

RESERVOIR SEDIMENT  
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

SCS-34 Rev. 6-66

Roy Kurz  
NAME OF RESERVOIR

47-15

DATA SHEET NO.

Ark Basin

|                 |  |     |                                     |  |  |  |                                       |                                  |                                     |  |                                  |  |
|-----------------|--|-----|-------------------------------------|--|--|--|---------------------------------------|----------------------------------|-------------------------------------|--|----------------------------------|--|
| DAM             | 1. OWNER <u>Roy R. Kurz</u>                            |     |                                     | 2. STREAM <u>Shirley</u>               |  |  | 3. STATE <u>Kansas</u>                |                                  |                                     |  |                                  |  |
|                 | 4. SEC. <u>10</u> TWP. <u>23</u> RANGE <u>39</u>       |     |                                     | 5. NEAREST P. O. <u>Syracuse</u>       |  |  | 6. COUNTY <u>Hamilton</u>             |                                  |                                     |  |                                  |  |
|                 | 7. LAT <u>38° 05' 00"</u> LONG <u>101° 35' 00"</u>     |     |                                     | 8. TOP OF DAM ELEVATION <u>102.00*</u> |  |  | 9. SPILLWAY CREST ELEV. <u>97.00*</u> |                                  |                                     |  |                                  |  |
| 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                                       |     |                                     |  |  |  |                                       |                                  |                                     |  | April 1<br>1951                  |  |
|                 | b. MULTIPLE USE  |     |                                     |  |  |  |                                       |                                  |                                     |  |                                  |  |
|                 | c. POWER   |     |                                     |  |  |  |                                       |                                  |                                     |  | 16. DATE NOR-<br>MAL OPER. BEGAN |  |
|                 | d. WATER SUPPLY  |     | <u>97.00*</u>                       |  | <u>20.00</u>   |  | <u>92.70</u>                          |                                  | <u>92.70</u>                        |  |                                  |  |
|                 | e. IRRIGATION  |     |                                     |  |  |  |                                       |                                  |                                     |  | April 1<br>1951                  |  |
|                 | f. CONSERVATION  |     |                                     |  |  |  |                                       |                                  |                                     |  |                                  |  |
|                 | g. INACTIVE  |     |                                     |  |  |  |                                       |                                  |                                     |  |                                  |  |
| WATERSHED       | 17. LENGTH OF RESERVOIR <u>0.60</u> MILES              |     |                                     |  | AV. WIDTH OF RESERVOIR <u>0.06</u> MILES                 |  |                                       |                                  |                                     |  |                                  |  |
|                 | 18. TOTAL DRAINAGE AREA <u>8.91</u> SQ. MI.            |     |                                     |  | 22. MEAN ANNUAL PRECIPITATION <u>16.</u> INCHES          |  |                                       |                                  |                                     |  |                                  |  |
|                 | 19. NET SEDIMENT CONTRIBUTING AREA <u>8.91</u> SQ. MI. |     |                                     |  | 23. MEAN ANNUAL RUNOFF <u>0.1</u> INCHES                 |  |                                       |                                  |                                     |  |                                  |  |
|                 | 20. LENGTH <u>5.20</u> MILES                           |     | AV. WIDTH <u>1.70</u> MILES         |  | 24. MEAN ANNUAL RUNOFF <u>47</u> AC.-F.T.                |  |                                       |                                  |                                     |  |                                  |  |
|                 | 21. MAX. ELEV.   |     | MIN. ELEV.                          |  | 25. ANNUAL TEMP.: MEAN <u>54</u> RANGE <u>-26 to 114</u> |  |                                       |                                  |                                     |  |                                  |  |
| 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. |  |                                  |  |
|                 | June 14<br>1967  |     | 16.5                                | 16.5                                   | Range  | 10   | 19.90                                 | 78.20                            | 1.97<br>1.65                        |  |                                  |  |
|                 | 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              |                                     |  |                                  |  |
|                 | June 14<br>1967  |     | 14.50                               | 0.88                                   | 0.10   | 14.50                                      | 0.88                                  | 0.10                             |                                     |  |                                  |  |
|                 | 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                  |                                     |  |                                  |  |
| June 14<br>1967 |  | 70* | 152                                 | 152                                    | 0.95   | 15.60                                      |                                       |                                  |                                     |  |                                  |  |

|                    |   |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|
| 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

\* Assumed

Cropland = 88% with 1 - 2% slopes  
 Pasture (fair) = 12% with 3% slopes  
 T.E. = 87%  
 Watershed yield = 0.12 ac. ft./sq. mi./yr.