



Water-Data Report TX-2005

**08123950 E. V. Spence Reservoir near Robert Lee, TX**

Colorado River Basin

LOCATION.--Lat 31°52'46", long 100°31'01" referenced to North American Datum of 1927, Coke County, Hydrologic Unit 12080008, in outlet works of Robert Lee Dam on the Colorado River, 2.2 mi west of Robert Lee, and at mile 716.0.

DRAINAGE AREA.--15,278 mi<sup>2</sup> of which 10,260 mi<sup>2</sup> probably is noncontributing.

WATER-STAGE RECORDS

PERIOD OF RECORD.--Oct. 2003 to Sept. 2004 (elevations), Dec. 1968 to Sept. 2003, Oct. 2004 to current year. Water-quality records: Chemical data: Nov. 1969 to Aug. 1988. Biochemical data: Jan. 1978 to Aug. 1988.

REVISED RECORDS.--WDR TX-81-3: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929. Prior to June 24, 1969, nonrecording gage at same site and datum. Satellite telemeter at station.

REMARKS.--Records good. Interruptions in the record were due to malfunction of the instrument. The reservoir is formed by a rolled earthfill dam 21,500 ft long. Closure was made Dec. 30, 1968, and dam was completed in June 1969. The dam is the property of the Colorado River Municipal Water District, which has a permit to divert 50,000 acre-ft annually for municipal, mining, and industrial uses. Inflow into the reservoir is partially regulated by Lake J.B. Thomas (station 08118000), Lake Colorado City (station 08123000), and Champion Creek Reservoir (station 08123600). There are two spillways: The controlled service spillway is a morning-glory type that is partially controlled by 12 lift gates, 14.48 by 22.0 ft, and discharges through a 28.0 ft diameter concrete conduit. The uncontrolled spillway is a 3,200 ft wide cut through natural ground near the right end of dam. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam.....	1,928.00
Crest of spillway.....	1,908.00
Top of gates.....	1,900.00
Crest of spillway.....	1,878.00
Lowest gated outlet (invert).....	1,815.85

COOPERATION.--Records of diversions can be obtained from the city of San Angelo and from the Colorado River Municipal Water District.

EXTREMES FOR PERIOD OF RECORD.--Dec. 1968 to Sept. 2003, Oct. 2004 to current year: Maximum contents, 355,300 acre-ft, June 16, 1987; minimum contents after initial filling, 31,640 acre-ft, June 1, 2003; Dec. 1968 to current year: Maximum elevation, 1,887.03 ft, June 16, 1987; minimum elevation, 1,832.67 ft, June 1, 2003.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 104,000 acre-ft, Aug. 28, 29, elevation, 1,855.36 ft; minimum contents, 34,860 acre-ft, Oct. 1, elevation, 1,837.53 ft.

## 08123950 E. V. Spence Reservoir near Robert Lee, TX—Continued

**RESERVOIR STORAGE, ACRE FEET**  
**WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005**  
**DAILY MEAN VALUES**

[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	34,900	42,090	79,280	78,890	78,400	78,790	77,590	74,280	73,480	70,290	66,710	103,600
2	34,960	42,130	79,440	78,890	78,430	78,940	77,420	74,160	73,350	70,140	66,620	103,600
3	35,040	42,100	79,510	78,930	78,400	78,910	77,300	74,080	73,560	69,970	66,550	103,400
4	35,210	42,050	79,550	78,950	78,400	78,890	77,230	74,160	73,570	69,760	66,500	103,300
5	35,290	42,050	79,640	79,000	78,350	78,930	77,280	74,130	73,510	69,720	66,500	103,200
6	35,680	42,050	79,750	78,860	78,490	79,150	77,200	74,000	73,390	69,590	66,400	103,100
7	36,090	42,050	79,750	78,830	78,450	79,190	77,020	73,930	73,280	69,410	66,470	103,000
8	36,680	42,040	79,750	78,750	78,430	79,050	76,910	74,110	73,220	69,120	66,750	102,800
9	37,560	42,010	79,770	78,770	78,470	79,020	76,820	74,060	73,120	69,010	67,420	102,700
10	38,600	42,050	79,720	78,800	78,450	78,950	76,780	73,930	73,130	69,120	67,630	102,600
11	39,390	41,980	79,700	78,820	78,460	78,860	76,650	73,830	73,240	69,000	67,540	102,400
12	39,890	41,870	79,690	78,900	78,470	78,860	76,470	73,720	73,180	68,860	67,460	102,300
13	40,310	41,800	79,600	78,810	78,570	78,820	76,380	73,640	73,160	68,750	67,590	102,200
14	40,700	41,890	79,550	78,700	78,500	78,680	76,280	73,550	73,050	68,620	69,720	102,100
15	40,830	42,220	79,530	78,640	78,520	78,590	76,210	73,540	72,940	68,490	79,510	102,000
16	40,910	42,600	79,570	78,550	78,500	78,580	76,160	73,580	72,810	68,350	88,590	101,900
17	41,000	43,340	79,530	78,470	78,450	78,470	76,100	73,550	72,650	68,180	92,730	101,700
18	41,120	45,020	79,500	78,470	78,360	78,420	76,050	73,570	72,480	68,020	96,320	101,600
19	41,160	50,450	79,440	78,500	78,340	78,310	76,000	73,540	72,310	67,930	100,400	101,500
20	41,200	58,150	79,420	78,480	78,360	78,260	75,910	73,480	72,160	67,770	102,700	101,300
21	41,240	64,560	79,370	78,500	78,300	78,240	75,840	73,390	72,010	67,640	103,400	101,200
22	41,370	69,650	79,320	78,460	78,260	78,140	75,740	73,260	71,820	67,540	103,500	101,100
23	41,450	72,190	79,220	78,320	78,300	77,980	75,530	73,110	71,640	e67,290	103,600	101,000
24	41,470	73,410	79,140	78,300	78,490	77,950	75,350	72,950	71,450	e67,050	103,600	100,900
25	41,510	74,680	79,110	78,350	78,540	77,830	75,240	72,840	71,280	66,800	103,500	100,800
26	41,740	76,170	79,060	78,320	78,630	78,020	75,100	73,290	71,110	66,650	103,400	100,600
27	41,770	77,320	79,000	78,390	78,800	78,060	74,970	73,200	70,940	66,660	103,400	100,500
28	41,780	78,230	78,990	78,520	78,830	77,930	74,840	73,250	70,770	66,740	103,900	100,400
29	41,810	78,900	78,980	78,470	---	77,860	74,690	73,280	70,600	66,830	104,000	100,200
30	41,760	79,160	78,960	78,410	---	77,820	74,490	73,210	70,430	66,820	103,900	99,940
31	41,920	---	78,920	78,400	---	77,760	---	73,130	---	66,770	103,800	---
<b>Mean</b>	39,490	53,810	79,410	78,630	78,460	78,490	76,180	73,600	72,450	68,290	85,160	101,900
<b>Max</b>	41,920	79,160	79,770	79,000	78,830	79,190	77,590	74,280	73,570	70,290	104,000	103,600
<b>Min</b>	34,900	41,800	78,920	78,300	78,260	77,760	74,490	72,840	70,430	66,650	66,400	99,940
<b>Wtr</b>	YR	2005	MEAN	73,760	MAX	104,000	MIN	34,900				

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