

RESERVOIR SEDIMENT
DATA SUMMARY

BOCO MOUNTAIN NO. 3

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCS-34 Rev. 6-66

NAME OF RESERVOIR

63-16

DATA SHEET NO.

DAM	1. OWNER USDI BLM		2. STREAM TRIB. ALKALI CR.		3. STATE COLO.			
	4. SEC. 34 TWP. 4 S. RANGE 83 W.		5. NEAREST P. O. WOLCOTT, COLO.		6. COUNTY EAGLE			
	7. LAT 39° 44' 31" LONG 106° 40' 59"		8. TOP OF DAM ELEVATION 74.00*		9. SPILLWAY CREST ELEV. 73.36*			
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					July 1965		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY	73.36	.336	1.686	1.686	16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION					July 1965		
	f. CONSERVATION							
g. INACTIVE								
17. LENGTH OF RESERVOIR		0.037	MILES	AV. WIDTH OF RESERVOIR		0.014		
WATERSHED	18. TOTAL DRAINAGE AREA		0.008	SQ. MI.	22. MEAN ANNUAL PRECIPITATION		13.2 (6 yrs) INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA		.008	SQ. MI.	23. MEAN ANNUAL RUNOFF		1.212 (5 yr) INCHES	
	20. LENGTH	.189	MILES	AV. WIDTH	.042	MILES	24. MEAN ANNUAL RUNOFF	0.52 (5 yr) AC.-FT.
	21. MAX. ELEV.		161*	MIN. ELEV.		62.9*	25. ANNUAL TEMP: MEAN -- RANGE --	
	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.
7-23-65	--	--	Range D	5	.336	1.686	3.24	
11-2-65	.28	.28	"	5	.336	1.644 ^{1/}	3.16	
10-31-66	1.00	1.28	"	5	.336	1.651 ^{1/}	3.18	
11-1-67	1.00	2.28	"	5	.336	1.634	3.14	
11-6-68	1.00	3.28	"	5	.336	1.637	3.15	
11-6-69	1.00	4.28	"	5	.336	1.619	3.11	
11-3-70	1.00	5.28	"	5	.336	1.613	3.10	
SURVEY DATA	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW, ACRE-Feet			36. WATER INFL. TO DATE, AC.-FT.		
	7-23-65		a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL	b. TOTAL TO DATE	
	11-2-65	7.44	2.020	.566	.566	2.020	.566	
	10-31-66	11.31	.501	.501	.501	.785	1.004	
	11-1-67	14.39	.494	.494	.494	.651	1.484	
	11-6-68	12.05	.400	.400	.400	.487	1.599	
	11-6-69	17.24	.536	.536	.536	.625	2.681	
	11-3-70	13.04	.515	.515	.515	.586	3.092	
	26. DATE OF SURVEY	37. PERIOD CAPACITY LOSS, ACRE-Feet			38. TOTAL SED. DEPOSITS TO DATE, ACRE-Feet			
	11-2-65	a. PERIOD TOTAL	b. AV. ANNUAL	c. PER SQ. MI.-YEAR	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YEAR	
10-31-66	.042 ^{1/}	0	18.8	.042	.150	18.8		
11-1-67	.017 ^{1/}	0	2.13	.059	.033	4.13		
11-6-68	-.003 ^{1/}	0	0	.059	.026	3.25		
11-6-69	.018	.018	2.25	.077	.018	2.25		
11-3-70	.006	.006	.75	.083	.016	2.00		
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		
11-2-65	90*	a. PERIOD	b. TOTAL TO DATE	a. AV. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE	
10-31-66	"	36,850	36,850	8.9	2.5	107,000	107,000	
11-1-67	"	0	8,095	1.9	2.5	0	60,300	
11-6-68	"	4,165	6,370	1.5	3.5	49,500	57,400	
11-6-69	"	0	4,410	1.1	3.5	0	53,500	
11-3-70	"	4,410	4,410	1.1	4.6	48,300	56,300	
		1,470	3,920	0.9	4.9	16,750	53,300	

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	10-9	9-8	8-7	7-6	6-5	5-4	4-3	3-2	2-1	1-0					
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
11-2-65	11	23	22	22	22	0	0	0	0	0					
10-31-66	11	23	22	22	22	0	0	0	0						
11-1-67	24	37	19	10	10	0									
11-6-68	24	37	19	10	10	0									
11-6-69	19	45	20	8	8	0									
11-3-70	14	51	23	6	6	0									
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														
Not applicable															
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.								
7-23-65 to 11-2-65	67.08	63.60	.566												
1966	64.27	63.60	.438												
1967	65.56	63.90	.480												
1968	64.61	63.87	.115												
1969	66.71	63.87	1.082												
1970	67.27	63.87	.411												
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
ORIGINAL CAPACITY 1965			CAPACITY 1970												
63.6	0	0	63.9	0	0										
64.0	.052	.008	64.0	.029	.003										
66.0	.120	.194	66.0	.117	.163										
68.0	.155	.472	68.0	.155	.438										
70.0	.190	.815	70.0	.150	.781										
72.0	.247	1.247	72.0	.247	1.213										
47. REMARKS AND REFERENCES															
<p>1/ Capacity increase due to compaction.</p> <p>Lusby, G. C., Turner, G. T., Thompson, J. R., and Reid, V. H., 1963, Hydrologic and biotic characteristics of grazed and ungrazed watersheds of Badger Wash basin in western Colorado, 1953-58: U.S. Geol. Survey Water-Supply Paper 1532-B.</p> <p>Lusby, G. C., Reid, V. H., and Knipe, O. D., Effects of grazing on the hydrology and biology of the Badger Wash basin in western Colorado, 1953-66: U.S. Geol. Survey open-file report.</p>															
48. AGENCY MAKING SURVEY U.S. Geological Survey					50. DATE 11/71										
49. AGENCY SUPPLYING DATA U.S. Geological Survey															

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DATA SHEET NO.

DAM	1. OWNER				2. STREAM				3. STATE							
	4. SEC.		TWP.		RANGE		5. NEAREST P. O.				6. COUNTY					
	7. LAT.		" LONG.		"		8. TOP OF DAM ELEVATION				9. SPILLWAY CREST ELEV.					
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															
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY								1.686		16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
g. INACTIVE																
WATERSHED	17. LENGTH OF RESERVOIR				MILES				AV. WIDTH OF RESERVOIR				MILES			
	18. TOTAL DRAINAGE AREA				SQ. MI.				22. MEAN ANNUAL PRECIPITATION				INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA				.008				23. MEAN ANNUAL RUNOFF				INCHES			
	20. LENGTH		MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF		.52		AC. FT.			
	21. MAX. ELEV.		MIN. ELEV.		25. ANNUAL TEMP.: MEAN				RANGE							
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.							
	10-27-71		1.0	6.28	Range D	5	.336	1.594	3.07							
	11-06-72		1.0	7.28	"	5	"	1.594	3.07							
	10-01-73		1.0	8.28	"	5	"	1.601 ^{1/}	3.08							
	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							
	10-27-71		11.89		0.994	0.994	0.994	0.651	4.086							
	11-06-72		10.36		.413	.413	.413	.618	4.499							
	10-01-73		9.07		.013	.013	.013	.545	4.512							
	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									
10-27-71		.019	.019	2.38	0.102	.016	2.00									
11-06-72		0	0	0	.102	.014	1.75									
10-01-73		-.007 ^{1/}	--	--	.102	.012	1.50									
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. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE							
10-27-71		90*		4,665	3,920	0.86	5.4	--	--							
11-06-72		"		0	3,430	.74	5.4	--	--							
10-01-73		"		0	2,940	.60	5.0	--	--							

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														

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

48. AGENCY MAKING SURVEY
 49. AGENCY SUPPLYING DATA U. S. Geological Survey
 50. DATE January 1977