

TENNESSEE VALLEY AUTHORITY
**RESERVOIR SEDIMENTATION
 DATA SUMMARY**

Blue Ridge
 NAME OF RESERVOIR

HYDRAULIC DATA BRANCH

20-20a

DATA SHEET NO.

DAM	1. OWNER TVA			2. RIVER Toccoa			3. STATE Georgia												
	4. SEC. TWP. RANGE			5. NEAREST TOWN Blue Ridge			6. COUNTY Fannin												
	7. STREAM BED ELEV. 1540			8. TOP OF DAM ELEV. 1704.8			9. SPILLWAY CREST ELEV. 1/1690.8												
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		2/		3/		3/		3/		12/6/30								
	b. POWER		1690.8		3,359		197,427		197,427										
	c. MULTIPLE USE																		
	d. INACTIVE		4/ 1540.8		0		0		0		16. DATE NORMAL OPER. BEGAN								
											7/19/31								
17. LENGTH OF RESERVOIR				10		MILES		AV. WIDTH OF RESERVOIR				0.5		MILES					
18. TOTAL DRAINAGE AREA				232		SQ. MI.		22. MEAN ANNUAL PRECIPITATION				62.8(24)		INCHES					
19. NET SEDIMENT CONTRIBUTING AREA				227		SQ. MI.		23. MEAN ANNUAL RUNOFF				34.5(31)		INCHES					
20. LENGTH		50		MILES		AV. WIDTH		5		MILES		24. MEAN ANNUAL RUNOFF				427,100		AC.-FT.	
21. MAX. ELEV.		4,081		MIN. ELEV.		1,540		25. CLIMATIC CLASSIFICATION						Per 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.				
	Apr. 26, 1944		0		0		Range		34		3,359		197,427		851				
	Aug. 22, 1949		5.3		5.3		Range		38		3,359		196,080		845				
	Aug. 23, 1954		5.0		10.3		Range		37		3,359		195,981		845				
							(D)												
	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		d. MEAN ANNUAL		b. TOTAL TO DATE						
	Aug. 22, 1949		66.0		432,550		645,607		2,292,515		432,550		2,292,515						
	Aug. 23, 1954		64.1		431,455		507,599		2,157,274		432,018		4,449,789						
	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		d. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR							
Aug. 22, 1945		1,346		254		1.119		1,346		254		1,119							
Aug. 23, 1954		99		20		0.881		1,445		140		0.617							
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					
Aug. 22, 1949		55*		1340.5		1340.5		0.13		0.68		518		518					
Aug. 23, 1954		55*		1055.35		739.10		0.07		0.73		40		286					

- 1/ Top of gates.
- 2/ 1936 datum. To obtain T. E. P. Co. datum add 0.18.
- 3/ From First Accurate Area-Volume Curves, 1944 Survey
- 4/ Centerline of penstock.
- 5/ Does not include sediment deposits before Apr. 26, 1944.
- * Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION										
	151-135	135-120	120-105	105-90	90-75	75-60	60-45	45-30	30-15	15-	Top of Gates
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
Aug. 22, 1949	15	32	22	7	13	7	2	2	0	0	
Aug. 23, 1954	15	23	15	23	13	5	4	1	1	0	

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														
Aug. 22, 1949	18	39	20	6	6	8	2	1	0	0					
Aug. 23, 1954	15	32	14	14	15	6	2	2	0	0					

45. RANGE IN RESERVOIR OPERATION 2/							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1940	1681.91	1594.03		1948	1682.01	1610.29	357,474
1941	1667.95	1606.09	233,926	1949	1689.90	1614.36	572,442
1942	1688.75	1604.44	336,743	1950	1690.22	1656.53	507,599
1943	1688.84	1650.06	441,017	1951	1688.31	1642.87	389,532
1944	1689.42	1615.61	357,702	1952	1690.39	1644.41	489,349
1945	1676.90	1606.02	278,418	1953	1687.34	1633.77	363,897
1946	1691.36	1643.44	645,607	1954	1688.77	1600.69	369,516
1947	1683.60	1630.73	357,819				

46. ELEVATION-AREA-CAPACITY DATA 2/ (1944)								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
1540	0	0	1610	1010	29,400	1674.8	2810	148,100
1550	30	100	1620	1210	40,500	1680	2980	163,200
1560	140	900	1630	1460	53,800	1690.8	3360	197,400
1570	330	3,300	1640	1730	69,700			
1580	490	7,400	1650	2020	88,500			
1590	640	13,000	1660	2330	110,200			
1600	820	20,200	1670	2650	135,000			

47. REMARKS AND REFERENCES

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE September 1, 1968

TENNESSEE VALLEY AUTHORITY
 RESERVOIR SEDIMENTATION
 DATA SUMMARY

Blue Ridge
 NAME OF RESERVOIR

HYDRAULIC DATA BRANCH
 20-20b
 DATA SHEET NO.

DAM	1. OWNER TVA		2. RIVER Toccoa		3. STATE Georgia			
	4. SEC TWP. RANGE		5. NEAREST TOWN Blue Ridge		6. COUNTY Fannin			
	7. STREAM BED ELEV. 1540		8. TOP OF DAM ELEV. 1704.8		9. SPILLWAY CREST ELEV. 1/1690.8			
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	2/ 1690.8	3/	3/	3/	12/6/30		
	b. POWER		3,359	197,427	197,427			
	c. MULTIPLE USE					16. DATE NORMAL OPER. BEGAN		
	d. INACTIVE	4/ 1540.8	0	0	0	7/19/31		
WATERSHED	17. LENGTH OF RESERVOIR 10 MILES		AV. WIDTH OF RESERVOIR 0.5 MILES					
	18. TOTAL DRAINAGE AREA 232 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 62.8(24) INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 227 SQ. MI.		23. MEAN ANNUAL RUNOFF 34.5(31) INCHES					
	20. LENGTH 50 MILES AV. WIDTH 5 MILES		24. MEAN ANNUAL RUNOFF 427,100 AC.-FT.					
	21. MAX. ELEV. 4081		MIN. ELEV. 1540		25. CLIMATIC CLASSIFICATION Perhumid			
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.
	Jun. 17, 1959	4.8	15.1	Range	36	3,359	196,522	847
	(D)							
	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	
Jun. 17, 1959	64.5	400,895	483,857	1,924,298	422,125	6,374,087		
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		
Jun. 17, 1959	-540	-113	-0.498	5/ 905	60	0.264		
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	
Jun. 17, 1959	55*	-596.55	316.25	0.03	0.46	-247	125	

- 1/ Top of gates.
- 2/ 1936 datum. To obtain T. E. P. Co. datum add 0.18.
- 3/ From first accurate area-volume curves, 1944 survey.
- 4/ Centerline of penstock.
- 5/ Does not include sediment deposits before Apr. 26, 1944.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION												
	151-135	135-120	120-105	105-90	90-75	75-60	60-45	45-30	30-15	15-	Top of Gates		
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												
Jun. 17, 1959	15	17	17	37	11	0	7	6/ -4	0	0			

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														
Jun. 17, 1959	12	23	8	23	24	5	2	3	0	0					

45. RANGE IN RESERVOIR OPERATION 2/							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1955	1675.83	1605.74	353,047				
1956	1687.73	1587.57	379,686				
1957	1689.07	1622.91	439,177				
1958	1689.88	1642.79	483,857				
1959	1663.21	1599.16	329,106				

46. ELEVATION-AREA-CAPACITY DATA 2/ (1944)								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
1540	0	0	1600	820	20,200	1660	2,330	110,200
1550	30	100	1610	1,010	29,400	1670	2,650	135,000
1560	140	900	1620	1,210	40,500	1674.8	2,810	148,100
1570	330	3,300	1630	1,460	53,800	1680	2,980	163,200
1580	490	7,400	1640	1,730	69,700	1690.8	3,360	197,400
1590	640	13,000	1650	2,020	88,500			

47. REMARKS AND REFERENCES
 6/ (-) Minus indicates scour. Considered as negative sediment.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE September 1, 1966

RESERVOIR SEDIMENT
DATA SUMMARY

Blue Ridge
NAME OF RESERVOIR

20-20c
DATA SHEET NO.

DAM	1. OWNER TVA			2. STREAM Toccoa			3. STATE Georgia					
	4. SEC. TWP. RANGE			5. NEAREST POST OFF, Blue Ridge			6. COUNTY Fannin					
	7. LAT. 34° 52' 58" LONG. 84° 16' 50"			8. TOP OF DAM ELEVATION 1704.8			9. SPILLWAY CREST ELEV. 1/1690.8					
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL 2/		12. ORIGINAL SURFACE AREA ACRES 3/		13. ORIGINAL CAPACITY ACRE-FEET 3/		14. GROSS STORAGE ACRE-FEET 3/		15. DATE STORAGE BEGAN	
	a. FLOOD CONTROL		1690.8		3,359		197,427		197,427		12/6/30	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION										16. DATE NORMAL OPER. BEGAN	
	f. CONSERVATION											
g. INACTIVE		4/1540.8		0		0		0		7/19/31		
17. LENGTH OF RESERVOIR 10 MILES				AV. WIDTH OF RESERVOIR 0.5 MILES								
18. TOTAL DRAINAGE AREA 232 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 63.4 INCHES								
19. NET SEDIMENT CONTRIBUTING AREA 227 SQ. MI.				23. MEAN ANNUAL RUNOFF 34.9 INCHES								
20. LENGTH 50 MILES		AV. WIDTH 5 MILES		24. MEAN ANNUAL RUNOFF 431,802 AC.-FT.								
21. MAX. ELEV. 4,081		MIN. ELEV. 1,540		25. ANNUAL TEMP: MEAN 57° RANGE 1° to 94°								
WATERSHED	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.			
	Apr. 26, 1944		0	0	Range	34	3,359	197,427	0.462			
	Apr. 4, 1968		8.8	23.9	Range	38	3,359	195,908	0.454			
				(D)								
SURVEY DATA	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			
	Apr. 4, 1968		64.0		450,264	536,979	3,962,321	432,486	10,336,408			
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					
Apr. 4, 1968		614	70	0.308	1,519	64	0.282					
						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. TOTAL TO DATE	b. PERIOD	a. AV. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE				
Apr. 4, 1968		55*	338	368	0.032	0.769	125	130				

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION										
	151-135	135-120	120-105	105-90	90-75	75-60	60-45	45-30	30-15	15-Top of gates	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
Apr. 4, 1968	12	26	21	26	13	14	6	3	6/-6	6/-15	

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														
Apr. 4, 1968	11	23	15	15	13	10	11	4	6/-1	6/-1					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1960	1686.32	1639.35	421,143				
1961	1690.36	1618.79	434,297				
1962	1690.71	1647.01	536,979				
1963	1690.30	1630.61	386,001				
1964	1690.65	1639.18	524,063				
1965	1689.91	1629.82	463,939				
1966	1690.50	1624.76	386,090				
1967	1689.86	1651.77	435,122				
1968	1689.30	1660.80	483,879				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
1540	0	0			0			
1560	140	907			612			
1580	494	7,361			6,534			
1600	821	20,236			18,960			
1620	1,215	40,493			38,966			
1640	1,726	69,700			67,921			
1660	2,326	110,181			108,325			
1674.8	2,808	148,142			146,382			
1690.8	3,359	197,427			195,908			

47. REMARKS AND REFERENCES

- 1/ Top of gates
- 2/ 1936 datum. To obtain T. E. P. Company datum add 0.18.
- 3/ From first accurate area-volume curves, 1944 survey.
- 4/ Centerline of penstock.
- 5/ Does not include sediment deposits before April 26, 1944.
- 6/ (-) Minus indicates scour. Considered as negative sediment.

For preceding data see Sheet No. 20-20a, b.