

RESERVOIR SEDIMENT
DATA SUMMARY

CS-34 Rev. 6-66

Chambers Creek, Site 42

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

51 - 48

DATA SHEET NO.

DAM	1. OWNER City of Alvarado		2. STREAM Turkey Creek		3. STATE Texas				
	4. SEC. TWP. RANGE		5. NEAREST P.O. Alvarado		6. COUNTY Johnson				
	7. LAT. 32° 22' 30" LONG. 97° 13' 59"		8. TOP OF DAM ELEVATION 704.6		9. SPILLWAY CREST ELEV. 699.0				
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	1/ 699.0	760.29	4377.58	9660.37	5-11-66			
	b. MULTIPLE USE								
	c. POWER								
	d. WATER SUPPLY	2/ 691.8	484.73	4716.67	5282.79	16. DATE NORMAL OPER. BEGAN			
	e. IRRIGATION					5-11-66			
	f. CONSERVATION								
g. INACTIVE	3/ 676.2	115.12	566.12	566.12					
WATERSHED	17. LENGTH OF RESERVOIR 2.4 MILES			AV. WIDTH OF RESERVOIR 0.50 MILES					
	18. TOTAL DRAINAGE AREA 30.94 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 33.20 (67) INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 14.11 SQ. MI.			23. MEAN ANNUAL RUNOFF 4.95 INCHES					
	20. LENGTH 8.4 MILES	AV. WIDTH 3.7 MILES	24. MEAN ANNUAL RUNOFF 8167.65 AC.-F.T.						
	21. MAX. ELEV. 940	MIN. ELEV. 660	25. ANNUAL TEMP: MEAN 65°F RANGE 45° - 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.	
	5-66	-	-	Range-	24 R	760.39	9660.37	5/ 2.39	
	7-76	10.15	10.15	Contour	4' CI	756.24	9127.16	5/ 2.26	
	5-66	-	-	(D)		484.73	5282.79	5/ 1.31	
	7-76	10.15	10.15			480.20	4802.00	5/ 1.19	
	5-66	-	-			115.12	566.12		
	7-76	10.15	10.15			101.18	441.32		
	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		
	7-76	533.21	52.53	3.72	533.21	52.53	3.72		
	7-76	480.79	47.37	3.36	480.79	47.37	3.36		
	7-76	124.80	12.30	0.87	124.80	12.30	0.87		
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		
7-76		4037.1	4037.1	0.54	5.52				
7-76	SedP 45.9(6)	3358.9	3358.9	0.90	9.10				
7-76	DetP 86.5(4)	678.2	678.2						

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
	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 Storage 1966			691.8	484.73	5282.79	680.0	173.83	957.38
660.0	1.34	1.79	696.0	619.01	7594.90	684.0	281.13	1858.52
664.0	7.90	18.44	699.0	760.39	9660.37	688.0	379.15	3173.87
668.0	22.13	76.10				691.8	480.20	4802.00
672.0	52.88	221.69	1976 Storage			696.0	607.13	7080.19
676.2	115.12	566.12	664.0	0.55	0.73	699.0	756.24	9127.16
680.0	202.15	1160.91	668.0	16.76	27.85			
684.0	308.22	2173.97	672.0	43.91	144.88			
688.0	404.95	3595.56	676.2	101.18	441.32			

47. REMARKS AND REFERENCES

- 1/ Total reservoir below elevation 699.0 ft.
- 2/ Normal operating pool elevation, 691.8 ft, includes sediment pool.
- 3/ Sediment pool only.
- 4/ Detention pool only, 699.0 to 691.8.
- 5/ Adjusted due to location of 7 flood prevention dams upstream, controlling 15.64 sq miles.

Geology: Woodbine Formation, 98%; Eagle Ford Formation, 2%; both of Upper Cretaceous Age.

Trap Efficiency: 97%.

48. AGENCY MAKING SURVEY SCS, Temple, Texas

49. AGENCY SUPPLYING DATA SCS, Temple, Texas

50. DATE 2-77