

U.S. DEPARTMENT OF AGRICULTURE  
**RESERVOIR SEDIMENTATION  
DATA SUMMARY**

**Sandstone Creek No. 22**

SOIL CONSERVATION SERVICE  
**50-37**

NAME OF RESERVOIR

DATA SHEET NO.

<b>DAM</b>	1. OWNER <b>Jack Jones</b>			2. RIVER Trib. <b>Sandstone Cr.</b>		3. STATE <b>Oklahoma</b>		
	4. SEC. <b>33</b> TWP. <b>13N</b> RANGE <b>22W</b>			5. NEAREST TOWN <b>Cheyenne</b>		6. COUNTY <b>Roger Mills</b>		
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV. <b>93.0</b>		9. SPILLWAY CREST ELEV.		
<b>RESERVOIR</b>	10. STORAGE ALLOCATION	11. ELEVATION TOP OF POOL	12. SURFACE AREA ACRES	13. STORAGE ACRE- FEET	14. ACCUMULATED ACRE- FEET	15. DATE STORAGE BEGAN		
	a. FLOOD CONTROL	<b>89.0</b>	<b>(70.72)</b>		<b>(970.70)</b>	<b>8-14-51</b>		
	b. POWER							
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION					<b>8-14-51</b>		
	f. INACTIVE	<b>78.13</b>	<b>35.07</b>		<b>400.31</b>			
17. LENGTH OF RESERVOIR		<b>1.35</b>	MILES	AV. WIDTH OF RESERVOIR		<b>0.08</b>	MILES	
<b>WATERSHED</b>	18. TOTAL DRAINAGE AREA		<b>2.25</b>	SQ. MI.	22. MEAN ANNUAL PRECIPITATION		<b>25.00</b>	INCHES
	19. NET SEDIMENT CONTRIBUTING AREA		<b>2.20</b>	SQ. MI.	23. MEAN ANNUAL RUNOFF		<b>1.32</b>	INCHES
	20. LENGTH	<b>2.28</b>	MILES	AV. WIDTH	<b>0.99</b>	MILES	24. MEAN ANNUAL RUNOFF	
	21. MAX. ELEV.			MIN. ELEV.	<b>470</b>	25. CLIMATIC CLASSIFICATION		
						<b>Subhumid</b>		
<b>SURVEY DATA</b>	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 <sub>w</sub> RATIO AC- FT. PER SQ. MI.
	<b>8-14-51</b>	-	-	-		<b>35.07</b>	<b>400.31</b>	<b>177.92</b>
	<b>10-15-57</b>	<b>6.16</b>	<b>6.16</b>	<b>Detail Range &amp; Topog</b>	<b>8</b>	<b>(70.72)</b>	<b>(970.70)</b>	<b>(431.42)</b>
						<b>35.07</b>	<b>372.15</b>	<b>165.40</b>
						<b>(70.72)</b>	<b>(942.54)</b>	<b>(418.91)</b>
	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 SEDIMENT DEPOSITS 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	
<b>8-14-51</b>	-	-	-	-	-	-		
<b>10-15-57</b>	<b>28.16</b>	<b>4.57</b>	<b>2.08</b>	<b>(28.16)</b>	<b>4.57</b>	<b>2.08</b>		
	<b>(28.16)</b>	<b>(4.57)</b>	<b>(2.08)</b>	<b>(28.16)</b>	<b>(4.57)</b>	<b>(2.08)</b>		
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. ANNUAL	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE	
<b>Oct. 15, 1957</b>	<b>81.53</b>	<b>3694</b>	<b>3694</b>	<b>1.14</b>	<b>7.03</b>			
		<b>(3694)</b>	<b>3694</b>	<b>(.47)</b>	<b>(2.90)</b>			

( - ) includes both sed. and flood pools.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION											
	89-85	85-81	81-78	78-73	73-69	69-65	65-61	61-57	57-53	53-49		
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
	0	0	0	0	0	3	2	12	27	56		

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. <b>Original Capacity</b> - ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
89.0	70.72	970.70	57.0	7.97	47.88			
85.0	57.90	714.53	53.0	6.18	19.72			
81.0	43.41	513.11	49.0	3.80				
78.13	35.07	400.31						
73.0	21.13	257.66						
69.0	15.83	184.18						
65.0	12.57	127.77						
61.0	9.94	83.56						

47. REMARKS AND REFERENCES  
**Land Use: Pasture 87%; cultivated 12%; Miscellaneous 1%.**  
**Geology: 100% Doxey member Quartermaster formation.**

**Soil Conservation Service,  
 Stillwater, Oklahoma**

48. AGENCY SUPPLYING DATA \_\_\_\_\_ 49. DATE March 26, 1962

## Continuation

U. S. Department of Agriculture

Soil Conservation Service

50-37

Data Sheet No.

Sandstone Creek No. 22

## 46. ELEVATION - AREA - CAPACITY DATA

1957 Capacity

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
89.0	70.72	942.54	57.0	6.41	24.44
85.0	57.90	686.37	53.0	3.97	3.93
81.0	43.41	484.95	51.0	0.9	0
78.13	35.07	372.15			
73.0	21.13	229.50			
69.0	15.83	156.02			
65.0	12.07	100.53			
61.0	9.91	56.75			

**RESERVOIR SEDIMENT**

**DATA SUMMARY**

SCS-34 Rev. 6-66

**Sandstone - Site #22**

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

**50- 37a**

DATA SHEET NO.

DAM	1. OWNER <b>Jack Jones</b>				2. STREAM <b>Sandstone</b>				3. STATE <b>Oklahoma</b>			
	4. SEC. <b>33</b> TWP. <b>13N</b> RANGE <b>22W</b>				5. NEAREST P.O. <b>Cheyenne</b>				6. COUNTY <b>Roger Mills</b>			
RESERVOIR	7. LAT. " " " " " " " " " " " "				8. TOP OF DAM ELEVATION				9. SPILLWAY CREST ELEV.			
	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		89.0		(70.72)		(970.70)				8-14-51	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION										8-14-51	
WATERSHED	f. CONSERVATION											
	g. INACTIVE		78.13		35.07		400.31					
	17. LENGTH OF RESERVOIR <b>1.35</b> MILES				AV. WIDTH OF RESERVOIR <b>0.08</b> MILES							
	18. TOTAL DRAINAGE AREA <b>2.25</b> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <b>25.00</b> INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA <b>2.20</b> SQ. MI.				23. MEAN ANNUAL RUNOFF <b>1.32</b> INCHES							
SURVEY DATA	20. LENGTH <b>2.28</b> MILES		AV. WIDTH <b>0.99</b> MILES		24. MEAN ANNUAL RUNOFF <b>155</b> AC.-FT.		25. ANNUAL TEMP.: MEAN RANGE <b>Subhumid</b>					
	21. MAX. ELEV. <b>89.0</b>		MIN. ELEV. <b>49.0</b>									
	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.			
	8-14-51		-	-	Range & Topo		35.07 (70.72)	400.31 (970.70)	2.53 (6.14)			
	10-15-57		6.16				35.07 (70.72)	372.15 (942.12)	2.36 (5.97)			
	10-15-62		5.00				35.07 (70.72)	343.12 (913.51)	2.17 (5.78)			
	9-30-67		4.96	16.12	Range Contour	8(R) 2' C.I.	32.05 (69.1)	329.4 (873.9)	2.13 (5.63)			
	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					
8-14-51		-	-	-	-	-	-					
10-15-57		28.16 (28.16)	4.57 (4.57)	2.08 (2.08)	28.16 (28.16)	4.57 (4.57)	2.08 (2.08)					
10-15-62		29.03 (29.03)	5.81 (5.81)	2.64 (2.64)	57.19 (57.19)	5.12 (5.12)	2.33 (2.33)					
9-30-67		13.7 (39.6)	2.76 (7.98)	1.25 (3.63)	70.90 (96.80)	4.40 (6.00)	2.00 (2.73)					
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				
10-15-57		81.53	3694 (3694)	3694 (3694)	1.14 (0.47)	7.03 (2.90)						
10-15-62		79.4	4445 (4445)	4029 (4029)	1.28 (0.53)	14.29 (6.89)						
9-30-67 1/2		(2) 83 SedP (2) 89 DetP	2260 (7036)	3615 (5292)	1.10 (0.61)	17.71 (9.97)						

( ) Includes Both Pools. *Weighted Av. 83 lbs*

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION													
	89-95	85-81	81-78	78-73	73-69	69-65	65-61	61-57	57-53	53-49				
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
1962	0	0	0	1	5	7	9	14	30	34				
1967	1	14	4	13	5	6	8	9	15	25				
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 <u>2/</u>														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
47. REMARKS AND REFERENCES														
1967 - Geology: 100% Doxey Shale Member of Quartermaster Formation														
Land Use: 100% Native Pasture														
<u>1/</u> Sediment Pool was dry.														
<u>2/</u> Capacity Data on Attached Sheet.														
48. AGENCY MAKING SURVEY														
49. AGENCY SUPPLYING DATA S.C.S.														
50. DATE November 1967														

ELEVATION - AREA - CAPACITY DATA

Sandstone Creek Site #22

Data Sheet No. 50-

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	:	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
<u>Original Capacity</u>				<u>October 1957</u>		
89.0	70.72	970.70		89.0	70.72	946.29
85.0	57.90	723.16		85.0	57.90	689.05
81.0	43.41	520.54		81.0	43.41	486.35
78.13	35.07	407.53		78.13	35.07	374.34
73.0	21.13	263.66		73.0	21.13	231.24
69.0	15.83	189.74		69.0	15.83	157.32
65.0	12.57	132.94		65.0	12.07	101.52
61.0	9.94	87.92		61.0	9.91	57.56
57.0	7.97	52.06		57.0	6.41	24.92
53.0	6.18	23.76		53.0	3.97	4.25
49.0	3.80	3.80		51.0	.09	.09
<u>October 1962</u>				<u>September 1967</u>		
89.0	70.72	917.20		52.7	.00	.00
85.0	57.90	659.96		53.0	.49	.049
81.0	43.41	457.34		55.0	4.21	4.139
78.13	35.07	345.11		57.0	5.58	13.897
73.0	20.80	201.52		59.0	6.64	26.102
69.0	14.80	130.32		61.0	7.91	40.633
65.0	11.28	78.16		63.0	9.09	57.620
61.0	8.36	38.88		65.0	11.11	77.786
57.0	5.54	11.08		67.0	12.80	101.676
53.0	-	-		69.0	14.74	129.193
				71.0	16.87	160.779
				73.0	20.29	197.887
				75.0	23.67	241.803
				77.0	29.78	295.136
				78.1	32.54	329.401
				79.0	36.30	360.364
				81.0	41.61	438.213
				83.0	46.93	526.700
				85.0	53.81	627.361
				87.0	61.91	742.987
				89.0	69.05	873.882