

RESERVOIR SEDIMENTATION
DATA SUMMARY

Murphy Lake
NAME OF RESERVOIR

51 -21
DATA SHEET NO.

DAM	1. OWNER Trinity farm of Crandall			2. RIVER E. Fork of Trinity R.			3. STATE Texas			
	4. SEC. - TWP. - RANGE -			5. NEAREST TOWN Crandall			6. COUNTY Kaufman			
	7. STREAM BED ELEV. 357			8. TOP OF DAM ELEV. 383			9. SPILLWAY CREST ELEV. 369			
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	369	72.5	397	397	Oct. 1922				
	b. POWER									
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN				
	d. IRRIGATION									
	e. CONSERVATION									
	f. INACTIVE					Oct. 1922				
17. LENGTH OF RESERVOIR 1 MILES			15. AV. WIDTH OF RESERVOIR MILES							
WATERSHED	18. TOTAL DRAINAGE AREA 4.09 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 40 * INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 3.98 SQ. MI.			23. MEAN ANNUAL RUNOFF INCHES						
	20. LENGTH MILES			AV. WIDTH MILES			24. MEAN ANNUAL RUNOFF AC.-FT.			
	21. MAX. ELEV.			MIN. ELEV.			25. CLIMATIC CLASSIFICATION Humid			
	26. DATE OF SURVEY		27. PERIOD YEARS	28. ACGL. 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.	
Oct. 1922		-	-	-	-	72.5	397	97.1		
April 1939		16.5	16.5	Range recon.	4	58.3	138	33.7		
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	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 1939		259	15.7	3.94	259	15.7	3.94			
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 1939		60 *	5,150	5,150	3.95	65.24				

* Estimated

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

The sediment in the reservoir basin is almost entirely gray or blue-gray clay.

Region 4, Soil Conservation Service
U. S. Dept. of Agriculture
Fort Worth, Texas

48. AGENCY SUPPLYING DATA

49. DATE Aug. 15, 1950