

State of Alaska
Department of Natural Resources
DIVISION OF MINES AND GEOLOGY
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SKIN DIVING FOR GOLD IN ALASKA

The State Division of Mines and Geology frequently receives inquiries regarding the possibilities of mining gold in Alaska by using skin and SCUBA diving equipment. The interest in this type of mining has been created by the success of a few skillful divers who have recovered gold in California. Several strikes have been made there where small high-grade concentrations of gold occur in holes and crevices in the stream beds. Some of these occurrences have yielded several hundred dollars worth of gold. The number of such discoveries has been few, and the total amount of gold produced by this type of mining is small - probably not more than a few thousand dollars annually. Those who pursue this type of endeavor should do so as a hobby because there is little hope of making a living at it.

Many of the placer mining districts in Alaska have had a geologic history that has made the streams unsuitable for underwater mining. In these districts, the base level of erosion was elevated after the placer deposits were formed. The lower valleys are filled with deposits of silt, sand, and gravel that reach thicknesses of several hundred feet; the streams are now flowing at or near the top of the fill, above the bedrock floor and the placer deposits. Typically the streams are small in relation to their valleys; obtaining enough water for mining is usually a major problem. Deposits of this type are called buried placers. They are prevalent throughout the Fairbanks, Tolvana, Poorman, Ruby, Hot Springs, and other districts.

In other parts of Alaska there has been production of gold from gravel bars along streams that flow on bedrock. A few examples of such streams are: Fortymile River, Seventymile River, Birch Creek in the Circle district, and parts of the Hammond River in the Koyukuk district. There are probably numerous others. In such streams, it may be possible to recover gold from bedrock crevices or submerged bars by the use of diving equipment.

Gold placers in the various districts have been described in bulletins published by the United States Geological Survey. Many of the bulletins are now out of print, but copies can often be found in public libraries or purchased from second hand book dealers. A study of the descriptions and maps in these bulletins will aid in the selection of favorable localities. Particular attention should be given to localities where bar deposits are along streams that flow on bedrock. It is advisable to make a feasibility study of the selected streams before a large expenditure of time and money is made.

When Alaska was a Territory, the land underlying ordinary high water line on inland navigable streams was held in reserve by the Federal government for the future State. Mining between low and high water lines was permitted under regulations agreed upon by local miners; the land below low water line was mined under such rules and regulations as the Secretary of the Interior prescribed. Statutory law does not define a "navigable stream", but there have been many court decisions to serve as a guide. If a stream is not navigable, any mining claims staked in the stream bed, either before or after Alaska became a State, would be valid.

In January 1959, when Alaska achieved statehood, lands underlying navigable streams, tide and submerged lands, became the property of the State. Regulations were adopted to provide for mining rights and procedures on these lands. These regulations permit either claim staking or mining leasing on lands underlying navigable streams and on tide and submerged lands, depending on how the State classifies the lands. Mining leasehold locations are made in the same manner as mining claim locations. Making a discovery, erecting corner posts and marking boundaries are required. The rules are similar to those applying to Federal public domain.

Most of the underwater work done by a diver in a navigable stream would be in the nature of prospecting. It might not be desirable to stake a claim or leasehold location unless an area were found in which the diver anticipated working for a definite period of time. The diver should always make sure that he is not working on another's valid mining claim or infringing on another's rights in any way.

No maps exist that show the locations of land or streams open for mineral exploration and mining. The ownership of land or claims in any given area can be determined in an approximate manner from records in the Juneau, Anchorage, or College offices of this Division; the exact location and status must be determined by a careful search of the area. The prospector must look for corner posts or monuments, signs, and evidence of recent work. The diver who is seriously planning to operate in Alaska will find further information in Di&G Information Circular No. 1, "Proper Claim Staking in Alaska", and Information Circular No. 6, "Alaskan Prospecting Information."

Before excavating or dredging work is undertaken in a stream, notification must be sent to the Commissioner of Fish and Game, Juneau, Alaska. He will acknowledge such notification and give instructions as to whether the work may or may not continue and impose restrictions to protect salmon and other fish.

Before gold or other minerals are mined or extracted, a mining license must be obtained from the State Department of Revenue at Juneau. Prospecting permits or licenses are not required.

Many of the streams in which underwater mining might be feasible are not accessible by road. Most Alaskan terrain is so wet or soft that even four-wheel-drive vehicles can seldom operate off the roads. The times of the fall freezeup and the spring breakup vary throughout Alaska, but most Interior Alaska rivers are ice-covered from October to May.

Assuming that all divers who propose to operate in Alaska are proficient, we will not attempt instruction on methods, equipment, safety, etc. Detailed articles on diving, underwater mining equipment and methods, have been published by the California Division of Mines (June, 1960 issue of Mineral Information Service), and the Oregon State Department of Geology and Mineral Industries (April, 1961 issue of the Ore-Bin).