

MEMORANDUM REPORT ON LEAVITT RESERVOIR SITE
BIG HORN COUNTY

Location: - SE 1/4 Sec. 24, T. 54 N., R. 92 W.

Date Examined: - May 23, 1955

Engineering Data*: - Water level at dam: - 40 feet.
Storage: - 640 acre-feet. Maximum water surface
45 acres.
Fill: - 50,000 cubic yards.

Geology

The rocks cropping out near the damsite consist of light gray, purple, and buff shales and sandstone of the Morrison formation. Several hundred feet north of the site, this formation strikes N. 40° W. and varies in dip from horizontal to 15° SW. Covering the Morrison formation on the banks of the reservoir is a thin veneer of pre-Cambrian coarse-grained gravels and boulders.

Since the Morrison formation is relatively impervious here, the damsite should be favorable from a geological standpoint. Further, the soil samples taken by the Soil Conservation Service and analyzed in their labs show no serious dispersion or soluble salt content. Two of the three samples are reported to show good compacted densities and are only slowly permeable when wet.

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June 2, 1955

* Data furnished by the Soil Conservation Service, Department of Agriculture