

RESERVOIR SEDIMENT
DATA SUMMARY

SCS-34 Rev. 6-62

Jesse Judd Tank

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

62 - 6

DATA SHEET NO.

Unnamed Tributary

DAM	1. OWNER Jesse Judd			2. STREAM of Kanab Creek			3. STATE Arizona									
	4. SEC. 16 TWP. 41N RANGE 2W			5. NEAREST TOWN Fredonia			6. COUNTY Coconino County									
	7. STREAM BED ELEVATION 4712.1*			8. TOP OF DAM ELEVATION 4716.1*			9. SPILLWAY CREST ELEV. 4714.4*									
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. MULTIPLE USE 1/		4714.4*		3.21		7.10 2/		7.10 2/		1955					
	b. FLOOD CONTROL															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
	g. SEDIMENT		4712.1*		3/		3/		3/		1955					
h. INACTIVE																
WATERSHED	17. LENGTH OF RESERVOIR .05 MILES				AV. WIDTH OF RESERVOIR 0.1 MILES											
	18. TOTAL DRAINAGE AREA 3.49 4/ SQ. MI.				22. MEAN ANNUAL PRECIPITATION 9.70 (27) INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA 3.49 4/ SQ. MI.				23. MEAN ANNUAL RUNOFF 0.1 INCHES											
	20. LENGTH 4.1 MILES		AV. WIDTH 0.85 MILES		24. MEAN ANNUAL RUNOFF 18.61 AC.-FT.											
	21. MAX. ELEV. 5200.0*		MIN. ELEV. 4712.1*		25. CLIMATIC CLASSIFICATION Arid											
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.	
	1955		-		-				-		3.21		7.10			
	8-19-65		10 5/		10 5/		Range (D)		3		3.21		2.77		4/	
	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					
	8-19-65		8.52 5/ 6/													
	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			
	8-19-65		4.33 7/		0.43 5/		0.12 5/		4.33		0.43 5/		0.12 5/			
	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. AN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE				
8-19-65		80*		209		209		6.1 61.0								

*Estimated

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

47. REMARKS AND REFERENCES

See Attached Sheet

48. AGENCY MAKING SURVEY USDA SCS, Watershed Planning Party, Phoenix, Arizona

49. AGENCY SUPPLYING DATA USDA-SCS

50. DATE 4-11-66

Reservoir Sediment
Data Summary-Continuation Sheet
U. S. Department of Agriculture
Soil Conservation Service

47. Remarks and References

- 1/ Reservoir used seasonally for irrigation and stock water supply and flood control.
- 2/ Total Reservoir Storage.
- 3/ Values not broken down from total.
- 4/ Reservoir is off main channel. Estimate reservoir intercepts 1/3 of flow and sediment from total drainage area.
- 5/ Effective life of reservoir is estimated at 8 years. Storm in 1963 filled reservoir and changed channel course.
- 6/ Average rainfall for 8 year period 1955 through 1963 is 9.17 inches.
- 7/ Trap efficiency estimated at 20% which takes into consideration 4/.

GEOLOGY

90% Moenkopi formation
10% Shinarump conglomerate

Land Use: 100% Rangeland

All values entered on form are actual survey values and do not include estimates for effective life of reservoir, trap efficiency, or estimated percent of drainage area not contributing to the reservoir.