

RESERVOIR SEDIMENT
DATA SUMMARY

SCS-34 Rev. 6-66

Site 17 Big Wewoka

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

45- 55

DATA SHEET NO.

DAM	1. OWNER Sam Edwards			2. STREAM Big Wewoka			3. STATE Oklahoma					
	4. SEC. 9 TWP. 8N RANGE 7E			5. NEAREST P.O. Wewoka			6. COUNTY Seminole					
	7. LAT. " " " " " " " " " " " "			8. TOP OF DAM ELEVATION 837.7			9. SPILLWAY CREST ELEV. 834.7					
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		834.7		71.7		495.2		691.3		1st Mar 63	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION										1st Mar 63	
	f. CONSERVATION											
g. INACTIVE		824.8		31.3		196.1		196.1				
17. LENGTH OF RESERVOIR 0.78 MILES				AV. WIDTH OF RESERVOIR .19 MILES								
WATERSHED	18. TOTAL DRAINAGE AREA 2.16 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 38.1 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 2.11 SQ. MI.				23. MEAN ANNUAL RUNOFF 4.4 INCHES							
	20. LENGTH 2.6 MILES		AV. WIDTH 1.0 MILES		24. MEAN ANNUAL RUNOFF 507 AC.-FT.							
	21. MAX. ELEV. Est. 892.0		MIN. ELEV. 812.0		25. ANNUAL TEMP: MEAN RANGE Sub Humid							
	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.			
9/11/68		0	5.53	5.53	Range Contour (D)	15R	31.3	196.1	1.36			
					2CI	(71.7)	(691.3)					
				Range Contour (D)	15R	13.3	185.5	1.34				
				2 CI	(71.7)	(680.7)						
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					
9/11/68		10.6	1.91	.91	10.6	1.91	.91					
		(10.6)	(1.91)	(.91)	(10.6)	(1.91)	(.91)					
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					
9/11/68		60 Sed. P. (2)	1189	1189	.97	5.41	-	-				
		(1189)	(1189)	(.28)	(1.53)	-	-					

NOTE: Figures in parenthesis represent sediment and flood control pools.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	834.7-32	32-30	30-28	28-26	26-24	24-22	22-20	20-18	18-16	16-14	14-12	12-11
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												
9/11/68	0	0	0	0	0.1	14.2	22.8	22.1	17.9	12.4	7.7	2.8

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														

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
Original Capacity 1/			816	7.51	11.8	824.8	31.3	185.5
834.7	71.7	691.3	814	2.07	2.9	822	24.3	107.8
832	59.6	514.3	812	0.59	0.2	820	19.3	64.3
830	50.1	404.7	810.8	0.00	0.0	818	14.8	30.3
828	42.0	312.7	1968 Survey			816	6.6	9.5
826	35.0	235.8	834.7	71.7	680.7	814	1.7	1.7
824.8	31.3	196.1	832	59.6	503.7	812	0.2	0.0
822	25.4	116.8	830	50.1	394.1	811.5	0.0	0.0
820	20.6	70.9	828	42.0	302.1			
818	15.8	34.6	826	35.0	225.2			

47. REMARKS AND REFERENCES
 1/ Capacity was determined during 1968 Survey.
 Land Use - 36% Native Pasture, 61% Wooded Pasture, 3% Misc.
 Geology - 100% Vamoosa FM. Pennsylvanian Age
 Land Resource Area - Cross Timbers

48. AGENCY MAKING SURVEY Oklahoma Watershed Planning Staff #2
 49. AGENCY SUPPLYING DATA S.C.S. U.S.D.A. 50. DATE Sept. 23, 1968

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Big Wewoka Site No. 17

NAME OF RESERVOIR

45 - 55 b

DATA SHEET NO.

SCS-34 Rev. 6-66

DAM	1. OWNER Sam Edwards			2. STREAM Big Wewoka			3. STATE Oklahoma					
	4. SEC. 9 TWP. 8N RANGE 7E			5. NEAREST P.O. Wewoka, OK			6. COUNTY Seminole					
	7. LAT. 35° 10' 30" LONG. 96° 47' 30"			8. TOP OF DAM ELEVATION 837.7			9. SPILLWAY CREST ELEV. 834.7					
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		834.7		71.7		495.2		691.3		3/1/63	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION										16. DATE NORMAL OPER. BEGAN	
	f. CONSERVATION											
g. INACTIVE		824.8		31.3		196.1		196.1				
17. LENGTH OF RESERVOIR 0.78 MILES					AV. WIDTH OF RESERVOIR 0.14 MILES							
WATERSHED	18. TOTAL DRAINAGE AREA 2.16 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 38.1 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 2.05 SQ. MI.				23. MEAN ANNUAL RUNOFF 4.4 INCHES							
	20. LENGTH 2.6 MILES		AV. WIDTH 0.8 MILES		24. MEAN ANNUAL RUNOFF 507 AC.-FT.							
	21. MAX. ELEV. 892.0		MIN. ELEV. 812.0		25. ANNUAL TEMP: MEAN 62° F RANGE 118° to -12° F							
	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.			
1/ 3/ 1/63		0	0	Range	15 R	31.3(71.7)	196.1(691.3)	(1.36)				
9/11/68		5.53	5.53	" Contour (D)	2' CI	31.3(71.7)	185.5(680.7)	(1.34)				
7/20/73		4.86	10.39	"	"	30.0(71.7)	177.4(667.5)	(1.32)				
8/15/80		7.07	17.46	"	"	29.8(68.2)	170.8(632.9)	(1.25)				
SURVEY DATA	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					
9/11/68		10.6(10.6)	1.92(1.92)	0.94(0.94)	10.6(10.6)	1.92(1.92)	0.94(0.94)					
7/20/73		8.1(13.2)	1.67(2.72)	0.81(1.33)	18.7(23.8)	1.80(2.29)	0.88(1.12)					
8/15/80		6.6(34.6)	0.93(4.89)	0.45(2.39)	25.3(58.4)	1.45(3.34)	0.71(1.63)					
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				
9/11/68		60 Sed.P(2)	1228	1228	0.98	5.41						
		100 Det.P(3)	(1228)	(1228)	(0.28)	(1.53)						
7/20/73		59 Sed.P(4)	1022	1131	0.92	9.54						
		90 Det.P(3)	(2025)	(1602)	(0.33)	(3.44)						
8/15/80		65 Sed.P(5)	813	1005	0.74	12.9						
		94 Det.P(3)	(4799)	(2889)	(0.48)	(8.5)						

CREST 2.7 4.7 6.7 8.7 9.9 12.7 14.7 16.7 18.7 20.7 22.7

26. DATE OF SURVEY	43. to DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION to											
	2.7	4.7	6.7	8.7	9.9	12.7	14.7	16.7	18.7	20.7	22.7	23.1
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
9/11/68	0	0	0	0	0.1	14.2	22.8	22.1	17.9	12.4	7.7	2.8
7/20/73	0.5	1.3	2.9	9.7	7.1	21.4	18.9	13.0	8.8	9.7	6.7	0
8/15/80	16.0	12.0	11.0	12.0	5.0	12.0	11.0	9.0	5.0	3.0	4.0	0

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/ Original capacity was determined during 1968 survey.
 Figures in parentheses represent sediment and flood pools.

Land Use: 1968 pasture-range 36%, wooded pasture 61%, misc. 3%.
 1973 pasture-range 40%, wooded pasture 57%, misc. 3%.
 1980 pasture-range 41%, wooded pasture 56%, misc. 3%.

Geology: Vamoose FM. Pennsylvanian Age.
 Land Resource Area: Cross Timbers.

48. AGENCY MAKING SURVEY Oklahoma Watershed & River Basin Planning Staff
 49. AGENCY SUPPLYING DATA SCS - USDA
 50. DATE 10/17/80

BIG WEWOKA SITE NO. 17

45 - 55b

ELEVATION-AREA-CAPACITY DATA

Elevation	Area	Capacity	Elevation	Area	Capacity
<u>Original Capacity</u> ^{1/}			<u>1973 Survey</u>		
834.7	71.7	691.3	834.7	71.6	667.5
832	59.6	514.3	832	59.5	490.6
830	50.1	404.7	830	49.9	381.3
828	42.0	312.7	828	41.5	290.0
826	35.0	235.8	826	33.3	215.4
<u>824.8</u> Riser	<u>31.3</u>	<u>196.1</u>	<u>824.8</u>	<u>30.0</u>	<u>177.4</u>
822	25.4	116.8	822	23.1	103.2
820	20.6	70.9	820	18.4	61.8
818	15.8	34.6	818	14.8	28.6
816	7.51	11.8	816	6.4	7.9
814	2.07	2.9	814	1.0	1.3
812	0.59	0.2	812	0.3	0.0
811.6	0.0	0.0	811.6	0.0	0.0
<u>1968 Survey</u>			<u>1980 Survey</u>		
834.7	71.7	680.7	834.7	68.1	632.9
832	59.6	503.7	832	55.6	466.1
830	50.1	394.1	830	47.2	363.4
28	42.0	302.1	828	38.6	277.6
26	35.0	225.1	826	31.5	207.6
<u>824.8</u>	<u>31.3</u>	<u>185.5</u>	<u>824.8</u>	<u>29.8</u>	<u>170.8</u>
822	24.3	107.8	822	21.6	98.3
820	19.3	64.3	820	18.0	58.8
818	14.8	30.3	818	13.4	27.5
816	6.6	9.5	816	6.7	7.7
814	1.7	1.7	814	1.0	0.8
812	0.2	0.0	812	0.5	0.0
811.6	0.0	0.0	811.6	0.0	0.0