

RESERVOIR SEDIMENTATION
DATA SUMMARY

Otto Goslar

NAME OF RESERVOIR

35-8

DATA SHEET NO.

River

DAM	1. OWNER Otto Goslar			2. RIVER Trib. of Middle Soldier			3. STATE Iowa									
	4. SEC. 20 TWP. 84N RANGE 41W			5. NEAREST TOWN Charter Oak			6. COUNTY Crawford									
	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				2.19		3.51		13.69		May 1940					
	b. POWER															
	c. WATER SUPPLY				1.72		10.18		10.18		16. DATE NORMAL OPER. BEGAN May 1940					
	d. IRRIGATION															
	e. CONSERVATION															
	f. INACTIVE															
17. LENGTH OF RESERVOIR					MILES		17. AV. WIDTH OF RESERVOIR					MILES				
WATERSHED	18. TOTAL DRAINAGE AREA				0.089		SQ. MI.		22. MEAN ANNUAL PRECIPITATION				28 (40)		INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA				0.086		SQ. MI.		23. MEAN ANNUAL RUNOFF				4.5*		INCHES	
	20. LENGTH				MILES		24. MEAN ANNUAL RUNOFF				AG.-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 AG.-FT. PER SQ. MI.	
	May 1940		-		-		-		-		1.72		10.18		114	
	March 1949		8.8		8.8		Range Detailed		5		1.72		8.29		93.1	
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW				36. WATER INFL. TO DATE							
					a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE			
					(inches)						(inches)					
	March 1949				6.5*						6.5*					
	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			
	March 1949		1.89		0.215		2.50		1.89		0.215		2.50			
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		
March 1949		68.8 (3)		3,750		3,750		1.57 (2.11) ^{1/}		13.8 (18.6) ^{1/}		7,680 ^{2/}		7,680 ^{2/}		

* Estimated
1/ Based on water supply pool.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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														

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
 1. Gottschalk, L.C., and Brune, G.M. Sediment design criteria for the Missouri Basin Loess Hills. Soil Conserv. Serv. SCS-TP-97, 21 pp., illus., processed. Milwaukee, Wisconsin, 1950.
 2. U.S.D.A. Yearbook of Agriculture, Washington, D.C., 1941.
 Water has never spilled over drop inlet. Trap efficiency 100 percent.

$$\frac{2}{42} = \frac{37b \times 39 \times 1,000,000}{35a \times 18 \times \frac{640 \times 62.4}{12}}$$

48. AGENCY SUPPLYING DATA Region 3, Soil Conservation Service 49. DATE January 9, 1950
 U. S. Dept. of Agriculture, Milwaukee, Wis.