

RESERVOIR SEDIMENTATION
DATA SUMMARY

GUTHRIE MUNICIPAL RESERVOIR NO. 2
NAME OF RESERVOIR

46 - 14
DATA SHEET NO.

DAM	1. OWNER Guthrie, Oklahoma			2. RIVER Cottonwood Creek			3. STATE Oklahoma			
	4. SEC. 1 TWP. 15N RANGE 3W			5. NEAREST TOWN Guthrie			6. COUNTY Logan			
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.			9. SPILLWAY CREST ELEV.			
RESERVOIR	10. STORAGE ALLOCATION	11. ELEVATION TOP OF POOL	12. SURFACE AREA ACRES	13. STORAGE ACRE- FEET	14. ACCUMULATED ACRE- FEET	15. DATE STORAGE BEGAN				
	a. FLOOD CONTROL					May 1, 1949				
	b. POWER									
	c. WATER SUPPLY		214.62		3192.68	16. DATE NORMAL OPER. BEGAN				
	d. IRRIGATION					May 1, 1949				
	e. CONSERVATION									
	f. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR 1.59 1/2 MILES			AV. WIDTH OF RESERVOIR 0.16 MILES						
	18. TOTAL DRAINAGE AREA 11.63 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 32.60 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 11.29 SQ. MI.			23. MEAN ANNUAL RUNOFF 3.70 INCHES						
	20. LENGTH 5.60 MILES		AV. WIDTH 2.10 MILES		24. MEAN ANNUAL RUNOFF 197.32 per sq. mi. AC.-FT.					
	21. MAX. ELEV. 994.00		MIN. ELEV. 957.2		25. CLIMATIC CLASSIFICATION Sub-humid					
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/W RATIO AC.-FT. PER SQ. MI.		
	May 1, 1949	-	-	-	-	214.62	3192.68	274.52		
	Sep. 24, 1960	11.40	11.40	Detail Range	18	214.62	2945.06	253.23		
	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 SEDIMENT DEPOSITS 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			
	Sep. 24, 1960	247.62	21.72	1.92	247.62	21.72	1.92			
	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			
Sep. 24, 1960	95.66	4000.27	4000.27	00.68	07.76					

1/ 0.45 mi. length of side drain. Not included in item 17.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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
94.0	214.62	3192.68						
90.0	192.18	2379.86						
86.0	169.65	1656.20						
82.0	123.37	1070.16						
78.0	96.14	631.14						
74.0	59.82	319.22						
70.0	34.13	131.32						
66.0	12.88	37.30						
62.0	2.89	5.76						

47. REMARKS AND REFERENCES

Soil Conservation Service
Stillwater, Oklahoma

48. AGENCY SUPPLYING DATA

49. DATE Jan. 3, 1961