
12/18/2005	15:24:18	0.35	17.3	8.1	0.49	28.4	10.3	4.2	0.08
1/15/2006	13:36:08	0.31	13.3	8.3	0.38	21.0	9.9	7.2	0.08
2/5/2006	14:28:18	0.87	39.0	8.1	0.14	101.0	10.9	7.2	0.51
	Mean	0.44	18.4	8.0	0.26	26.5	9.7	18.4	1.11
	Min	0.22	2.3	7.4	0.12	10.5	5.4	4.2	0.04
	Max	0.87	39.0	8.3	0.49	101.0	14.7	30.5	5.18
	Median	0.41	17.0	8.0	0.28	19.7	9.8	19.8	0.16
	Std-dev	0.17	11.4	0.3	0.12	24.7	2.4	9.4	1.64
	CV%	38	62	3	45	93	25	51	147

Shaded areas represent spring and fall samples

Site 18 West Fork White R. Fayettville AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/6/2005	15:33:10	0.64	< 1.6	7.9	0.22	14.5	14.6	11.4	9.00
4/16/2005	14:24:48	0.35	9.0	8.0	0.21	24.9	12.2	17.1	19.14
5/15/2005	13:52:40	0.92	17.5	7.7	0.22	17.8	8.9	21.3	11.89
6/5/2005	13:59:06	0.23	13.7	7.8	0.26	35.6	7.9	24.6	3.51
7/10/2005	15:49:48	0.54	28.6	7.6	0.40	8.6	8.2	27.9	0.16
8/2/2005	15:09:30	0.38	19.6	7.6	0.44	13.8	8.5	29.9	0.12
9/10/2005	15:20:14	0.37	48.2	7.5	0.24	12.3	6.5	32.4	0.14
10/2/2005	16:06:02	0.60	20.5	7.5	0.32	32.3	5.4	23.3	0.03
11/13/2005	14:03:54	0.25	26.7	7.2	0.40	9.4	4.5	14.8	0.25
12/18/2005	10:21:26	< 0.19	13.0	6.6	0.65	87.0	9.7	5.1	0.14
1/15/2006	13:51:42	0.23	13.7	8.3	0.50	18.1	9.9	6.6	0.20
2/5/2006	14:39:54	0.89	25.6	7.9	0.40	95.9	11.0	5.6	0.28
	Mean	0.49	21.4	7.6	0.36	30.9	8.9	18.3	3.74
	Min	0.23	9.0	6.6	0.21	8.6	4.5	5.1	0.03
	Max	0.92	48.2	8.3	0.65	95.9	14.6	32.4	19.14
	Median	0.38	19.6	7.7	0.36	18.0	8.7	19.2	0.23
	Std-dev	0.25	10.8	0.4	0.14	29.6	2.8	9.7	6.28
	CV%	51	51	6	38	96	32	53	168

Shaded areas represent spring and fall samples

Site 19 Bear C. Hwy 14 Omaha AR

DATE	TIME	TN (mg/L)	TP (µ/L)	pH	COND(mS/cm)	TURB(NTU)	DO(mg/L)	Temp (C°)	Q m³/s
3/6/2005	19:32:04	0.98	< 1.6	8.2	0.49	4.7	13.5	12.1	2.80
4/16/2005	16:27:08	0.89	3.6	8.3	0.49	6.3	12.1	18.0	6.12
5/15/2005	19:01:20	0.70	< 7.0	8.3	0.46	2.7	9.9	20.0	1.95
6/5/2005	14:54:09	2.84	25.9	7.7	0.53	10.2	7.4	19.7	0.62
7/10/2005	17:38:56	0.38	14.0	8.1	0.46	1.9	8.8	27.1	0.24
8/2/2005	16:55:04	0.33	< 8.5	8.1	0.42	3.6	9.5	30.1	0.34
9/10/2005	18:46:08	< 0.23	35.7	7.9	0.43	4.6	8.5	27.0	0.11
10/2/2005	17:57:26	0.26	3.8	8.2	0.43	17.0	8.8	24.6	0.12
11/13/2005	17:23:14	13.84	12.0	8.0	0.51	1.6	10.0	16.2	0.28
12/18/2005	12:23:22	0.23	5.8	6.8	0.61	52.0	9.6	7.8	0.18
1/15/2006	16:54:04	0.20	< 2.8	8.5	0.52	0.0	11.5	8.2	0.23
2/5/2006	18:02:34	0.93	11.6	8.1	0.49	29.0	11.3	6.8	0.28
	Mean	1.96	14.1	8.0	0.49	11.1	10.1	18.1	1.11
	Min	0.20	3.6	6.8	0.42	0.0	7.4	6.8	0.11
	Max	13.84	35.7	8.5	0.61	52.0	13.5	30.1	6.12
	Median	0.70	11.8	8.1	0.49	4.7	9.7	18.9	0.28
	Std-dev	4.01	11.3	0.4	0.05	15.3	1.7	8.1	1.79
	CV%	204	81	5	11	137	17	45	162

Shaded areas represent spring and fall samples

Phosphorus, Total (ug/L)

Site #	Location	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mean	Med	Min	Max	SD	CV%
1	Wilson C. at Scenic Ave. MO	16.8	23.3	60.2	29.6	97.3	42.8	79.2	194.2	31.0	74.8	< 2.8	21.6	56.0	36.9	1.4	194.2	52.2	93
2	Wilson C. at Co Rd. 156 MO	13.0	17.6	72.0	94.1	61.1	105.3	NS*	31.2	186.0	37.6	< 2.8	32.0	59.2	37.6	1.4	186.0	53.6	91
3	Wilson C. below WWT plant MO	123.7	80.1	250.6	325.2	206.1	223.9	156.2	193.4	264.9	138.0	34.8	100.0	174.7	174.8	34.8	325.2	84.6	48
4	James R. Boaz MO	35.1	43.3	172.3	201.9	326.9	237.1	184.7	115.7	89.9	33.3	12.3	51.3	125.3	102.8	12.3	326.9	98.9	79
5	Finley C. Riverdale Rd. MO	8.2	14.0	47.5	36.7	25.7	29.6	50.7	39.4	43.8	17.6	< 2.8	22.0	28.0	27.6	1.4	50.7	15.9	57
6	James R. Galena MO	11.0	35.4	62.7	91.1	91.1	124.6	93.2	81.6	50.3	6.9	4.0	20.6	56.0	56.5	4.0	124.6	40.6	72
7	Below TableRock Dam MO	9.2	7.2	12.3	7.0	14.0	13.1	10.2	8.6	12.0	8.3	4.4	24.6	10.9	9.7	4.4	24.6	5.2	47
8	Bull C. Walnut Shade MO	2.3	< 1.2	10.9	< 3.2	8.2	10.6	11.2	3.1	7.4	7.3	< 2.8	11.3	6.3	7.3	0.6	11.3	4.3	67
9	Beaver C. Bradleyville MO	4.8	9.0	11.3	8.9	6.9	14.6	24.7	3.4	10.6	9.4	< 2.8	13.6	9.9	9.2	1.4	24.7	6.1	62
10	James R. Kinser Bridge MO	6.1	12.9	24.4	24.4	35.7	13.9	33.2	21.6	20.3	8.7	< 2.8	15.6	18.2	17.9	1.4	35.7	10.4	57
11	Pearson C. D Hwy. MO	< 1.6	10.8	29.2	35.6	13.2	43.1	310.2	26.4	34.5	12.3	3.7	20.6	45.0	23.5	0.8	310.2	84.5	188
12	Long C. Denver AR	14.1	53.3	53.3	69.6	63.2	106.4	22.7	146.4	433.1	591.9	373.3	205.6	177.7	88.0	14.1	591.9	187.9	106
13	Yocum C. off Hwy 311 AR	24.1	16.5	65.4	55.9	34.4	46.7	52.2	37.5	45.3	12.3	< 2.8	29.3	35.1	36.0	1.4	65.4	19.2	55
14	Kings R. Berryville AR	2.3	23.6	144.4	122.6	< 1.4	144.6	160.7	118.3	108.8	29.8	< 2.8	65.3	76.9	87.1	0.7	160.7	62.7	82
15	War Eagle C. Hiland AR	1.7	22.6	53.3	48.1	13.6	14.6	24.2	31.6	67.8	41.2	56.9	98.6	39.5	36.4	1.7	98.6	27.3	69
16	Richland C. Goshen AR	< 1.6	7.2	14.4	3.7	17.3	12.8	23.7	12.3	15.6	10.1	4.8	16.0	11.6	12.6	0.8	23.7	6.5	57
17	White R. Fayettville AR	2.3	7.2	16.8	3.3	31.5	19.6	31.2	15.7	24.2	17.3	13.3	39.0	18.4	17.0	2.3	39.0	11.4	62
18	W. Fork White R. Fayettville AR	< 1.6	9.0	17.5	13.7	28.6	19.6	48.2	20.5	26.7	13.0	13.7	25.6	19.7	18.5	0.8	48.2	11.9	61
19	Bear C. Hwy 14 Omaha AR	< 1.6	3.6	< 7.0	25.9	14.0	< 8.5	35.7	3.8	12.0	5.8	< 2.8	11.6	10.2	5.0	0.8	35.7	10.7	105
	Detection Limit **	1.6	1.2	7.0	3.2	1.4	8.5	3.8	1.4	1.5	0.6	2.8	1.0	2.8	1.5	0.6	8.5	2.5	88
	Accuracy ***	91	114	106	92	107	94	129	102	101	90	94	94	101	98	90	129	12	11

Notes:

* NS = No Sample

** Detection Limit = Reagent Blank Concentration (ug/L) X 3

*** Accuracy = Average amount of reference sample (100 ug/L) recovered by percentage

< values were assumed 1/2 of detection limit for statistical analysis

Shaded areas represent spring and fall samples

Nitrogen, Total (mg/L)

Site #	Location	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mean	Med	Min	Max	SD	CV%
1	Wilson C. at Scenic Ave. MO	2.45	1.95	0.98	1.21	1.12	1.10	0.91	1.76	0.82	1.27	1.23	1.54	1.36	1.22	0.82	2.45	0.48	35
2	Wilson C. at Co Rd. 156 MO	2.30	1.87	0.96	0.56	2.26	0.83	NS*	0.55	0.68	0.77	1.12	0.88	1.16	0.88	0.55	2.30	0.66	57
3	Wilson C. below WWT plant MO	12.40	2.49	12.93	7.47	21.30	17.67	10.67	13.98	6.81	8.00	11.50	15.90	11.76	11.95	2.49	21.30	5.17	44
4	James R. Boaz MO	2.37	1.61	4.21	4.45	14.58	5.23	4.12	5.10	9.37	8.75	7.35	7.84	6.25	5.16	1.61	14.58	3.57	57
5	Finley C. Riverdale Rd. MO	1.50	1.07	1.05	0.56	1.02	1.09	0.69	0.97	1.24	1.01	1.37	1.08	1.05	1.06	0.56	1.50	0.26	24
6	James R. Galena MO	2.02	1.50	2.38	1.40	2.09	4.72	2.57	2.93	2.02	1.06	6.57	3.89	2.76	2.23	1.06	6.57	1.59	57
7	Below TableRock Dam MO	0.76	0.69	0.99	0.67	1.13	1.13	1.03	0.99	0.82	0.48	0.53	1.00	0.85	0.91	0.48	1.13	0.23	27
8	Bull C. Walnut Shade MO	0.60	< 0.25	0.48	< 0.14	0.64	0.31	< 0.23	0.22	0.15	0.23	0.17	1.09	0.40	0.27	0.12	1.09	0.31	77
9	Beaver C. Bradleyville MO	0.62	0.69	0.32	0.40	0.66	0.22	< 0.23	0.24	0.15	0.42	0.45	0.88	0.43	0.41	0.12	0.88	0.24	56
10	James R. Kinser Bridge MO	0.56	1.01	1.00	1.09	1.08	1.03	0.83	1.14	0.45	0.69	0.78	1.00	0.89	1.00	0.45	1.14	0.22	25
11	Pearson C. D Hwy. MO	2.75	2.44	2.40	2.41	2.05	2.02	1.85	2.12	1.74	2.09	2.13	2.35	2.20	2.12	1.74	2.75	0.28	13
12	Long C. Denver AR	1.42	1.21	1.56	1.49	1.39	1.20	1.18	2.33	1.36	2.33	2.45	2.01	1.66	1.45	1.18	2.45	0.48	29
13	Yocum C. off Hwy 311 AR	5.59	17.43	4.09	4.06	3.21	2.72	2.12	1.28	2.52	2.78	2.82	2.99	4.30	2.90	1.28	17.43	4.28	99
14	Kings R. Berryville AR	0.57	0.35	0.73	0.47	0.30	0.44	< 0.23	0.34	0.22	< 0.19	0.14	0.76	0.38	0.34	0.10	0.76	0.23	60
15	War Eagle C. Hiland AR	0.96	0.55	1.25	1.13	1.08	0.84	0.38	0.94	0.97	1.06	1.40	1.17	0.98	1.02	0.38	1.40	0.29	29
16	Richland C. Goshen AR	0.65	0.36	0.89	0.57	0.20	0.50	< 0.23	0.21	0.25	< 0.19	0.08	0.96	0.41	0.30	0.08	0.96	0.31	75
17	White R. Fayettville AR	0.43	0.36	0.42	0.22	0.41	0.56	< 0.23	0.54	0.41	0.35	0.31	0.87	0.42	0.41	0.12	0.87	0.19	45
18	W. Fork White R. Fayettville AR	0.64	0.35	0.92	0.23	0.54	0.38	0.37	0.60	0.25	< 0.19	0.23	0.89	0.46	0.38	0.10	0.92	0.26	57
19	Bear C. Hwy 14 Omaha AR	0.98	0.89	0.70	2.84	0.38	0.33	< 0.23	0.26	13.84	0.23	0.20	0.93	1.81	0.54	0.12	13.84	3.86	214
	Detection Limit **	0.06	0.25	0.07	0.14	0.06	0.12	0.23	0.19	0.11	0.19	0.02	0.04	0.12	0.12	0.02	0.25	0.08	62
	Accuracy ***	92	96	97	103	100	108	93	105	97	95	112	100	100	99	92	112	6	6

Notes:

* NS = No Sample

** Detection Limit = Reagent Blank Concentration (mg/L) X 3

*** Accuracy = Average amount of reference sample (1 mg/L) recovered by percentage

< values were assumed 1/2 of detection limit for statistical analysis

Shaded areas represent spring and fall samples

Temperature (C˚)

Site #	Location	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mean	Med	Min	Max	SD	CV%
1	Wilson C. at Scenic Ave. MO	9.2	15.1	19.5	23.1	22.3	22.9	21.4	16.4	11.9	2.5	3.9	4.1	14.4	15.7	2.5	23.1	7.9	55
2	Wilson C. at Co Rd. 156 MO	9.7	14.0	19.6	25.5	21.7	22.8	NS	19.2	10.6	3.9	4.4	4.1	14.1	14.0	3.9	25.5	8.1	57
3	Wilson C. below WWT plant MO	13.4	15.2	18.8	25.1	22.6	23.2	23.3	23.2	20.3	15.1	14.8	14.8	19.1	19.5	13.4	25.1	4.3	22
4	James R. Boaz MO	13.3	15.3	20.4	26.9	28.1	25.5	24.1	18.5	12.9	3.4	5.6	6.7	16.7	16.9	3.4	28.1	8.6	51
5	Finley C. Riverdale Rd. MO	10.8	12.6	18.1	8.5	27.1	26.2	26.3	19.7	13.3	3.1	4.4	5.5	14.6	12.9	3.1	27.1	8.8	60
6	James R. Galena MO	12.1	13.6	20.6	25.6	28.9	28.3	26.5	20.7	12.8	2.2	5.2	6.8	17.9	17.1	2.2	28.9	9.4	53
7	Below TableRock Dam MO	7.4	8.2	8.5	7.3	9.4	9.2	9.5	10.5	10.4	9.5	10.1	9.7	9.1	9.4	7.3	10.5	1.1	12
8	Bull C. Walnut Shade MO	11.3	15.6	22.6	22.1	25.4	28.3	26.7	22.9	12.6	3.0	6.2	6.8	17.0	18.8	3.0	28.3	8.8	52
9	Beaver C. Bradleyville MO	12.1	15.5	22.4	19.5	24.7	29.3	23.0	20.6	14.0	4.3	7.0	7.6	16.7	17.5	4.3	29.3	7.9	47
10	James R. Kinser Bridge MO	10.4	13.9	19.6	23.9	23.3	25.3	21.2	17.3	12.6	3.9	6.7	5.7	15.3	15.6	3.9	25.3	7.5	49
11	Pearson C. D Hwy. MO	11.6	13.9	17.8	21.8	19.1	23.7	20.8	18.3	14.5	7.1	9.2	8.1	15.5	16.2	7.1	23.7	5.6	36
12	Long C. Denver AR	11.4	13.7	17.8	21.4	23.2	22.1	22.8	19.9	14.2	7.3	7.8	6.2	15.6	16.0	6.2	23.2	6.4	41
13	Yocum C. off Hwy 311 AR	10.6	13.8	17.5	20.5	22.8	24.1	28.2	21.1	14.6	4.3	7.5	6.8	16.0	16.0	4.3	28.2	7.6	48
14	Kings R. Berryville AR	11.4	14.9	21.3	25.0	28.1	31.0	25.5	23.9	14.8	3.9	6.2	5.3	18.7	18.1	3.9	31.0	9.5	51
15	War Eagle C. Hiland AR	10.2	15.6	19.8	23.0	26.0	27.6	27.1	21.3	13.9	6.2	5.4	4.8	16.7	17.7	4.8	27.6	8.6	51
16	Richland C. Goshen AR	13.1	17.4	19.3	25.2	29.9	32.2	25.7	26.7	17.0	4.6	8.6	6.0	18.8	18.4	4.6	32.2	9.4	50
17	White R. Fayettville AR	11.2	16.9	22.7	25.3	27.9	29.1	30.5	24.0	15.1	4.2	7.2	7.2	18.4	19.8	4.2	30.5	9.4	51
18	W. Fork White R. Fayettville AR	11.4	17.1	21.3	24.6	27.9	29.9	32.4	23.3	14.8	5.1	6.6	5.6	18.3	19.2	5.1	32.4	9.7	53
19	Bear C. Hwy 14 Omaha AR	12.1	18.0	20.0	19.7	27.1	30.1	27.0	24.6	16.2	7.8	8.2	6.8	18.1	18.9	6.8	30.1	8.1	45

NS = No Sample

Shaded areas represent spring and fall samples

pH

Site #	Location	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mean	Med	Min	Max	SD	CV%
1	Wilson C. at Scenic Ave. MO	7.4	7.7	7.8	8.0	7.8	7.4	7.6	7.4	7.4	6.5	7.1	7.0	7.4	7.4	6.5	8.0	0.4	5
2	Wilson C. at Co Rd. 156 MO	8.0	8.2	7.9	8.2	8.0	7.9	NS	8.2	7.3	6.6	7.9	8.2	7.9	8.0	6.6	8.2	0.5	6
3	Wilson C. below WWT plant MO	7.4	7.4	7.3	8.2	7.6	7.5	8.1	7.9	7.5	6.7	7.7	7.3	7.5	7.5	6.7	8.2	0.4	5
4	James R. Boaz MO	8.4	7.8	7.9	8.4	8.2	7.9	8.1	8.2	7.9	7.9	8.2	7.4	8.0	8.0	7.4	8.4	0.3	4
5	Finley C. Riverdale Rd. MO	8.3	8.0	7.9	7.9	8.0	7.9	8.6	8.2	7.7	8.3	8.3	8.1	8.1	8.1	7.7	8.6	0.3	3
6	James R. Galena MO	8.6	7.9	7.8	8.3	8.4	8.4	7.9	8.5	8.2	8.7	8.7	8.6	8.3	8.4	7.8	8.7	0.3	4
7	Below TableRock Dam MO	8.0	7.9	7.2	8.2	8.0	7.8	8.0	7.8	7.6	8.5	8.6	8.6	8.0	8.0	7.2	8.6	0.4	5
8	Bull C. Walnut Shade MO	8.3	8.4	8.3	7.9	7.9	7.9	8.4	8.2	7.9	8.5	8.5	8.3	8.2	8.3	7.9	8.5	0.2	3
9	Beaver C. Bradleyville MO	8.4	8.3	8.4	8.1	8.2	8.4	7.9	8.3	8.1	8.6	8.6	8.3	8.3	8.3	7.9	8.6	0.2	3
10	James R. Kinser Bridge MO	8.3	8.1	7.9	9.0	7.8	7.9	8.1	7.9	7.6	8.5	8.2	8.1	8.1	8.1	7.6	9.0	0.4	4
11	Pearson C. D Hwy. MO	8.0	7.8	7.9	7.9	7.4	8.0	7.7	7.7	7.8	8.5	8.5	8.3	8.0	7.9	7.4	8.5	0.3	4
12	Long C. Denver AR	8.1	8.2	7.8	7.7	7.7	7.6	8.0	7.7	7.3	7.5	7.8	7.9	7.8	7.7	7.3	8.2	0.3	3
13	Yocum C. off Hwy 311 AR	7.8	7.9	8.0	8.0	8.0	7.9	8.6	8.0	7.8	8.4	8.2	8.2	8.1	8.0	7.8	8.6	0.2	3
14	Kings R. Berryville AR	8.8	8.4	8.3	8.3	8.5	8.5	8.1	8.4	8.0	8.3	8.5	8.4	8.4	8.4	8.0	8.8	0.2	2
15	War Eagle C. Hiland AR	8.3	8.0	7.9	7.7	8.0	8.1	8.6	7.9	7.7	8.2	8.5	7.9	8.1	8.0	7.7	8.6	0.3	4
16	Richland C. Goshen AR	9.1	8.6	8.3	8.3	8.4	8.5	8.8	8.6	7.9	8.1	8.5	8.0	8.4	8.5	7.9	9.1	0.3	4
17	White R. Fayettville AR	8.2	7.9	7.9	7.9	8.3	8.2	7.7	8.0	7.4	8.1	8.3	8.1	8.0	8.0	7.4	8.3	0.3	3
18	W. Fork White R. Fayettville AR	7.9	8.0	7.7	7.8	7.6	7.6	7.5	7.5	7.2	6.6	8.3	7.9	7.6	7.7	6.6	8.3	0.4	6
19	Bear C. Hwy 14 Omaha AR	8.2	8.3	8.3	7.7	8.1	8.1	7.9	8.2	8.0	6.8	8.5	8.1	8.0	8.1	6.8	8.5	0.4	5

NS = No Sample
Shaded areas represent spring and fall samples

Dissolved Oxygen (mg/L)

Site #	Location	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mean	Med	Min	Max	SD	CV%
1	Wilson C. at Scenic Ave. MO	13.1	12.0	8.7	13.7	6.1	4.5	4.5	7.7	5.2	11.5	7.8	8.9	8.6	8.2	4.5	13.7	3.3	38
2	Wilson C. at Co Rd. 156 MO	13.6	13.7	8.8	9.7	8.1	6.7	6.7	9.5	NS	17.6	7.8	11.1	10.3	9.5	6.7	17.6	3.4	33
3	Wilson C. below WWT plant MO	21.7	17.0	18.5	10.1	14.3	15.3	15.3	14.0	15.1	20.0	15.9	16.3	16.1	15.6	10.1	21.7	3.0	19
4	James R. Boaz MO	17.0	9.8	8.7	10.6	9.0	7.8	7.8	9.2	9.2	15.6	9.8	10.8	10.4	9.5	7.8	17.0	2.9	28
5	Finley C. Riverdale Rd. MO	16.1	10.7	8.6	11.6	9.2	9.6	9.6	8.9	9.0	16.2	10.4	11.2	10.9	10.0	8.6	16.2	2.6	24
6	James R. Galena MO	16.3	8.6	6.5	8.9	10.7	10.1	10.1	9.8	11.6	16.9	11.8	12.1	11.0	10.4	6.5	16.9	3.0	27
7	Below TableRock Dam MO	14.6	8.6	9.2	8.8	12.8	9.5	9.5	7.9	5.0	12.1	12.1	12.3	10.2	9.5	5.0	14.6	2.6	26
8	Bull C. Walnut Shade MO	13.9	13.9	9.5	6.4	8.1	7.9	7.9	8.6	8.4	14.7	10.4	11.5	10.1	9.1	6.4	14.7	2.8	27
9	Beaver C. Bradleyville MO	14.6	13.4	10.8	8.8	9.6	9.8	9.8	8.6	10.1	15.7	11.0	12.0	11.2	10.4	8.6	15.7	2.3	21
10	James R. Kinser Bridge MO	15.3	13.2	9.1	16.1	7.3	9.4	9.4	8.0	6.6	15.7	9.7	11.3	10.9	9.6	6.6	16.1	3.4	31
11	Pearson C. D Hwy. MO	14.3	14.1	10.2	7.2	8.1	10.3	10.3	7.5	8.4	16.7	10.7	11.9	10.8	10.3	7.2	16.7	3.0	28
12	Long C. Denver AR	15.0	13.6	9.3	8.4	10.0	9.5	9.5	7.4	6.4	10.5	9.7	9.9	9.9	9.6	6.4	15.0	2.4	24
13	Yocum C. off Hwy 311 AR	14.7	12.9	9.9	9.6	10.3	10.3	10.3	8.1	10.2	12.0	11.6	12.3	11.0	10.3	8.1	14.7	1.8	16
14	Kings R. Berryville AR	17.2	13.4	9.6	8.8	9.4	10.2	10.2	8.2	9.9	12.0	10.7	11.4	10.9	10.2	8.2	17.2	2.4	22
15	War Eagle C. Hiland AR	15.6	12.9	9.7	7.4	8.7	9.9	9.9	8.0	9.4	10.2	11.3	10.9	10.3	9.9	7.4	15.6	2.2	21
16	Richland C. Goshen AR	17.6	13.4	11.7	10.0	10.9	10.9	10.9	9.6	10.4	9.9	11.1	11.0	11.4	10.9	9.6	17.6	2.2	19
17	White R. Fayettville AR	14.7	12.1	9.0	8.6	10.4	9.8	9.8	8.4	5.4	10.3	9.9	10.9	9.9	9.8	5.4	14.7	2.2	22
18	W. Fork White R. Fayettville AR	14.6	12.2	8.9	7.9	8.2	8.5	8.5	5.4	4.5	9.7	9.9	11.0	9.1	8.7	4.5	14.6	2.7	30
19	Bear C. Hwy 14 Omaha AR	13.5	12.1	9.9	7.4	8.8	9.5	9.5	8.8	10.0	9.6	11.5	11.3	10.2	9.7	7.4	13.5	1.7	16

NS = No Sample

Shaded areas represent spring and fall samples

Conductivity (mS/cm)

Site #	Location	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mean	Med	Min	Max	SD	CV%
1	Wilson C. at Scenic Ave. MO	0.73	0.76	0.31	1.08	0.76	0.68	0.70	0.72	0.87	1.00	0.70	0.78	0.76	0.74	0.31	1.08	0.19	25
2	Wilson C. at Co Rd. 156 MO	0.67	0.70	0.27	0.86	0.35	0.35	NS	0.66	0.90	0.90	0.72	0.30	0.61	0.67	0.27	0.90	0.25	41
3	Wilson C. below WWT plant MO	0.96	0.84	0.56	0.47	1.15	0.96	1.00	1.10	1.52	1.23	1.25	0.90	0.99	0.98	0.47	1.52	0.29	29
4	James R. Boaz MO	0.60	0.50	0.61	0.56	0.92	0.95	0.50	0.83	1.11	0.90	1.00	0.85	0.78	0.84	0.50	1.11	0.21	27
5	Finley C. Riverdale Rd. MO	0.41	0.38	0.39	0.32	0.50	0.49	0.68	0.48	0.61	0.69	0.58	0.49	0.50	0.49	0.32	0.69	0.12	23
6	James R. Galena MO	0.46	0.43	0.49	0.53	0.59	0.73	0.33	0.61	0.80	0.97	0.88	0.60	0.62	0.59	0.33	0.97	0.19	31
7	Below TableRock Dam MO	0.32	0.32	0.32	0.44	0.35	0.32	0.44	0.32	0.36	0.41	0.34	0.29	0.35	0.33	0.29	0.44	0.05	15
8	Bull C. Walnut Shade MO	0.43	0.45	0.42	0.49	0.49	0.43	0.49	0.46	0.57	0.69	0.52	0.51	0.49	0.49	0.42	0.69	0.07	15
9	Beaver C. Bradleyville MO	0.49	0.47	0.49	0.58	0.54	0.49	0.53	0.48	0.57	0.66	0.57	0.53	0.53	0.53	0.47	0.66	0.06	10
10	James R. Kinser Bridge MO	0.42	0.40	0.45	0.32	0.53	0.57	0.60	0.61	0.59	0.67	0.57	0.49	0.52	0.55	0.32	0.67	0.10	20
11	Pearson C. D Hwy. MO	0.54	0.58	0.58	0.74	0.61	0.58	0.46	0.52	0.42	0.77	0.65	0.62	0.59	0.58	0.42	0.77	0.10	17
12	Long C. Denver AR	0.45	0.43	0.41	0.42	0.45	0.47	0.44	0.40	0.58	0.54	0.59	0.51	0.47	0.45	0.40	0.59	0.07	14
13	Yocum C. off Hwy 311 AR	0.37	0.33	0.46	0.46	0.49	0.45	0.43	0.44	0.51	0.52	0.51	0.46	0.45	0.46	0.33	0.52	0.06	13
14	Kings R. Berryville AR	0.30	0.28	0.34	0.34	0.40	0.49	0.41	0.41	0.53	0.47	0.51	0.36	0.41	0.40	0.28	0.53	0.08	21
15	War Eagle C. Hiland AR	0.21	0.18	0.27	0.30	0.40	0.37	0.28	0.45	0.56	0.38	0.54	0.28	0.35	0.33	0.18	0.56	0.12	34
16	Richland C. Goshen AR	0.17	0.15	0.24	0.24	0.31	0.27	0.25	0.28	0.39	0.45	0.38	0.36	0.29	0.27	0.15	0.45	0.09	31
17	White R. Fayettville AR	0.14	0.12	0.14	0.20	0.26	0.30	0.33	0.30	0.37	0.49	0.38	0.14	0.26	0.28	0.12	0.49	0.12	45
18	W. Fork White R. Fayettville AR	0.22	0.21	0.22	0.26	0.40	0.44	0.24	0.32	0.40	0.65	0.50	0.40	0.36	0.36	0.21	0.65	0.14	38
19	Bear C. Hwy 14 Omaha AR	0.49	0.49	0.46	0.53	0.46	0.42	0.43	0.43	0.51	0.61	0.52	0.49	0.49	0.49	0.42	0.61	0.05	11

NS = No Sample

Shaded areas represent spring and fall samples

Turbity (NTU)

Site #	Location	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05	Jan-06	Feb-06	Mean	Med	Min	Max	SD	CV%
1	Wilson C. at Scenic Ave. MO	7.2	7.8	12.0	17.7	5.5	7.1	6.8	31.3	5.8	6.2	44.5	61.1	17.8	7.5	5.5	61.1	18.3	103
2	Wilson C. at Co Rd. 156 MO	6.1	7.8	15.3	11.7	15.3	8.8	NS	19.5	6.7	6.4	30.3	77.9	18.7	11.7	6.1	77.9	20.9	112
3	Wilson C. below WWT plant MO	4.0	18.4	25.1	18.5	4.9	16.9	12.2	16.8	0.0	0.3	31.8	29.0	14.8	16.9	0.0	31.8	10.8	73
4	James R. Boaz MO	5.6	19.0	31.2	11.3	9.3	11.7	2.8	23.7	6.9	10.5	23.7	55.2	17.6	11.5	2.8	55.2	14.6	83
5	Finley C. Riverdale Rd. MO	3.1	11.2	12.6	93.1	6.5	10.5	0.0	17.9	2.7	2.2	24.8	44.1	19.1	10.9	0.0	93.1	26.4	138
6	James R. Galena MO	5.3	13.6	3.9	6.7	2.7	2.7	62.9	18.1	2.6	2.1	4.2	46.2	11.3	4.8	2.1	62.9	19.8	174
7	Below TableRock Dam MO	20.5	11.4	8.4	4.6	71.8	71.6	3.3	25.5	4.2	3.1	14.1	32.8	22.6	12.8	3.1	71.8	24.8	110
8	Bull C. Walnut Shade MO	4.4	10.6	4.4	11.0	4.6	3.4	8.0	15.4	0.1	2.0	2.7	33.9	8.4	4.5	0.1	33.9	9.2	109
9	Beaver C. Bradleyville MO	3.0	7.3	2.0	22.1	1.4	5.7	13.7	20.0	7.3	1.0	16.0	25.2	10.4	7.3	1.0	25.2	8.7	83
10	James R. Kinser Bridge MO	7.1	9.0	8.4	68.4	6.9	19.4	17.1	20.6	7.6	3.8	1.3	14.1	15.3	8.7	1.3	68.4	17.8	116
11	Pearson C. D Hwy. MO	5.0	16.3	6.0	6.7	13.2	25.1	8.1	22.6	155.0	98.0	0.0	14.7	30.9	14.0	0.0	155.0	46.9	152
12	Long C. Denver AR	6.5	9.0	5.2	9.0	6.8	13.9	4.9	21.3	6.0	45.9	32.1	96.0	21.4	9.0	4.9	96.0	26.7	125
13	Yocum C. off Hwy 311 AR	6.5	11.0	4.7	6.5	4.5	8.0	5.9	20.6	2.5	56.0	8.3	82.4	18.1	7.3	2.5	82.4	25.0	138
14	Kings R. Berryville AR	17.7	12.4	3.0	10.2	4.8	10.7	13.4	20.5	8.0	46.9	11.0	83.0	14.4	11.7	3.0	83.0	22.8	158
15	War Eagle C. Hiland AR	13.1	22.2	6.0	14.8	26.7	9.6	9.4	36.1	11.5	24.9	9.0	88.4	22.6	14.0	6.0	88.4	22.6	100
16	Richland C. Goshen AR	5.0	15.3	7.5	8.3	10.6	11.6	23.1	23.4	2.8	38.5	12.5	78.1	19.7	12.1	2.8	78.1	20.9	106
17	White R. Fayettville AR	16.8	19.1	10.5	23.9	13.1	20.2	13.6	38.0	12.1	28.4	21.0	101.0	26.5	19.7	10.5	101.0	24.7	93
18	W. Fork White R. Fayettville AR	14.5	24.9	17.8	35.6	8.6	13.8	12.3	32.3	9.4	87.0	18.1	95.9	30.9	18.0	8.6	95.9	29.6	96
19	Bear C. Hwy 14 Omaha AR	4.7	6.3	2.7	10.2	1.9	3.6	4.6	17.0	1.6	52.0	0.0	29.0	11.1	4.7	0.0	52.0	15.3	137

NS = No Sample

Shaded areas represent spring and fall samples