

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Kirk Lake  
NAME OF RESERVOIR

45-15  
DATA SHEET NO.

DAM	1. OWNER J. M. Kirk			2. RIVER		3. STATE Kansas			
	4. SEC. 34 TWP. 24S RANGE 19E			5. NEAREST TOWN Iola		6. COUNTY Allen			
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.		9. SPILLWAY CREST ELEV.			
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					Sept. 1897			
	b. POWER								
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN			
	d. IRRIGATION								
	e. CONSERVATION			31.21	111	111			
	f. INACTIVE						Sept. 1897		
17. LENGTH OF RESERVOIR 0.4 (Approx.) MILES				AV. WIDTH OF RESERVOIR 0.12 (Approx.) MILES					
WATERSHED	18. TOTAL DRAINAGE AREA 2.41 1/2 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 37.57 (45) INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 2.36 1/2 SQ. MI.			23. MEAN ANNUAL RUNOFF INCHES					
	20. LENGTH MILES		AV. WIDTH MILES		24. MEAN ANNUAL RUNOFF AC.-FT.				
	21. MAX. ELEV.		MIN. ELEV.		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. MI.	
	1897	-	-	-	-	31.21	111	46	
	Sept. 15, 1939	42	42	Contour Detailed	1 foot	31.21	69	29	
	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		
	Sept. 15, 1939		37.57						
	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.-YEAR	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YEAR	
	Sept. 15, 1939		42.6	1.01	0.43	42.6	1.01	0.43	
	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. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE		
Sept. 15, 1939		48.10 (2)	450	450	0.91	38.26			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION										
	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-100	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
Sept. 1939	0.16	2.51	6.90	12.93	19.08	22.08	16.92	13.58	5.63	0.21	

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														

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

46. -- ORIGINAL --		ELEVATION - AREA - CAPACITY DATA						
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
91	0.51	0.7		0	0			
92	1.76	1.14		0	0			
93	4.30	4.08		0	0			
94	6.82	9.59		0	0			
95	9.52	17.72		0	0			
96	13.54	29.19		6.19	2.06			
97	17.15	44.50		10.17	10.16			
98	20.26	63.18		15.81	23.05			
99	22.62	84.61		22.45	42.08			
100	31.21	111.41		31.21	68.79			

47. REMARKS AND REFERENCES  
 1/ Taken from stereoscopic study of drainage area photos.

Region 5, Soil Conservation Service  
 U. S. Dept. of Agriculture

48. AGENCY SUPPLYING DATA Lincoln, Nebraska

49. DATE May 25, 1951