

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

CONCHAS RESERVOIR
NAME OF RESERVOIR

47-1a
DATA SHEET NO.

| | | | | | | | | | | | | | | | | |
|----------------------|--|--|---------------------------------|------------------------------------|-----------------------------------|--|--|---------------------|-----------------------------------|--------------------------------------|-----------------------------|---------------------|------------------------|--|-----------------------------------|--|
| DAM | 1. OWNER Corps of Engineers | | | 2. STREAM Canadian and Conchas | | | 3. STATE New Mexico | | | | | | | | | |
| | 4. SEC. Pablo TWP. Montoya RANGE Grant | | | 5. NEAREST TOWN Newkirk, N. Mex. | | | 6. COUNTY San Miguel | | | | | | | | | |
| | 7. STREAM BED ELEVATION 4,040 | | | 8. TOP OF DAM ELEVATION 4,240 | | | 9. SPILLWAY CREST ELEV. 4,201 | | | | | | | | | |
| 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 | | | | | | | | | | 1 Jan 1939 | | | | | |
| | b. FLOOD CONTROL | | 4,218 | | 13,715 | | 201,834 | | 601,112 | | | | | | | |
| | c. POWER | | | | | | | | | | | | | | | |
| | d. WATER SUPPLY | | | | | | | | | | | | | | | |
| | e. IRRIGATION | | | | | | | | | | 16. DATE NORMAL OPER. BEGAN | | | | | |
| | f. CONSERVATION | | 4,201 | | 10,073 | | 296,412 | | 399,278 | | Jan 1939 | | | | | |
| | g. SEDIMENT | | | | | | | | | | | | | | | |
| h. INACTIVE | | 4,155 | | 3,520 | | 102,866 | | 102,866 | | | | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 2 Canadian Arm 23 MILES | | | | | | 18. AV. WIDTH OF RESERVOIR 4,200 Contour, 0.75 MILES | | | | | | | | | |
| | 18. TOTAL DRAINAGE AREA 7,409 SQ. MI. | | | | | | 22. MEAN ANNUAL PRECIPITATION 15.8 (52.7) INCHES | | | | | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 6,976 SQ. MI. | | | | | | 23. MEAN ANNUAL RUNOFF 3 0.501 (58.7) INCHES | | | | | | | | | |
| | 20. LENGTH 100 MILES | | | 21. AV. WIDTH 73 MILES | | | 24. MEAN ANNUAL RUNOFF 196,300 (58.7) AC.-FT. | | | 25. CLIMATIC CLASSIFICATION Semiarid | | | | | | |
| | 21. MAX. ELEV. 13,000 | | | 22. MIN. ELEV. 4,074 | | | | | | | | | | | | |
| SURVEY DATA | 26. DATE OF SURVEY 4 | | 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 Jan 1939 | | | | | | Contour | | 10 feet | | 13,715 | | 601,112 | | 81 | |
| | May 1940 | | 1.4 | | 1.4 | | Range | | 14 ranges | | 599,712 | | 585,112 | | 81 | |
| | Jun 1942 | | 2.1 | | 3.4 | | Range | | 24 ranges | | 585,112 | | 581,112 | | 79 | |
| | Nov 1942 | | .4 | | 3.8 | | Range | | 28 ranges | | 581,112 | | 576,756 | | 78 | |
| | Oct 1944 | | 1.9 | | 5.7 | | Contour | | 10 feet | | 13,349 | | 576,756 | | 78 | |
| | Feb 1949 | | 4.3 | | 10.1 | | Contour | | 10 feet | | 13,552 | | 566,163 | | 76 | |
| | Oct 1963 | | 14.7 | | 24.8 | | Range (D) | | 45 ranges | | 13,677 | | 550,799 | | 74 | |
| | 26. DATE OF SURVEY 4 | | 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 | | | |
| | 1 Jan 1939 | | Inches | | 72,700 | | | | 101,780 | | 72,700 | | 101,780 | | | |
| | May 1940 | | 14.26 | | 859,780 | | 1,059,669 | | 1,805,540 | | 560,980 | | 1,907,320 | | | |
| | Jun 1942 | | 22.40 | | 1,079,980 | | | | 431,990 | | 615,607 | | 2,339,310 | | | |
| | Nov 1942 | | 12.50 | | 143,750 | | 1,168,350 | | 273,130 | | 458,320 | | 2,612,440 | | | |
| | Oct 1944 | | 14.32 | | 120,500 | | 158,858 | | 518,140 | | 309,960 | | 3,130,580 | | | |
| Feb 1949 | | 13.68 | | 144,340 | | 336,514 | | 2,121,850 | | 211,790 | | 5,252,430 | | | | |
| Oct 1963 | | 13.01 | | | | | | | | | | | | | | |
| 26. DATE OF SURVEY 4 | | 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 | | | | |
| 1 Jan 1939 | | | | | | | | 1,400 | | 1,000 | | 0.143 | | | | |
| May 1940 | | 1,400 | | 6,952 | | 0.996 | | 16,000 | | 4,710 | | 0.675 | | | | |
| Jun 1942 | | 14,600 | | | | | | 20,000 | | 5,260 | | 0.754 | | | | |
| Nov 1942 | | 4,000 | | 2,290 | | 0.328 | | 24,356 | | 4,270 | | 0.612 | | | | |
| Oct 1944 | | 4,356 | | 2,460 | | 0.353 | | 34,949 | | 3,460 | | 0.496 | | | | |
| Feb 1949 | | 10,593 | | 1,045 | | 0.150 | | 50,313 | | 2,030 | | 0.291 | | | | |
| Oct 1963 | | 15,364 | | | | | | | | | | | | | | |
| 26. DATE OF SURVEY 4 | | 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 | | | | |
| 1 Jan 1939 | | | | | | | | | | | | | | | | |
| May 1940 | | 75.7 | | 236 | | 0.17 | | 0.23 | | 16,687 | | 16,687 | | | | |
| Jun 1941 | | 75.7 | | 1,113 | | 0.78 | | 2.66 | | 9,810 | | 10,177 | | | | |
| Nov 1942 | | 75.7 | | 1,243 | | 0.88 | | 3.33 | | 11,233 | | 10,372 | | | | |
| Oct 1944 | | 75.7 | | 541 | | 0.71 | | 4.05 | | 19,348 | | 11,310 | | | | |
| Feb 1949 | | 75.7 | | 581 | | 0.58 | | 5.81 | | 24,802 | | 13,543 | | | | |
| Oct 1963 | | 75.7 | | 247 | | 0.34 | | 8.37 | | 8,784 | | 11,621 | | | | |

| | | | | | | | | | | | | |
|--------------------|---|---------|--------|-------|-------|-------|-------|-------|----------|----------|-------|--|
| 23. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION 4,201 | | | | | | | | | | | |
| | 178-128 | 128-108 | 108-88 | 88-68 | 68-53 | 53-48 | 48-38 | 38-28 | 28-Crest | Crest-17 | 17-20 | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| 1 Jan 1939 | | | | | | | | | | | | |
| May 1940 | | | | | | | | | | | | |
| Jun 1942 | | | | | | | | | | | | |
| Nov 1942 | | | | | | | | | | | | |
| Oct 1944 | 16 | 4 | 7 | 10 | 6 | 10 | 15 | 16 | 16 | 16 | | |
| Feb 1949 | 13 | 4 | 5 | 9 | 5 | 7 | 11 | 14 | 14 | 16 | 2 | |
| Oct 1963 | 9 | 9 | 8 | 15 | 9 | 11 | 13 | 11 | 8 | 7 | | |

| | | | | | | | | | | | | | | | |
|-----------------------|---|----------|----------|-----------|-----------|----------|---------|----------|--------|--------|------|------|------|------|--------------------------------|
| 24. 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 | | | | | | | | | | | | | | |
| May 1940 ⁵ | 114 30 | 23 22 | 3 7 | -26 10 | -16 18 | 2 18 | | | | | | | | | S. Canadian Arm Conchas Arm |
| Jun 1942 | 6 20 | 3 21 | 4 -12 | 4 12 | 22 13 | 14 27 | 27 5 | 18 14 | 2 | | | | | | S. Canadian Arm Conchas Arm |
| Nov 1942 | 6 -1 | 2 0 | 5 1 | 8 2 | 16 19 | 16 57 | 29 5 | 16 14 | 2 3 | | | | | | S. Canadian Arm Conchas Arm |

| 45. RANGE IN RESERVOIR OPERATION | | | | | | | |
|----------------------------------|------------|------------|----------------|------------|------------|--------------|----------------|
| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. # | INFLOW AC. FT. |
| 1940 | 4,154.25 | 4,147.05 | 49,580 | 1952 | 4,184.15 | 4,168.23 | 125,930 |
| 1941 | 4,206.14 | 4,153.10 | 993,930 | 1953 | 4,176.16 | 4,162.07 | 107,950 |
| 1942 | 4,208.41 | 4,197.75 | 1,147,300 | 1954 | 4,173.22 | 4,155.80 | 32,030 |
| 1943 | 4,200.19 | 4,197.80 | 172,940 | 1955 | 4,190.37 | 4,157.10 | 297,760 |
| 1944 | 4,201.71 | 4,194.46 | 158,850 | 1956 | 4,189.98 | 4,173.19 | 51,880 |
| 1945 | 4,197.20 | 4,194.22 | 97,940 | 1957 | 4,175.40 | 4,163.80 | 129,930 |
| 1946 | 4,201.13 | 4,192.05 | 137,570 | 1958 | 4,201.82 | 4,173.97 | 336,510 |
| 1947 | 4,202.46 | 4,199.00 | 129,330 | 1959 | 4,200.38 | 4,193.40 | 112,620 |
| 1948 | 4,201.46 | 4,195.63 | 154,700 | 1960 | 4,199.37 | 4,192.68 | 131,520 |
| 1949 | 4,200.97 | 4,192.50 | 153,260 | 1961 | 4,201.75 | 4,196.55 | 216,440 |
| 1950 | 4,198.59 | 4,185.85 | 131,410 | 1962 | 4,201.13 | 4,193.02 | 119,230 |
| 1951 | 4,194.68 | 4,184.24 | 106,770 | 1963 | 4,193.01 | 4,176.16 | 76,510 |

| 46. ELEVATION-AREA-CAPACITY DATA | | | | | | | | |
|----------------------------------|--------|----------|-----------|-------|----------|-----------|------|----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| 4,230 | 16,396 | 731,328 | 4,180 | 5,968 | 189,015 | 4,110 | 542 | 6,993 |
| 4,220 | 14,194 | 578,667 | 4,170 | 4,617 | 136,289 | 4,100 | 234 | 3,185 |
| 4,218 | 13,677 | 550,799 | 4,160 | 3,493 | 95,919 | 4,090 | 122 | 1,459 |
| 4,210 | 11,738 | 449,275 | 4,150 | 2,638 | 65,428 | 4,080 | 65 | 563 |
| 4,201 | 9,797 | 352,551 | 4,140 | 1,966 | 42,554 | 4,070 | 26 | 128 |
| 4,200 | 9,596 | 342,855 | 4,130 | 1,387 | 25,917 | 4,060 | 0 | 0 |
| 4,190 | 7,647 | 256,874 | 4,120 | 948 | 14,353 | | | |

47. REMARKS AND REFERENCES

¹This area has not been subdivided.
²Conchas Arm, 13.8 miles.
³This figure affected by water taken out above reservoir for irrigation.
⁴Totals computed to end of each month shown.
⁵Only dates computed.
⁶Emergency spillway crest elevation 4,218.

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

CONCHAS RESERVOIR

NAME OF RESERVOIR

47- 1b

(Data prior to Oct 63 published on ENG Form 1787 dated May 65)

DATA SHEET NO.

| | | | | | | | |
|------------------------------------|---|-------------------------------------|----------------------------------|---|---|---|-------------------------|
| DAM | 1. OWNER Corps of Engineers | | 2. STREAM Canadian & Conchas | | 3. STATE New Mexico | | |
| | 4. SEC. 33 TWP. 14N RANGE 26E | | 5. NEAREST P.O. Conchas Dam | | 6. COUNTY San Miguel | | |
| | 7. LAT. 35° 24' 10" LONG. 104° 11' 25" | | 8. TOP OF DAM ELEVATION 4,240 | | 9. SPILLWAY CREST ELEV. 4,201 ^{1/} | | |
| 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 | 4,218 | 13,715 | 201,834 | 601,112 | 1 Jan 1939 | |
| | b. MULTIPLE USE | | | | | | |
| | c. POWER | | | | | | |
| | d. WATER SUPPLY | | | | | | |
| | e. IRRIGATION | | | | | 16. DATE NORMAL OPER. BEGAN | |
| | f. CONSERVATION | 4,201 | 10,073 | 296,412 | 399,278 | | |
| | g. INACTIVE | 4,155 | 3,520 | 102,866 | 102,866 | Jan 1939 | |
| | 17. LENGTH OF RESERVOIR Canadian 23 ^{2/} MILES AV. WIDTH OF RESERVOIR 4,200 Contour 0.75 MILES | | | | | | |
| | WATERSHED | 18. TOTAL DRAINAGE AREA | | 7,409 SQ. MI. | | 22. MEAN ANNUAL PRECIPITATION 15.2 ^{3/} INCHES | |
| 19. NET SEDIMENT CONTRIBUTING AREA | | 6,976 SQ. MI. | | 23. MEAN ANNUAL RUNOFF 0.4864 (65.6) INCHES | | | |
| 20. LENGTH 100 MILES | | AV. WIDTH 73 MILES | | 24. MEAN ANNUAL RUNOFF 192,200 (65.6) AC.-FT. | | | |
| 21. MAX. ELEV. 13,000 | | MIN. ELEV. 4,074 | | 25. ANNUAL TEMP. MEAN 49° RANGE 20-75 ^{3/} | | | |
| 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 |
| Oct 63 | | 24.83 | Range (D) | 45 Ranges | 13,677 | 550,799 | |
| Oct 70 | 6.92 | 31.75 | Contour | 5 Feet | 13,664 | 528,951 | |
| 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 | |
| Oct 1963 | 13.01 | 144,340 | 336,514 | 2,121,850 | 211,790 | 5,252,430 | |
| Oct 1970 | 12.04 | 157,100 | 394,190 | 1,087,100 | 199,670 | 6,339,530 | |
| 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 | |
| Oct 1963 | 15,364 | 1,045 | 0.150 | 50,313 | 2,030 | 0.291 | |
| Oct 1970 | 21,848 | 3,157 | 0.453 | 72,161 | 2,273 | 0.326 | |
| 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 |
| Oct 1963 | 75.7* | 247 | 479 | 0.34 | 8.37 | 8,784 | 11,621 |
| Oct 1970 | 75.7 | 746 | 537 | 0.38 | 12.00 | 24,376 | 13,808 |

6 6 12

| | | | | | | | | | | | | |
|--------------------|---|---------|--------|-------|-------|-------|-------|-------|-------------|-------|---|--|
| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION 4,201 | | | | | | | | | | | |
| | 178-128 | 128-108 | 108-88 | 88-68 | 68-58 | 58-48 | 48-38 | 38-28 | 28-Crest-17 | 17-29 | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| Oct 1963 | 9 | 9 | 8 | 15 | 9 | 11 | 13 | 11 | 8 | 7 | | |
| Oct 1970 | 3 | 7 | 12 | 10 | 5 | 6 | 8 | 11 | 33 | 4 | 1 | |

| | | | | | | | | | | | | | | | |
|--------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|-------|-------|-------|-------|
| 27. 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 | -10' | -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. |
| 1963 | 4,193.01 | 4,176.16 | 76,510 | | | | |
| 1964 | 4,178.58 | 4,156.05 | 31,060 | | | | |
| 1965 | 4,201.83 | 4,157.61 | 394,190 | | | | |
| 1966 | 4,200.77 | 4,192.25 | 108,660 | | | | |
| 1967 | 4,195.35 | 4,185.79 | 142,740 | | | | |
| 1968 | 4,193.13 | 4,183.51 | 113,130 | | | | |
| 1969 | 4,193.65 | 4,180.65 | 192,830 | | | | |
| 1970 | 4,197.55 | 4,189.30 | 105,630 | | | | |

| 46. ELEVATION-AREA-CAPACITY DATA | | | | | | | | |
|----------------------------------|--------|----------|-----------|-------|----------|-----------|------|----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| 4,230 | 16,380 | 709,119 | 4,180 | 5,513 | 173,912 | 4,110 | 311 | 1,299 |
| 4,220 | 14,110 | 556,724 | 4,170 | 4,323 | 125,102 | 4,100 | 2 | 24 |
| 4,218 | 13,664 | 528,951 | 4,160 | 3,394 | 86,519 | 4,090 | 1 | 9 |
| 4,210 | 11,845 | 426,866 | 4,150 | 2,642 | 56,348 | 4,080 | | 2 |
| 4,201 | 9,692 | 330,124 | 4,140 | 1,959 | 33,495 | 4,070 | 0 | 0 |
| 4,200 | 9,463 | 320,546 | 4,130 | 1,323 | 17,170 | 4,060 | 0 | 0 |
| 4,190 | 7,290 | 237,119 | 4,120 | 797 | 6,690 | | | |

47. REMARKS AND REFERENCES

1/ Emergency spillway crest elevation 4,218.

2/ Conchas 13.8 miles.

3/ From Climatic Atlas dated June 1968.

4/ Not computed since November 1942. Sound basis of comparison not available at this time.

48. AGENCY MAKING SURVEY Albuquerque District, Corps of Engineers

49. AGENCY SUPPLYING DATA Albuquerque District, Corps of Engineers

DATE May 1970

TABLE 7

RESERVOIR SEDIMENT
DATA SUMMARY

CONCHAS RESERVOIR
NAME OF RESERVOIR

47-16
DATA SHEET NO.

| | | | | | | | | | |
|--------------------|--|-------------------------------------|------------------------------------|----------------------------------|--|-----------------------------|---|-------------------------------------|---------|
| DAM | 1. OWNER Corps of Engineers | | 2. STREAM Canadian & Conchas | | 3. STATE New Mexico | | | | |
| | 4. SEC. 33 TWP. 14N RANGE 26E | | 5. NEAREST P.O. Conchas Dam | | 6. COUNTY San Miguel | | | | |
| | 7. LAT 35° 24' 10" LONG 104° 11' 25" | | 8. TOP OF DAM ELEVATION 4,240 | | 9. SPILLWAY CREST ELEV 4,201 1/2 | | | | |
| 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 | 4,218 | 13,715 | 201,834 | 601,112 | | | | |
| | b. MULTIPLE USE | | | | | 1 Jan 1939 | | | |
| | c. POWER | | | | | 16. DATE NORMAL OPER. BEGAN | | | |
| | d. WATER SUPPLY | | | | | | | | |
| | e. IRRIGATION | | | | | | | | |
| | f. CONSERVATION | 4,201 | 10,073 | 296,412 | 399,278 | | | | |
| | g. INACTIVE | 4,155 | 3,520 | 102,866 | 102,866 | Jan 1939 | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR Canadian 23 2/3 | | | MILES | AV. WIDTH OF RESERVOIR 4,200 Contour 0.75 | | MILES | | |
| | 18. TOTAL DRAINAGE AREA 7,409 | | | SQ. MI. | 22. MEAN ANNUAL PRECIPITATION 13.63 (51) | | | INCHES | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 6,976 | | | SQ. MI. | 23. MEAN ANNUAL RUNOFF 0.4265 | | | INCHES | |
| | 20. LENGTH 100 | | MILES | AV. WIDTH 73 | | MILES | 24. MEAN ANNUAL RUNOFF 168,512 (50) 1/2 | | AC.-FT. |
| | 21. MAX. ELEV. 13,000 | | MIN. ELEV. 4,074 | | 25. ANNUAL TEMP: MEAN 49 RANGE -47 - 112 1/2 | | | | |
| 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. | |
| | Oct 1963 | | 24.83 | Range (D) | 45 Ranges | 13,677 | 550,799 | 2.87 | |
| | Oct 1970 | 6.92 | 31.75 | Contour | 5 Feet | 13,664 | 528,951 | 2.75 | |
| | Aug 1986 | 15.83 | 47.58 | Range (R) | 30 Ranges | 13,626 1/2 | 513,903 | 3.04 | |
| | 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 | | |
| | Oct 1963 | 13.01 | 144,340 | 336,514 | 2,121,850 | 211,790 | 5,252,430 | | |
| | Oct 1970 | 12.04 | 157,100 | 394,190 | 1,087,100 | 199,670 | 6,339,530 | | |
| | Aug 1986 | 13.37 | 106,260 | 190,942 | 1,682,090 | 168,592 | 8,021,620 | | |
| | 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 | | | |
| Oct 1963 | 15,364 | 1,045 | 0.150 | 50,313 | 2,030 | 0.291 | | | |
| Oct 1970 | 21,848 | 3,157 | 0.453 | 72,161 | 2,273 | 0.326 | | | |
| Aug 1986 | 15,048 | 951 | 0.136 | 87,209 | 1,833 | 0.263 | | | |
| 26. DATE OF SURVEY | 39. AV. DRY WGT., LBS. PER CU. FT. | 40. SED. DEP., TONS PERSQ. 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 | | |
| Oct 1963 | 75.7★ | 247 | 479 | 0.34 | 8.37 | 8,784 | 11,621 | | |
| Oct 1970 | 75.7★ | 746 | 537 | 0.38 | 12.00 | 24,376 | 13,808 | | |
| Aug 1986 | 62.8 | 2.78 | 360 | 0.30 | 14.51 | 134.30 | 10,941 | | |

| | | | | | | | | | | | | |
|--------------------|---|---------|--------|-------|-------|-------|-------|-------|----------|-------|-------|--|
| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION 4,201 | | | | | | | | | | | |
| | 178-128 | 128-108 | 108-88 | 88-68 | 68-58 | 58-48 | 48-38 | 38-28 | 28-CREST | ST-17 | 17-29 | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| Oct 1963 | 9 | 9 | 8 | 15 | 9 | 11 | 13 | 11 | 8 | 7 | | |
| Oct 1970 | 3 | 7 | 12 | 10 | 5 | 6 | 8 | 11 | 33 | 4 | 1 | |
| Aug 1986 | 0 | 1 | 7 | 25 | 10 | 7 | 16 | 13 | 14 | 5 | 2 | |

| | | | | | | | | | | | | | | | |
|--------------------|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
| 26. DATE OF SURVEY | 44. 3/ 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. |
| 1971 | 4188.78 | 4176.40 | 66,245 | 1980 | 4181.19 | 4171.14 | 77,334 |
| 1972 | 4186.18 | 4175.49 | 158,759 | 1981 | 4176.60 | 4158.25 | 107,453 |
| 1973 | 4199.47 | 4185.13 | 190,942 | 1982 | 4191.08 | 4170.84 | 184,642 |
| 1974 | 4192.53 | 4170.96 | 32,822 | 1983 | 4196.58 | 4189.90 | 118,742 |
| 1975 | 4171.67 | 4158.55 | 38,575 | 1984 | 4188.44 | 4184.07 | 79,185 |
| 1976 | 4162.47 | 4157.99 | 42,365 | 1985 | 4197.99 | 4184.17 | 182,458 |
| 1977 | 4170.50 | 4158.84 | 87,232 | 1986 | 4197.56 | 4192.81 | 107,880 |
| 1978 | 4168.40 | 4158.26 | 48,411 | | | | |
| 1979 | 4180.95 | 4161.33 | 159,035 | | | | |

| 46. ELEVATION-AREA-CAPACITY DATA | | | | | | | | |
|----------------------------------|--------|----------|-----------|-------|----------|-----------|-------|----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| 4230 | 16,355 | 693,754 | 4195 | 8,278 | 262,127 | 4150 | 2,440 | 48,732 |
| 4225 | 15,223 | 614,719 | 4190 | 7,203 | 223,360 | 4145 | 2,186 | 37,158 |
| 4220 | 14,085 | 541,614 | 4185 | 6,243 | 189,936 | 4140 | 1,883 | 26,946 |
| 4215 | 12,952 | 474,034 | 4180 | 5,471 | 160,649 | 4135 | 1,507 | 18,402 |
| 4210 | 11,783 | 412,140 | 4175 | 4,740 | 135,157 | 4130 | 1,075 | 12,156 |
| 4205 | 10,592 | 356,221 | 4170 | 4,144 | 112,997 | 4125 | 821 | 7,454 |
| 4201 | 9,615 | 320,579 | 4165 | 3,667 | 93,458 | 4120 | 599 | 3,897 |
| 4200 | 9,378 | 306,239 | 4160 | 3,202 | 76,376 | 4115 | 392 | 1,357 |
| | | | 4155 | 2,692 | 61,532 | 4110 | 146 | 161 |

47. REMARKS AND REFERENCES

1/ Emergency spillway crest 4,218.
2/ Conchas River arm 13.8 miles.
3/ Not computed since 1942. Sound basis of comparison not available at this time.
4/ Period of record 1940-1989 reservoir inflow.
5/ New Mexico Climatological Data.

48. AGENCY MAKING SURVEY Albuquerque District Corps of Engineers
49. AGENCY SUPPLYING DATA Albuquerque District Corps of Engineers
50. DATE 16 NOV 1990