

RESERVOIR SEDIMENTATION
DATA SUMMARY

Wewoka Lake

NAME OF RESERVOIR

45-23

DATA SHEET NO.

DAM	1. OWNER <u>City of Wewoka, Okla.</u>			2. RIVER <u>Coon Cr. or Spring Cr.</u>		3. STATE <u>Oklahoma</u>										
	4. SEC. <u>12</u> TWP. <u>8N</u> RANGE <u>7E</u>			5. NEAREST TOWN <u>3NW Wewoka</u>		6. COUNTY <u>Seminole</u>										
	7. STREAM BED ELEV. <u>796.7</u>			8. TOP OF DAM ELEV. <u>836.4</u>		9. SPILLWAY CREST ELEV. <u>827.0</u> (1)										
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. SURFACE AREA ACRES		13. STORAGE ACRE- FEET		14. ACCUMULATED ACRE-FEET		15. DATE STORAGE BEGAN					
	a. FLOOD CONTROL										July 1925					
	b. POWER															
	c. WATER SUPPLY		<u>827.0</u>		<u>357</u>		<u>4,961</u>		<u>4,961</u>		16. DATE NORMAL OPER. BEGAN					
	d. IRRIGATION															
	e. CONSERVATION															
	f. INACTIVE										July 1925					
WATERSHED	17. LENGTH OF RESERVOIR <u>2.46</u> MILES				AV. WIDTH OF RESERVOIR <u>0.18</u> MILES											
	18. TOTAL DRAINAGE AREA <u>16.27</u> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <u>36</u> INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA <u>15.72</u> SQ. MI.				23. MEAN ANNUAL RUNOFF <u>5.5</u> INCHES											
	20. LENGTH MILES		AV. WIDTH MILES		24. MEAN ANNUAL RUNOFF <u>293 a.c. sq. mi.</u> AC. FT.											
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION											
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS		29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTOUR INT.		31. SURFACE AREA ACRES		32. CAPACITY ACRE-FEET		33. %W RATIO (3) AC.-FT. PER SQ. MI.	
	July 1925		-		-		Range		-		357		4,961		305	
	April 1945		19.6		19.6		Rec.		9		357		4,489		276	
	Feb. 17, 1954 (2)		8.0		27.6		"		9		357		4,357		268	
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE-FEET				36. WATER INFL. TO DATE AC.-FT.							
					a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE.			
	26. DATE OF SURVEY		37. PERIOD SEDIMENT DEPOSITS ACRE-FEET				38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET.									
			a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR			
	April 1945		472		24.1		1.51		472		24.1		1.51			
	Feb. 17, 1954 (2)		132		16.5		1.05		604		21.9		1.39			
	26. DATE OF SURVEY		39. AV. DRY WGT. LBS. PER CU. FT.		40. SED. DEP. TONS PER SQ. MI.-YR.		41. STORAGE LOSS PCT.		42. SED. INFLOW PPM							
			a. PERIOD		b. TOTAL TO DATE		a. AV. ANNUAL		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE			
April 1945		-		-		-		0.49 9.51		-		-				
Feb 17, 1954 (2)		-		-		-		0.44 12.17		-		-				

(1) Original elevation 816.0. Raised Marc. 1946. All figures are based on 827.0 elevation. (2) Dam broke April 1945, Rebuilt Mar. 1, 1946. This period was not included.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION														
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR														
	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100	-105	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.								
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
47. REMARKS AND REFERENCES															
<p>(3) C/I ratio 1.04 in 1925, 0.94 in 1945, and 0.91 in 1954. Estimated trap efficiency 97 %. Total annual sediment load, adjusted for trap efficiency, 1.45 a.f./sq.mi. Land use 40% cult., 20 percent wooded pasture, 10% idle, 30% forest.</p>															
48. AGENCY SUPPLYING DATA				SCS, Ft. Worth, Texas		49. DATE		Feb. 23, 1954							