

Water-Data Report 2009

07249455 ARKANSAS RIVER NEAR FORT SMITH, AR

Robert S. Kerr Reservoir Basin
Robert S. Kerr Reservoir Subbasin

LOCATION.--Lat 35°23'30", long 94°25'56" referenced to North American Datum of 1927, in NW ¼ SW ¼ sec.8, T.8 N., R.32 E., Sebastian County, Hydrologic Unit 11110104, at U.S. Highway 64 bridge at Oklahoma and Arkansas state line, .7 mi downstream from Poteau River, 6.6 mi upstream from Lee Creek, 8.0 mi upstream from Arkansas River at Van Buren, and at mile 324.5.

DRAINAGE AREA.--149,977 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--May 1997 to current year. Some data collected prior to period of record and are available in the district office.

GAGE.--Water-stage recorder. Datum of gage is 380.24 ft above NGVD of 1929.

REMARKS.--Records fair, except for estimated daily discharges and discharges less than 1000 ft³/s which are rated poor. Flow regulated by W.D. Mayo Lock and Dam 14 upstream and J.W. Trimble Lock and Dam 13 downstream.

07249455 ARKANSAS RIVER NEAR FORT SMITH, AR—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	67,000	27,700	12,300	27,700	5,080	14,200	97,800	124,000	105,000	24,200	12,500	16,300
2	72,300	19,100	2,520	25,700	16,100	20,000	112,000	140,000	90,300	30,400	8,460	17,500
3	55,000	25,100	11,200	27,400	14,400	11,200	98,200	151,000	64,200	24,500	18,200	23,600
4	39,700	16,500	12,000	29,000	10,800	12,400	74,800	144,000	75,700	28,100	20,400	20,300
5	40,300	11,000	6,560	29,200	16,500	8,370	91,000	150,000	65,200	22,500	19,100	12,500
6	42,800	16,400	1,770	30,000	9,630	2,590	70,800	159,000	68,400	14,200	26,400	19,200
7	50,700	22,500	6,700	21,800	11,500	6,890	64,600	159,000	71,300	25,300	9,090	15,500
8	39,700	39,000	7,130	21,700	-561	6,130	58,800	149,000	60,100	20,300	18,900	15,700
9	41,300	37,500	6,270	21,800	11,700	8,110	66,000	146,000	58,800	23,500	17,400	14,700
10	38,900	27,300	7,300	24,700	5,270	17,000	69,600	129,000	56,300	19,400	17,000	44,800
11	36,800	39,100	6,000	17,400	48,800	13,000	59,200	135,000	46,000	28,200	21,300	62,900
12	34,000	40,400	8,350	24,300	72,100	16,300	67,000	138,000	47,400	18,100	19,500	51,100
13	22,600	32,200	2,280	23,200	61,800	15,700	91,400	141,000	57,200	23,100	13,800	47,500
14	13,300	26,800	2,650	10,200	55,200	18,100	89,700	150,000	64,700	18,000	13,900	46,800
15	30,700	25,000	6,150	13,100	46,100	10,800	72,300	147,000	46,600	18,800	1,210	45,900
16	27,700	20,700	6,920	10,200	46,100	18,100	64,600	142,000	45,100	20,700	12,800	48,000
17	25,000	30,100	16,100	4,730	41,900	16,900	70,300	137,000	44,200	11,200	13,400	62,000
18	19,700	11,500	12,100	5,690	35,200	7,640	64,200	140,000	43,600	14,600	12,900	68,200
19	19,700	21,200	e6,400	9,150	37,900	12,900	90,500	139,000	58,900	12,500	16,000	56,500
20	29,800	13,000	1,000	14,800	32,100	9,020	78,800	140,000	64,100	10,500	e29,000	54,100
21	35,300	20,300	9,320	11,000	40,200	15,800	97,200	146,000	50,600	21,900	e39,000	46,200
22	29,500	5,570	5,330	9,040	31,000	7,080	98,900	147,000	43,800	16,800	43,100	107,000
23	40,700	10,400	9,210	10,400	18,600	5,170	118,000	149,000	46,500	17,700	55,400	102,000
24	40,500	13,300	8,210	445	31,500	9,570	114,000	144,000	44,800	18,100	49,000	76,600
25	42,300	5,220	5,020	4,170	12,400	27,200	101,000	141,000	45,600	29,600	53,800	68,600
26	33,200	12,900	1,200	12,200	33,700	32,800	76,500	139,000	45,100	34,900	42,000	66,000
27	36,900	14,700	6,110	33,200	22,600	19,200	72,700	136,000	39,600	25,700	37,100	61,100
28	40,000	1,740	12,300	31,100	17,300	47,700	76,100	138,000	22,500	28,000	24,700	56,800
29	18,200	2,280	21,000	26,600	---	67,400	82,500	137,000	23,700	23,800	28,600	62,100
30	32,000	9,340	17,200	16,700	---	74,100	109,000	133,000	33,800	32,700	10,000	63,800
31	29,200	---	28,800	15,800	---	88,200	---	118,000	---	28,700	23,900	---
Total	1,124,800	597,850	265,400	562,425	784,919	639,570	2,497,500	4,388,000	1,629,100	686,000	727,860	1,453,300
Mean	36,280	19,930	8,561	18,140	28,030	20,630	83,250	141,500	54,300	22,130	23,480	48,440
Max	72,300	40,400	28,800	33,200	72,100	88,200	118,000	159,000	105,000	34,900	55,400	107,000
Min	13,300	1,740	1,000	445	-561	2,590	58,800	118,000	22,500	10,500	1,210	12,500
Ac-ft	2,231,000	1,186,000	526,400	1,116,000	1,557,000	1,269,000	4,954,000	8,704,000	3,231,000	1,361,000	1,444,000	2,883,000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2009, BY WATER YEAR (WY)

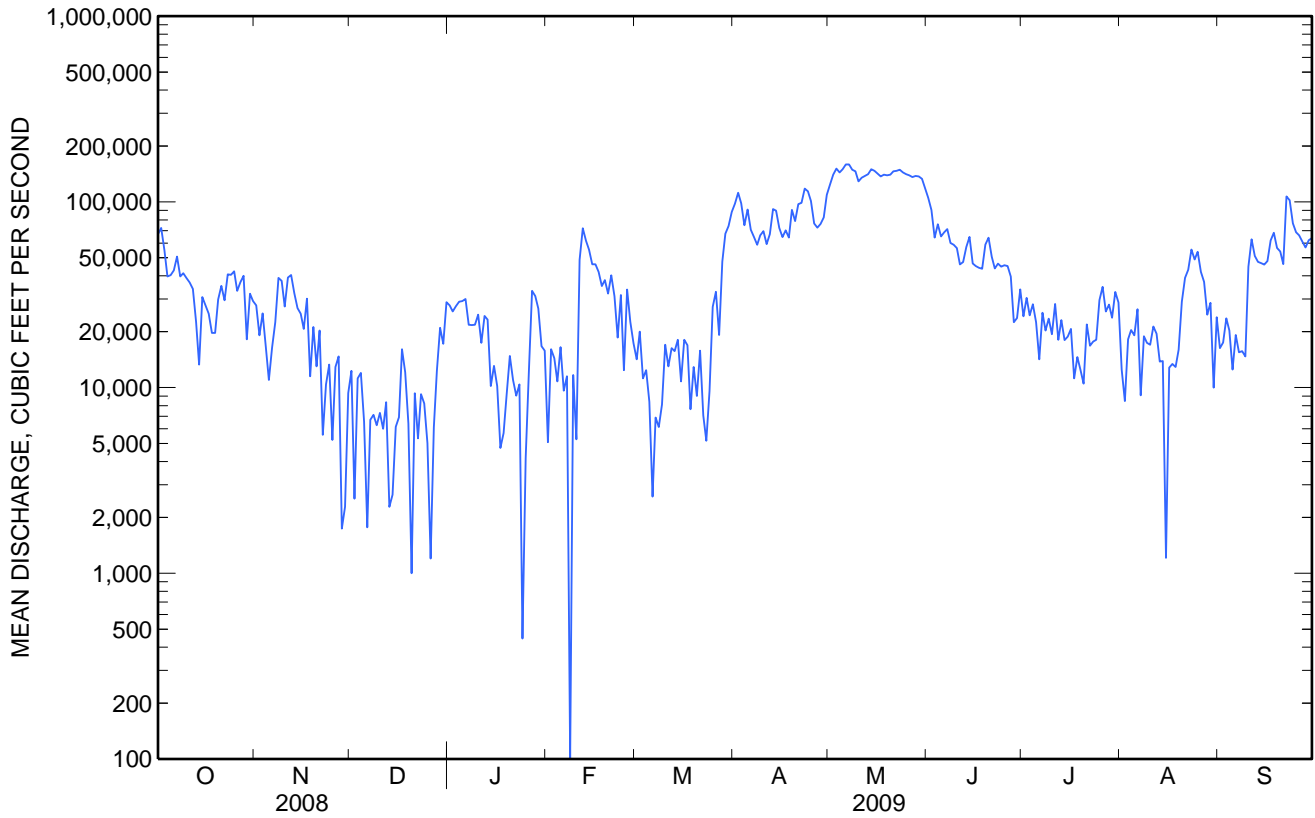
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	19,210	21,510	22,110	33,990	33,730	54,980	57,880	70,590	60,970	51,220	23,190	19,450
Max	78,990	104,200	53,480	128,800	78,150	108,500	140,200	149,800	128,100	178,500	75,520	60,920
(WY)	(1999)	(1999)	(1999)	(1998)	(2001)	(2008)	(2008)	(1999)	(2008)	(2007)	(2007)	(2008)
Min	2,478	3,936	2,463	2,380	3,572	3,952	4,332	18,650	7,184	5,842	5,367	3,182
(WY)	(2007)	(2000)	(2006)	(2006)	(2006)	(2006)	(2006)	(2005)	(2006)	(2006)	(2006)	(2006)

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SUMMARY STATISTICS

	Calendar Year 2008		Water Year 2009		Water Years 1997 - 2009	
Annual total	24,748,590		15,356,724			
Annual mean	67,620		42,070		39,490	
Highest annual mean					73,680	1999
Lowest annual mean					7,180	2006
Highest daily mean	218,000	Apr 11	159,000	May 6,7	222,000	Jul 14, 2007
Lowest daily mean	1,000	Dec 20	-561	Feb 8	-561	Feb 8, 2009
Annual seven-day minimum	5,570	Dec 9	5,570	Dec 9	594	Mar 2, 2006
Maximum peak flow			167,000	May 7	236,000	Jul 14, 2007 ^a
Maximum peak stage			20.72	May 6	26.42	Apr 10, 2008
Annual runoff (ac-ft)	49,090,000		30,460,000		28,610,000	
10 percent exceeds	140,000		106,000		112,000	
50 percent exceeds	51,800		27,700		22,800	
90 percent exceeds	12,100		7,920		4,010	

^a Also occurred March 19, 2008 and April 11, 2008.



07249455 ARKANSAS RIVER NEAR FORT SMITH, AR—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1996 to current year.

REMARKS.--Samples collected periodically. Specific conductance, pH, water temperature, and dissolved oxygen were determined in the field.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 1 of 3

[Remark codes: <, less than; E, estimated.]

Date	Time	Baro- metric pres- sure, mm Hg (00025)	Temper- ature, air, deg C (00020)	Instan- taneous dis- charge, ft ³ /s (00061)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif- ic conduc- tance, wat unf μS/cm @ 25 degC (00095)	Temper- ature, deg C (00010)	Turbdty white light, det ang 90+/-30 corrctd NTRU (63676)	Chlor- ide, water, fltrd, mg/L (00940)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)
Nov 06...	1115	--	--	5,540	10.1	--	7.9	588	16.3	34	86.1	41.2	.47
Dec 30...	1045	750	10.2	17,900	12.9	104	8.2	997	5.4	29	191	63.4	.50
Feb 26...	1030	740	26.0	35,700	12.6	112	8.5	586	8.7	22	81.1	45.0	.67
Apr 23...	1100	750	--	123,000	10.5	109	8.0	596	16.2	51	81.6	45.2	.69
Jun 11...	1130	749	25.0	45,500	8.5	105	7.9	608	25.0	42	77.0	43.9	.59
Aug 26...	1200	754	27.5	38,100	8.6	108	8.2	711	26.3	E20	109	53.6	.52

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009

Part 2 of 3

[Remark codes: <, less than; E, estimated.]

Date	Ammonia water, fltrd, mg/L (71846)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water, fltrd, mg/L as N (00631)	Nitrate water, fltrd, mg/L as N (71851)	Nitrate water, fltrd, mg/L as N (00618)	Nitrite water, fltrd, mg/L as N (71856)	Nitrite water, fltrd, mg/L as N (00613)	Organic nitro- gen, water, unfltrd mg/L (00605)	Ortho- phos- phate, water, fltrd, mg/L (00660)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L as P (00666)	Phos- phorus, water, unfltrd mg/L as P (00665)	Total nitro- gen, water, unfltrd mg/L (00600)
Nov 06...	E.01	E.011	.694	E3.07	E.69	E.005	E.002	E.46	.297	.097	.104	.157	1.2
Dec 30...	E.02	E.018	.625	2.75	.62	.013	.004	E.48	.278	.091	.096	.157	1.1
Feb 26...	--	<.020	.334	1.45	.33	.020	.006	--	.091	.030	.040	.120	1.0
Apr 23...	--	<.020	.408	1.77	.40	.027	.008	--	.101	.033	.045	.197	1.1
Jun 11...	E.02	E.014	.469	2.07	.47	.008	.003	E.57	.180	.059	.069	.141	1.1
Aug 26...	E.02	E.014	.234	1.01	.23	.018	.005	E.51	.265	.086	.096	.141	.76

07249455 ARKANSAS RIVER NEAR FORT SMITH, AR—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2008 TO
SEPTEMBER 2009

Part 3 of 3

[Remark codes: <, less than; E, estimated.]

Date	Suspnd. sedimnt sieve diametr percent <0.0625 mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)	Sus- pended sedi- ment dis- charge, tons/d (80155)
Nov			
06...	96	30	449
Dec			
30...	92	33	1,590
Feb			
26...	90	28	2,700
Apr			
23...	2	3,190	1,060,000
Jun			
11...	95	46	5,650
Aug			
26...	100	21	2,160