

LITTLE ARKANSAS RIVER AT HIGHWAY 50 NEAR HALSTEAD, KS (07143672)

STATISTICAL SUMMARY FOR FIELD PARAMETERS, MAJOR AND TRACE ELEMENTS, NUTRIENTS, BACTERIA, SEDIMENT, AND RADIONUCLIDE
DATA COLLECTED FROM FEB 1995 TO DEC 2007

WATER-QUALITY CONSTITUENT	DESCRIPTIVE STATISTICS				PERCENT OF SAMPLES IN WHICH VALUES WERE LESS THAN OR EQUAL TO THOSE SHOWN				
	SAMPLE SIZE	MAXIMUM	MINIMUM	MEAN	95%	75%	(MEDIAN) 50%	25%	5%
00061 Discharge, instant. cfs	375	10500	0.2	676	3900	488	65	20.7	10
00065 Gage height ft	252	27.1	4.75	9.23	21	10.5	6.85	6.13	5.72
00010 Temperature, water deg C	260	27.9	0	15.5	26.1	21.9	16.8	9.27	1.94
00020 Temperature, air deg C	233	37	-5	18.3	30.7	25.8	20	11	0.35
00025 Air pressure mm/Hg	243	743	530	726	734	730	727	724	718
00300 Dissolved oxygen mg/l	251	16.2	2.52	8.15	12.9	10.3	7.56	6.12	4.36
00400 pH std units	260	8.65	6.18	7.55	8.23	7.87	7.63	7.22	6.76
00403 pH, wu,lab std units	200	8.61	6.82	7.82	8.35	8.09	7.87	7.53	7.12
00095 Specific cond at 25C uS/cm @25C	260	3550	64	865	1720	1310	906	328	152
90095 SpecCond,wu25degCLab uS/cm @25C	200	2140	91	836	1730	1210	865	306	153
63001 Redox potential, raw mV	4	328	131	--	--	--	--	--	--
63002 Redox potential, SHE mV	2	540	330	--	--	--	--	--	--
63675 Turbidity, Nephelom NTU	198	1780	0.3	228	907	349	85	27.1	6.6
63676 Turbidity, NephRatio NTRU	74	1150	3.29	195	892	249	89.8	33.3	7.21
63680 Turbidity, Form Neph FNU	124	1610	3.55	292	1000	481	157	56.5	9
00076 Turbidity NTU	10	640	29	251	640	339	220	123	29
00901 Carbonate hardness, wu mg/l CaCO3	213	515	23	246	459	370	265	92.5	44.9
00900 Hardness, water mg/l CaCO3	233	584	23.1	257	469	387	282	98.6	45.5
00915 Calcium, wf mg/l	233	174	6.95	80.9	147	122	90.2	31.1	13.5
00916 Calcium, wu,recov mg/l	13	148	67.4	114	148	139	131	81.5	67.4
00925 Magnesium, wf mg/l	233	36.2	1.38	13.1	24.2	19.5	14.1	5.67	2.5
00927 Magnesium, wu,recov mg/l	13	23.4	10.9	18.4	23.4	21.9	20	13.9	10.9
00935 Potassium, wf mg/l	233	18.1	4.4	7.98	10.6	8.95	7.98	6.78	5.36
00937 Potassium, wu,recov mg/l	13	13.5	8.14	10.8	13.5	12	11.4	9.67	8.14
00930 Sodium, wf mg/l	233	498	3.38	82.5	184	127	78.8	26.1	7.1
00929 Sodium, wu,recov mg/l	13	208	41	139	208	187	152	83.9	41
00419 ANC, wu, inflection pt,field mg/l CaCO3	13	300	23.8	138	300	209	157	48.1	23.8
00416 ANC, wu, inflection point,lab mg/l CaCO3	13	299	132	226	299	276	252	155	132
39087 Alkalinity, wf,inflect pt,lab mg/l CaCO3	231	310	3	171	284	254	190	76	37.2
29806 HCO3, wf, inflection pt, lab mg/l	231	462	3.66	210	346	310	246	93	45.2
00450 Bicarbonate,wu,inflect pt,fld mg/l	13	366	29	168	366	255	192	58.7	29
00449 Bicarbonate,wu,inflect pt,lab mg/l	13	364	161	275	364	336	307	189	161
29809 CO3, wf, inflection pt, lab mg/l	231	20	0	0.597	4.4	0	0	0	0
00447 Carbonate, wu, inflect pt,fld mg/l	13	0	--	--	--	--	--	--	--
00446 Carbonate, wu, inflect pt,lab mg/l	13	17	0	2.08	17	0	0	0	0
00940 Chloride, wf mg/l	234	932	5	155	356	245	145	43.5	12.8
00950 Fluoride, wf mg/l	116	2.74	0.04	0.297	0.609	0.31	0.24	0.19	0.1

00951	Fluoride, wu mg/l	8	1.57	0.19	0.707	1.57	1.31	0.57	0.211	0.19
00955	Silica, wf mg/l	113	24	5.21	13.9	21.3	16.4	14.1	10.6	7.25
00956	Silica, wu mg/l	8	45.9	5.87	28.5	45.9	39.7	28.3	20.2	5.87
00945	Sulfate, wf mg/l	233	312	5	39.4	71.5	54.5	40.5	18	6.19
00946	Sulfate, wu mg/l	13	57	32	45.5	57	53.5	45	37	32
00500	ROE at 105C, wu mg/l	79	2970	304	895	1840	1050	816	612	344
70300	Residue, ROE@180C,wf mg/l	233	1960	66	530	977	799	541	227	109
70301	Residue, wf, sum mg/l	225	1900	73.9	508	928	747	536	221	101
00530	Residue,total nonflt mg/l	182	2240	4	255	1030	302	90	46.1	7.17
00623	Ammonia + organic-N, wf mg/l as N	4	0.568	0.363	--	--	--	--	--	--
00625	NH3+orgN, wu mg/l as N	85	5.9	0.296	1.68	3.99	2.22	1.42	0.87	0.497
00608	Ammonia, wf mg/l as N	216	0.74	--	0.119*	*0.390	*0.161	*0.069	*0.031	*0.013
00610	Ammonia, wu mg/l as N	12	0.167	0.018	0.082	0.167	0.122	0.076	0.036	0.018
00678	Hydrolyzable phosphorus, wu mg/l as P	8	0.3	0.16	0.238	0.3	0.287	0.259	0.18	0.16
00618	Nitrate, wf mg/l as N	110	5.4	--	0.741*	*2.080	*1.043	*0.715	*0.138	*0.023
00620	Nitrate, wu mg/l as N	7	0.764	0.1	0.321	0.764	0.4	0.21	0.17	0.1
00631	NO3+NO2, wf mg/l as N	202	5.44	--	0.716*	*1.984	*1.080	*0.500	*0.091	*0.025
00630	NO3+NO2, wu mg/l as N	12	0.78	--	0.242*	*0.780	*0.412	*0.190	*0.043	*0.014
00613	Nitrite, wf mg/l as N	118	1.18	--	0.042*	*0.091	*0.040	*0.011	*0.004	*0.001
00615	Nitrite, wu mg/l as N	8	--	--	--	--	--	--	--	--
00671	Orthophosphate, wf mg/l as P	119	0.58	0.01	0.246	0.44	0.32	0.24	0.17	0.07
00666	Phosphorus, wf mg/l	203	0.61	0.03	0.286	0.45	0.344	0.28	0.22	0.14
00665	Phosphorus, wu mg/l	97	2.3	0.143	0.615	1.17	0.766	0.499	0.385	0.25
00680	Organic carbon, wu mg/l	67	26.7	3.77	10.3	21.6	13.2	9.1	6.65	4.41
90915	Clostridium perfring cfu/100ml	4	270	150	--	--	--	--	--	--
90903	Coliphage,E coli,C13 pfu/100ml	6	9400	595	2350	9400	3260	1010	817	595
90904	Coliphage,E coli,FAM pfu/100ml	6	--	--	--	--	--	--	--	--
90909	Enterococci, mEI,w cfu/100ml	27	74000	34	6750	55000	3900	690	266	39.2
90902	E. coli, modif m-TEC cfu/100ml	69	12000	2	1870	8810	2340	767	236	22.5
31648	Escherichia coli, m-TEC MF cfu/100ml	21	41000	36	3420	37700	2400	425	145	41.6
31625	Fecal coliform, M-FC MF, 0.7u cfu/100ml	287	3000000	4	24300	23000	2400	520	167	20
31673	Fecal strep, KF strep MF cfu/100ml	1	440	--	--	--	--	--	--	--
31504	Total coliform, LES Endo,imm cfu/100ml	193	2000000	1	28200	41300	6250	1300	200	10
01106	Aluminum, wf ug/l	66	960	--	26.653*	*91.750	*7.389	*1.110	*0.190	*0.015
01104	Aluminum, wu,recov ug/l	8	9320	2830	6080	9320	8910	5590	3480	2830
01095	Antimony, wf ug/l	66	--	--	--	--	--	--	--	--
01097	Antimony, wu ug/l	8	--	--	--	--	--	--	--	--
01000	Arsenic, wf ug/l	112	14.1	1	5.6	11.5	7.02	5.16	3.18	1.97
01002	Arsenic, wu ug/l	8	12.3	3.26	8.42	12.3	10.5	8.48	7.05	3.26
01005	Barium, wf ug/l	66	358	32	159	334	269	117	70	49.2
01007	Barium, wu,recov ug/l	8	350	248	314	350	344	323	281	248
01010	Beryllium, wf ug/l	66	--	--	--	--	--	--	--	--
01012	Beryllium, wu,recov ug/l	8	--	--	--	--	--	--	--	--
01020	Boron, wf ug/l	66	127	16.1	58.5	120	81.3	51	33.9	20.4
01022	Boron, wu,recov ug/l	8	1240	839	974	1240	1080	901	884	839
71870	Bromide, wf mg/l	114	1.72	0.03	0.418	1.14	0.72	0.26	0.1	0.04
71871	Bromine, wu mg/l	8	1.17	0.223	0.68	1.17	1.04	0.625	0.4	0.223

01025	Cadmium, wf ug/l	66	0.377	--	0.072*	*0.242	*0.092	*0.051	*0.028	*0.013
01027	Cadmium, wu ug/l	8	--	--	--	--	--	--	--	--
01030	Chromium, wf ug/l	66	--	--	--	--	--	--	--	--
01034	Chromium, wu,recov ug/l	8	--	--	--	--	--	--	--	--
01035	Cobalt, wf ug/l	1	1.28	--	--	--	--	--	--	--
01040	Copper, wf ug/l	66	--	--	--	--	--	--	--	--
01042	Copper, wu,rec ug/l	8	8.4	--	5.468*	*8.400	*7.975	*5.000	*3.508	*2.765
00723	Cyanide, wf mg/l	62	--	--	--	--	--	--	--	--
00720	Cyanide, wu mg/l	8	--	--	--	--	--	--	--	--
01046	Iron, wf ug/l	233	864	--	27.298*	*88.580	*23.555	*9.600	*3.433	*0.927
01045	Iron, wu,rec ug/l	13	5710	12.5	2610	5710	3650	1790	1580	12.5
01049	Lead, wf ug/l	66	1.22	--	0.462*	*1.000	*0.573	*0.408	*0.296	*0.181
01051	Lead, wu,recov ug/l	8	4.93	2.25	3.71	4.93	4.62	3.72	2.71	2.25
01056	Manganese, wf ug/l	232	1140	--	168.406*	*634.950	*251.750	*73.350	*10.000	*2.928
01055	Manganese, wu,recov ug/l	13	964	99.9	605	964	843	715	216	99.9
71890	Mercury, wf ug/l	64	0.136	--	0.044*	*0.099	*0.061	*0.034	*0.022	*0.012
71901	Mercury, wu, rec ug/l	8	--	--	--	--	--	--	--	--
01060	Molybdenum, wf ug/l	1	7.22	--	--	--	--	--	--	--
01065	Nickel, wf ug/l	66	7.5	--	2.965*	*5.201	*3.658	*2.765	*2.048	*1.275
01067	Nickel, wu,recov ug/l	8	8.21	4.19	6.72	8.21	8.06	7.31	4.88	4.19
01145	Selenium, wf ug/l	65	2.95	--	1.213*	*2.277	*1.479	*1.118	*0.844	*0.563
01147	Selenium, wu ug/l	8	2.9	--	2.260*	*2.900	*2.835	*2.160	*1.806	*1.548
01075	Silver, wf ug/l	66	--	--	--	--	--	--	--	--
01077	Silver, wu,recov ug/l	8	--	--	--	--	--	--	--	--
01080	Strontium, wf ug/l	65	1330	1.45	467	1220	810	315	125	57.8
01082	Strontium, wu,recov ug/l	8	1290	422	847	1290	1170	824	594	422
01057	Thallium, wf ug/l	65	--	--	--	--	--	--	--	--
01059	Thallium, wu ug/l	8	--	--	--	--	--	--	--	--
01085	Vanadium, wf ug/l	65	15.8	--	7.679*	*14.317	*9.184	*7.200	*5.639	*3.822
01087	Vanadium, wu ug/l	8	24	--	14.441*	*24.000	*18.850	*13.250	*9.453	*7.156
01090	Zinc, wf ug/l	66	14.5	--	4.159*	*12.195	*5.046	*3.083	*1.923	*0.954
01092	Zinc, wu,rec ug/l	8	15	--	10.564*	*15.000	*14.500	*10.500	*6.703	*6.304
75986	Alpha 2scu, wf,U-nat ug/l	4	9.71	2.9	--	--	--	--	--	--
75987	Alpha 2scu, wf,Th230 pCi/L	5	5.35	2.14	--	--	--	--	--	--
04126	Alpha activity, wf, Th-230 pCi/L	5	--	--	--	--	--	--	--	--
75989	Beta 2scu, wf,Cs137 pCi/L	5	9.47	2.25	--	--	--	--	--	--
75988	Beta 2scu, wf,Sr/Y90 pCi/L	4	3.66	1.71	--	--	--	--	--	--
80030	Gross alpha,wf,U-nat ug/l	4	--	--	--	--	--	--	--	--
03515	Gross beta, wf,Cs-137 pCi/L	5	20	7.6	--	--	--	--	--	--
80050	Gross beta,wf,Sr/Y90 pCi/L	4	8.8	5.8	--	--	--	--	--	--
22703	Uranium, wf ug/l	1	3.75	--	--	--	--	--	--	--
70331	Suspnd sed <63u, sd %	98	100	16.2	91.7	100	99	97.1	91.6	59.8
80154	Suspnd sedmnt conc mg/l	91	2950	10	365	1300	512	245	65	22.8
80155	Suspnd sedmnt disch tons/day	85	14000	0.145	1540	8850	1670	76.8	5.62	0.88

* - VALUE IS ESTIMATED BY USING A LOG-PROBABILITY REGRESSION TO PREDICT THE VALUES OF DATA BELOW THE DETECTION LIMIT

STATISTICAL SUMMARY OF ARSENIC SPECIATION DATA COLLECTED FROM MAR 1995 TO DEC 2007

WATER-QUALITY CONSTITUENT	DESCRIPTIVE STATISTICS				PERCENT OF SAMPLES IN WHICH VALUES WERE LESS THAN OR EQUAL TO THOSE SHOWN				
	SAMPLE SIZE	MAXIMUM	MINIMUM	MEAN	95%	75%	(MEDIAN) 50%	25%	5%
62453 Arsenate, wf ug/L as As	9	10.1	1.4	3.54	10.1	3.94	3.02	2.07	1.4
62452 Arsenite, wf ug/L as As	9	--	--	--	--	--	--	--	--
62455 Dimethylarsinate, wf ug/L as As	9	--	--	--	--	--	--	--	--
62454 Monomethylarsonate, wf ug/L as As	9	--	--	--	--	--	--	--	--

* - VALUE IS ESTIMATED BY USING A LOG-PROBABILITY REGRESSION TO PREDICT THE VALUES OF DATA BELOW THE DETECTION LIMIT

STATISTICAL SUMMARY OF TRIAZINE HERBICIDE SCREEN DATA COLLECTED FROM FEB 1995 TO DEC 2007

WATER-QUALITY CONSTITUENT	DESCRIPTIVE STATISTICS				PERCENT OF SAMPLES IN WHICH VALUES WERE LESS THAN OR EQUAL TO THOSE SHOWN				
	SAMPLE SIZE	MAXIMUM	MINIMUM	MEAN	95%	75%	(MEDIAN) 50%	25%	5%
00065 Gage height ft	557	27.1	2.71	7.99	17.1	7.94	6.47	6.07	5.8
00061 Discharge, instant. cfs	787	10500	0.2	506	3050	183	40	17	10
00095 Specific cond at 25C uS/cm @25C	480	3550	64	901	1750	1240	853	458	207
34756 Triazines, ELISA, wf ugAtrazn/L	790	46.4	--	2.671*	*12.090	*3.037	*1.085	*0.290	*0.073
34757 Triazines, ELISA, wu ugAtrazn/L	10	3.24	--	0.723*	*3.240	*1.087	*0.370	*0.094	*0.023

* - VALUE IS ESTIMATED BY USING A LOG-PROBABILITY REGRESSION TO PREDICT THE VALUES OF DATA BELOW THE DETECTION LIMIT

39365	p,p'-DDE, wu ug/l	3	--	--	--	--	--	--	--	--
39370	p,p'-DDT, wu ug/l	3	--	--	--	--	--	--	--	--
39034	p,p'-Ethyl-DDD, wu ug/l	3	--	--	--	--	--	--	--	--
39480	p,p'-Methoxychlor,wu ug/l	3	--	--	--	--	--	--	--	--
39540	Parathion, wu ug/l	3	--	--	--	--	--	--	--	--
39516	PCBs, wu ug/l	3	--	--	--	--	--	--	--	--
39023	Phorate, wu ug/l	3	--	--	--	--	--	--	--	--
39250	PCNs, wu ug/l	3	--	--	--	--	--	--	--	--
39400	Toxaphene, wu ug/l	3	--	--	--	--	--	--	--	--
39040	Tribuphos, wu ug/l	3	--	--	--	--	--	--	--	--

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STATISTICAL SUMMARY OF ANTIBIOTIC DATA COLLECTED FROM MAY 2002 TO JUN 2002

WATER-QUALITY CONSTITUENT	DESCRIPTIVE STATISTICS				PERCENT OF SAMPLES IN WHICH VALUES WERE LESS THAN OR EQUAL TO THOSE SHOWN				
	SAMPLE SIZE	MAXIMUM	MINIMUM	MEAN	95%	75%	(MEDIAN) 50%	25%	5%
62650 Anhydrochlortetracycline, gf.7 ug/l	3	--	--	--	--	--	--	--	--
62651 Anhydrotetracycline, w, gf<0.7u ug/l	3	--	--	--	--	--	--	--	--
62658 Carbadox, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
61744 Chlorotetracycline, wf ug/l	3	--	--	--	--	--	--	--	--
62680 Demeclocycline, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
62694 Doxycycline, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
62717 Flumequine, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
62751 Minocycline, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
62757 Norfloxacin, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
62759 Oxolinic acid, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
61759 Oxytetracycline, wf ug/l	3	--	--	--	--	--	--	--	--
62771 Sarafloxacin, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
62774 Sulfachlorpyridazine, gf<0.7u ug/l	3	--	--	--	--	--	--	--	--
62776 Sulfadimethoxine, w, gf<0.7u ug/l	3	--	--	--	--	--	--	--	--
62777 Sulfamerazine, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
61762 Sulfamethazine, wf ug/l	3	--	--	--	--	--	--	--	--
62021 Sulfamethoxazole, wf ug/l	3	--	--	--	--	--	--	--	--
62778 Sulfathiazole, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--
62781 Tetracycline, w, gf<.7u ug/l	3	--	--	--	--	--	--	--	--

* - VALUE IS ESTIMATED BY USING A LOG-PROBABILITY REGRESSION TO PREDICT THE VALUES OF DATA BELOW THE DETECTION LIMIT

34704	cis-1,3-Dichloropropene, wu ug/l	9	--	--	--	--	--	--	--	--
32105	Dibromochloromethane, wu ug/l	9	--	--	--	--	--	--	--	--
30217	Dibromomethane, wu ug/l	9	--	--	--	--	--	--	--	--
34668	CFC-12, wu ug/l	9	--	--	--	--	--	--	--	--
34423	Dichloromethane, wu ug/l	9	--	--	--	--	--	--	--	--
34371	Ethylbenzene, wu ug/l	9	--	--	--	--	--	--	--	--
39702	Hexachlorobutadiene, wu ug/l	9	--	--	--	--	--	--	--	--
34396	Hexachloroethane, wu ug/l	3	--	--	--	--	--	--	--	--
77223	Isopropylbenzene, wu ug/l	9	--	--	--	--	--	--	--	--
34696	Naphthalene, wu ug/l	9	--	--	--	--	--	--	--	--
77342	n-Butylbenzene, wu ug/l	9	--	--	--	--	--	--	--	--
77224	n-Propylbenzene, wu ug/l	9	--	--	--	--	--	--	--	--
77350	sec-Butylbenzene, wu ug/l	9	--	--	--	--	--	--	--	--
77128	Styrene, wu ug/l	9	--	--	--	--	--	--	--	--
78032	MTBE, wu ug/l	9	--	--	--	--	--	--	--	--
77353	t-Butylbenzene, wu ug/l	9	--	--	--	--	--	--	--	--
34475	Tetrachloroethene, wu ug/l	9	--	--	--	--	--	--	--	--
32102	Tetrachloromethane, wu ug/l	9	--	--	--	--	--	--	--	--
34010	Toluene, wu ug/l	9	--	--	--	--	--	--	--	--
34546	trans-1,2-Dichloroethene, wu ug/l	9	--	--	--	--	--	--	--	--
34699	trans-1,3-Dichloropropene, wu ug/l	9	--	--	--	--	--	--	--	--
32104	Tribromomethane, wu ug/l	9	--	--	--	--	--	--	--	--
39180	Trichloroethene, wu ug/l	9	--	--	--	--	--	--	--	--
34488	CFC-11, wu ug/l	9	--	--	--	--	--	--	--	--
32106	Trichloromethane, wu ug/l	9	--	--	--	--	--	--	--	--
39175	Vinyl chloride, wu ug/l	9	--	--	--	--	--	--	--	--

* - VALUE IS ESTIMATED BY USING A LOG-PROBABILITY REGRESSION TO PREDICT THE VALUES OF DATA BELOW THE DETECTION LIMIT