

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Lake Texarkana

49-7

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER U.S. Army, C. of E.			2. RIVER Sulphur River			3. STATE Texas								
	4. SEC. <sup>OP. R.</sup> <sup>RANGE</sup> Lat. 33° 18' Long. 94° 10'			5. NEAREST TOWN Texarkana			6. COUNTY Cass-Bowie								
	7. STREAM BED ELEV. 180			8. TOP OF DAM ELEV. 286			9. SPILLWAY CREST ELEV. 259.5								
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		259.5		119,700		2,509,000		2,654,300		July 1953				
	b. POWER														
	c. WATER SUPPLY														
	d. IRRIGATION										16. DATE NORMAL OPER. BEGAN				
	e. CONSERVATION		220.0		20,300		145,300		145,300						
	f. INACTIVE										July 1957				
17. LENGTH OF RESERVOIR 60*			MILES			AV. WIDTH OF RESERVOIR 2			MILES						
WATERSHED	18. TOTAL DRAINAGE AREA 3,400			SQ. MI.			22. MEAN ANNUAL PRECIPITATION 43 (1872-1947) INCHES								
	19. NET SEDIMENT CONTRIBUTING AREA 3,213			SQ. MI.			23. MEAN ANNUAL RUNOFF 11.21 INCHES								
	20. LENGTH 150			MILES			AV. WIDTH 23			MILES			24. MEAN ANNUAL RUNOFF 2,032,700 AC.-FT.		
	21. MAX. ELEV. 700			MIN. ELEV. 180			25. CLIMATIC CLASSIFICATION Humid								
	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. C/W RATIO AC.-FT. PER SQ. MI.
Sept. 1954		Original Survey						28		119,700		2,654,300		780.7	
Aug. 1958		3.91		3.91		Check Ranges		4		119,700		2,654,300		780.7	
SURVEY DATA	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		d. MEAN ANNUAL		e. TOTAL TO DATE		
	Aug. 1958		43.53		1,304,077		3,227,044		5,098,942		1,304,077		5,098,942		
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.-YR.		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YR.		
Aug. 1958		No appreciable sedimentation													
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. TO DATE		a. PERIOD		b. TO DATE	

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.
1955	216.8	200.1	921,878				
1956	216.4	200.8	527,328				
1957	250.3	203.4	4,040,100				
1958	249.8	219.8	4,615,308				
1959	227.1	220.5	1,104,896				
1960	229.4	220.5	1,945,978				
1961	234.0	220.5	2,559,220				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
180	0	0	225	29,200	268,450			
185	40	100	230	38,600	437,250			
190	90	425	235	49,200	655,950			
195	180	1,045	240	60,500	929,400			
200	480	2,595	245	73,600	1,264,150			
205	1,350	6,670	250	88,100	1,668,000			
210	5,300	21,900	255	104,500	2,148,900			
215	12,100	64,800	260	121,300	2,713,800			
220	20,300	145,300	265	140,600	3,367,450			

47. REMARKS AND REFERENCES

\* Tributaries 33 miles

48. AGENCY SUPPLYING DATA U. S. Army Engineer Dist., New Orleans

49. DATE 18 October 1961

RESERVOIR SEDIMENT  
DATA SUMMARY

Lake Texarkana

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS

NAME OF RESERVOIR

49-7a

DATA SHEET NO.

DAM	1. OWNER U.S. Army, C of E			2. STREAM Sulphur River		3. STATE Texas				
	4. SEC. TWP. RANGE		5. NEAREST P.O. Texarkana			6. COUNTY Cass-Bowie				
	7. LAT 33° 19' " LONG 94° 10' "		8. TOP OF DAM ELEVATION 286		9. SPILLWAY CREST ELEV. 259.5					
RESERVOIR	10. STORAGE ALLOCATION	11. ELEVATION TOP OF POOL	12. ORIGINAL SURFACE AREA, ACRES	13. ORIGINAL CAPACITY, ACRE-FEET	14. GROSS STORAGE, ACRE-FEET	15. DATE STORAGE BEGAN				
	a. FLOOD CONTROL	259.5	119,700	2,509,000	2,654,300	July 1953				
	b. MULTIPLE USE									
	c. POWER									
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN				
	e. IRRIGATION									
	f. CONSERVATION	220.0	20,300	145,300	145,300	July 1957				
	g. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR 60*			MILES		AV. WIDTH OF RESERVOIR 2			MILES	
	18. TOTAL DRAINAGE AREA 3,400			SQ. MI.		22. MEAN ANNUAL PRECIPITATION 41(1928-67)			INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA 3,213			SQ. MI.		23. MEAN ANNUAL RUNOFF 11.14(1955-70)			INCHES	
	20. LENGTH 150	MILES	AV. WIDTH 23	MILES	24. MEAN ANNUAL RUNOFF 2,045,224(1955-70)			AC.-FT.		
	21. MAX. ELEV. 700	MIN. ELEV. 180	25. ANNUAL TEMP MEAN 65°F RANGE 118°F to -13°F							
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. C/I. RATIO, AC.-FT. PER AC.-FT.		
	Sep. 1954	Original	Survey	Survey	28	119,700	2,654,300	0.130		
	Aug. 1958	3.92	3.92	Check	4	119,700	2,654,300	0.130		
	Jul. 1970	12.00	15.92	Check	2	119,700	2,654,300	0.130		
	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			
	Aug. 1958	44.01	2,540,715	4,554,955	9,959,604	2,540,715	9,959,604			
	Jul. 1970	42.11	1,883,364	3,046,299	22,600,367	2,045,224	32,559,971			
	26. DATE OF SURVEY	37. PERIOD CAPACITY LOSS, 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			
Aug. 1958	No appreciable sedimentation									
July 1970	No appreciable sedimentation									
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. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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
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.
1955	216.8	200.1	914,272	1963	225.3	220.0	969,297
1956	216.4	200.8	522,144	1964	230.1	220.2	696,861
1957	250.3	203.4	4,006,718	1965	233.1	220.2	1,645,305
1958	249.8	219.8	4,577,232	1966	252.6	220.2	2,250,697
1959	227.1	220.5	1,095,781	1967	233.3	220.2	1,622,709
1960	229.4	220.5	1,929,924	1968	231.6	220.0	2,970,571
1961	234.0	220.5	2,538,106	1969	235.5	220.3	3,046,299
1962	228.6	220.2	1,994,389	1970	231.8	220.2	1,788,260

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
180	0	0	220	20,300	145,300	260	121,300	2,713,800
185	40	100	225	29,200	268,450	265	140,600	3,367,450
190	90	425	230	38,600	437,250			
195	180	1,045	235	49,200	655,950			
200	480	2,595	240	60,500	929,400			
205	1,350	6,670	245	73,600	1,264,150			
210	5,300	21,900	250	88,100	1,668,000			
215	12,100	64,800	255	104,500	2,148,900			

47. REMARKS AND REFERENCES

\*Tributaries 33 miles