

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Mud River FRS No. 14

NAME OF RESERVOIR

16- 33

DATA SHEET NO.

SCS-34 Rev. 6-66

operated & maintained by

Sharon Grove Quadrangle

DAM	1. Mud R.W/S Conservancy Dist.		2. STREAM Antioch Creek		3. STATE Kentucky			
	4. USC & GS Grid. Coord.		5. NEAREST P.O. Sharon Grove		6. COUNTY Todd			
	7. 1,615,600 - 225,800		8. TOP OF DAM ELEVATION 533.		9. SPILLWAY CREST ELEV. 526			
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	526	80.69	1169	1379.87			
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION							
g. INACTIVE	502.9	24.39	210.87	210.87	1/21/64			
WATERSHED	17. LENGTH OF RESERVOIR		0.53 MILES	AV. WIDTH OF RESERVOIR		0.24 MILES		
	18. TOTAL DRAINAGE AREA (5498 ac.)		8.59 SQ. MI.	22. MEAN ANNUAL PRECIPITATION		46.59 (5 yr.) INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA		8.56 SQ. MI.	23. MEAN ANNUAL RUNOFF		19.27 (3 yr.) INCHES		
	20. LENGTH	4.16 MILES	AV. WIDTH	2.06 MILES	24. MEAN ANNUAL RUNOFF		8823 (3 yr.) AC.-FT.	
	21. MAX. ELEV.	853	MIN. ELEV.	486.9	25. ANNUAL TEMP: MEAN RANGE		36.1° to 77.7° RANGE -26°F. to 110°F.	
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.
	1/21/64					24.39	210.87	
	5/19/70	6.33	6.33	Range (D)	9 ranges	22.30 ^{1/}	1379.87 186.49 ^{1/} 1355.49 ^{2/}	0.15 0.15
	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	
	5/19/70							
	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	
	5/19/70	24.38 ^{1/}	3.85 ^{1/}	0.45 ^{1/}	24.38	3.85	0.45	
	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	
5/19/70	75.78	742.	742.	1.83	11.56			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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														
5/19/70	Seg 1 13.42	Seg 2 12.60	Seg 3 16.12	Seg 4 12.46	Seg 5 10.95	Seg 6 2.22	Seg 7 14.85	Seg 8 13.78	Seg 9 3.60						

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.

46. 1970 ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
<u>Original Capacity 1964</u>			<u>1970 Capacity</u>					
502.9	24.39	210.87	502.9	22.3	186.49			

47. REMARKS AND REFERENCES

1/ Sediment pool - below elev. - 502.9
 2/ Flood pool - below elev. - 526.0

Pennyroyal Physiographic Area - LRA - 122

Geology: The drainage area is composed of limestones, shales and shales of the Galconda formational units (Haney limestone, Big Clifty sandstone, Beech Creek sandstone) of Mississippian Age.

Land Use in Watershed: cropland 60%; grassland 18%; woodland 20%; misc. 2%.

48. AGENCY MAKING SURVEY River Basin-Watershed Planning Staff, Lexington, Ky.
 49. AGENCY SUPPLYING DATA Soil Conservation Service 50. DATE Oct. 29, 1970