

RESERVOIR SEDIMENT
DATA SUMMARY

Pin Oak Lake
NAME OF RESERVOIR

16-41
DATA SHEET NO.

DAM	1. OWNER TVA			2. STREAM Browns Creek		3. STATE Tennessee			
	4. SEC. TWP. RANGE		5. NEAREST POST OFF. Chesterfield			6. COUNTY Henderson			
	7. LAT. 35° 40' 44" LONG. 88° 16' 54"		8. TOP OF DAM ELEVATION 459.4		9. SPILLWAY CREST ELEV. 452.7 1/				
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	452.7 1/	820	3,340	12,740	11/30/64			
	b. MULTIPLE USE								
	c. POWER								
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN			
	e. IRRIGATION								
	f. CONSERVATION	448.2 2/	658	1,840	9,400	4/8/65			
g. INACTIVE	445.2 3/	570	7,560	7,560					
17. LENGTH OF RESERVOIR 4/	4.73 MILES			AV. WIDTH OF RESERVOIR		0.22 MILES			
WATERSHED	18. TOTAL DRAINAGE AREA			11.52 SQ. MI.		22. MEAN ANNUAL PRECIPITATION		48.43 INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA			10.49 SQ. MI.		23. MEAN ANNUAL RUNOFF		19.70 INCHES	
	20. LENGTH 6.6 MILES		AV. WIDTH 1.7 MILES		24. MEAN ANNUAL RUNOFF		12,099 AC.-FT.		
	21. MAX. ELEV. 660		MIN. ELEV. 410		25. ANNUAL TEMP. MEAN 60°		RANGE 4° to 98°		
	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.	
Apr. 16, 1965	0	0	Range	35	658	9,400			
Oct. 17, 1972	7.5	7.5	Range	28	5/	9,360			
			(D)						
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			
Oct. 17, 1972	48.58	9683	13,399	72,626	9683	72,626			
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			
Oct. 17, 1972	42	5.60	0.534	42	5.60	0.534			
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. TOTAL TO DATE	b. PERIOD	a. AV. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE		
Oct. 17, 1972	65*	756	756	0.060	0.447				

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	35-7-30	30-25	25-20	20-15	15-10	10-5	5-0					
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												
Oct. 17, 1972	1	7	11	16	19	35	11					

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														
Oct. 17, 1972	0	8	14	14	9	13	12	16	10	4				

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1965	449.44		10,263				
1966	450.10	446.60	6,127				
1967	449.20	448.27	8,323				
1968	449.45	446.80	8,848				
1969	449.69	447.53	9,150				
1970	449.47	447.59	10,745				
1971	449.57	448.20	11,590				
1972	450.35	448.21	13,399				
1973	450.67	448.36	28,386				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
		1965		5/	1972			
412 ⁵	0	0			0			
420	70	184			183			
425	148	731			726			
430	230	1,672			1,662			
435	325	3,058			3,040			
440	436	4,954			4,928			
445	563	7,440			7,395			
448 ²⁰	658	9,400			8,360			
452 ⁷	820	12,740			12,700			

47. REMARKS AND REFERENCES

- 1/ Emergency spillway crest.
- 2/ Main spillway crest; normal full pool.
- 3/ Planned minimum pool.
- 4/ Browns Creek 3.37 miles; Cabe Branch tributary 1.36 miles.
- 5/ Not measured or calculated after initial survey.