

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

POOL NO. 2
NAME OF RESERVOIR

15-33
DATA SHEET NO.

DAM	1. OWNER Dept. of the Army, C. of E.			2. STREAM Arkansas River		3. STATE Arkansas						
	4. SEC. 20 TWP. 8 S RANGE 2W			5. NEAREST P.O. Watson TWP		6. COUNTY Arkansas-Desha						
	7. LAT 33° 59' 20.0" LONG 91° 18' 5.8"			8. TOP OF DAM ELEVATION 180		9. SPILLWAY CHEST LLEV. 164 1/2						
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										16. DATE NORMAL OPER. BEGAN	
	b. MULTIPLE USE										Apr 1, 1968	
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION											
	f. CONSERVATION 2/		162		10,560		110,080		110,080		Jan 1, 1969	
	g. INACTIVE 3/		134		0		0		0			
WATERSHED	17. LENGTH OF RESERVOIR 32.43 MILES				AV. WIDTH OF RESERVOIR 0.51 MILES							
	18. TOTAL DRAINAGE AREA 160,475 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 12-50 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 6,046 SQ. MI.				23. MEAN ANNUAL RUNOFF 3.59 (44 yrs) 4/ INCHES							
	20. LENGTH 1,348 MILES		AV. WIDTH 119 MILES		24. MEAN ANNUAL RUNOFF 30,751,000 (44) 4/ AC.-FT.							
	21. MAX. ELEV. 14,431		MIN. ELEV. 134		25. ANNUAL TEMP: MEAN 56 RANGE -22 to 114							
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, 5/ AC.-FT. PER AC.-FT.
	Feb 12, 1970				Range (D)		17	10,560		110,080		.0188
	Feb 3, 1972		1.98	1.98	Range (D)		17	10,290		102,890		.0176
	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			
	Feb 3, 1972				27,339,000*		54,132,000	27,339,000	54,132,000			
	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				
	Feb 3, 1972		7,190	3,631	.601	7,190	3,631	.601				
	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, FIM (6)			
		j. PERIOD	b. TOTAL TO DATE	a. AV. ANN	b. TOT TO DATE	a. PERIOD	b. TOT TO DATE					
Feb 3, 1972		80*	1,047	1,047	3.30	6.53	119	119				

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET										M.S.L.	
	134-166	148-157	150-157	152-157	154-157	156-158	158-160	160-161	162-164	164-166		
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
Feb 3, 1972	26	2	2	9	12	15	13	11	08	02		

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														
Feb 3, 1972	27	17	30	19	2	6	9	0	0	-11					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1969	162.2	158.4	41,891,274				
1970	162.4	161.5	27,789,943				
1971	162.1	161.5	21,026,262				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
Original Survey - 1970			150	3,630	26,930	158	7,610	67,870
166	13,710	158,280	148	2,890	20,540	156	6,350	54,310
164	12,130	133,190	146	2,290	15,200	154	5,360	42,510
162	10,560	110,080	140	980	6,130	152	4,470	32,630
160	9,140	89,970	134	400	2,620	150	3,670	24,700
158	7,850	73,150	1972 Survey			148	2,810	18,460
156	6,650	58,370	166	15,100	150,240	146	2,290	13,610
154	5,520	45,600	164	12,400	125,340	140	980	5,240
152	4,520	35,040	162	10,290	102,890	134	400	2,600
			160	9,000	83,670			

47. REMARKS AND REFERENCES

- 1/ Top of spillway gates in closed position.
- 2/ Top of navigation pool.
- 3/ Spillway crest.
- 4/ Based on USGS Water Resources Data for Arkansas at Murray Dam at Little Rock and runoff from area between Dardanelle and Murray Dam.
- 5/ Adjustment based on inflow from net sediment contributing area (Item 19) as taken from USGS W.R. Data; 1969 (5,837,000 AC.FT) and 1971 (5,931,000 AC.FT).
- 6/ Computed from measured suspended sediment concentrations.

48. AGENCY MAKING SURVEY Dept. of the Army, Corps of Engineers
 49. AGENCY SUPPLYING DATA: Southwestern Div., Little Rock Dist.
 50. DATE 1 Nov 76