

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

W. Kerr Scott Reservoir
NAME OF RESERVOIR

6-14

DATA SHEET NO.

DAM	1. OWNER Dept. of Army, C of E		2. STREAM Yadkin		3. STATE North Carolina			
	4. SEC. TWP. RANGE		5. NEAREST P O Wilkesboro, NC		6. COUNTY Wilkes			
	7. LAT 36° 9' N" LONG 81° 14' W"		8. TOP OF DAM ELEVATION 1,107.5		9. SPILLWAY CREST ELEV. 1,075.0			
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	1,075.0	4,000	112,600	154,000	Aug. 22, 62		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY	1,030.0	1,475	33,100	41,400	16. DATE NOR- MAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION							
WATERSHED	17. LENGTH OF RESERVOIR	4.73	MILES	AV. WIDTH OF RESERVOIR	0.49	MILES		
	18. TOTAL DRAINAGE AREA	348	SQ. MI.	22. MEAN ANNUAL PRECIPITATION	52.84 (41)	INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA	348	SQ. MI.	23. MEAN ANNUAL RUNOFF	22.22 (57)	INCHES		
	20. LENGTH	38.5	MILES	AV. WIDTH	9.04	MILES		
	21. MAX. ELEV.	4,100	MIN. ELEV.	965.0	25. ANNUAL TEMP. MEAN	55.8	RANGE -5 to 98 (16)	
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.
	Aug. 1962	-	-	Range	8 Ranges	4,000	154,000	0.40
	May 1971	8.8	8.8	Range (D)	20 Ranges	4,000	153,826	0.40
	May 1978	7.0	15.8	Range (D)	20 Ranges	4,000	151,700	0.39
	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	
	Aug. 1962	-	-	-	-	-	-	
	May 1971	51.5	400,326	496,973	3,502,854	400,326	3,502,854	
	May 1978	60.78	566,505	694,033	3,965,535	472,683	7,468,389	
	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		
Aug. 1962	-	-	-	-	-	-		
May 1971	140	15.9	.046	140	15.9	.046		
May 1978	1191	170.1	.489	1331	84.2	.242		
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	
Aug. 1962	-	-	-	-	-	-		
May 1971	No sediment samples taken			.01	.11	-		
May 1978	-			.05	.86	-		

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION										
	15-105	105-95	95-85	85-75	75-65	65-55	55-45	45-35	35-30	30-0	
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
Aug. 1962	-	-	-	-	-	-	-	-	-	-	-
May 1971	9	33	1	15	25	17	-	-	-	-	-
May 1978	10	17	23	17	10	9	14	-	-	-	-

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.
1962 Sep	1,024.8	975.8	27,093	1973	1,044.20	1,025.80	654,455
1963	1,031.1	1,024.8	369,026	1974	1,041.40	1,029.30	611,470
1964	1,032.5	1,026.7	327,642	1975	1,047.30	1,029.10	617,477
1965	1,039.4	1,026.1	496,973	1976	1,043.40	1,023.30	465,284
1966	1,044.0	1,029.7	380,647	1977	1,044.35	1,021.10	473,641
1967	1,031.3	1,029.8	334,730	1978	1,061.20	1,027.00	482,176
1968	1,031.6	1,029.8	440,321	Oct-May			
1969	1,037.3	1,029.4	471,693				
1970	1,060.2	1,028.5	468,121				
1971 <u>2/</u>	1,032.7	1,021.3	426,077				
1972	1,047.7	1,027.65	537,446				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
Original Capacity - 1962			1,050	2,225	77,800	1,010	1,025	15,388
970	50	250	1,060	2,775	103,000	1,020	1,225	26,443
980	125	1,125	1,070	3,550	134,500	1,030	1,475	39,701
990	318	3,340	1,075	4,000	154,000	1,040	1,800	55,627
1,000	675	8,300	Capacity - 1978			1,050	2,225	76,500
1,010	1,025	16,700	970	50	75	1,060	2,775	101,700
1,020	1,225	27,900	980	125	667	1,070	3,550	132,700
1,030	1,475	41,400	990	318	2,493	1,075	4,000	151,700
1,040	1,800	57,000	1,000	675	7,169			

47. REMARKS AND REFERENCES
1/ Previous data sheet (June 1972) was to elevation 1,040. Revised to elevation 1,045 for uniformity with 1978 data.
2/ Temporary change in normal pool from elevation 1,030 to 1,033 beginning September 1971 until September 1973.
Sedimentation Reports
W. Kerr Scott Reservoir, Yadkin River, N.C. Surveys of Aug. 1962 and 1971 dated Nov. 1972.
W. Kerr Scott Reservoir, Yadkin River, N.C. Surveys of May 1978 and Sept. 1979, dated Mar. 1980.

48. AGENCY MAKING SURVEY	U.S. Army Corps of Engineers	50. DATE	May 1979
49. AGENCY SUPPLYING DATA	Charleston District		