

RESERVOIR SEDIMENT  
DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

BETHANY

NAME OF RESERVOIR

31-60

DATA SHEET NO.

DAM	1. OWNER <u>City of Bethany, MO</u>		2. STREAM <u>Big Creek</u>		3. STATE <u>Missouri</u>			
	4. SEC. <u>27</u> TWP. <u>64N</u> RANGE <u>28W</u>		5. NEAREST P. O. <u>Bethany, MO</u>		6. COUNTY <u>Harrison</u>			
	7. LAT. <u>94° 1' 52"</u> LONG. <u>40° 18' 41"</u>		8. TOP OF DAM ELEVATION <u>926.6</u>		9. SPILLWAY CREST ELEV. <u>919.6</u>			
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					June 1960		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY	919.6	72.61	1313.9	1313.9	16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION					December 1960		
	f. CONSERVATION							
	g. INACTIVE							
17. LENGTH OF RESERVOIR	1.136 MILES		AV. WIDTH OF RESERVOIR		0.10 MILES			
18. TOTAL DRAINAGE AREA	1.041 SQ. MI.		22. MEAN ANNUAL PRECIPITATION		34.2 INCHES			
19. NET SEDIMENT CONTRIBUTING AREA	0.928 SQ. MI.		23. MEAN ANNUAL RUNOFF		5 1/ INCHES			
20. LENGTH	1.75 MILES	AV. WIDTH	0.60 MILES	24. MEAN ANNUAL RUNOFF		277.6 AC.-FT.		
21. MAX. ELEV.	1040	MIN. ELEV.	866	25. ANNUAL TEMP. MEAN 52° RANGE -32° to 127°F				
WATERSHED	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.
	06/01/60					72.61	1313.9	4.73
07/01/73	13.1	13.1	Range (R)	21 (R)	72.61	1271.6	4.58	
SURVEY DATA	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	
	07/01/73	36.07	277.7	455.1	277.6	277.6	3636.6	
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		
07/01/73	42.3	3.23	0.35	42.3	3.23	0.35		
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	
07/01/73	54.2	410.8	410.8	.25	3.2	-----NO DATA-----		

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	52-50	50-40	40-30	30-20	20-10	10-0									
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
07/01/73	0.7	15.0	2.4	10.5	42.9	28.5									
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							
Original	Capacity			1973 SURVEY											
870	1.03	0.96	870	0.17	0.11										
880	6.71	34.53	880	6.53	25.18										
890	13.69	99.87	890	13.84	98.58										
900	28.11	208.52	900	26.34	197.59										
910	47.70	374.15	910	46.04	357.31										
919.6	73.42	600.1	919.6	73.54	592.52										
47. REMARKS AND REFERENCES															
1/ USGS Cir. 52															
Land use and erosion yield is reported in an unpublished SCS report.															
48. AGENCY MAKING SURVEY Missouri Watershed Planning Party, Soil Conservation Service															
49. AGENCY SUPPLYING DATA Soil Conservation Service 50. DATE 7/20/76															