

RESERVOIR SEDIMENT  
DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Rayl

NAME OF RESERVOIR

46-49

DATA SHEET NO.

Lower Ark Basin

DAM	1. OWNER <b>George Rayl</b>			2. STREAM <b>Trib to Slate Creek</b>			3. STATE <b>Kansas</b>					
	4. SEC. <b>SW20</b> TWP. <b>32</b> RANGE <b>1W</b>			5. NEAREST P.O. <b>Wellington</b>			6. COUNTY <b>Sumner</b>					
	7. LAT <b>37° 15' 08"</b> LONG. <b>97° 26' 58"</b>			8. TOP OF DAM ELEVATION <b>100.00*</b>			9. SPILLWAY CREST ELEV. <b>97.00*</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										1949	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY		<b>97.00*</b>		<b>2.35</b>		<b>5.44</b>		<b>5.44</b>		16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION										1949	
	f. CONSERVATION											
	g. INACTIVE											
WATERSHED	17. LENGTH OF RESERVOIR <b>0.10</b> MILES				AV. WIDTH OF RESERVOIR <b>0.04</b> MILES							
	18. TOTAL DRAINAGE AREA <b>0.56</b> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <b>31</b> INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA <b>0.56</b> SQ. MI.				23. MEAN ANNUAL RUNOFF <b>3.5</b> INCHES							
	20. LENGTH <b>1.10</b> MILES		AV. WIDTH <b>0.50</b> MILES		24. MEAN ANNUAL RUNOFF <b>104</b> AC.-FT.							
	21. MAX. ELEV. <b>1,275.00</b>		MIN. ELEV. <b>1,240.00</b>		25. ANNUAL TEMP: MEAN <b>57</b> RANGE <b>-19 to 120</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.			
	<b>August 15 1967</b>		<b>18</b>	<b>18</b>	<b>Range</b>	<b>4</b>	<b>2.35</b>	<b>Original 5.44 Present 2.96</b>	<b>0.05</b> <b>0.03</b>			
	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			
	<b>August 15 1967</b>		<b>2.48</b>	<b>0.14</b>	<b>0.25</b>	<b>2.48</b>		<b>0.14</b>	<b>0.25</b>			
	26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PERSQ. 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				
<b>August 15 1967</b>		<b>60*</b>	<b>326</b>	<b>326</b>	<b>2.57</b>	<b>45.59</b>						

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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

47. REMARKS AND REFERENCES

\* Assumed

Cropland = 21% with 1% slopes  
 Pasture (good) = 79% with 3% slopes  
 T.E. = 67%  
 Watershed yield = 0.37 ac. ft./sq. mi./yr. . .

48. AGENCY MAKING SURVEY  
 49. AGENCY SUPPLYING DATA U.S.D.A., Soil Conservation Service 50. DATE August 22, 1967