

RESERVOIR SEDIMENT  
DATA SUMMARY

SCS-34 Rev. 6-62

Site No. 1, Escondido Creek

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

52-16

DATA SHEET NO.

DAM	1. OWNER <b>Esse, Boehm, Johnson</b>			2. STREAM <b>San Antonio River</b>			3. STATE <b>Texas</b>									
	4. SEC. <b>TWP. RANGE</b>			5. NEAREST TOWN <b>Kenedy</b>			6. COUNTY <b>Karnes</b>									
	7. STREAM BED ELEVATION <b>351.0</b>			8. TOP OF DAM ELEVATION <b>384.1</b>			9. SPILLWAY CREST ELEV. <b>377.7</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. MULTIPLE USE										9-21-54					
	b. FLOOD CONTROL		<b>377.7</b>		<b>109.3</b>		<b>757.9</b>		<b>924.7</b>							
	c. POWER															
	d. WATER SUPPLY															
	e. IRRIGATION										16. DATE NORMAL OPER. BEGAN					
	f. CONSERVATION															
	g. SEDIMENT		<b>366.0</b>		<b>31.2</b>		<b>166.8</b>		<b>166.8</b>		9-21-54					
h. INACTIVE																
WATERSHED	17. LENGTH OF RESERVOIR <b>1.02 1/2</b> MILES				AV. WIDTH OF RESERVOIR <b>0.11</b> MILES											
	18. TOTAL DRAINAGE AREA <b>3.01</b> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <b>29.10 (3) 2/</b> INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA <b>2.83</b> SQ. MI.				23. MEAN ANNUAL RUNOFF <b>2.5</b> INCHES											
	20. LENGTH <b>2.50</b> MILES		AV. WIDTH <b>1.20</b> MILES		24. MEAN ANNUAL RUNOFF <b>401.</b> AC.-F.T.											
	21. MAX. ELEV. <b>425.0</b>		MIN. ELEV. <b>351.0</b>		25. CLIMATIC CLASSIFICATION <b>Subhumid</b>											
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/W RATIO AC.-FT. PER SQ. MI.	
	3/ 9-21-54		5/ -		-		Range		37		109.3		924.7		307.2	
	4/ 9-21-54		-		-		Detail				31.2		166.8		55.4	
	13/ 6-21-64		9.75		9.75		"		37		109.3		906.2		301.1	
	14/ 6-21-64		9.75		9.75		"				30.4		150.4		50.0	
	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				
3/ 6/21/64		18.5		1.90		0.67		18.5		1.90		0.67				
4/ 6/21/64		16.4		1.68		0.59		16.4		1.68		0.59				
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. AN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE		
3/ 6/21/64		-		-		-		0.20		2.00						
4/ 6/21/64		59.4		763		763		1.00		9.83						

1/ East arm is 0.53 miles long.

3/ Both pools.

2/ This is for 3-year period (1956-58) on new gage at reservoir site;

4/ Sediment pool only.

long-term average is 29.84 inches.

5/ Original revised 1964 due to addition of 28 new ranges.

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	-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
354	1.20	0.80				376	93.72	734.03
356	3.45	5.25	366	30.44	150.45	377.7	109.31	906.23
358	5.92	14.50	368	39.09	219.73	380	126.73	1177.20
360	11.34	31.45	370	50.88	309.35	382	147.27	1450.66
362	16.29	58.90	372	63.51	423.40			
364	22.64	97.62	374	77.10	563.65			

47. REMARKS AND REFERENCES  
Average Land Use: Cultivated 73%, Pasture 25%, Miscellaneous 2%.  
C/I Ratio: Both Pools 2.26, Sediment Pool 0.38.

48. AGENCY MAKING SURVEY      Soil Conservation Service  
49. AGENCY SUPPLYING DATA      Temple, Texas

50. DATE 1-21-65

RESERVOIR SEDIMENT  
DATA SUMMARY

SCS-34 Rev. 6-66

Site No. 1, Escondido Creek

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

52- 16a

DATA SHEET NO.

DAM	1. OWNER			2. STREAM <b>San Antonio River</b>			3. STATE <b>Texas</b>									
	4. SEC. TWP. RANGE		5. NEAREST P.O. <b>Kenedy</b>			6. COUNTY <b>Karnes</b>										
	7. LAT. <b>97° 53' 30"</b> LONG. <b>28° 46' 45"</b>			8. TOP OF DAM ELEVATION <b>384.1</b>			9. SPILLWAY CREST ELEV. <b>377.1</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		<b>377.1 1/</b>		<b>109.3</b>		<b>757.9</b>		<b>924.7</b>		<b>9-21-54</b>					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY															
	e. IRRIGATION										16. DATE NORMAL OPER. BEGAN					
	f. CONSERVATION										<b>9-21-54</b>					
g. INACTIVE		<b>366.0 2/</b>		<b>31.2</b>		<b>166.8</b>		<b>166.8</b>								
WATERSHED	17. LENGTH OF RESERVOIR <b>1.02 3/</b> MILES				AV. WIDTH OF RESERVOIR <b>0.11</b> MILES											
	18. TOTAL DRAINAGE AREA <b>3.01</b> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <b>29.10</b> INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA <b>2.83</b> SQ. MI.				23. MEAN ANNUAL RUNOFF <b>2.5</b> INCHES											
	20. LENGTH <b>2.50</b> MILES		AV. WIDTH <b>1.20</b> MILES		24. MEAN ANNUAL RUNOFF <b>401</b> AC.-FT.											
	21. MAX. ELEV. <b>425.0</b>		MIN. ELEV. <b>351.0</b>		25. ANNUAL TEMP: MEAN <b>69°F</b> RANGE <b>54°F - 84°F</b>											
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.	
	1/ 9-21-54		-		-		Range-		37 R		109.3		924.7		2.30	
	1/ 6-21-64		9.8		9.8						109.3		906.2		2.26	
	1/ 7-21-69		5.1		14.9		Contour (D)		2' CI		108.0		890.1		2.22	
	2/ 9-21-54		-		-						31.2		166.8		-	
	2/ 6-21-64		9.8		9.8						30.4		150.4		-	
	2/ 7-21-69		5.1		14.9						30.4		146.0		-	
	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			
	1/ 7-21-69		16.10		3.16		1.12		34.60		2.32		0.82			
2/ 7-21-69		4.40		0.86		0.30		20.80		1.40		0.49				
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/ 7-21-69		-		1710		1143		0.25		3.74		-		-		
2/ 7-21-69		60.0		436		640		0.84		12.47		-		-		
4/ 7-21-69		70.0		1274		503		-		-		-		-		

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
See attached sheet for Elevation-Area-Capacity Data								

47. REMARKS AND REFERENCES

1/ Total reservoir below emergency spillway crest elev. (377.1)

2/ Sediment pool only

3/ East arm is 0.53 miles long

4/ Detention pool only

48. AGENCY MAKING SURVEY      Sedimentation Survey Party

49. AGENCY SUPPLYING DATA      Soil Conservation Service - Texas 50. DATE 3-70

Site No. 1  
Escondido Creek Watershed

46. Elevation-Area-Capacity Data

1964

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
354.0	1.20	0.80	368.0	39.09	219.73
356.0	3.45	5.25	370.0	50.88	309.35
358.0	5.92	14.50	372.0	63.51	423.40
360.0	11.34	31.45	374.0	77.10	563.65
362.0	16.29	58.90	376.0	93.72	734.03
364.0	22.64	97.62	377.7	109.31	906.23
366.0	30.44	150.45			

1969

354.0	0.05	0.03	368.0	38.40	217.68
356.0	1.91	1.55	370.0	49.58	305.43
358.0	5.82	8.92	372.0	61.90	416.68
360.0	10.56	25.07	374.0	75.20	553.56
362.0	16.24	51.66	376.0	91.90	720.38
364.0	22.64	90.37	377.7	107.97	890.09
366.0	30.4	146.00			

RESERVOIR SEDIMENT  
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Site No. 1, Escondido

52 - 16b

DATA SHEET NO.

SCS-34 Rev. 6-66

NAME OF RESERVOIR

DAM		1. OWNER		2. STREAM San Antonio River		3. STATE Texas		
RESERVOIR		4. SEC. TWP. RANGE		5. NEAREST P.O. Kenedy		6. COUNTY Karnes		
WATERSHED		7. LAT. 28° 46' 45" LONG. 97° 53' 30"		8. TOP OF DAM ELEVATION 384.1		9. SPILLWAY CREST ELEV. 377.7		
SURVEY DATA		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		377.7 1/		109.3		
		b. MULTIPLE USE				757.9		
		c. POWER				924.7		
		d. WATER SUPPLY						
		e. IRRIGATION				9-21-54		
		f. CONSERVATION						
		g. INACTIVE		366.0 2/		166.8		
				31.2		166.8		
		17. LENGTH OF RESERVOIR		1.02 4/		MILES		
		AV. WIDTH OF RESERVOIR		0.17		MILES		
		18. TOTAL DRAINAGE AREA		3.01		SQ. MI.		
		22. MEAN ANNUAL PRECIPITATION		31.93 (23)		INCHES		
		19. NET SEDIMENT CONTRIBUTING AREA		2.84		SQ. MI.		
		23. MEAN ANNUAL RUNOFF		2.5		INCHES		
		20. LENGTH		2.50		MILES		
		AV. WIDTH		1.20		MILES		
		24. MEAN ANNUAL RUNOFF		401.31		AC. FT.		
		21. MAX. ELEV.		515.0		MIN. ELEV. 351.0		
		25. ANNUAL TEMP: MEAN		69°F		RANGE 54°F - 84°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/		9-21-54	-	-		109.3	924.7	
1/		6-21-64	9.8	9.8	Range	109.3	906.2	
1/		7-21-69	5.1	14.9		108.0	890.1	
1/		8-18-75	6.1	21.0	Contour	108.0	877.82	
2/		9-21-54	-	-	2' CI	31.2	166.8	
2/		6-21-64	9.8	9.8	(D)	30.4	150.4	
2/		7-21-69	5.1	14.9		30.4	146.0	
2/		8-18-75	6.1	21.0		30.12	140.96	
		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/		8-18-75	12.28	2.01	0.71	46.88	2.23	0.79
2/		8-18-75	5.04	0.83	0.29	25.84	1.23	0.43
		26. DATE OF SURVEY	39. AV. DRY WGT., LBS PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.	
			a. PERIOD	b. TOTAL TO DATE	a. AV ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE
1/		8-18-75	-	1433.5	1233.2	0.24	5.07	-
2/		8-18-75	58	316.3	543.2	0.74	15.49	-
3/		8-18-75	88	1117.2	690.0	-	-	-

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							
356	1.84	1.23	368	38.29	209.14										
358	5.22	8.00	370	49.01	296.13										
360	10.50	23.40	372	61.52	406.31										
362	16.20	49.87	374	75.08	542.55										
364	22.61	88.46	376	91.47	708.66										
366	30.12	140.96	377.7	108.00	877.82										
47. REMARKS AND REFERENCES															
<p>1/ Total reservoir below emergency spillway crest elev. (377.7)</p> <p>2/ Sediment pool only</p> <p>3/ Detention pool only</p> <p>4/ East arm is 0.53 miles long</p> <p>Land Resource Area - Rio Grande Plain</p> <p>Estimated trap efficiency - 98%</p>															
<p style="text-align: center;">SCS</p> <p>48. AGENCY MAKING SURVEY      Temple, TX</p> <p>49. AGENCY SUPPLYING DATA      50. DATE      12-75</p>															