

RESERVOIR SEDIMENT
DATA SUMMARY

BUCKHORN LAKE

NAME OF RESERVOIR

19-66

DATA SHEET NO.

DAM	1. OWNER US Army Corps of Engrs		2. STREAM Kentucky River		3. STATE Kentucky			
	4. SEC. TWP. RANGE		5. NEAREST P.O. Buckhorn, KY		6. COUNTY Perry			
	7. LAT. 37° 20' 24" LONG. 83° 28' 13"		8. TOP OF DAM ELEVATION 877		9. SPILLWAY CREST ELEV. 840 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	840	3611	135,800	167,935	20 DEC 1960		
	b. MULTIPLE USE	782	1226	21,800	32,055	2/		
	c. POWER					16. DATE NORMAL OPER. BEGAN		
	d. WATER SUPPLY							
	e. IRRIGATION							
	f. CONSERVATION	757	555	10,323	10,323	22 DEC 1961		
	g. INACTIVE							
WATERSHED	17. LENGTH OF RESERVOIR 34 MILES			AV. WIDTH OF RESERVOIR 0.166 MILES				
	18. TOTAL DRAINAGE AREA 408 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 43.5 INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA 408 SQ. MI.			23. MEAN ANNUAL RUNOFF 18.71 INCHES				
	20. LENGTH 59.7 MILES		AV. WIDTH 6.83 MILES		24. MEAN ANNUAL RUNOFF 409,200 AC.-FT.			
	21. MAX. ELEV. 2200		MIN. ELEV. 715		25. ANNUAL TEMP.: MEAN RANGE			
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.
	DEC 1960			RANGE	79	3620	167,935	.4114
	AUG 1967	6.6	6.6	RANGE	23	3620	166,835	.4087
	AUG 1987	20.0	26.6	RANGE	29	3620	163,043	.3984
	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 1967	47.2	409,600	563,600	2,711,700	409,200	10,893,700	
	AUG 1987	3/	4/	409,100	741,000	8,182,000		
	AUG 1987	42.3						
	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 1967	1100	166.66	.413	4892	183.91	0.45		
AUG 1987	3792	189.60	.465					
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	
AUG 1967	46.06	414.31	414.31	.099	0.653	308	308	
AUG 1987	5/	5/		5/		5/		

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	-100	- 95	95-90	90-85	85-80	80-75	75-70	70-65	65-60	60-55	55-50	50-45
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
AUG 1987	3.0	7.0	9.0	9.1	10.5	11.7	8.6	10.9	13.3	9.1	4.1	3.7

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														
AUG 1987	31.6	33.4	20.4	7.4	6.9	0.2	0.1								

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1968	793.4	756.9	403,920	1978	796.1	757.0	544,500
1969	783.4	756.0	218,940	1979	796.6	757.0	569,270
1970	811.9	756.0	373,350	1980	783.3	756.0	397,770
1971	818.1	757.0	533,330	1981	797.2	756.5	242,660
1972	815.7	756.0	630,830	1982	787.9	757.0	354,240
1973	813.2	757.0	616,890	1983	800.3	757.0	429,950
1974	809.4	757.0	741,150	1984	830.0	757.0	370,300
1975	824.5	756.0	638,950	1985	783.1	757.0	358,950
1976	794.3	757.0	373,860	1986	791.6	761.1	290,920
1977	819.7	757.0	377,530	1987	793.1	761.1	412,520

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
720	0	0	760	486	8021			
725	2	6	765	674	10974			
730	61	220	770	835	14807			
735	121	725	775	973	19334			
740	167	1462	780	1162	24771			
745	237	2486	782	1226	27163			
750	363	4008						
755	395	5847						

47. REMARKS AND REFERENCES

- 1/ Gated Spillway-sill elevation 820.0, top elevation 843.0, flood pool elevation 840.0
- 2/ Limited operation - pool raised to elevation 750
- 3/ Climatological data published by NOAA
- 4/ U.S.G.S. Water Resources Data
- 5/ No sediment samples taken

48. AGENCY MAKING SURVEY

49. AGENCY SUPPLYING DATA US Army Corps of Engineers, Louisville DATE 3 August 1990