

This fractional township consisting of the east half of T. 29 N., R. 52 E., lies in low, rolling hills and the foot hills of Smith Creek mountain, between Pine Valley and Smith creek mountain.

The western part is made up of low rolling hills, much washed and gullied. These hills are mostly a sedimentary formation of alluvial, gravelly ridges, and washes and ravines. The rock formation is mostly a quartz pebble conglomerate with sandstone matrix, also there is considerable lime and chalky outcrops, in secs. 3, 10 and 15. In the N.E. $\frac{1}{4}$ of sec. 1 there is a shale outcrop. There have been several small prospect holes dug in this shale and at the point where they have been dug there is exposed several small pinchy, narrow seams of black mineral, which I think is some form of asphaltum.

The limestone and chalky outcrops in secs. 3, 10 and 15 have been located at different times as oil bearing placers, but no work has been done on these locations.

The eastern part of this fractional township is mountain foothills, mostly high, rounded hills with steep slopes. They are quite gravelly, but not many loose rocks or rock in place. The gravel is mostly quartz pebbles, derived from the disintegration of the quartz pebble conglomerate.

The soil is very dry, mostly coarse texture, the eastern part is sandy and gravelly, the western part more of a sandy, chalky, alluvial loam. No part of this fractional township is suitable for farming without irrigation. There is fair feed for grazing stock, consisting of some grass and weeds and medium size sagebrush.

It is fairly well watered for grazing, both Willow and Smith creeks flowing all the year. In the southern two thirds, there are more or less scrubby, scattered junipers, but they are of little value except for firewood.

Along Smith Creek through Sec.1, there are quite a few cottonwoods. There are no settlers in this fractional township, and no land in cultivation.

Winfred A. Pray
U. S. Surveyor.