

RESERVOIR SEDIMENT

DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Site No. 6, Cummins Creek Watershed

NAME OF RESERVOIR

52-17

DATA SHEET NO.

DAM	1. OWNER <b>John Krouse</b>			2. STREAM <b>Trib of Cummins Cr.</b>			3. STATE <b>Texas</b>						
	4. SEC. <b>TWP. RANGE</b>			5. NEAREST P.O. <b>Giddings</b>			6. COUNTY <b>Fayette</b>						
	7. LAT. <b>30° 07' 00" LONG. 96° 44' 30"</b>			8. TOP OF DAM ELEVATION <b>412.3</b>			9. SPILLWAY CREST ELEV. <b>406.5</b>						
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		406.5 1/		111.8		797.5		858.3		8-21-58		
	b. MULTIPLE USE										16. DATE NORMAL OPER. BEGAN		
	c. POWER										8-21-58		
	d. WATER SUPPLY												
	e. IRRIGATION												
	f. CONSERVATION												
	g. INACTIVE		391.9 2/		16.4		60.8		60.8				
WATERSHED	17. LENGTH OF RESERVOIR <b>1.20</b> MILES			AV. WIDTH OF RESERVOIR <b>0.19</b> MILES									
	18. TOTAL DRAINAGE AREA <b>2.99</b> SQ. MI.			22. MEAN ANNUAL PRECIPITATION <b>36.52 (57)</b> INCHES									
	19. NET SEDIMENT CONTRIBUTING AREA <b>2.76</b> SQ. MI.			23. MEAN ANNUAL RUNOFF <b>7.0</b> INCHES									
	20. LENGTH <b>2.50</b> MILES		AV. WIDTH <b>1.20</b> MILES		24. MEAN ANNUAL RUNOFF <b>1116</b> AC.-FT.								
	21. MAX. ELEV. <b>460</b>		MIN. ELEV. <b>380.5</b>		25. ANNUAL TEMP: MEAN <b>69°F</b> RANGE <b>53°F - 85°F</b>								
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.				
	8-21-58		-	-	Range-		111.8	858.3	0.77				
	9-26-63		5.1	5.1		21 R	111.8	855.2	0.77				
	8-20-69		5.9	11.0	Contour		111.8	854.1	0.76				
	8-21-58		-	-		2' CI	16.4	60.8	-				
	9-26-63		5.1	5.1	(D)		16.4	57.7	-				
	8-20-69		5.9	11.0			16.3	56.6	-				
	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						
9-26-63		3.10	0.61	0.22									
8-20-69		1.10	0.19	0.07	4.20	0.38	0.14						
9-26-63		3.10	0.61	0.22	4.20	0.38	0.14						
8-20-69		1.10	0.19	0.07									
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					
9-26-63		-	-	240	0.07	0.36	-	-					
8-20-69		-	-	392	0.04	0.49	-	-					
9-26-63		50	240	240	1.00	5.10	-	-					
8-20-69		50	111	152	0.62	6.91	-	-					

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
	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
384.0	0.38	0.25	394.0	22.74	97.35	404.0	87.95	605.95
386.0	2.40	2.74	396.0	31.58	151.42	406.5	111.81	854.05
388.0	6.94	11.69	398.0	42.58	225.31			
390.0	11.68	30.10	400.0	56.23	323.80			
391.9	16.29	56.55	402.0	69.28	449.09			

47. REMARKS AND REFERENCES

1/ Total reservoir below emergency spillway crest elev. (406.5).

2/ Sediment pool only.

48. AGENCY MAKING SURVEY Texas Sedimentation Survey Party  
 49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE December 1969

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DATA SUMMARY

CS-34 Rev. 6-66

Site No. 6, Cummins Creek

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

52 - 17a

DATA SHEET NO.

DAM	1. OWNER		2. STREAM Trib. of Cummins Cr		3. STATE Texas					
	4. SEC.	TWP.	RANGE		5. NEAREST P.O. Giddings					
	7. LAT. 30° 07' 00" LONG. 96° 44' 30"		8. TOP OF DAM ELEVATION 412.3		9. SPILLWAY CREST ELEV. 406.5					
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES					
	a. FLOOD CONTROL		1/ 406.5		111.8					
	b. MULTIPLE USE									
	c. POWER									
	d. WATER SUPPLY									
	e. IRRIGATION									
	f. CONSERVATION									
g. INACTIVE		2/ 391.9		16.4						
				60.8						
				60.8						
WATERSHED	17. LENGTH OF RESERVOIR		1.20 MILES		AV. WIDTH OF RESERVOIR 0.19 MILES					
	18. TOTAL DRAINAGE AREA		2.99 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 36.52 (62) INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA		2.82 SQ. MI.		23. MEAN ANNUAL RUNOFF 7.00 INCHES					
	20. LENGTH 2.50 MILES		AV. WIDTH 1.20 MILES		24. MEAN ANNUAL RUNOFF 1116.20 AC.-FT.					
	21. MAX. ELEV. 460		MIN. ELEV. 380.5		25. ANNUAL TEMP. MEAN 69° F RANGE 53° - 85° 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.		
	8-21-58	-	-	Range-Contour (D)	21 R 2' CI	111.8	858.3	0.77		
	9-26-63	5.1	5.1			111.8	855.2	0.77		
	8-20-69	5.9	11.0			111.8	854.1	0.76		
	10- 3-77	8.1	19.1			111.8	847.0	0.76		
	26. DATE OF SURVEY		34. PERIOD INFLOW, ACRE-Feet		35. PERIOD WATER INFLOW, ACRE-Feet		36. WATER INFLOW TO DATE, ACRE-Feet		37. 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/ 10- 3-77		7.1	0.88	0.31	11.3	0.59	0.21			
2/ 10- 3-77		1.6	0.20	0.07	5.8	0.30	0.11			
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		
10- 3-77		-		630.9 1/		0.07 1.32				
10- 3-77		91 Det P		477.2 3/		0.49 9.53				
10- 3-77		64 Sed P		153.3 2/						

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. 1977 ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
384.0	0.32	0.21	396.0	31.15	148.56										
386.0	2.23	2.47	398.0	42.00	221.37										
388.0	6.50	10.82	400.0	56.45	319.37										
390.0	11.58	28.64	402.0	68.91	444.40										
391.9	16.28	54.97	404.0	86.75	599.56										
394.0	22.35	95.36	406.5	111.80	846.99										
47. REMARKS AND REFERENCES															
<u>1/</u> Total reservoir below emergency spillway crest elevation (406.5). <u>2/</u> Sediment pool only. <u>3/</u> Detention pool only.															
Land Resource Area: Texas Claypan Area. Geology: Quaternary fluvial deposits and Catahoula Formation of Tertiary Age.															
48. AGENCY MAKING SURVEY				SCS, Temple, Texas											
49. AGENCY SUPPLYING DATA				SCS, Temple, Texas											
						50. DATE		3-78							