

RESERVOIR SEDIMENTATION DATA SUMMARY

Max Miller # 5

35-20a

NAME OF RESERVOIR

Trib. of

DATA SHEET NO.

DAM	1. OWNER Max Miller			2. RIVER W. Nishnabotna			3. STATE Iowa			
	4. SEC. 20 TWP. 74 N RANGE 40W			5. NEAREST TOWN Macedonia			6. COUNTY Pottawattamie			
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.			9. SPILLWAY CREST ELEV. 100.0 assumed			
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	108.1	6.76	36.90	53.19	Nov. 1941				
	b. POWER									
	c. WATER SUPPLY	100.0 assumed	3.27	16.29	16.29	16. DATE NORMAL OPER. BEGAN				
	d. IRRIGATION									
	e. CONSERVATION					Nov. 1941				
	f. INACTIVE									
17. LENGTH OF RESERVOIR			MILES			AV. WIDTH OF RESERVOIR			MILES	
WATERSHED	18. TOTAL DRAINAGE AREA 0.233			SQ. MI.			22. MEAN ANNUAL PRECIPITATION 29 (26)			INCHES
	19. NET SEDIMENT CONTRIBUTING AREA 0.228			SQ. MI.			23. MEAN ANNUAL RUNOFF 4.2 est.			INCHES
	20. LENGTH			MILES			24. MEAN ANNUAL RUNOFF			AC.-FT.
	21. MAX. ELEV.			MIN. ELEV.			25. CLIMATIC CLASSIFICATION			sub-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.		
	11/41	-	-	-	-	6.76	53.19	228		
	5/49	7.5	7.5	Detailed 6 ranges		6.35	41.94	180		
	6/52	3.1	10.6	"	"	6.28	41.06	176		
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE- FEET			36. WATER INFL. TO DATE ACRE- FEET			
	5/49			a. MEAN ANNUAL (inches) 6.6 est.	b. MAX. ANNUAL -	c. PERIOD TOTAL -	d. MEAN ANNUAL (inches) 6.6 est.			
	26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS ACRE- FEET			38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET.					
	5/49	a. PERIOD TOTAL 8.84 (11.25)	b. AV. ANNUAL 1.179 (1.500)	c. PER SQ. MI.-YEAR 5.17 (6.58)	d. TOTAL TO DATE 8.84 (11.25)	e. AV. ANNUAL 1.179 (1.500)	f. PER SQ. MI.-YEAR 5.17 (6.58)			
	6/52	0.75 (0.88)	0.24 (0.28)	1.05 (1.23)	9.59 (12.13)	0.91 (1.14)	3.99 (5.00)			
	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			
5/49	72.6 (3)	a. PERIOD 8,175 (10,405)	b. TOTAL TO DATE 8,175 (10,405)	a. AV. ANNUAL 2.83	b. TOT. TO DATE 21.2	a. PERIOD 16,730 (21,280)	b. TOT. TO DATE 16,730 (21,280)			
6/52	74.5 (3)	1,705 (2,996)	6,474 (8,113)	2.14	22.8					

C/I ratio estimated to be 1.02 in 1941, 0.803 in 1949, and 0.785 in 1952. Trap efficiency estimated to be 97% up to 1952.

26. DATE OF SURVEY <u>1/</u>	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION														
	Below Crest				Between crest and emergency										
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
May 1949 June 1952			79											21	
			79											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. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
1941:															
108.1	6.76	53.19													
100.0	3.27	16.29													
1949:															
108.1	6.76	41.94													
100.0	2.86	7.45													
1952:															
108.1	6.76	41.06													
100.0	2.79	6.70													
47. REMARKS AND REFERENCES															
1. Gottschalk, L. C., and G. M. Brune. Sediment Design Criteria for the Missouri Basin Loess Hills. Soil Conservation Service, Milwaukee Wisconsin, 1950.															
2. USDA Yearbook of Agriculture, Washington, D. C. 1941															
<u>1/</u> These figures are for total sediment to date of survey.															
48. AGENCY SUPPLYING DATA SCS, Milwaukee, Wisconsin															
49. DATE July 20, 1952															

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			a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL	b. TOTAL TO DATE.					
	5/49		(inches) 6.6 est.	-	-	(inches) 6.6 est.						
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