

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

GRAYSON LAKE

NAME OF RESERVOIR

19-60

DATA SHEET NO.

DAM	1. OWNER <u>Dept. of Army, C. of E.</u>		2. STREAM <u>Little Sandy River</u>		3. STATE <u>Kentucky</u>			
	4. SEC. <u>TWP.</u> RANGE		5. NEAREST P O <u>Leon, Ky.</u>		6. COUNTY <u>Carter</u>			
	7. LAT <u>38° 15' 10"</u> LONG <u>82° 59' 07"</u>		8. TOP OF DAM ELEVATION <u>710</u>		9. SPILLWAY CREST ELEV. <u>681</u>			
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	681	3,630	89,600	119,000	Aug 65		
	b. MULTIPLE USE	645	1,510	10,650	29,400			
	c. POWER							
	d. WATER SUPPLY	637	1,160	3,300	18,750	16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION	634	1,040	15,104	15,450			
	g. INACTIVE	598	54	346	346	3 July 68		
17. LENGTH OF RESERVOIR	25.5		MILES	AV. WIDTH OF RESERVOIR	0.22			
18. TOTAL DRAINAGE AREA	196		SQ. MI.	22. MEAN ANNUAL PRECIPITATION	42			
19. NET SEDIMENT CONTRIBUTING AREA	193.6		SQ. MI.	23. MEAN ANNUAL RUNOFF	15.9			
20. LENGTH	20	MILES	AV. WIDTH	9.8	MILES	24. MEAN ANNUAL RUNOFF		
21. MAX. ELEV.	1300	MIN. ELEV.	585	25. ANNUAL TEMP MEAN	56			
21. MAX. ELEV.	1300	MIN. ELEV.	585	25. ANNUAL TEMP MEAN	56			
25. ANNUAL TEMP RANGE				56				
WATERSHED	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.
	Aug 65	0		Contour	5	1,510	29,400	
	18 Dec 74	9.33	9.33	Range	9	1,512	29,000	
	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		
	18 Dec 74	44.0	175,200	239,400	1,634,600	175,200	1,634,600	
	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	
	18 Dec 74	402	43	0.22	402	43	0.22	
	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		
18 Dec 74	*60	291	291	0.15	1.37	236	236	
	*Assumed							

25. DATE OF SURVEY	DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
	0-11	11-30	30-60											
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
18 Dec 74	15.2	73.6	11.2											

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															
18 Dec 74	18.4	2.7	1.2	25.6	19.2	10.5	6.5	11.2	3.5	1.2					

45. RANGE IN RESERVOIR OPERATION. 2./							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
Part 1965	-	-	3,800				
1966	-	-	128,000				
1967	-	-	206,000				
1968	637.7	598.7	150,500				
1969	645.6	637.0	52,600				
1970	649.8	636.9	143,900				
1971	655.2	625.7	226,700				
1972	656.7	637.0	239,400				
1973	655.3	637.0	213,100				
1974	656.3	637.0	231,900				
Part 1975	645.1	637.0	38,700				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
ORIGINAL			1974 RESURVEY					
645	1510	29400	645	1512	29000			
637	1159	18750	637	1155	18400			
634	1040	15450	634	1035	15100			
625	680	7610	625	668	7440			
615	319	2880	615	315	2830			
605	101	870	605	95	820			
595	40	205	595	35	170			
585	0	0	585	0	0			

47. REMARKS AND REFERENCES

- Information given in items 19, 31, 32, 37, 38, 40, 41, 43 and 44 pertains to seasonal pool elevation 645 feet.
- Maximum and minimum elevations listed after normal operation began.

48. AGENCY MAKING SURVEY U. S. Army Engineer District
 49. AGENCY SUPPLYING DATA Huntington, W. Va. 50. DATE September 1975