

Big Sulfur System

3 August, 1973

Neil B. Armantrout

Mileage begins at PG&E gate just above Geysers area

Big Sulfur

1.0 mi. just below here, where tributary enters, narrow rocky area; can't see down too well, but appears to be a falls area.

2.0 mi. Bridge crosses creek; has culverts through a cement pad for low flow. Pad is V-shaped to accommodate winter overflows. 3' drop at the base of the culverts into a deep (7') pool. Above the pad, gravel has deposited, forming a nice riffle area. On the northern side of the pool are a series of sulfur springs putting out quite warm water, along with fumes and minerals. Flow is about 1 cfs at the bridge.

At 1045 hrs, temp; A.T. - 85°, water - 81°.

4.1 mi. Tributary enters from the north. Less than 0.5 cfs. Water somewhat discolored towards a greenish hue. Extremely heavy growth of algae on the bottom.

5.3 mi. Road crosses at the place where the Socrates Mine Road enters from the north. A gravel crushing station is located here. Flow is less than 0.1 cfs. Temp at 1130 hrs: A.T. - 86°, W.T. - 68°. No fish were seen on this visit, although some were noted further downstream on the later visit. Residents in the area report trout are taken here during high spring flows.

The upper Big Sulfur drainage is a series of small channels originating high on the slopes. In the upper areas there is a lot of rock, and cover is mostly chaparral. The only road access to this area is the BLM Big Sulfur Road, which terminates in a turn-around 3.2 miles from the Socrates Mine Road crossing. The stream below this turn-around was dry; supposedly, there are some springs further downstream but this was not checked at the time of the survey.

Anna Belcher Creek. This tributary of Little Sulfur Creek was examined at the road crossing only. It is dry for most of the 100 yards that it was examined, with the exception of a few pools and a trickle flow for a short ways below the highway bridge. There is little cover anywhere close to the stream in this area.

Little Sulfur Creek

At the point where the Socrates Mine Road crosses it, the road is dry. This area is known as Pine Flats, an aptly named area since it is a flat area covered with open pine forest. There is good cover down to the streambed, which is mostly of silt and fine material. No indication of other than moderate flow. Channel is only a few feet in width, indicating that even in winter flows are not great. At the present time there is no flow in this area for at least 1½ miles of stream.

At the Healdsburg Geysers Road crossing, Little Sulfur has about 1 cfs flow; no temp. were taken because of the well-constructed fences along the stream at this point. The bottom was rocky. Fish were visible, but the type is uncertain. Good cover along the canyon above and below the road. The area, on the hillsides, appears to have burned recently, so cover is mostly brush.

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as water supply, etc. Canyon is rocky in places, with many boulders. Elsewhere, mostly riffles with quiet areas. Most of the pools with any depth are among the boulders, at the base of boulders or in corners by bedrock. Many sulfur springs all along the stream, mostly on the northern side. The south side slopes are covered with deciduous growth; northern slopes are mostly barren of trees, with many exposed, eroded areas close to the water. These barren areas along the stream are often associated with hot springs.

Some fish, all noted being warmwater. Heckava lot of algae, often in massive mats in the quiet areas. Considerable deposition on and discoloration of bottom rocks by material dissolved in water. Obvious much material in the water, which is off-color, although clear.

The tributary at  $\frac{1}{2}$  mile point is reported to have been a dumping area, or at least was the source of polluting materials coming from the geothermal area. At the time it was visited, it was obvious that a lot of stuff had washed out in the past, but at that point in time was running clear.