

RESERVOIR SEDIMENT
DATA SUMMARY

POOL NO. 8 (TOAD SUCK FERRY LOCK AND DAM)
NAME OF RESERVOIR

44-16

DATA SHEET NO.

DAM	1. OWNER Dept. of the Army, C. of E.		2. STREAM Arkansas River		3. STATE Arkansas	
	4. SEC. 12-13 TOP OF RANGE 4-15M		5. NEAREST P.O. Conway Gw		6. COUNTY Faulkner-Perry	
	7. LAT 35° 04' 37.7" LONG 92° 31' 21.2"		8. TOP OF DAM ELEVATION 279		9. SPILLWAY CREST ELEV. 266 1/2	
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES	
	a. FLOOD CONTROL					
	b. MULTIPLE USE					
	c. POWER					
	d. WATER SUPPLY					
	e. IRRIGATION					
13. ORIGINAL CAPACITY, ACRE-Feet		14. GROSS STORAGE, ACRE-Feet		15. DATE STORAGE BEGAN		
1. CONSERVATION 2/		265		2,980		
2. INACTIVE 3/		242		0		
17. LENGTH OF RESERVOIR 20.5 MILES		AV. WIDTH OF RESERVOIR 0.23 MILES		15. DATE STORAGE BEGAN		
18. TOTAL DRAINAGE AREA 156,386 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 12-50 INCHES		Nov 21, 1969		
19. NET SEDIMENT CONTRIBUTING AREA 2,705 SQ. MI.		23. MEAN ANNUAL RUNOFF 3.26 (40 yrs) 4/ INCHES		16. DATE NORMAL OPER. BEGAN		
20. LENGTH 1,220 MILES		24. MEAN ANNUAL RUNOFF 27,137,000 (40 yrs) 69 FT.		Jan 1, 1970		
21. MAX. ELEV. 14,431		25. ANNUAL TEMP. MEAN 56 RANGE -22 to 114				
WATERSHED	26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS	
	Dec 24, 1969		1.31		1.31	
29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTOUR INT.		31. SURFACE AREA, ACRES		
Range (D)		17		2,980		
Range (D)		17		2,950		
32. CAPACITY, ACRE-Feet		33. C/H. RATIO, 2/ AC. FT. PER AC. FT.				
37,110		.0159				
34,860		.0147				
SURVEY DATA	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-Feet	
	Apr 16, 1971				a. MEAN ANNUAL b. MAX. ANNUAL	
			24,864,000		32,572,000	
36. WATER INFL. TO DATE, AC.-Feet		37. PERIOD CAPACITY LOSS, ACRE-Feet		38. TOTAL SED. DEPOSITS TO DATE, ACRE-Feet		
a. MEAN ANNUAL b. TOTAL TO DATE		a. PERIOD TOTAL b. AV. ANNUAL c. PER SQ. MI.-YEAR		a. TOTAL TO DATE b. AV. ANNUAL c. PER SQ. MI.-YEAR		
24,864,000		2,250		2,250		
32,572,000		1,718		1,718		
24,864,000		.635		.635		
39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP. TONS PER SQ. MI.-YEAR		41. STORAGE LOSS, PCI		
80*		a. PERIOD b. TOTAL TO DATE		a. AV. ANNUAL b. TOT. TO DATE		
1,106		1,106		4.63 6.06		
1,106		119		119		

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET										M.S.L.				
	240-51	251-53	253-55	255-57	257-59	259-61	261-63	263-65	265-67	267-69					
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION															
Apr 16, 1971	4	35	18	5	5	8	8	10	4	3					
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															
Apr 16, 1971	-4	19	30	8	9	25	-4	3	7	7					
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.								
1970	273.9	264.2	24,010,000												
1971	270.5	264.5	18,306,000												
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
Original Survey - 1970			255	1,340	10,850	263	2,550	28,410							
269	3,420	52,080	253	920	7,440	261	2,240	22,630							
267	3,240	44,350	251	580	4,690	259	1,920	17,530							
265	2,980	37,110				257	1,600	13,120							
263	2,690	30,430	1971 Survey			255	1,280	9,450							
261	2,280	24,450	269	3,420	49,670	253	800	6,470							
259	1,980	19,160	267	3,250	42,010	251	650	4,640							
257	1,600	14,630	265	2,950	34,860										
47. REMARKS AND REFERENCES															
<p>1/ Top of gates in closed position.</p> <p>2/ Top of navigation pool.</p> <p>3/ Spillway crest.</p> <p>4/ Interpolated from USGS Water Resources Data for Arkansas at Dardanelle and Murray Dam at Little Rock.</p> <p>5/ Adjustment based on inflow from net sediment contributing area (Item 19) as taken from USGS W.R. Data; 1969 (2,330,000 AC. FT); 1971 (2,367,000 AC. FT).</p> <p>6/ Computed from suspended sediment concentrations.</p>															
48. AGENCY MAKING SURVEY Dept. of the Army, Corps of Engineers							50. DATE 1 Nov 76								
49. AGENCY SUPPLYING DATA Southwestern Div., Little Rock Dist.															