

NUGGETS OF BOULDER COLOR

By Elton Garrett

120 GALLONS A DAY

"Did you use your 120 gallons of water today?"

That question might well have been asked any Boulder City resident last summer.

And he probably would have looked right back in blank amazement at his questioner.

And yet, statistics show that during last summer an average of 120 gallons of water for each person in Boulder City was pumped by the government, each day—for no lesser period than one month, at least.

And that month was July—one of the hottest of the summer.

W. R. Nelson, assistant engineer on the Bureau of Reclamation staff, is authority for that statement, published in a recent issue of the Reclamation Era, monthly reclamation magazine.

The government's \$95,000 filtration plant in Boulder City filtered last July a total of 18,370,000 gallons of water, or more than nine storage tankfuls—the hilltop storage tank capacity for 2,000,000 gallons at a time.

The water originally comes from

the murky Colorado, being taken from the river channel at the lower end of the workings, after the water has passed through the diversion tunnels through the cliff on the Arizona side of Black canyon.

It is pumped by several lifts, for a distance of more than seven miles, through a steel pipe one foot-in diameter, before it reaches Boulder City.

The water treatment then softens the water from 238 parts per million to 103 parts per million, and removes all the silt. From the most silt-laden river water in the world, it is transformed into a sparkling, clear and unadulterated liquid, which flows from a thousand and more faucets in Boulder City homes and offices.

The treatment by chemicals and other processes in the plant cost 8 cents for each 1,000 gallons, including cost of chemicals, electricity, labor and other expenses.

The water system for Boulder City had been in operation exactly one year last month—February—having been put into active use in

February, 1932.

For only ten days of that time has operation been unsatisfactory—and that was during the time following the cloudbursts in Utah, which brought about such an abnormal condition that it was impossible to cope with the peculiar fine clay that permeated the river.

When one considers what it means to make potable water from river water that by actual weight is 8½ per cent solid matter, he may see the problem that confronted the engineers during that period in September when thousands of tons of Utah clay were transforming the Colorado into a river of "soup."

At that time the silt content of this most-silt-laden river in the world was actually multiplied by ten—increased from 8,460 parts per million to 85,000 parts per million.

Such was one prank of the river that engineers are changing in part into drinking water for Boulder City, and which next summer again will be purified, in part, at the rate of more than a half million gallons a day.