

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Rock Creek Site 6

SCS-34 Rev. 6-66

NAME OF RESERVOIR

50-54

DATA SHEET NO.

DAM	1. OWNER Margie Skidmore		2. STREAM Trib. of Rock Creek		3. STATE Oklahoma			
	4. SEC. 17 TWP. 1N RANGE 3E		5. NEAREST P. O. Sulphur		6. COUNTY Murray			
	7. LAT. 34° 33' 30" LONG. 97° 06' 30"		8. TOP OF DAM ELEVATION 997.7		9. SPILLWAY CREST ELEV. 991.2			
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	991.2	98.38	972.73	1149.22	5-25-66		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION							
g. INACTIVE 1/	959.0	26.28	176.49	176.49	5-25-66			
17. LENGTH OF RESERVOIR		1.06	MILES	AV. WIDTH OF RESERVOIR		0.145 MILES		
WATERSHED	18. TOTAL DRAINAGE AREA		4.54	SQ. MI.	22. MEAN ANNUAL PRECIPITATION 37.00 INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA		4.39	SQ. MI.	23. MEAN ANNUAL RUNOFF 4.60 INCHES			
	20. LENGTH	3.90	MILES	AV. WIDTH	1.16	MILES		
	24. MEAN ANNUAL RUNOFF		1114		AC.-FT.			
	21. MAX. ELEV.	1190	MIN. ELEV.	953.3	25. ANNUAL TEMP: MEAN 62° RANGE -4° to 109°			
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.
	5-25-66	-	-	Range Contour (D)	34R 2'C.I.	26.28 (98.38)	176.49 (1149.22)	(1.03)
	6-10-71	5.04	5.04	Range Contour (D)	34R 2'C.I.	25.16 (98.38)	165.71 (1137.10)	(1.02)
	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	
	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	
	6-10-71	10.78 (12.12)	2.14 (2.40)	0.49 (0.55)	10.78 (12.12)	2.14 (2.40)	0.49 (0.55)	
	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	
6-10-71	49 Sed. P. (3) 83 Det. P. (3)	523 (631)	523 (631)	1.21 (0.21)	6.11 (1.05)			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
	91.2-87	87-83	83-79	79-74.6	74.6-73	73-69	69-65	65-61	61-57	57-54.4				
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
6-10-71	0	0	0	11	13	16	23	11	16	10				
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
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. Original Capacity ELEVATION-AREA-CAPACITY DATA														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
953.3	0	0	983.0	56.63	517.43	969.0	11.95	65.77						
957.0	1.94	3.06	987.0	76.61	783.43	973.0	19.91	129.65						
961.0	4.05	15.45	991.2	98.38	1149.22	974.6	25.16	165.71						
965.0	6.69	36.81	1971 Survey			979.0	41.08	310.04						
969.0	12.37	73.03	954.4	0	0	983.0	56.63	505.31						
973.0	20.89	138.75	957.0	1.25	1.85	987.0	76.61	771.31						
974.6	26.28	176.49	961.0	3.61	12.25	991.2	98.38	1137.10						
979.0	41.08	322.16	965.0	6.28	32.02									
47. REMARKS AND REFERENCES														
1/ Sediment Pool														
Land Use: 6% Cropland, 82% Grassland, 10% Woodland, 2% Miscellaneous														
Geology: 30% Vanoss, Pennsylvania Age - 70% Graber-Wellington, Permian Age														
Land Resource Area: Cross Timbers														
() Figures in parenthesis include sediment and flood pools														
48. AGENCY MAKING SURVEY Oklahoma Watershed Planning Staff														
49. AGENCY SUPPLYING DATA S.C.S. U.S.D.A.														
50. DATE March 15, 1972														

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Rock Creek Site No. 6

CS-34 Rev. 6-66

NAME OF RESERVOIR

50 - 54 a

DATA SHEET NO.

DAM	1. OWNER Margie Skidmore		2. STREAM Trib. of Rock Creek		3. STATE Oklahoma							
	4. SEC. 17 TWP. 1N RANGE 3E		5. NEAREST P.O. Sulphur, OK		6. COUNTY Murray							
	7. LAT. 34° 33' 30" LONG. 97° 06' 30"		8. TOP OF DAM ELEVATION 997.7		9. SPILLWAY CREST ELEV. 991.2							
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		991.2		98.38		972.73		1149.22		5-25-66	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION										5-25-66	
	f. CONSERVATION											
	g. INACTIVE 1/		959.0		26.28		176.49		176.49			
WATERSHED	17. LENGTH OF RESERVOIR 1.06 MILES				AV. WIDTH OF RESERVOIR 0.145 MILES							
	18. TOTAL DRAINAGE AREA 4.54 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 37.00 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 4.39 SQ. MI.				23. MEAN ANNUAL RUNOFF 4.60 INCHES							
	20. LENGTH 3.90 MILES		AV. WIDTH 1.16 MILES		24. MEAN ANNUAL RUNOFF 1114 AC.F.T.							
	21. MAX. ELEV. 1190		MIN. ELEV. 953.3		25. ANNUAL TEMP: MEAN 62°F RANGE -4° to 109° 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.
	5-25-66		-	-	Range-Contour (D)		34 R	26.28		176.49		0.16
	6-10-71		5.04	5.04	Range-Contour (D)		2' CI	(98.38)		(1149.22)		(1.03)
	8- 5-76		5.15	10.19	Range-Contour (D)		34 R	25.16		165.71		0.15
					Range-Contour (D)		2' CI	(98.38)		(1137.10)		(1.02)
					Range-Contour (D)		34 R	24.66		159.80		0.14
					Range-Contour (D)		2' CI	(97.98)		(1128.36)		(1.01)
	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		
	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					
6-10-71		10.78	2.14	0.49	10.78	2.14	0.49					
		(12.12)	(2.40)	(0.55)	(12.12)	(2.40)	(0.55)					
8- 5-76		5.91	1.15	0.26	16.69	1.64	0.37					
		(8.74)	(1.70)	(0.39)	(20.86)	(2.05)	(0.47)					
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					
6-10-71		49 Sed.P (3)	523	523	1.21	6.11						
		83 Det.P (3)	(631)	(631)	(0.21)	(1.05)						
8- 5-76		51 Sed.P (3)	311	411	0.93	9.46						
		86 Det.P (3)	(549)	(598)	(0.18)	(1.82)						

CREST 4.2 8.2 12.2 16.6 18.2 22.2 26.2 30.2 34.2 to

26. DATE OF SURVEY	43. to DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	4.2	8.2	12.2	16.6	18.2	22.2	26.2	30.2	34.2	36.8		
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
6-10-71	0	0	0	11	13	16	23	11	16	10		
8- 5-76	19	0	0	0	21	20	10	10	13	7		

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
See attached sheet for elevation-area-capacity data.								

47. REMARKS AND REFERENCES
1/ Sediment pool.
 Land Use: 1971 - 6% cropland, 82% grassland, 10% woodland, 2% miscellaneous.
 1976 - 5% cropland, 83% grassland, 10% woodland, 2% miscellaneous.
 Geology: 30% Vanoss, Pennsylvanian Age; 70% Garber-Wellington, Permian Age.
 Land Resource Area: Cross Timbers.

 Figures in parentheses include sediment and flood pools.

48. AGENCY MAKING SURVEY Oklahoma Watershed Planning Staff
 49. AGENCY SUPPLYING DATA SCS, USDA
 50. DATE April 21, 1977

Rock Creek Site No. 6

ELEVATION-AREA-CAPACITY DATA

Elevation	Area	Capacity	Elevation	Area	Capacity
<u>Original Capacity (1966)</u>			<u>1971 Survey</u>		
953.3	0	0	954.4	0	0
957.0	1.94	3.06	957.0	1.25	1.85
961.0	4.05	15.45	961.0	3.61	12.25
965.0	6.69	36.81	965.0	6.28	32.02
969.0	12.37	73.03	969.0	11.95	65.77
973.0	20.89	138.75	973.0	19.91	129.65
974.6	26.28	176.49	974.6	25.16	165.71
979.0	41.08	322.16	979.0	41.08	310.04
983.0	56.63	517.43	983.0	56.63	505.31
987.0	76.61	783.43	987.0	76.61	771.31
991.2	98.38	1149.22	991.2	98.38	1137.10

1976 Survey

955.0	0.33	0.22
957.0	1.15	1.62
959.0	2.60	5.27
961.0	3.44	11.30
963.0	4.88	19.58
965.0	6.22	30.66
967.0	8.39	45.22
969.0	11.31	64.86
971.0	15.98	92.02
973.0	18.51	126.50
974.6	24.66	159.80
977.0	34.96	231.68
979.0	42.14	308.71
981.0	49.90	400.69
983.0	58.05	508.59
985.0	65.58	632.20
987.0	73.97	771.74
989.0	83.43	929.12
991.2	97.98	1128.36