

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Youghiogheny River Lake
NAME OF RESERVOIR

21-26b

DATA SHEET NO.

DAM	1. OWNER <u>Corps of Engrs, US Army</u>		2. STREAM <u>Youghiogheny River</u>		3. STATE <u>Pennsylvania</u>							
	4. SEC. <u>TWP Addison</u> RANGE <u>Henry Clay</u>		5. NEAREST P.O. <u>Confluence, Pa.</u>		6. COUNTY <u>Fayette & Scmese</u>							
	7. LAT. <u>39° 47' 56"</u> LONG. <u>79° 22' 06"</u>		8. TOP OF DAM ELEVATION <u>1497</u>		9. SPILLWAY CREST ELEV. <u>1468</u>							
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		<u>1470 1/</u>		<u>3,566</u>		<u>99,500</u>		<u>254,000</u>		<u>Dec. 1942</u>	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION										16. DATE NORMAL OPER. BEGAN	
	f. CONSERVATION		<u>1439</u>		<u>2,840</u>		<u>149,300</u>		<u>154,500</u>		<u>Mar. 1948</u>	
	g. INACTIVE		<u>1344</u>		<u>450</u>		<u>5,200</u>		<u>5,200</u>		<u>2/</u>	
17. LENGTH OF RESERVOIR <u>17</u> MILES					AV. WIDTH OF RESERVOIR <u>0.33</u> MILES							
WATERSHED	18. TOTAL DRAINAGE AREA <u>434</u> SQ. MI.				22. MEAN ANNUAL PRECIPITATION (<u>33 yrs.</u>) <u>46.2</u> INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA <u>428</u> SQ. MI.				23. MEAN ANNUAL RUNOFF (<u>33 yrs.</u>) <u>26.9</u> INCHES							
	20. LENGTH <u>39.5</u> MILES		AV. WIDTH <u>11.0</u> MILES		24. MEAN ANNUAL RUNOFF <u>622,600</u> AC.-FT.							
	21. MAX. ELEV. <u>3360</u>		MIN. ELEV. <u>1313</u>		25. ANNUAL TEMP: MEAN <u>48.9</u> RANGE <u>28.8 to 69.8</u>							
	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.
<u>Oct 1943</u>		<u>—</u>	<u>—</u>	<u>Contour (Detailed)</u>		<u>5 feet</u>	<u>3,566 3/</u>		<u>254,000 3/</u>		<u>---</u>	
<u>Oct 1949</u>		<u>6.0</u>	<u>6.0</u>	<u>Range (Detailed)</u>		<u>16 Ranges</u>	<u>3,566 3/</u>		<u>253,121 3/</u>		<u>0.405</u>	
<u>Oct 1973</u>		<u>24.0</u>	<u>30.0</u>	<u>Range (Detailed)</u>		<u>33 Ranges</u>	<u>3,566 3/</u>		<u>248,065 3/</u>		<u>0.398</u>	
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				
<u>Oct 1949</u>		<u>46.1</u>		<u>621,000</u>	<u>838,000 (CY 1948)</u>	<u>3,726,000</u>	<u>621,000</u>	<u>3,726,000</u>				
<u>Oct 1973</u>		<u>46.4</u>		<u>628,400</u>	<u>967,300 (CY 1972)</u>	<u>15,080,800</u>	<u>626,900</u>	<u>18,806,800</u>				
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					
<u>Oct 1949</u>		<u>879</u>	<u>146.5</u>	<u>0.342</u>	<u>879</u>	<u>146.5</u>	<u>0.342</u>					
<u>Oct 1973</u>		<u>5,056</u>	<u>211</u>	<u>0.493</u>	<u>5,935</u>	<u>197.8</u>	<u>0.462</u>					
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					
<u>October 49</u>		<u>65 (Est)</u>	<u>484</u>	<u>484</u>	<u>0.058</u>	<u>0.346</u>	<u>245</u>	<u>245</u>				
<u>October 73</u>		<u>50.6</u>	<u>516</u>	<u>509</u>	<u>0.078</u>	<u>2.34</u>	<u>259</u>	<u>256</u>				

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
	158-123	123-93	93-68	68-28										
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION													
Oct 1949	31		41		20		8							
	157-140	140-120	120-100	100-80	80-60	60-40	40-20	20-0						
Oct 1973	7		16		24		25		16		11	0.5	0.5	
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
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION													
Oct 1949	30	27	38.5	4.5										
Oct 1973	16	16	11	10	15	12	10	7	3	0				
45. RANGE IN RESERVOIR OPERATION														
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.							
(See Sheet No. 3)														
46. ELEVATION-AREA-CAPACITY DATA														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
(See Sheet No. 4)														
47. REMARKS AND REFERENCES														
<p>1/ Full pool elevation considered to be 2 feet above spillway crest</p> <p>2/ Restricted operation of reservoir until 1948 due to relocation of US Route 40 crossing reservoir</p> <p>3/ For full pool elevation of 1470</p>														
48. AGENCY MAKING SURVEY U.S. Army Engineer District, Pittsburgh														
49. AGENCY SUPPLYING DATA Corps of Engineers, Pittsburgh, Pa. 50. DATE Feb. 1975														

45.

RANGE IN RESERVOIR OPERATION

<u>Water Year</u>	<u>Maximum Elevation</u>	<u>Minimum Elevation</u>	<u>Inflow/Ac-Ft</u>
1944	1359.9	1328.6	460,000
1945	1389.56	1340.95	766,000
1946	1360.18	1342.30	538,000
1947	1358.88	1340.30	423,000
1948	1452.20	1344.06	726,000
1949	1439.56	1393.56	677,000
1950	1448.78	1379.11	756,900
1951	1449.11	1398.53	750,700
1952	1445.30	1360.30	678,400
1953	1441.92	1360.30	526,400
1954	1443.45	1349.00	382,200
1955	1442.63	1401.46	745,300
1956	1456.27	1367.44	832,100
1957	1440.08	1390.77	587,000
1958	1453.41	1371.20	675,400
1959	1442.57	1372.50	447,700
1960	1448.25	1381.07	612,200
1961	1448.89	1357.25	712,900
1962	1443.37	1373.32	558,500
1963	1446.54	1385.11	517,800
1964	1446.97	1370.20	674,700
1965	1442.57	1368.19	500,900
1966	1449.80	1362.94	447,700
1967	1457.23	1369.74	622,400
1968	1452.71	1368.05	574,500
1969	1444.00	1381.60	459,900
1970	1456.20	1400.40	652,000
1971	1447.81	1391.96	750,700
1972	1452.44	1390.62	837,000
1973	1452.44	1390.85	777,500
1974	1448.36	1397.50	740,500

46.

ELEVATION-AREA-CAPACITY DATA (1943)

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
1313	0	0
1330	145	1,025
1340	370	3,590
1344	450	5,200
1350	565	8,290
1355	660	11,340
1360	770	14,920
1370	1,000	23,810
1380	1,215	34,850

46.

ELEVATION-AREA-CAPACITY DATA (Cont'd)

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
1390	1,475	48,270
1400	1,765	64,450
1410	2,040	83,530
1419	2,300	103,000
1425	2,460	117,320
1430	2,610	129,990
1439	2,840	154,500
1445	2,990	172,000
1450	3,100	187,200
1460	3,340	219,400
1468	3,520	247,000
1470	3,570	254,000
