

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Deep Creek No. 3  
NAME OF RESERVOIR

53 - 35

DATA SHEET NO.

DAM	1. OWNER <b>Mohr</b>			2. RIVER Trib. of Deep Cr.			3. STATE <b>Texas</b>					
	4. SEC. TWP. RANGE			5. NEAREST TOWN <b>Brady</b>			6. COUNTY <b>McCulloch</b>					
	7. STREAM BED ELEV. <b>1500.0</b>			8. TOP OF DAM ELEV. <b>1527.0</b>			9. SPILLWAY CREST ELEV. <b>1522.0</b>					
RESERVOIR	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>1522.0</b>		<b>147.34</b>		<b>776.29</b>		<b>925.18</b>		<b>11-13-53</b>	
	b. POWER											
	c. WATER SUPPLY											
	d. IRRIGATION										16. DATE NORMAL OPER. BEGAN	
	e. CONSERVATION		<b>1513.0</b>		<b>39.04</b>		<b>148.89</b>		<b>148.89</b>			
	f. INACTIVE											
17. LENGTH OF RESERVOIR <b>0.80</b> MILES					AV. WIDTH OF RESERVOIR <b>0.29</b> MILES							
WATERSHED	18. TOTAL DRAINAGE AREA <b>3.42</b> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <b>24.9</b> INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA <b>3.19</b> SQ. MI.				23. MEAN ANNUAL RUNOFF <b>1.8</b> INCHES							
	20. LENGTH MILES		AV. WIDTH MILES		24. MEAN ANNUAL RUNOFF <b>96 Ac.Ft./Sq.Mi. AC-FF.</b>							
	21. MAX. ELEV.		MIN. ELEV. <b>1500.0</b>		25. CLIMATIC CLASSIFICATION <b>Subhumid</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/W RATIO AC- FT. PER SQ. MI.			
1/	Nov. 13, 1953	--	--	--	--	147.34	925.18	270.52				
1/	Nov. 13, 1953	--	--	--	--	39.04	148.89	43.54				
1/	Aug. 27, 1960	6.8	6.8	Range Detail	18	147.34	881.80	257.84				
2/	Aug. 27, 1960	6.8	6.8	Range Detail	18	36.30	124.80	36.49				
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	d. MEAN ANNUAL	e. 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	d. TOTAL TO DATE	e. AV. ANNUAL	f. PER SQ. MI.-YEAR					
1/ Aug. 27, 1960		43.38	6.38	2.00	43.38	6.38	2.00					
2/ Aug. 27, 1960		24.09	3.54	1.11	24.09	3.54	1.11					
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	c. PERIOD	b. TOT. TO DATE					
Aug. 27, 1960		76.57 (3)	3335.39	3335.39	0.69 1/ 2.38 2/	4.69 1/ 16.18 2/	1/ 2/					

1/ Both pools  
2/ Sediment pool only

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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
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
1504.0	2.4	1.6	1513.0	36.3	124.8	1520.0	112.2	623.4
1506.0	5.8	9.5	1514.0	45.6	165.6	1522.0	147.3	881.8
1508.0	9.3	24.4	1516.0	63.9	274.4	1524.0	163.7	1192.4
1510.0	15.6	49.0	1518.0	87.2	424.7	1526.0	185.5	1541.1
1512.0	28.6	92.5						

47. REMARKS AND REFERENCES  
 Land Use: Rangeland = 95%; Cropland = 5%.  
 C/I Ratio: Both pools = 2.69; Sediment pool = 0.38  
 Estimated Trap Efficiency = 98%  
 Total Annual Sediment Load, Adjusted for Trap Efficiency = 2.04 Ac.Ft./Sq.Mi.

48. AGENCY SUPPLYING DATA      Soil Conservation Service  
    Temple, Texas

49. DATE December 29, 1960



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							
1506	4.40	2.93	1514	45.23	156.51										
1508	8.90	15.97	1516	63.57	264.79										
1510	15.79	40.33	1518	87.39	415.12										
1512	27.94	83.49	1520	112.05	614.05										
1513	35.90	115.67	1522	145.96	871.32										
47. REMARKS AND REFERENCES															
<u>1/</u> Both pools <u>2/</u> Sediment pool only <u>3/</u> Detention pool only <u>4/</u> Weighted average															
48. AGENCY MAKING SURVEY Sedimentation Survey Party - Texas						50. DATE		3-71							
49. AGENCY SUPPLYING DATA Soil Conservation Service															

RESERVOIR SEDIMENT  
DATA SUMMARY

CS-34 Rev. 6-66

Site No. 3, Deep Creek Watershed

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

53 - 35b

DATA SHEET NO.

DAM	1. OWNER <b>Mohr</b>			2. STREAM <b>Deep Creek</b>			3. STATE <b>Texas</b>							
	4. SEC. <b>TWP.</b>		RANGE		5. NEAREST P. O. <b>Rochelle</b>			6. COUNTY <b>McCulloch</b>						
	7. LAT. <b>31° 17' 15" LONG. 99° 09' 30"</b>				8. TOP OF DAM ELEVATION <b>1527.0</b>			9. SPILLWAY CREST ELEV. <b>1522.0</b>						
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		1/ 1522.0		147.34		776.29		925.18		11-13-53			
	b. MULTIPLE USE													
	c. POWER													
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN			
	e. IRRIGATION													
	f. CONSERVATION										11-13-53			
	g. INACTIVE		2/ 1513.0		39.04		148.89		148.89					
17. LENGTH OF RESERVOIR					0.80 MILES		AV. WIDTH OF RESERVOIR			0.29 MILES				
WATERSHED	18. TOTAL DRAINAGE AREA				3.42 SQ. MI.		22. MEAN ANNUAL PRECIPITATION			25.01 (43) INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA				3.19 SQ. MI.		23. MEAN ANNUAL RUNOFF			2.08 INCHES				
	20. LENGTH		2.60 MILES		AV. WIDTH		1.32 MILES		24. MEAN ANNUAL RUNOFF				379.37 AC.-FT.	
	21. MAX. ELEV.		1770		MIN. ELEV.		1500		25. ANNUAL TEMP.: MEAN 66° F RANGE 48° - 83° 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.				
11-13-53		-	-	Range- Contour (D)		18 R 2' CI	147.34	925.18	2.44					
8-27-60		6.8	6.8				147.34	881.80	2.32					
6-11-65		4.8	11.6				147.34	874.62	2.31					
9-11-71		6.3	17.9				145.96	871.32	2.30					
5-10-78		6.7	24.6				146.00	865.90	2.28					
26. DATE OF SURVEY		<del>PERIOD</del>	<del>ACCL.</del>	<del>TYPE OF SURVEY</del>		<del>NO. OF RANGES OR CONTOUR INT.</del>	<del>SURFACE AREA, ACRES</del>	<del>CAPACITY, ACRE-Feet</del>	<del>C/I. RATIO, AC.-FT. PER AC.-FT.</del>					
11-13-53		-	-				39.04	148.89						
8-27-60		6.8	6.8				36.30	124.80						
6-11-65		4.8	11.6				36.30	117.62						
9-11-71		6.3	17.9				35.90	115.67						
5-10-78		6.7	24.6				35.90	112.73						
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							
1/ 5-10-78		5.42	0.81	0.25	59.28	2.41	0.76							
2/ 5-10-78		2.94	0.44	0.14	36.16	1.47	0.46							
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM						
		a. PERIOD		b. TOTAL TO DATE		a. AV. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE					
1/ 5-10-78		-		348		0.26	6.41							
3/ 5-10-78 DetP 92 (5)				251		0.99	24.29							
2/ 5-10-78 SedP 55 (16)				97										

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
45. RANGE IN RESERVOIR OPERATION														
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.							
46. 1978 ELEVATION-AREA-CAPACITY DATA														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
1506	4.20	2.89	1516	63.24	260.96									
1508	8.55	15.38	1518	87.05	410.62									
1510	15.15	38.77	1520	111.75	608.91									
1512	27.72	81.01	1522	146.00	865.90									
1513	35.90	112.73												
1514	45.09	153.14												
47. REMARKS AND REFERENCES														
<u>1/</u> Total reservoir below emergency spillway crest elevation. <u>2/</u> Sediment pool only. <u>3/</u> Detention pool only.														
Land Resource Area: Central Rolling Red Prairies. Land Use: 5% cultivated, 93% rangeland, 2% miscellaneous. Geology: Strawn Group and Canyon Group, Pennsylvanian Age.														
48. AGENCY MAKING SURVEY SCS, Temple, Texas														
49. AGENCY SUPPLYING DATA SCS, Temple, Texas										50. DATE 2-79				