

TENNESSEE VALLEY AUTHORITY  
 RESERVOIR SEDIMENTATION  
 DATA SUMMARY

Caryville  
 NAME OF RESERVOIR

HYDRAULIC DATA BRAN  
 20-13a  
 DATA SHEET NO.

DAM	1. OWNER State of Tennessee			2. RIVER Cove Creek			3. STATE Tennessee			
	4. SEC. TWP. RANGE			5. NEAREST TOWN Caryville			6. COUNTY Campbell			
	7. STREAM BED ELEV. 993			8. TOP OF DAM ELEV. 1027			9. SPILLWAY CREST ELEV. 1/1022			
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					4/1936				
	b. POWER									
	c. MULTIPLE USE									
	d. INACTIVE		2/		2/	16. DATE NORMAL OPER. BEGAN				
e. recreation	1022	206		1726	4/1936					
WATERSHED	17. LENGTH OF RESERVOIR 3/ 1.25 MILES			AV. WIDTH OF RESERVOIR 0.11 MILES						
	18. TOTAL DRAINAGE AREA 35.98 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 50.9(26) INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 35.65 SQ. MI.			23. MEAN ANNUAL RUNOFF INCHES						
	20. LENGTH 12 MILES		AV. WIDTH 3 MILES		24. MEAN ANNUAL RUNOFF AC.-FT.					
	21. MAX. ELEV. 3265		MIN. ELEV. 993		25. CLIMATIC CLASSIFICATION 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 <sub>w</sub> RATIO AC.-FT. PER SQ. MI.		
	Nov. 29, 1936	0	0	Range	16	206	1726	48		
	Nov. 10, 1938	2.0	2.0	Range	46	206	1652	46		
	Jan. 29, 1947	8.2	10.2	Range	36	206	1580	44		
	Mar. 25, 1954	7.1	17.3	Range	30	206	1347	37		
	Aug. 24, 1960	6.4	23.7	Range	15	206	1290	36		
	(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	
	Nov. 10, 1938	50.3								
Jan. 29, 1947	48.3									
Mar. 25, 1954	54.3									
Aug. 24, 1960	53.5									
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	e. AV. ANNUAL	f. PER SQ. MI.-YEAR				
Nov. 10, 1938	74	37.0	1.038	74	37.0	1.038				
Jan. 29, 1947	73	8.9	0.250	147	14.4	0.404				
Mar. 25, 1954	232	32.7	0.917	379	21.9	0.614				
Aug. 24, 1960	57	8.9	0.250	436	18.4	0.516				
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		
Nov. 10, 1938	62 (6)	1,401.7	1,401.7	2.144	4.287					
Jan. 29, 1947	62*	337.6	545.5	.834	8.517					
Mar. 25, 1954	62*	1,238.3	829.1	1.269	21.958					
Aug. 24, 1960	62*	337.6	696.8	1.066	25.261					

1/ Top of flashboards (2 feet high)

2/ Revision

3/ Cove Creek arm. Bruce Creek 1.03 miles and Dog Creek 0.78 mile.

\* Assumed.

6. 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 (1936)															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
995	0	0													
1000	5	11													
1005	20	65													
1010	47	228													
1015	116	632													
1020	172	1,348													
1022	206	1,726													
47. REMARKS AND REFERENCES															
48. AGENCY SUPPLYING DATA TENNESSEE VALLEY AUTHORITY HYDRAULIC DATA BRANCH															
TVA												49. DATE <b>September 1, 1966</b>			

RESERVOIR SEDIMENT  
DATA SUMMARY

Caryville  
NAME OF RESERVOIR

20-13b  
DATA SHEET NO.

DAM	1. OWNER State of Tennessee			2. STREAM Cove Creek			3. STATE Tennessee									
	4. SEC. TWP. RANGE			5. NEAREST POST OFF. Caryville			6. COUNTY Campbell									
	7. LAT. 36° 18' 18" LONG. 84° 12' 15"			8. TOP OF DAM ELEVATION k,027			9. SPILLWAY CREST ELEV. 1/ 1,022									
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															
	b. MULTIPLE USE										4/36					
	c. POWER										16. DATE NORMAL OPER. BEGAN					
	d. WATER SUPPLY															
	e. IRRIGATION				2/				2/							
	f. CONSERVATION		1,022		206				1,726							
	g. INACTIVE										4/36					
WATERSHED	17. LENGTH OF RESERVOIR 3/			1.25 MILES			AV. WIDTH OF RESERVOIR			0.11 MILES						
	18. TOTAL DRAINAGE AREA				35.98 SQ. MI.				22. MEAN ANNUAL PRECIPITATION				51.4 INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA				35.65 SQ. MI.				23. MEAN ANNUAL RUNOFF				INCHES			
	20. LENGTH 12 MILES			AV. WIDTH 3 MILES			24. MEAN ANNUAL RUNOFF			AC.-FT.						
	21. MAX. ELEV. 3,265			MIN. ELEV. 993			25. ANNUAL TEMP.: MEAN 56° RANGE 3° to 97°									
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.	
	Nov. 29, 1936		0		0		Range		16		206		1,726			
	July 29, 1970		9.9		33.6		Range		14		4/		1,118			
	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			
	July 29, 1970		51.6													
	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			
	July 29, 1970		172		17.4		0.488		608		18.1		0.508			
	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				
July 29, 1970		62*		686		658		1.05 35.2								

\*Assumed

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
		1936		4/	1970			
995	0	0			0			
1,000	5	11			0			
1,005	20	65			23			
1,010	47	228			86			
1,015	116	632			282			
1,020	172	1,348			809			
1,022	206	1,726			1,118			

47. REMARKS AND REFERENCES

1/ Top of 2-foot flashboards.

2/ Revision

3/ Cove Creek arm, Bruch Creek 1.03 miles and Dog Creek 0.78 mile.

4/ Not measured or calculated after initial survey

For preceding data see Sheet No. 20-13a

RESERVOIR SEDIMENT  
DATA SUMMARY

Caryville

NAME OF RESERVOIR

20-13c

DATA SHEET NO.

DAM	1. OWNER State of Tennessee			2. STREAM Cove Creek			3. STATE Tennessee					
	4. SEC. TWP. RANGE			5. NEAREST POST/OFF, Caryville			6. COUNTY Campbell					
	7. LAT. 36° 18' 18" LONG. 84° 12' 15"			8. TOP OF DAM ELEVATION 1,027			9. SPILLWAY CREST ELEV. 1/ 1,022					
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										4/36	
	b. MULTIPLE USE										16. DATE NOR-MAL OPER. BEGAN	
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION				2/				2/			
	f. CONSERVATION		1,022		206				1,726		4/36	
	g. INACTIVE											
WATERSHED	17. LENGTH OF RESERVOIR 3/ 1.25 MILES				AV. WIDTH OF RESERVOIR 0.11 MILES							
	18. TOTAL DRAINAGE AREA 35.98 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 55 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 35.65 SQ. MI.				23. MEAN ANNUAL RUNOFF 19.97 INCHES							
	20. LENGTH 12 MILES		AV. WIDTH 3 MILES		24. MEAN ANNUAL RUNOFF 38,319 AC.-FT.							
	21. MAX. ELEV. 3,265		MIN. ELEV. 993		25. ANNUAL TEMP.; MEAN 55° RANGE 9° to 105°							
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.			
	Nov. 29, 1936		0	0	Range	16	206	1,726				
	Aug. 20, 1975		5.1	38.7	Range	14	4/	1,017				
	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. 20, 1975		68									
	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.-YR.	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YR.				
	Aug. 20, 1975		101	19.8	0.555	709	18.3	0.513				
	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					
Aug. 20, 1975		62*	693	750	1.06	41.1						

\*Assumed

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
		1936		4/	1975			
995	0	0			0			
1,000	5	11			0			
1,005	20	65			19			
1,010	47	228			67			
1,015	116	632			250			
1,020	172	1,348			728			
1,022	206	1,726			1,017			

47. REMARKS AND REFERENCES

1/ Top of 2-foot flashboards.

2/ Revision.

3/ Cove Creek arm, Bruce Creek 1.03 miles and Dog Creek 0.78 mile.

4/ Not calculated or measured after initial survey.

For preceding data see Sheet No. 20-13b.