

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

FISHTRAP LAKE

NAME OF RESERVOIR

19-58

DATA SHEET NO.

DAM	1. OWNER Dept. of Army, C. of E.		2. STREAM Levisa Fork		3. STATE Kentucky			
	4. SEC. TWP. RANGE		5. NEAREST P O Millard		6. COUNTY Pike			
	7. LAT 37° 26'		" LONG 82° 25'		8. TOP OF DAM ELEVATION 845.3			
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL 2/ SURFACE AREA, ACRES			
	13. ORIGINAL 2/ CAPACITY, ACRE-Feet		14. GROSS STORAGE, ACRE-Feet 2/		15. DATE STORAGE BEGAN			
	a. FLOOD CONTROL		825.0 3/		2,670			
	b. MULTIPLE USE		757.0 3/		129,050			
	c. POWER				166,530			
	d. WATER SUPPLY				27,370			
	e. IRRIGATION				37,480			
	f. CONSERVATION		725.0 4/		10,110			
g. INACTIVE				10,110				
17. LENGTH OF RESERVOIR		26		MILES		AV. WIDTH OF RESERVOIR		
18. TOTAL DRAINAGE AREA		392		SQ. MI.		22. MEAN ANNUAL PRECIPITATION		
19. NET SEDIMENT CONTRIBUTING AREA		387.8		SQ. MI.		23. MEAN ANNUAL RUNOFF		
20. LENGTH		61		MILES		24. MEAN ANNUAL RUNOFF		
21. MAX. ELEV.		3025		MIN. ELEV.		25. ANNUAL TEMP. MEAN		
26. DATE OF SURVEY		27. PERIOD YEARS		28. ACCL. YEARS		29. TYPE OF SURVEY		
30. NO. OF RANGES OR CONTOUR INT.		31. SURFACE 6/ AREA, ACRES		32. CAPACITY, 6/ ACRE-Feet		33. C.I. RATIO 6/ AC. FT. PER AC. FT.		
21 Oct 1968				Contour		10 feet		
21 Mar 1972		3.42		3.42		Range (D)		
29 Jan 1974		1.85		5.27		Range (D)		
26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-Feet 7/			36. WATER INFL. TO DATE, AC.-FT.	
				a. MEAN ANNUAL		b. MAX. ANNUAL		
21 Mar 1972		39.39		327,200		395,140		
29 Jan 1974		52.56		506,400		552,000		
				1,119,000		327,200		
				936,800		390,100		
26. DATE OF SURVEY		37. 6/ PERIOD CAPACITY LOSS, ACRE-Feet			38. 6/ TOTAL SED. DEPOSITS TO DATE, ACRE-Feet			
		a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		
21 Mar 1972		3,463		1,013		2.60		
29 Jan 1974		1,600		865		2.22		
		3,463		3,463		1,013		
		5,063		961		2.46		
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		
				a. PERIOD		b. TOTAL TO DATE		
21 Mar 1972		55*		3,115 6/		2.70 6/		
29 Jan 1974		60.5		2,921		3,244		
				2,730 6/		9.24 6/		
				1,660		13.51		
				2,730 6/		2,390 6/		

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION 6/										
	83-77	77-67	67-57	57-47	47-37	37-32	32-27	27-17	17-7	7-0	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
21 Mar 1972	1.3	13.8	19.2	16.7	19.4	11.8	7.5	5.7	3.7	0.9	
29 Jan 1974	0.9	9.4	14.7	14.7	17.1	14.9	12.6	9.4	5.6	0.7	

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														
21 Mar 1972	16.7	13.6	10.7	17.5	16.7	11.3	6.5	5.5	1.3	0					
29 Jan 1974	12.6	11.1	9.9	24.3	17.8	11.8	7.5	3.7	1.4	-0.1					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
(Part) 69	736.0	-	171,270				
70	777.9	724.9	238,240				
71	784.5	724.8	395,140				
72	787.4	724.9	552,000				
73	772.9	725.4	439,150				
(Part) 74	780.6	727.0	260,000				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
ORIGINAL 2/			805	2,210	117,790	775	1,543	56,370
725	568	10,110	815	2,435	141,010	785	1,743	72,860
735	743	16,670	825	2,670	166,530	795	1,979	91,460
745	928	25,020	1974 RESURVEY			805	2,199	112,370
757	1,145	37,480	725	401	6,480	815	2,426	135,490
765	1,316	47,280	735	699	12,130	825	2,645	160,810
775	1,544	61,610	745	908	20,080			
785	1,759	78,130	757	1,143	32,420			
795	1,982	96,810	765	1,308	42,110			

47. REMARKS AND REFERENCES
 1/ Top of flood control pool
 2/ Recomputed original in 1972
 3/ Seasonal pool for minimum outflows, fishery and recreational requirements and winter flood control storage
 4/ Minimum pool for sediment and fish and wildlife
 5/ 1 October 1971 to 21 March 1972
 6/ Based on seasonal pool elevation 757 feet
 7/ Items 35, 36 and 42 for 1972 resurvey adjusted for data published by U.S.G.S. for Millard, Ky., gage.

48. AGENCY MAKING SURVEY U. S. Army Engineer District
 49. AGENCY SUPPLYING DATA Huntington, W. Va.
 50. DATE May 1974

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CORPS OF ENGINEERS

FISHTRAP LAKE
NAME OF RESERVOIR

19-58a
DATA SHEET NO.

DAM	1. OWNER Dept. of Army, C. of E.			2. STREAM Levisa Fork			3. STATE Kentucky					
	4. SEC. TWP. RANGE			5. NEAREST P O Millard			6. COUNTY Pike					
	7. LAT 37° 26' " LONG 82° 25' "			8. TOP OF DAM ELEVATION 845.3			9. SPILLWAY CREST ELEV. 825 1/					
RESERVOIR	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL 2/ SURFACE AREA, ACRES		13. ORIGINAL 2/ CAPACITY, ACRE-FEET		14. GROSS STORAGE, ACRE-FEET 2/		15. DATE STORAGE BEGAN	
	a. FLOOD CONTROL		825.0		2,670		129,050		166,530		21 Oct 68	
	b. MULTIPLE USE		757.0 ^{3/}		1,145		27,370		37,480			
	c. POWER											
	d. WATER SUPPLY										16. DATE NOR- MAL OPER. BEGAN	
	e. IRRIGATION											
	f. CONSERVATION		725.0 ^{4/}		568		10,110		10,110			
g. INACTIVE										21 Oct 68		
WATERSHED	17. LENGTH OF RESERVOIR 26 MILES				AV. WIDTH OF RESERVOIR 0.16 MILES							
	18. TOTAL DRAINAGE AREA 392 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 44.37 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 387.8 SQ. MI.				23. MEAN ANNUAL RUNOFF 16.4 INCHES							
	20. LENGTH 61 MILES		AV. WIDTH 6.4 MILES		24. MEAN ANNUAL RUNOFF 343,700 AC.-FT.							
	21. MAX. ELEV. 3025		MIN. ELEV. 674		25. ANNUAL TEMP MEAN 56 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 5/ AREA, ACRES	32. CAPACITY, 5/ ACRE-FEET	33. C/I. RATIO, 5/ AC.-FT. PER AC.-FT.			
	21 Oct 1968				Contour	10 feet	1,145	37,480	0.115			
	21 Mar 1972		3.42	3.42	Range (D)	31	1,137	34,010	0.104			
	29 Jan 1974		1.85	5.27	Range (D)	31	1,143	32,420	0.099			
	27 Sept 1975		1.66	6.93	Range (D)	31	1,142	31,650	0.092			
	29 Aug 1978		2.92	9.85	Range (R)	16	1,146	28,770	0.084			
	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			
	21 Mar 1972		39.39		327,200	395,140	1,119,000	327,200	1,119,000			
	29 Jan 1974		52.56		506,400	552,000	936,800	390,100	2,055,800			
	27 Sept 1975		47.45		513,400	590,500	852,200	419,600	2,908,000			
	29 Aug 1978		43.26		359,300	459,600	1,049,200	401,700	3,957,200			
	26. DATE OF SURVEY		37. 5/ PERIOD CAPACITY LOSS, ACRE-FEET				38. 5/ 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				
	21 Mar 1972		3,463	1,013	2.60	3,463	1,013	2.60				
29 Jan 1974		1,600	865	2.22	5,063	961	2.46					
27 Sept 1975		770	464	1.19	5,833	842	2.16					
29 Aug 1978		2,877	985	2.52	8,710	884	2.27					
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. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE			
21 Mar 1972		55*		3,115 5/	3,115 5/	2.70 ^{5/}	9.24 ^{5/}	2,730 ^{5/}	2,730 ^{5/}			
29 Jan 1974		60.5		2,921	3,244	2.56	13.51	1,660	2,390			
27 Sept 1975		60.5*		1,566	2,843	2.25	15.56	876	1,945			
29 Aug 1978		60.5		3,327	2,986	2.36	23.24	2,658	2,134			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION 5/										
	83-77	77-76	67-57	57-47	47-37	37-32	32-27	27-17	17-7	7-0	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
21 Mar 1972	1.3	13.8	19.2	16.7	19.4	11.8	7.5	5.7	3.7	0.9	
29 Jan 1974	0.9	9.4	14.7	14.7	17.1	14.9	12.6	9.4	5.6	0.7	
27 Sept 1975	0.8	8.3	14.1	15.1	19.6	14.1	11.3	9.3	6.5	0.9	
29 Aug 1978	0.5	5.5	12.2	16.3	18.5	13.0	11.5	12.1	8.4	2.0	

26. DATE OF SURVEY	44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR 5/														
	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														
21 Mar 1972	16.7	13.6	10.7	17.5	16.7	11.3	6.5	5.5	1.5	0					
29 Jan 1974	12.6	11.1	9.9	24.3	17.8	11.8	7.5	3.7	1.4	-0.1					
27 Sept 1975	12.0	10.5	11.7	26.2	15.2	10.3	8.1	3.9	1.9	0.2					
29 Aug 1978	12.6	12.2	14.5	21.6	15.6	9.7	8.0	3.6	1.6	0.6					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
(Part) 69	736.0		171,270				
70	777.9	724.9	238,240				
71	784.5	724.8	395,140				
72	787.4	724.9	552,000				
73	772.9	725.4	439,150				
74	780.6	726.9	590,500				
75	776.3	720.1	521,700				
76	757.8	724.5	228,800				
77	807.0	724.5	360,800				
(Part) 78	774.7	723.0	459,600				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
	ORIGINAL 2/		805	2,210	117,790	775	1,538	52,620
			815	2,435	141,010	785	1,738	69,090
725	568	10,110	825	2,670	166,530	795	1,977	87,680
735	743	16,670	1978 RESURVEY			805	2,205	108,640
745	928	25,020	725	361	4,360	815	2,430	131,800
757	1,145	37,480	735	633	9,350	825	2,654	157,180
765	1,316	47,280	745	880	16,770			
775	1,544	61,610	757	1,146	28,770			
785	1,759	78,130	765	1,296	38,420			
795	1,982	96,810						

47. REMARKS AND REFERENCES

1/ Top of flood control pool

2/ Recomputed original in 1972

3/ Seasonal pool for minimum outflows, fishery and recreational requirements and winter flood control storage

4/ Minimum pool for sediment and fish and wildlife

5/ Based on seasonal pool elevation 757 feet