

RESERVOIR SEDIMENT

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

DATA SUMMARY

Site No. 1, East Keechi Creek Watershed

SCS 34 Rev. 6-66

NAME OF RESERVOIR

51-41a

DATA SHEET NO.

DAM	1. OWNER Richards			2. STREAM Trib of Brazos River			3. STATE Texas									
	4. SEC. TWP. RANGE			5. NEAREST P. O. Perrin			6. COUNTY Jack									
	7. LAN 33 04' 30" LONG 98 07' 00"			8. TOP OF DAM ELEVATION 1091.5			9. SPILLWAY CREST ELEV. 1087.5									
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		1087.5 1/		166.35		1672.97		1845.56		1-1-64					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION										1-1-64					
g. INACTIVE		1069.3 2/		32.31		172.59		172.59								
WATERSHED	17. LENGTH OF RESERVOIR 1.32 MILES				AV. WIDTH OF RESERVOIR 0.20 MILES											
	18. TOTAL DRAINAGE AREA 6.63 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 28.13 (43) INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA 6.37 SQ. MI.				23. MEAN ANNUAL RUNOFF 3.15 INCHES											
	20. LENGTH 3.30 MILES		AV. WIDTH 2.01 MILES		24. MEAN ANNUAL RUNOFF 1113.77 AC.-FT.											
	21. MAX. ELEV. 1281.0		MIN. ELEV. 1054.0		25. ANNUAL TEMP: MEAN 62°F RANGE 41°F - 84°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.	
	1-1-64		--		--		Range-Contour		27R		166.35		1845.56		1.66	
	6-1-68		4.4		4.4		D		2' CI		166.35		1827.15		1.64	
	5-12-75		6.95		11.35						166.20		1811.56		1.63	
	1-1-64		--		--						32.31		172.59		--	
	6-1-68		4.4		4.4						30.60		160.10		--	
	5-12-75		6.95		11.35						30.10		152.73		--	
	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				
1/ 5-12-75		15.59		2.24		0.35		34.00		3.00		0.47				
2/ 5-12-75		7.37		1.06		0.17		19.86		1.75		0.28				
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		
1/ 5-12-75		-		446.25		688.25		0.16		1.84		--		--		
2/ 5-12-75		55		156.28		335.41		1.01		11.51		--		--		
3/ 5-12-75		81		289.97		352.84		--		--		--		--		

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							
1057	1.42	0.95	1069.3	30.10	152.73	1081	107.23	938.69							
1059	3.83	5.99	1071	39.68	211.79	1083	122.20	1167.73							
1061	6.47	16.17	1073	51.05	302.19	1085	139.99	1429.45							
1063	10.47	32.93	1075	66.42	419.21	1087.5	166.20	1811.56							
1065	15.21	58.44	1077	79.99	565.26										
1067	20.94	94.40	1079	93.46	738.36										
47. REMARKS AND REFERENCES															
<p>1/ Total reservoir below emergency spillway crest elevation (1087.5)</p> <p>2/ Sediment pool only</p> <p>3/ Detention pool only</p> <p>Geology - Grayford formation, Canyon group, Pennsylvanian system</p> <p>Land Resource Area - Central Rolling Red Prairies</p> <p>Estimated trap efficiency - 98%</p>															
48. AGENCY MAKING SURVEY										Soil Conservation Service					
49. AGENCY SUPPLYING DATA										Temple, TX					
										50. DATE 12-75					