

RESERVOIR SEDIMENTATION
DATA SUMMARY

Dale Hollow

18-9

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Corps of Engrs., US Army			2. RIVER Obey			3. STATE Tennessee			
	4. SEC. - TWP. - RANGE -			5. NEAREST TOWN Celina, Tenn.			6. COUNTY Clay			
	7. STREAM BED ELEV. 500.0			8. TOP OF DAM ELEV. 678.0			9. SPILLWAY CREST ELEV. 663.0(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	663.0	30,990	353,000	1,706,000	April 1943				
	b. POWER	651.0	27,700	496,000	1,353,000					
	c. WATER SUPPLY									
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN				
	e. CONSERVATION									
	f. INACTIVE	631.0	21,880	857,000	857,000	(2) May 1943				
WATERSHED	17. LENGTH OF RESERVOIR 61 MILES			AV. WIDTH OF RESERVOIR 0.5 MILES						
	18. TOTAL DRAINAGE AREA 935 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 52.8 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 887 SQ. MI.			23. MEAN ANNUAL RUNOFF 22.34 INCHES						
	20. LENGTH 50 MILES		AV. WIDTH 25 MILES		24. MEAN ANNUAL RUNOFF (42 yrs.) 1,113,000 AC.-FT.					
	21. MAX. ELEV. 2060		MIN. ELEV. 500		25. CLIMATIC CLASSIFICATION Humid					
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/W RATIO AC.-FT. PER SQ. ML.		
	April 1943	0	0	Range	14	30,990	1,706,000	1825		
	June 1960	17.2	17.2	Range (Detailed)	(3) 26	Not determined	Not determined	Not determined		
	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			
	April 1943									
	June 1960	53.3	1,080,965	1,850,336	18,592,595	1,080,965	18,592,595			
	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.			
		Volume of sediment deposit not determined because of insufficient number of original ranges, and insignificant amount of sedimentation indicated by resurvey.								
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			
		Not computed								

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION															
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION															
															Not computed	

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	Not computed
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.
1944	632.8	543.9	991,373	1953	651.92	634.70	809,262
1945	644.8	630.8	1,111,044	1954	646.54	631.09	619,027
1946	648.75	631.49	1,168,996	1955	656.57	634.47	1,154,288
1947	652.72	639.94	795,602	1956	652.48	631.08	1,223,595
1948	652.50	639.60	749,465	1957	651.27	634.62	1,237,444
1949	654.00	639.00	1,206,067	1958	652.40	635.48	1,261,084
1950	657.8	636.0	1,697,003	1959	649.88	632.40	633,316
1951	649.69	638.84	1,237,347	1960	650.43	637.14	1,100,827
1952	653.13	636.00	1,850,336	1961	651.20	635.51	955,843

46. ELEVATION-AREA-CAPACITY DATA (1943)								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
508	0	0	560	2,870	44,800	620	18,410	635,000
510	25	25	570	4,570	81,500	630	21,590	835,000
520	160	880	580	6,780	138,000	640	24,520	1,066,000
530	410	3,580	590	9,470	219,000	650	27,420	1,326,000
540	850	9,660	600	12,380	328,000	660	30,190	1,614,000
550	1,720	22,200	610	15,400	466,000	663	30,990	1,706,000

47. REMARKS AND REFERENCES

- (1) Spillway crest at elev. 651.0 surmounted by 6 tainter gates, 12 feet high and 60 feet wide.
- (2) Dam closure completed and reservoir available for flood control use.
- (3) 12 additional new ranges added at time of first resurvey.

48. AGENCY SUPPLYING DATA Department of the Army
Corps of Engineers, Nashville District

49. DATE 18 October 1961