Water-Data Report 2010

07197360 CANEY CREEK NEAR BARBER, OK

Robert S. Kerr Reservoir Basin
Illinois Subbasin

LOCATION.--Lat 35°47′06″, long 94°51′22″ referenced to North American Datum of 1927, in SE ¼ SW ¼ sec.10, T.15 N., R.23 E., Cherokee County, OK, Hydrologic Unit 11110103, on right downstream bank of county road bridge, 0.9 mi below Negro Jake Hollow, 1.9 mi northeast of Barber, and 0.5 mi upstream from Tenkiller Ferry Lake.

DRAINAGE AREA.--89.6 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage is 631.89 ft above NAVD of 1988 (levels by Oklahoma Dept. of Transportation). Prior to June 10, 2009, at site 100 ft upstream at datum 0.20 higher, formally from topographic map.

REMARKS.--Records fair except for estimated daily discharges which are poor. U.S. Geological Survey satellite telemeter at station.

07197360 CANEY CREEK NEAR BARBER, OK—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	e106	e222	71	72	174	e96	e228	57	57	37	15	10
2	e99	e210	69	72	197	91	e203	54	54	34	16	11
3	e93	e199	69	71	233	86	e235	52	69	34	15	21
4	89	e192	68	70	244	82	207	51	58	34	14	15
5	82	e181	66	68	248	78	173	49	58	31	14	13
6	79	e170	64	66	218	75	154	47	54	29	13	13
7	76	e163	61	62	187	73	137	46	52	29	13	14
8	502	e154	59	61	180	72	131	45	49	31	13	15
9	5,070	e149	57	59	174	76	121	44	47	32	12	318
10	e781	e140	61	57	160	74	113	49	45	31	12	148
11	e352	e132	59	55	150	75	106	51	43	34	11	84
12	e313	e118	57	54	142	72	100	55	42	34	11	66
13	e275	107	56	52	134	70	95	60	41	31	11	56
14	e323	100	55	51	128	68	89	151	41	29	10	58
15	e260	96	54	50	122	66	85	152	47	28	10	62
16	e211	100	53	50	e116	65	82	143	41	26	10	55
17	e194	97	52	49	e112	63	80	112	40	25	11	48
18	e181	93	50	48	e107	61	79	95	40	23	11	42
19	e171	89	50	48	98	60	77	85	38	22	11	38
20	e162	89	49	48	91	85	73	348	41	22	10	34
21	e153	93	49	63	119	178	72	226	44	21	9.6	31
22	e149	89	48	60	141	275	68	158	42	20	9.6	29
23	e181	85	48	71	130	516	67	125	40	19	9.2	27
24	e153	84	50	81	122	421	69	105	38	19	9.1	39
25	e143	82	54	88	116	406	66	93	35	18	8.6	34
26	e144	81	54	87	112	415	64	86	34	18	9.0	31
27	e173	80	62	85	e107	e322	62	79	33	17	9.1	31
28	e244	77	65	87	e100	e293	59	73	40	17	8.8	30
29	e176	75	65	171	---	e283	58	69	39	16	8.2	28
30	e448	74	65	198	---	e266	58	65	39	16	8.5	27
31	e276	---	69	182	---	e249	---	62	---	15	8.5	---
Total	11,659	3,621	1,809	2,336	4,162	5,112	3,211	2,887	1,341	792	341.2	1,428
Mean	376	121	58.4	75.4	149	165	107	93.1	44.7	25.5	11.0	47.6
Max	5,070	222	71	198	248	516	235	348	69	37	16	318
Min	76	74	48	48	91	60	58	44	33	15	8.2	10
Ac-ft	23,130	7,180	3,590	4,630	8,260	10,140	6,370	5,730	2,660	1,570	677	2,830

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2010, BY WATER YEAR (WY)

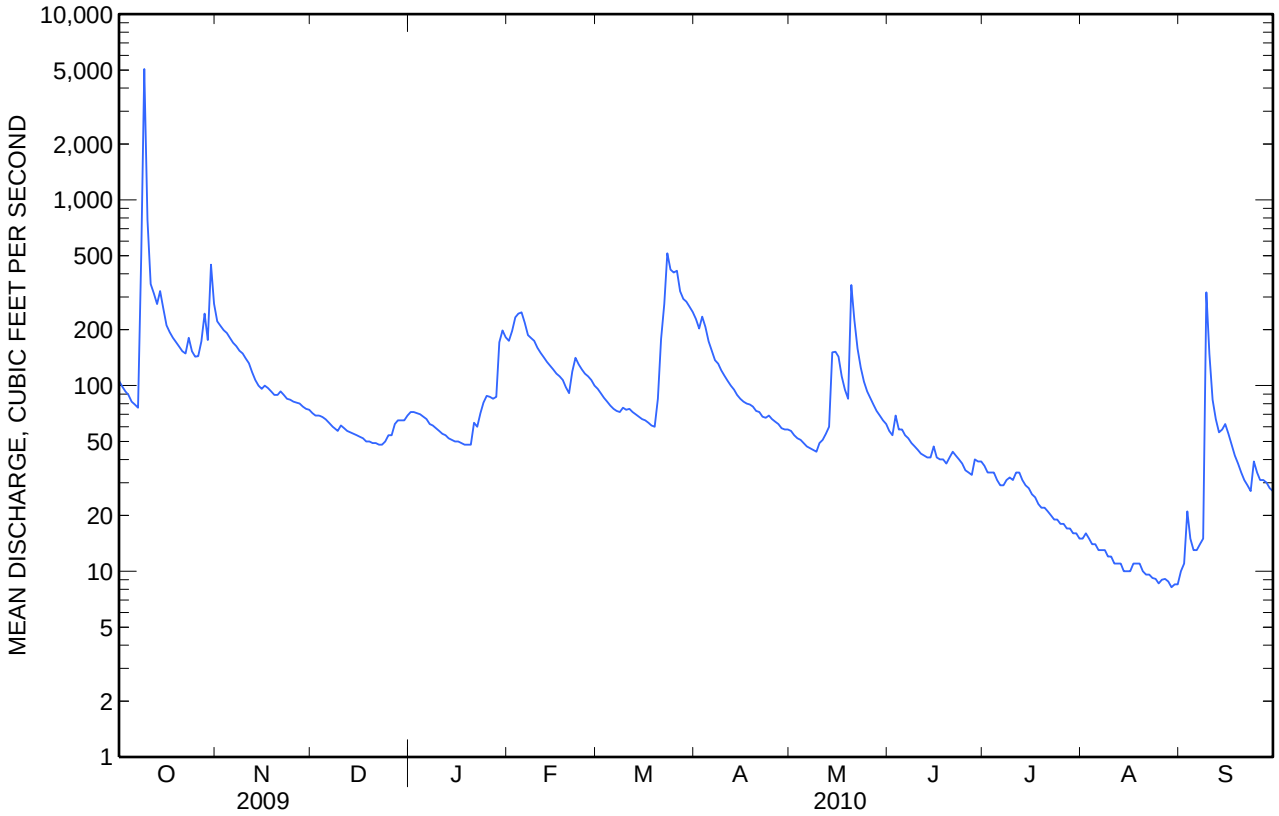
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	60.3	61.3	75.0	132	107	150	143	102	91.4	70.1	27.5	50.4
Max	376	121	218	537	492	383	348	231	514	347	77.8	267
(WY)	(2010)	(2005)	(2002)	(1998)	(2001)	(2008)	(2008)	(2009)	(2000)	(2004)	(2008)	(2009)
Min	7.77	9.78	8.46	9.14	9.43	12.0	13.9	36.8	26.0	11.8	5.81	10.1
(WY)	(2006)	(2006)	(2006)	(2006)	(2006)	(2006)	(2006)	(2005)	(2005)	(2003)	(2003)	(2005)

07197360 CANEY CREEK NEAR BARBER, OK—Continued

SUMMARY STATISTICS

	Calendar Year 2009		Water Year 2010		Water Years 1997 - 2010	
Annual total	47,175		38,699.2			
Annual mean	129		106		89.1	
Highest annual mean					131	2008
Lowest annual mean					28.3	2003
Highest daily mean	5,070	Oct 9	5,070	Oct 9	5,070	Oct 9, 2009
Lowest daily mean	17	Jul 26, Aug 4	8.2	Aug 29	2.7	Aug 27, 2003
Annual seven-day minimum	18	Jul 23	8.7	Aug 25	3.1	Aug 22, 2003
Maximum peak flow			9,260	Oct 9	9,720	Jun 21, 2000
Maximum peak stage			14.31	Oct 9	[a]21.57	Apr 15, 2008
Annual runoff (ac-ft)	93,570		76,760		64,550	
10 percent exceeds	244		198		175	
50 percent exceeds	69		66		41	
90 percent exceeds	23		15		12	

[a] Occurred during backwater from Tenkiller Ferry Lake.



07197360 CANEY CREEK NEAR BARBER, OK—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1997 to July 2002, May 2005 to current year.

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

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 1 of 4

[%, percent; CaCO3, calcium carbonate; FNU, Formazin nephelometric units; L, milligrams per liter; LED, light-emitting diode; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; >, greater than; E, estimated]

Date	Sample start time	Barometric pressure, mm Hg (00025)	Temperature, air, °C (00020)	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	Dissolved oxygen, water, unfiltered, % saturation (00301)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25 °C (00095)	Temperature, water, °C (00010)
10-09-2009	1145	742	--	6,210	9.1	95	7.5	99	16.1
10-27-2009	1050	740	10.3	345	9.4	96	7.7	205	15.0
12-14-2009	1100	743	8.0	54	12.4	112	8.1	221	9.7
02-11-2010	1100	747	.4	152	11.8	100	7.9	224	7.3
03-22-2010	1100	745	7.9	210	12.5	111	8.1	232	9.1
04-20-2010	1000	746	15.1	74	11.0	109	7.9	222	14.1
05-20-2010	1420	742	23.6	383	9.2	104	7.9	223	19.5
06-15-2010	1130	749	25.0	54	8.7	104	7.5	235	23.5
08-19-2010	1100	764	35.9	11	7.3	92	7.6	255	27.0
09-09-2010	1100	759	--	296	7.0	83	7.5	217	23.7

07197360 CANEY CREEK NEAR BARBER, OK—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010

Part 2 of 4

[%, percent; CaCO3, calcium carbonate; FNU, Formazin nephelometric units; L, milligrams per liter; LED, light-emitting diode; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; >, greater than; E, estimated]

Date	Turbidity, water, unfiltered, broad band light source (400-680 nm), detectors at multiple angles including 90 +/- 30 degrees, ratiometric correction, NTRU (63676)	Turbidity, water, unfiltered, monochrome near infra-red LED light, 780-900 nm, detection angle 90 +/- 2.5 degrees, FNU (63680)	Alkalinity, water, filtered, inflection-point, incremental titration method, field, mg/L as CaCO3 (39086)	Bicarbon ate, water, filtered, inflection-point, incremental titration method, field, mg/L (00453)	Carbon dioxide, water, unfiltered, mg/L (00405)	Carbonate, water, filtered, inflection-point incremental titration method, field, mg/L (00452)	Chloride, water, filtered, mg/L (00940)	Sulfate, water, filtered, mg/L (00945)	Ammonia plus organic nitrogen, water, unfiltered, mg/L as N (00625)
10-09-2009	535	1,220	39	E 47	2.2	< 1	1.42	3.58	1.93
10-27-2009	E 7.9	9.0	85	E 104	3.0	< 1	3.50	6.09	.141
12-14-2009	< 2	.4	94	E 114	1.4	< 1	4.68	6.41	E .080
02-11-2010	< 2	1.2	96	E 116	2.1	< 1	4.65	8.06	E .078
03-22-2010	E 3.4	3.5	97	E 116	1.6	E 1	4.87	8.67	E .087
04-20-2010	< 2	.6	94	113	2.2	< 1	4.37	6.81	E .093
05-20-2010	E 13.5	15	--	--	--	--	3.93	6.57	.315
06-15-2010	< 2	1.5	--	--	--	--	4.57	5.99	.107
08-19-2010	--	1.4	--	--	--	--	--	--	.195
09-09-2010	--	28	--	--	--	--	--	--	.484

07197360 CANEY CREEK NEAR BARBER, OK—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
Part 3 of 4

[%, percent; CaCO3, calcium carbonate; FNU, Formazin nephelometric units; L, milligrams per liter; LED, light-emitting diode; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; >, greater than; E, estimated]

Date	Ammonia, water, filtered, mg/L as NH4 (71846)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrate, water, filtered, mg/L (71851)	Nitrate, water, filtered, mg/L as N (00618)	Nitrite, water, filtered, milligrams per liter (71856)	Nitrite, water, filtered, mg/L as N (00613)	Organic nitrogen, water, unfiltered, mg/L (00605)	Orthophosphate, water, filtered, mg/L (00660)	Orthophosphate, water, filtered, mg/L as P (00671)
10-09-2009	< .026	< .02	.704	3.11	.702	.008	.0026	< 1.9	.265	.0864
10-27-2009	< .026	< .02	1.17	< 5.17	< 1.17	< .007	< .002	< .14	.133	.0435
12-14-2009	< .026	< .02	1.09	E 4.84	E 1.09	E .004	E .0013	< .08	.070	.0227
02-11-2010	< .026	< .02	1.37	E 6.07	E 1.37	E .005	E .0016	< .08	.091	.0297
03-22-2010	E .014	E .011	1.10	< 4.86	< 1.10	< .007	< .002	E .08	.084	.0274
04-20-2010	< .026	< .02	.997	E 4.41	E .995	E .006	E .0018	< .09	.078	.0254
05-20-2010	< .026	< .02	1.01	E 4.48	E 1.01	E .005	E .0016	< .32	.128	.0416
06-15-2010	E .017	E .013	.850	3.75	.848	.007	.0022	E .09	.103	.0337
08-19-2010	E .021	E .016	.253	E 1.11	E .251	E .004	E .0011	E .18	.106	.0344
09-09-2010	E .019	E .015	2.06	9.07	2.05	.028	.0086	E .47	.301	.0982

WATER-QUALITY DATA
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
Part 4 of 4

[%, percent; CaCO3, calcium carbonate; FNU, Formazin nephelometric units; L, milligrams per liter; LED, light-emitting diode; MPN/100 mL, most probable number per 100 milliliters; N, nitrogen; NTRU, nephelometric turbidity ratio unit; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; mm, millimeters; nm, nanometers; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; >, greater than; E, estimated]

Date	Phosphorus, water, filtered, mg/L as P (00666)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, mg/L (00600)	Enterococci, Defined Substrate Technology, water, MPN/100 mL (99601)	Escherichia coli, Defined Substrate Technology, water, MPN/100 mL (50468)	Total coliform, Defined Substrate Technology, water, MPN/100 mL (50569)	Suspended sediment, sieve diameter, percent smaller than 0.0625 mm (70331)	Suspended sediment concentration, mg/L (80154)	Suspended sediment discharge, tons per day (80155)
10-09-2009	.0965	.608	2.6	> 4,800	6,000	200,000	82	933	15,600
10-27-2009	.0441	.0639	1.3	820	860	9,800	--	--	--
12-14-2009	.0274	.0278	E 1.2	2	< 10	400	50	10	1.5
02-11-2010	.0312	.0342	E 1.5	4	10	280	37	4	1.6
03-22-2010	.0283	.0395	E 1.2	10	52	640	71	4	2.3
04-20-2010	.0235	.0360	E 1.1	4	10	720	65	5	1.00
05-20-2010	.0497	.0825	1.3	1,000	880	14,000	92	27	28
06-15-2010	.0318	.0400	.96	34	31	4,000	44	2	.29
08-19-2010	.0310	.0386	.45	12	< 10	540	25	26	.77
09-09-2010	.104	.169	2.5	> 4,800	2,800	200,000	--	--	--