

State Department of Geology and Mineral Industries

1069 State Office Building
Portland 1, Oregon

TAYLOR OIL SEEP

Polk County

Location: The Hubert Taylor property is located 2 miles southeast of Falls City (see Dallas quadrangle map) on the Camp Kilowan road. A small lake on the Taylor place is located adjacent to the road. The property lies in the NE $\frac{1}{4}$ sec. 31, T. 8 S., R. 6 W., Polk County.

Geology of the area: (Baldwin - Dallas quadrangle, 1963). The Taylor lake is found on the east side of the Coast Range within the Little Luckiamute drainage on a tributary to Teal Creek. The Taylor property is situated on an old slide which partially bridged a small valley, forming a natural dam which has been utilized to create the present lake. The lake is approximately 150 feet wide at the widest point and a quarter of a mile in length. Water depth ranged from 6 to 8 feet.

Rock in the vicinity of the Taylor property was a middle-late Eocene siltstone of the Yamhill Formation. At this location the siltstone forms an erosional remnant $1\frac{1}{2}$ square miles in size which is shown to be resting on a sill of basalt. At higher elevations the siltstone has been eroded away exposing the basalt on all but the east side of the remnant.

Sampling operation: V. C. Newton and R. E. Corcoran of the State Department of Geology and Mineral Industries visited the Hubert Taylor property on March 6, 1963, to investigate a reported oil seepage. Sampling was done from a boat. Mr. Taylor pointed out a location at the upper end of the lake where the oil occurred. The bottom at this location was stirred with a rake, and a few seconds later small splotches of oil appeared at the surface of the lake

spreading into very thin iridescent films. After raking the bottom for an hour or more, quite a number of oil splotches could be seen on the water surface, but it was very difficult to scoop up much oil. Only a trace of oil had been collected in a jar after an hour of raking. Water in the jar had a kerosene odor but no oil was visible. The oil film observed on the surface of the lake was high gravity, nearly colorless, and appeared to evaporate rather quickly.

The water sample was sealed in a jar and the following morning checked under a fluorescent lamp. No fluorescence could be detected, even though a trace of oil was present as evidenced by a slight kerosene odor.

Conclusions: The material rising to the surface of the lake was a light gravity, nearly colorless oil having a kerosene odor. If the seepage was crude oil it must originate in the relatively thin layer of sediments overlying the basaltic sill as it is hard to explain how ~~the~~ oil below the basalt migrated upward to the sediments.

It is possible oil was generated during heating of organic material in the sediments at the time basalt was intruded. It is also possible the oil seeps from a sand lens in the siltstone through cracks resulting from landsliding. In any event, the amount of oil evident thus far is not enough to indicate commercial deposits may be found nearby. The occurrence would be of some interest if a sample could be obtained which was large enough to make a crude oil verification test (at least enough to fill a small bottle).

Report by: V. C. Newton, Jr.
Petroleum Engineer
March 26, 1963