

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCS-34 Rev. 6-66

DONALD GARDNER

NAME OF RESERVOIR

28-1

DATA SHEET NO.

DAM	1. OWNER Donald Gardner			2. STREAM Minnesota (Direct)			3. STATE Minnesota						
	4. SEC. 18 TWP. 110N RANGE 26W			5. NEAREST P.O. St. Peter			6. COUNTY Nicollet						
	7. LAT. 44° 12' 53" LONG 93° 59' 45"			8. TOP OF DAM ELEVATION 114.0*			9. SPILLWAY CREST ELEV. 109.2						
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		109.2		8.96		29.43		36.22		August 1967		
	b. MULTIPLE USE												
	c. POWER												
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION										November 1967		
	f. CONSERVATION												
	g. INACTIVE 1/		100.5		1.84		6.79		6.79				
WATERSHED	17. LENGTH OF RESERVOIR 0.208 MILES				AV. WIDTH OF RESERVOIR 0.067 MILES								
	18. TOTAL DRAINAGE AREA 1.484 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 28 INCHES								
	19. NET SEDIMENT CONTRIBUTING AREA 1.482 SQ. MI.				23. MEAN ANNUAL RUNOFF 4.0 2' INCHES								
	20. LENGTH 3.144 MILES		AV. WIDTH 0.472 MILES		24. MEAN ANNUAL RUNOFF 317 AC.-FT.								
	21. MAX. ELEV. 160.5		MIN. ELEV. 100.5		25. ANNUAL TEMP. MEAN 45°F RANGE 4° to 74°F								
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, AC.-FT. PER AC.-FT.				
	8-1967		-	-	-	-	8.96	36.22	0.11				
	7-1971		3.9	3.9	Range	20(R)	8.96	35.31	0.11				
	2-1976		4.6	8.5	Range	24(R)	8.96	34.06	0.11				
	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				
	7-1971		27.03		317	538	1236	317	1236				
	2-1976		26.40		317	412	1458	317	2694				
	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					
7-1971		0.915	0.229	0.16	0.915	0.229	0.16						
2-1976		1.246	0.271	0.18	2.161	.254	0.17						
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. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE					
7-1971		60.0**	207	207	0.64	2.51							
2-1976		60.0**	239	222	0.70	5.97							

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
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														
7-1-71	12	13	6	10	6	15	7	17	4	10					
2-30-76	10	13	9	6	7	11	13	15	12	4					
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							
47. REMARKS AND REFERENCES															
<u>1</u> Sediment <u>2</u> Data from USGS Circular #52 & Kerr Report, December 1959 *Assumed Datum **Estimated															
48. AGENCY MAKING SURVEY				USDA-SCS											
49. AGENCY SUPPLYING DATA				USDA-SCS											
										50. DATE July, 1976					