

RESERVOIR SEDIMENT
DATA SUMMARY

Norris
NAME OF RESERVOIR

20-14a (revised)
DATA SHEET NO.

DAM	1. OWNER TVA		2. STREAM Clinch		3. STATE Tennessee							
	4. SEC. TWP. RANGE		5. NEAREST POST/OFF. Norris			6. COUNTY Anderson-Campbell						
7. LAT. 36° 13' 27" LONG. 84° 05' 35"			8. TOP OF DAM ELEVATION 1,061		9. SPILLWAY CREST ELEV. 1/1,034							
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		1,034		39,768		512,396		2,573,965		3/4/36	
	b. MULTIPLE USE		2/ 1,020		3/ 33,620		3/ 2,033,679		3/2,061,569			
	c. POWER											
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION											
	f. CONSERVATION											
g. INACTIVE		865		1,420		27,890		27,890		6/19/36		
WATERSHED	17. LENGTH OF RESERVOIR 4/ 135.9 MILES				AV. WIDTH OF RESERVOIR 0.41 MILES							
	18. TOTAL DRAINAGE AREA 2,912 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 46.6 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 2,823 SQ. MI.				23. MEAN ANNUAL RUNOFF 19.1 INCHES							
	20. LENGTH 280 MILES		AV. WIDTH 10 MILES		24. MEAN ANNUAL RUNOFF 2,968,000 AC.-FT.							
	21. MAX. ELEV. 4,604		MIN. ELEV. 780		25. ANNUAL TEMP.; MEAN RANGE							
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.			
	3-04-36		0	0	Range (D)	509	33,620	2,061,569	0.695			
	1-21-46		10.3	10.3	Range (D)	148		2,052,357	0.691			
	6-24-54		8.0	18.3	Range (D)	159		2,047,527	0.690			
							5/	6/				
	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			
	6-21-46		45.0		2,656,901	3,159,973	27,366,089	2,656,901	27,366,089			
	6-24-54		47.7		2,932,904	4,306,222	23,463,230	2,777,558	50,829,319			
	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.					
6-21-46		9,212	894	0.317	9,212	894	0.317					
6-24-54		4,830	604	0.214	14,042	767	0.272					
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				
7-21-46		55*	379.7	379.7	0.043	0.447	297	297				
7-24-54		55*	256.2	325.8	0.037	0.681	181	244				

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION 6/										
	196-180	180-160	160-140	140-120	120-100	100-80	80-60	60-40	40-20	20-0	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
7-21-46	1	0	2	6	14	21	33	25	0	9/-2	
7-24-54	3	1	3	8	23	30	25	14	7/-6	9/-1	

26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR 6/														
	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														
7-21-46	7	3	9/-6	18	15	18	32	12	1	0	Powell River	2,978	ac. ft.		
	7/ 5	8/ 2	13	7	6	14	23	26	4	0	Clinch River	6,234	ac. ft.		
7-24-54	9	7	1	15	16	26	22	5	9/-1	0	Powell River	4,533	ac. ft.		
	7/ 5	8/ 3	11	11	12	19	21	16	2	0	Clinch River	9,509	ac. ft.		

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1937	1,031.10	975.48	3,159,973	1946	1,012.96	997.92	3,009,662
1938	1,022.55	958.95	3,134,890	1947	994.81	956.15	2,808,124
1939	1,012.80	972.42	2,747,171	1948	1,006.23	943.80	2,428,020
1940	1,013.01	934.78	1,706,147	1949	1,017.49	958.14	3,245,871
1941	1,007.15	962.07	1,175,482	1950	1,018.81	977.95	4,306,222
1942	1,022.85	937.65	2,135,551	1951	1,017.62	978.54	3,016,923
1943	1,021.73	986.84	2,049,072	1952	1,005.86	971.38	3,408,613
1944	1,023.26	949.80	2,716,401	1953	1,011.36	965.47	2,496,996
1945	1,017.74	965.25	2,941,888	1954	993.93	929.24	1,659,158

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
		1936	980	20,064	999,860	880		53,532
817	0	0	1,000	26,133	1,462,702	900		115,062
840	500	5,296	1,020	33,620	2,061,569	920		219,213
860	1,169	20,950	1,034	39,768	2,573,965	940		387,939
880	2,329	54,490				960		638,701
900	4,056	117,099			1954	980		984,850
920	6,868	224,462	817	5/	0	1,000		1,448,558
940	10,607	397,444	840		4,902	1,020		2,047,527
960	14,927	651,676	860		20,431			

47. REMARKS AND REFERENCES

- 1/ Top of gates.
- 2/ Normal pool elevation.
- 3/ Excludes Caryville Reservoir on Cove Creek.
- 4/ Clinch River - 79.8 miles. Powell River - 56.1 miles.
- 5/ Not measured or computed after initial survey.
- 6/ Areas above 1,020 not surveyed after initial survey. All data after item 14 are based on elevation 1,020.
- 7/ Includes Cove and Big Creek tributaries.
- 8/ Powell River enters Clinch River in this reach.
- 9/ (-) Indicates scour. Treated as negative sediment.

RESERVOIR SEDIMENT
DATA SUMMARY

Norris
NAME OF RESERVOIR

20-14b (revised)
DATA SHEET NO.

DAM	1. OWNER TVA			2. STREAM Clinch			3. STATE Tennessee									
	4. SEC. TWP. RANGE			5. NEAREST POST OFF. Norris			6. COUNTY Anderson-Campbell									
	7. LAT. 36° 13' 27" LONG. 84° 05' 34"			8. TOP OF DAM ELEVATION 1,061			9. SPILLWAY CREST ELEV. 1/1,034									
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		1,034		39,768		512,396		2,573,965		3/4/36					
	b. MULTIPLE USE		2/ 1,020		33,620		3/1,033,679		3/2,061,569							
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
g. INACTIVE		865		1,420		27,890		27,890								
WATERSHED	17. LENGTH OF RESERVOIR 4/			135.9 MILES			AV. WIDTH OF RESERVOIR			0.41 MILES						
	18. TOTAL DRAINAGE AREA				2,912 SQ. MI.				22. MEAN ANNUAL PRECIPITATION				46.6 INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA				2,823 SQ. MI.				23. MEAN ANNUAL RUNOFF				19.1 INCHES			
	20. LENGTH 280 MILES				AV. WIDTH 10 MILES				24. MEAN ANNUAL RUNOFF				2,968,000 AC.-FT.			
	21. MAX. ELEV. 4,604				MIN. ELEV. 780				25. ANNUAL TEMP.; MEAN				RANGE			
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.	
	3-04-36		0		0		Range (D)		509		33,620		2,061,569		0.695	
	8-18-60		6.1		24.4		Range (D)		161				2,044,768		0.689	
											5/		6/			
	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			
	8-18-60		48.1		2,956,857		3,851,806		18,036,826		2,822,383		68,866,145			
	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			
	8-18-60		2,759		452		0.160		16,801		689		0.244			
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		
8-18-60		55*		191.7		292.3		0.033		0.815		135		215		

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION 6/														
	196-180	180-160	160-140	140-120	120-100	100-80	80-60	60-40	40-20	20-0					
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
8-18-60	5	3	4	10	23	30	21	10	9/-6	0					
26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR 6/														
	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														
8-18-60	6	2	2	16	18	33	19	6	9/-1	9/-1	Powell River	4,984	ac.ft.		
	7/11	8/4	7	11	12	19	21	13	2	0	Clinch River	11,817	ac.ft.		

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1955	1,014.53	945.62	1,854,746				
1956	1,018.36	909.46	3,218,919				
1957	1,002.36	955.66	3,227,270				
1958	1,024.83	967.47	3,851,806				
1959	1,001.62	934.67	1,976,042				
1960	1,004.87	961.79	2,898,935				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
		1936	980	20,064	999,860	880		52,411
817	0	0	1,000	26,133	1,462,702	900		113,315
840	500	5,296	1,020	33,620	2,061,569	920		216,797
860	1,169	20,950	1,034	39,768	2,573,969	940		384,676
880	2,329	54,490				960		635,469
900	4,056	117,099			1960	980		982,058
920	6,868	224,462	817	5/	0	1,000		1,445,823
940	10,607	397,444	840		4,408	1,020		2,044,768
960	14,927	651,676	860		19,616			

47. REMARKS AND REFERENCES

1/ Top of gates.

2/ Normal pool elevation.

3/ Excludes Caryville Reservoir on Cove Creek.

4/ Clinch River - 79.8 miles. Powell River - 56.1 miles.

5/ Not measured or computed after initial survey.

6/ Areas above 1,020 not surveyed after initial survey. All data after itme 14 are based on elevation 1,020.

7/ Includes Cove and Big Creek tributaries.

8/ Powell River enters Clinch River in this reach.

9/ (-) indicates scour. Treated as negative sediment.

RESERVOIR SEDIMENT
DATA SUMMARY

Norris
NAME OF RESERVOIR

20-14c
DATA SHEET NO.

DAM	1. OWNER TVA			2. STREAM Clinch			3. STATE Tennessee					
	4. SEC. TWP. RANGE			5. NEAREST POST OFF, Norris			6. COUNTY Anderson-Campbell					
	7. LAT. 36° 13' 27" LONG. 84° 05' 34"			8. TOP OF DAM ELEVATION 1,061			9. SPILLWAY CREST ELEV. 1/ 1,034					
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		1,034		39,768		512,396		2,573,965		3/4/36	
	b. MULTIPLE USE		2/ 1,020		33,620		3/2,033,679		3/ 2,061,569			
	c. POWER											
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION										9/19/36	
	f. CONSERVATION											
g. INACTIVE		865		1,420		27,890		27,890				
17. LENGTH OF RESERVOIR 4/			135.9 MILES			AV. WIDTH OF RESERVOIR			0.41 MILES			
WATERSHED	18. TOTAL DRAINAGE AREA				2,912 SQ. MI.		22. MEAN ANNUAL PRECIPITATION				46.7 INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA				1,823 SQ. MI.		23. MEAN ANNUAL RUNOFF				19.18 INCHES	
	20. LENGTH 280 MILES		AV. WIDTH 10 MILES		24. MEAN ANNUAL RUNOFF				2,978,587 AC.-FT.			
	21. MAX. ELEV. 4,604		MIN. ELEV. 780		25. ANNUAL TEMP.; MEAN 56°				RANGE-3° to 97°			
	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.			
3-04-36		0	0	Range (D)	509	33,620	2,061,569					
7-10-70		9.8	34.2	Range (D)	162	5/	2,036,324					6/
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				
7-10-70		46.0		2,826,104	3,705,033	27,695,821	2,823,449	96,561,966				
SURVEY DATA	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	d. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YEAR				
	7-10-70		8,444	862	0.305	25,245	738	0.261				
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				
7-10-70		55*	313	366	0.036	1.224	269	230				

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION 6/										
	196-180	180-160	160-140	140-120	120-100	100-80	80-60	60-40	40-20	20-0	
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
7-10-70	3	2	4	9	17	31	27	15	9/-2	9/-6	

26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR 6/														
	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															
7-10-70	3	3	7	20	16	29	17	5	0	0	Powell River		9,009	ac.ft.	
	7/10	8/3	8	9	11	18	27	14	+1	9/-1	Clinch River		15,236	ac.ft.	

45. RANGE IN RESERVOIR OPERATION

WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1961	1,012.38	949.76	2,968,320				
1962	1,013.27	956.57	3,598,452				
1963	1,012.08	962.97	3,163,730				
1964	1,015.41	942.23	2,121,004				
1965	1,012.82	975.26	3,165,785				
1966	997.99	937.32	1,736,158				
1967	1,018.76	969.02	3,705,033				
1968	1,013.51	972.61	2,768,379				
1969	994.63	959.86	1,820,500				
1970	1,016.92	959.57	2,787,518				

46. ELEVATION-AREA-CAPACITY DATA

ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
		1936	980	20,064	999,860	880		52,326
817	0	0	1,000	26,133	1,462,702	900		112,722
840	500	5,296	1,020	33,620	2,061,569	920		215,709
860	1,169	20,950	1,034	39,768	2,573,965	940		380,759
880	2,329	54,490				960		628,302
900	4,056	117,099				980		972,680
920	6,868	224,462	817	5/	0	1,000		1,436,033
940	10,607	397,444	840		4,570	1,020		2,036,329
960	14,927	651,676	860		19,795			

47. REMARKS AND REFERENCES

1/ Top of gates.
2/ Normal pool elevation.
3/ Excludes Caryville Reservoir on Cove Creek.
4/ Clinch River-79.8 miles. Powell River- 56.1.
5/ Not measured or computed after initial survey.
6/ Areas above 1,020 not surveyed after initial survey. All data after item 14 are based on elevation 1,020.
7/ Includes Cove and Big Creek tributaries.
8/ Powell River enters Clinch River in this reach.
9/ (-) indicates scour. Treated as negative sediment.