

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Land Utilization Project No. 243-1

37-15

NAME OF RESERVOIR

DATA SHEET NO.

|                         |   |                                   |   |   |  |   |                                |                     |                 |
|-------------------------|---|-----------------------------------|---|---|--|---|--------------------------------|---------------------|-----------------|
| DAM                     | 1. OWNER <b>USDA, Soil Conserv. Serv.</b>             |                                   | 2. RIVER <b>Unnamed tributary to Missouri River</b> |   | 3. STATE <b>South Dakota</b>                 |   |                                |                     |                 |
|                         | 4. SEC. <b>17</b> TWP. <b>107 N</b> RANGE <b>79 W</b> |                                   | 5. NEAREST TOWN <b>Pierre</b>                       |   | 6. COUNTY <b>Lyman</b>                       |   |                                |                     |                 |
|                         | 7. STREAM BED ELEV. <b>-</b>                          |                                   | 8. TOP OF DAM ELEV. <b>-</b>                        |   | 9. SPILLWAY CREST ELEV. <b>-</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>Nov. 1937</b>                            |                                |                     |                 |
|                         | b. POWER  |                                   |   |   |  |   |                                |                     |                 |
|                         | c. WATER SUPPLY                                       |                                   |   |   |  | 16. DATE NORMAL OPER. BEGAN                 |                                |                     |                 |
|                         | d. IRRIGATION   |                                   |   |   |  |   |                                |                     |                 |
|                         | e. CONSERVATION                                       |                                   |   | <b>0.83</b>                                     | <b>2.7</b>                                   | <b>2.7</b>                                  |                                |                     |                 |
|                         | f. INACTIVE   |                                   |   |   |  |   |                                |                     |                 |
| 17. LENGTH OF RESERVOIR |   |                                   | MILES   | AV. WIDTH OF RESERVOIR                          |  | MILES                                       |                                |                     |                 |
| WATERSHED               | 18. TOTAL DRAINAGE AREA <b>69 ac.</b>                 |                                   | <b>0.108</b> SQ. MI.                                | 22. MEAN ANNUAL PRECIPITATION <b>16.20 (53)</b> |  | INCHES                                      |                                |                     |                 |
|                         | 19. NET SEDIMENT CONTRIBUTING AREA <b>68 ac.</b>      |                                   | <b>0.106</b> SQ. MI.                                | 23. MEAN ANNUAL RUNOFF                          |  | INCHES                                      |                                |                     |                 |
|                         | 20. LENGTH  |                                   | MILES   | AV. WIDTH                                       |  | MILES                                       | 24. MEAN ANNUAL RUNOFF         |                     |                 |
|                         | 21. MAX. ELEV.  |                                   | MIN. ELEV.  |   | 25. CLIMATIC CLASSIFICATION <b>Semi-arid</b> |   | AC.-FT.                        |                     |                 |
|                         | 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         |                     |                 |
| Nov. 1937               |   | -                                 | -   | -   | -  | <b>0.83</b>                                 |                                |                     |                 |
| July 1945               |   | <b>7.7</b>                        | <b>7.7</b>  | <b>Range Detailed</b>                           | <b>3</b>                                     | <b>0.83</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    |                 |
|                         |   |                                   |   |   |  |   |                                |                     |                 |
| SURVEY DATA             | 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 |                 |
|                         | July 1945   |                                   | <b>0.661</b>  | <b>0.086</b>                                    | <b>0.811</b>                                 | <b>0.661</b>                                | <b>0.086</b>                   | <b>0.811</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 |
| July 1945               |   |                                   |   |   |  | <b>3.19</b>                                 | <b>24.48</b>                   |                     |                 |

|   |   |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
|---|---|------------|----------------|------------|------------|------------|----------------|----------|-------|--------------------------|------|------|------|------|------|
| 26.<br>DATE OF SURVEY   | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
|   |   |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
|   | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION            |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
|   |   |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
| 26.<br>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  |   |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
| Gottschalk, L. C. Silting of stock ponds in the Land Utilization Project Area SD-LU-2, Pierre, South Dakota. U. S. Soil Conserv. Serv., Special Report No. 9, 11 pp., illus., processed. Washington, D. C. May 1946 |   |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
| Region 5, Soil Conservation Service<br>U. S. Department of Agriculture  |   |            |                |            |            |            |                |          |       |                          |      |      |      |      |      |
| 48. AGENCY SUPPLYING DATA Lincoln, Nebraska   |   |            |                |            |            |            |                |          |       | 49. DATE January 5, 1951 |      |      |      |      |      |