

RESERVOIR SEDIMENTATION
DATA SUMMARY

LOCK AND DAM 26

24- 51

Engrs.

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Dept. of Defense, Corps of		2. RIVER Mississippi River		3. STATE Ill - Mo			
	4. SEC. 14 TWP. 5N RANGE LOW		5. NEAREST TOWN Alton, Ill.		6. COUNTY Madison			
	7. STREAM BED ELEV. 378.0 m.s.l.		8. TOP OF DAM ELEV. 419.00 msl.		9. SPILLWAY CREST ELEV. 384.00			
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					May 1938		
	b. POWER							
	c. WATER SUPPLY							
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN		
	e. CONSERVATION	419,000	30,000	102,000	395,000	Aug 1938		
	f. INACTIVE							
17. LENGTH OF RESERVOIR 38.5 (Miss), 80.1 (ILL) MILES			AV. WIDTH OF RESERVOIR 0.40 MILES					
WATERSHED	18. TOTAL DRAINAGE AREA 171,470 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 22 - 46 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA SQ. MI.		23. MEAN ANNUAL RUNOFF 1 - 15 INCHES					
	20. LENGTH 1,163 MILES AV. WIDTH 147.4 MILES		24. MEAN ANNUAL RUNOFF 190,000 AC.-FT.					
	21. MAX. ELEV. 1,900 MIN. ELEV. 387.0		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.
	May 1938	---	---	Range	Nine	--	395,000	
	May 1945	7.1	7.1	Range	Nine	30,000	390,200	
	Dec 1945	0.6	7.7	Range	Seven	30,000	Partial	
	May 1946	0.4	8.1	Range	Nine	30,000	381,200	
	Oct 1947	1.4	9.5	Range	Nine	30,000	408,200	
	Apr 1959	11.5	21.0	Range	Nine	30,000	343,900	
	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	
			(expressed in thousands)					
	May 1945	not	70,600	94,800	501,900	70,600	501,900	
	May 1946	Pertinent	86,700	86,700	86,700	72,700	588,600	
	Oct 1947		84,200	91,000	117,900	74,400	706,500	
	Apr 1959		63,200	105,500	727,100	68,300	1,433,600	
	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.		
May 1945	+4,800	+680		+4,800	680			
May 1946	+9,000	+9,000		+13,800	170			
Oct 1947	-27,000	-19,300		-13,200	139			
Apr 1959	+64,300	+5,600		+51,100	243			
	+ denotes fill			- denotes scour				
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	
May 1945	No	---	---	-0.17	-1.22	---	---	
May 1946	Sediment	---	---	-0.43	-3.49	---	---	
Oct 1947	Samples	---	---	+0.35	+3.34	---	---	
Apr 1959	Taken	---	---	+0.62	-12.93	---	---	

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION											
	419.0 to 414.0			414.0 to 378.0								
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												
All surveys	ZERO			100%								

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
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
Nov 1937	---													
May 1945	-8.9	+21.3	-5.9		0.0	+5.8	-26.6	-10.9	-26.9					
May 1946	-4.6	+20.1	-0.9		-5.0	+12.1	-22.4	+2.5	-22.9					
Oct 1947	-10.1	+9.3	-8.4		-3.9	+9.9	-28.7	-8.5	-40.4					
Apr 1959	+8.2	+31.3	+8.6		+7.2	+16.6	-10.1	+18.9	-30.7					
The 1937 survey is the base for subsequent sediment changes + denotes fill - denotes scour														

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1939	* 421.80	409.7	65,800	1950	419.00	413.92	77,200
1940	419.00	409.85	34,700	1951	* 430.06	413.95	94,000
1941	419.00	416.31	53,100	1952	* 425.31	414.01	94,200
1942	* 424.10	414.44	97,000	1953	419.00	417.96	61,800
1943	* 430.37	414.29	92,700	1954	* 419.28	415.00	52,800
1944	* 429.94	413.96	84,000	1955	* 419.20	413.97	60,300
1945	* 424.87	414.15	81,700	1956	* 419.47	418.26	41,500
1946	* 420.21	413.04	79,300	1957	* 419.35	416.67	51,600
1947	* 430.12	414.25	92,600	1958	* 419.38	415.97	49,600
1948	* 425.14	414.02	60,400	1959	* 419.37	413.90	55,000
1949	* 419.10	414.93	54,000				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
Not applicable since all sedimentation occurs below the maximum operating range of elevations of the pool								

47. REMARKS AND REFERENCES

* Flood period; dam not in operation.

48. AGENCY SUPPLYING DATA U. S. Army Engineer District, Louis,

49. DATE Revised in OCE June 1962