

RESERVOIR SEDIMENT

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DATA SUMMARY

Salem Fork No. 11A

SCS-34 Rev. 6-66

NAME OF RESERVOIR

21-58

DATA SHEET NO.

DAM	1. OWNER Harvard Mason			2. STREAM Varnier Hollow			3. STATE West Virginia					
	4. SEC. TWP. RANGE			5. NEAREST P.O. Salem			6. COUNTY Harrison					
	7. LAT. ° ' " LONG. ° ' "			8. TOP OF DAM ELEVATION 1150.8			9. SPILLWAY CREST ELEV. 1145.6					
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		1145.6		6.75		45.95		53.00		Oct. 1954	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION										Oct. 1954	
	f. CONSERVATION		1132.7^{1/2}		0.92		7.05		7.05			
	g. INACTIVE											
17. LENGTH OF RESERVOIR 0.264 MILES					AV. WIDTH OF RESERVOIR 0.040 MILES							
18. TOTAL DRAINAGE AREA 0.288 SQ. MI.					22. MEAN ANNUAL PRECIPITATION INCHES							
19. NET SEDIMENT CONTRIBUTING AREA 0.287 SQ. MI.					23. MEAN ANNUAL RUNOFF 20.5 INCHES							
20. LENGTH 0.80 MILES		AV. WIDTH 0.36 MILES		24. MEAN ANNUAL RUNOFF 315 AC.-F.T.								
21. MAX. ELEV. 1480			MIN. ELEV. 1125			25. ANNUAL TEMP.: MEAN RANGE						
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.			
Oct 1954		0	0	Range	19		53.00 (7.050)		.168			
Oct 1956		2	2	"	"		52.25 (6.610)		.166			
Oct 1958		2	4	"	"		52.05 (6.440)		.165			
26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-FEET ^{2/}			36. WATER INFL. TO DATE, AC.-FT. ^{2/}					
				a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL		b. TOTAL TO DATE			
Oct 1956				339.7		679.3	339.7		679			
Oct 1958				328.5		656.9	334		1,336			
Dec 1960				246.8		535.5	303		1,872			
Jun 1962				360.9		570.3	315		2,442			
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			
Oct 1956		0.75 (0.44)	0.375 (0.220)	1.307 (0.767)	0.75 (0.44)		0.375 (0.220)		1.307 (0.767)			
Oct 1958		0.20 (0.17)	0.100 (0.085)	0.348 (0.296)	0.95 (0.61)		0.238 (0.153)		0.829 (0.533)			
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		
Oct 1956		60 (assumed)		1708 (1002)	1708 (1002)	0.71 (3.12)	1.42 (6.24)					
Oct 1958				455 (387)	1083 (697)	0.45 (2.17)	1.79 (8.65)					

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION												
	19.6	15.6	12.9	9.6	4.7	3.6							
	15.6	12.9	9.6	4.7	3.6	Crest							
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION													
Oct 1956	44.4	14.3	18.6	16.1	4.5	2.1							
Oct 1958	43.1	21.2	10.9	11.1	7.3	6.4							
Dec 1960	47.1	16.7	15.7	15.7	2.9	1.9							
Jun 1962	41.2	24.4	13.8	8.6	5.7	6.3							

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
See attached sheet.								

47. REMARKS AND REFERENCES

1/ Elevation of 1st stage inlet
 Elevation of 2nd stage inlet - 1140.9
 Elevation of emergency spillway - 1145.6

2/ Assumption made that inflow equal to measured outflow

Figures in parentheses refer to sediment pool.

RESERVOIR SEDIMENT
DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Salem Fork No. 11A
NAME OF RESERVOIR

21-58

DATA SHEET NO.

DAM	1. OWNER			2. STREAM			3. STATE								
	4. SEC.		TWP.		RANGE		5. NEAREST P. O.			6. COUNTY					
	7. LAT. ° ' "		" LONG. ° ' "		8. TOP OF DAM ELEVATION			9. SPILLWAY CREST ELEV.							
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														
	c. POWER														
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN				
	e. IRRIGATION														
	f. CONSERVATION														
g. INACTIVE															
WATERSHED	17. LENGTH OF RESERVOIR				MILES		AV. WIDTH OF RESERVOIR				MILES				
	18. TOTAL DRAINAGE AREA				SQ. MI.		22. MEAN ANNUAL PRECIPITATION				INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA				SQ. MI.		23. MEAN ANNUAL RUNOFF				INCHES				
	20. LENGTH		MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF				AC.-F.T.		
	21. MAX. ELEV.			MIN. ELEV.			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.		
	Dec 1960		2.17	6.17	Range		19				51.95 (6.380)		.165		
	Jun 1962		1.58	7.75	"		"				51.75 (6.230)		.164		
	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		
	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		
	Dec 1960		0.100 (0.060)		0.046 (0.028)		0.160 (0.098)		1.05 (0.670)		0.170 (0.109)		0.592 (0.380)		
	Jun 1962		0.200 (0.150)		0.127 (0.095)		0.443 (0.331)		1.25 (0.820)		0.161 (0.106)		0.561 (0.369)		
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	
Dec 1960				209 (128)		774 (497)		0.32 (1.55)		1.98 (9.50)					
Jun 1962				579 (433)		733 (482)		0.30 (1.50)		2.36 (11.63)					

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

47. REMARKS AND REFERENCES

48. AGENCY MAKING SURVEY
 49. AGENCY SUPPLYING DATA
 50. DATE _____

July 7, 1970

STAGE-CAPACITY
Salem Fork No. 11A
West Virginia

Stage	Capacity				
	1954 Survey (Acre Feet)	1956 Survey (Acre Feet)	1958 Survey (Acre Feet)	1960 Survey (Acre Feet)	1962 Survey (Acre Feet)
1126	0.0	0.0	0.0	0.0	0.0
1128	0.670	0.479	0.467	0.424	0.385
1130	2.780	2.447	2.371	2.285	2.185
1132	5.760	5.297	5.195	5.096	5.011
1132.7 ^{1/}	7.050	6.610	6.440	6.380	6.230
1134	9.440	8.857	8.749	8.627	8.521
1136	13.820	13.241	13.106	12.985	12.828
1138	19.090	18.471	18.359	18.221	18.096
1140	25.660	25.059	24.917	24.761	24.651
1140.9 ^{2/}	29.400	28.700	28.520	28.400	28.300
1142	33.830	33.096	32.941	32.800	32.659
1144	43.590	42.806	42.671	42.550	42.384
1145.6 ^{3/}	53.000	52.250	52.050	51.950	51.750

^{1/} Elevation Sediment Pool - Inlet of first stage

^{2/} Elevation of Second Stage

^{3/} Elevation of Emergency Spillway