

RESERVOIR SEDIMENT
DATA SUMMARY

SCS-34 Rev. 6-66

Caballo Arroyos Site 1 (Underwood)
NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

57-17

DATA SHEET NO.

| | | | | | | | | |
|-------------|---|-------------------------------------|---|------------------------------------|--|-----------------------------|----------------------------------|------------------------------------|
| DAM | 1. OWNER Caballo Soil Cons. Dist | | 2. STREAM Underwood Arroyo | | 3. STATE New Mexico | | | |
| | 4. SEC. 31 TWP. 16S RANGE 4W | | 5. NEAREST P. O. Derry | | 6. COUNTY Sierra | | | |
| | 7. LAT. 35° 52' 28" LONG. 107° 17' 10" | | 8. TOP OF DAM ELEVATION 4139.5 | | 9. SPILLWAY CREST ELEV. 4135.5 | | | |
| 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 | 4135.5 | 7.86 | 51.75 | 73.21 | 11/3/59 | | |
| | b. MULTIPLE USE | | | | | | | |
| | c. POWER | | | | | | | |
| | d. WATER SUPPLY | | | | | 16. DATE NORMAL OPER. BEGAN | | |
| | e. IRRIGATION | | | | | 11/3/59 | | |
| | f. CONSERVATION | | | | | | | |
| g. INACTIVE | 4125.2 | 3.42 | 21.46 | 21.46 | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 0.12 MILES | | AV. WIDTH OF RESERVOIR 0.057 MILES | | | | | |
| | 18. TOTAL DRAINAGE AREA 0.87 SQ. MI. | | 22. MEAN ANNUAL PRECIPITATION 8.94 INCHES | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 0.87 SQ. MI. | | 23. MEAN ANNUAL RUNOFF 0.1 INCHES | | | | | |
| | 20. LENGTH 2.0 MILES | | AV. WIDTH 0.5 MILES | | 24. MEAN ANNUAL RUNOFF 4.6 AC.-FT. | | | |
| | 21. MAX. ELEV. 5380.0 | | MIN. ELEV. 4112.0 | | 25. ANNUAL TEMP: MEAN 59°F RANGE 41°-80°F | | | |
| 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. |
| | 11/59 | -- | -- | Range Contour D | 2' C.I. | 7.86 | 73.21 | 15.9 |
| | 8/67 | 7.8 | 7.8 | Range Contour D | 2' C.I. | 7.70 | 68.79 | 14.9 |
| | 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 |
| | 8/67 | 7.29 | | Dry Pool - no records | | | | |
| | 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 | |
| | 8/67 | 4.42 | 0.56 | 0.64 | 4.42 | 0.56 | 0.64 | |
| | 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 | |
| 8/67 | 111 | 1547 | 1547 | 0.76 | 6.0 | -- | -- | |

| | | | | | | | | | | | | |
|--------------------|---|--|--|------|------|------|------|------|-----|-----|-----|-------|
| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION | | | | | | | | | | | |
| | | | | 21.5 | 19.5 | 17.5 | 15.5 | 11.5 | 5.5 | 3.5 | 1.5 | Crest |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| 8/67 | | | | 7 | 15 | 6 | 2 | -3 | 24 | 17 | 23 | 9 |

| | | | | | | | | | | | | | | | |
|--------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
| 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 | | | | | | | | | | | | | | |
| 8/67 | 33 | 21 | 3 | 3 | 2 | 6 | 6 | 3 | 4 | 19 | | | | | |

| | | | | | | | |
|----------------------------------|------------|------------|-----------------|------------|------------|------------|-----------------|
| 45. RANGE IN RESERVOIR OPERATION | | | | | | | |
| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW, AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW, AC.-FT. |
| Dry Pool - no records | | | | | | | |

| 46. ELEVATION-AREA-CAPACITY DATA | | | | | | | | |
|----------------------------------|----------|----------|---------------|------|----------|-----------|------|----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| Original | Capacity | 1959 | 22 | 2.21 | 12.53 | 30 | 4.45 | 38.54 |
| 4135.5 | 7.86 | 73.21 | 20 | 1.81 | 8.50 | 4128 | 3.91 | 20.19 |
| 34 | 6.59 | 62.37 | 18 | 1.49 | 5.19 | 26 | 3.47 | 22.82 |
| 32 | 5.22 | 50.56 | 16 | 1.19 | 2.50 | 25.2 | 3.19 | 20.16 |
| 30 | 4.57 | 40.77 | 14 | 0.53 | 0.55 | 24 | 2.90 | 16.49 |
| 28 | 4.09 | 32.10 | Capacity 1967 | | | 22 | 2.31 | 11.29 |
| 26 | 3.69 | 24.30 | 4135.5 | 7.20 | 68.79 | 20 | 1.81 | 7.18 |
| 25.2 | 3.41 | 21.46 | 34 | 6.24 | 58.36 | 18 | 1.45 | 3.93 |
| 24 | 2.91 | 17.66 | 32 | 4.59 | 47.58 | 16 | 0.99 | 1.51 |
| | | | | | | 14 | 0.35 | 0.23 |

47. REMARKS AND REFERENCES

Land Use: Range 100%

Geology: Quaternary Santa Fe Group 34%; Tertiary Palm Park Fm. 16%; Precambrian undifferentiated 50%.

48. AGENCY MAKING SURVEY Soil Conservation Service, W/S Plan. Party

49. AGENCY SUPPLYING DATA Same

50. DATE 2/7/68