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MINING ACTIVITY IN THE NORTH FORK OF THE
CLEARWATER RIVER AREA

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RETYPE--1988
by the Idaho Geological Survey

The original publication was no longer of reproducible quality. Geologic and English usage appear as in the original. Only minor typographical errors have been corrected.

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INTRODUCTION

Because of considerable interest being shown in the drainage area of the North Fork of the Clearwater River, a preliminary examination was undertaken in the early summer of 1940.

The area investigated was essentially Clearwater County. This territory is drained almost entirely by the North Fork and its tributaries. South of Pierce the drainage is into Lolo Creek and thence to the Clearwater River. Because of interest in this part of the county, and also the adjoining part of Idaho County, this area is included.

At some future date, an investigation of the drainage of the Lochsa River should be undertaken.

The accompanying map has been compiled from the 1936 U.S. Forest Service Map of the Clearwater National Forest. This map was drawn to a scale of 1 inch = 2 miles. It shows all trails, lookout stations, ranger stations, creeks, etc. The attached map shows but little of this detail; in fact, only the essential stream data, roads, and other information thought essential are given. Also the Forest Service issues a smaller scale map of this district (1937 - 1 inch = 4 miles). Any one contemplating prospecting in the area would do well to obtain a copy of the smaller map from the U.S. Forest Service at Orofino, Idaho.

No effort has been made to distinguish between what is classed as good roads and poor roads. It may be said, however, that probably 95 per cent of the roads shown are classed as good motor roads; that is, so far as this type of road is concerned. The Forest Service maps distinguish between the types. With the exception of the stretch between Pierce and Cedars, the roads are steep and narrow, but under proper weather conditions are easily accessible.

Any one anticipating extensive in the area should be provided with extra gasoline and oil carrying facilities in addition to camping equipment. Pierce, at least at present, is the only point where supplies may be obtained. The Civilian Conservation Corps has built numerous camp grounds from the one west of Bungalow to Cedars. Others will be noted on the road leading to the headwaters of the Lochsa River. All of these camp grounds are not shown on the map.

WORKING SEASON

The time available for working this area depends on the severity of the preceding winter. Occasionally, there is what is called an "open winter". Then practically year around prospecting may be carried on. As a rule, however, the season is limited from about April or May to about the first of November, that is, so far as climate is concerned.

Water supply available for small hand operators may cease in many places as early as the middle of June to the first of July; this depends almost entirely on the amount of snowfall during the winter months. Some of the large outfits, with facilities to store or gather a water supply, continue until freezing sets in.

COST OF LIVING

The cost of subsistence for wholesome food is not excessive. Two men may live comfortably on \$16 to \$18 per month. This is accomplished by the careful use of dried foods and not too many canned goods. During the fishing and hunting seasons, this cost may be reduced.

ACCESSIBILITY

As shown on the map, the area is fairly well covered with roads. The Forest Service map shows in addition an exceptionally large number of trails. Usually there is not required more than 4 to 5 miles of packing.

GRAVEL AND BEDROCK CONDITIONS

The average depth of ground appears to be about 12 to 15 feet. This includes the pay streak gravel of 2-1/2 to 3 feet. Values penetrate bedrock about 1 foot. So far as the investigation was carried, few boulders exceeding 12 to 15 inches were observed (although on the North Fork below Cedars some 3-foot boulders are present). Gravel, as a rule, is coarse and more or less rounded, but there is a considerable amount of flat stuff. Tightly consolidated gravel seems to be lacking. In some of the meadows, tree, brush, and grass roots cause trouble, especially for dredge and dragline operations.

No false bedrock is reported.

Some deposits have a considerable amount of clay, thus requiring excessive washing to save fine gold.

In the Cedars district, some bench gravels lying considerably above the river are reported.

NATURE OF THE GOLD

The gold is, apparently, what is known as "heavy" gold. That is, while the particles may be very small, they are more or less equidimensional, settle rapidly, and are easily saved. Most of the values are recovered in the first 6 to 8 feet of the sluice line. Some small nuggets are found. In some localities, quartz particles carrying gold are recovered.

VALUE OF GROUND

No definite information can be given on the exact value of gravel in the various localities. Time available was insufficient for actual test work. However, the opinions of the men working and prospecting in this district are given for what they may be worth.

For hand operations, they believe the gravel should run about 40 cents per yard to return the operator wages. By wages are meant \$1.50 to \$2.00 per day.

Dredge ground has been worked for 9 cents per yard and probably less. Many of the areas shown on the map are said to run 12 to 18 cents and more per yard.

Small, isolated patches of gravel may occasionally be found where it is claimed better than \$1.00 per yard.

A number of men are supposed to have taken out \$1,000 more or less during a working season with hand work.

The gold runs about 860 fine.

LEASING AND ROYALTIES

The tendency in the district is to lease ground on the basis of 10 per cent of the gross recovery. Before working on company land, the Potlatch Forests, Inc., Lewiston, Idaho, should be consulted. They have their own leasing arrangements.

OPERATING METHODS IN USE

Dredging, hydraulicking, draglines and drag shovels, and hand operations (sluices and panning) have been and are in effect at present. A bulldozer is used to clear off brush ahead of the dredge on Quartz Creek.

For the major operations, the ground should be thoroughly tested by experienced men. On the results of this work will rest the decision as to the type of machinery to be installed. Experience indicates that it takes two men two days to sink one test hole. This includes all incidentals such as moving, setting up sluice, measuring and classifying the gravel, etc. The holes are 6 to 10 feet deep and about 4 feet in diameter. Wagon tires with lagging driven around their periphery are used on caving holes. A pump may be necessary to keep the water out of the test pit or to bring water to the sluice box.

Some promising deposits are not suited for dredging, but may prove workable with a dragline.

Dry-land, washing plants have been used in several instances. These are mounted on skids and moved ahead as the excavating progresses.

Testing has been done almost entirely by test pits. One airplane- type drill was observed near the junction of French Creek with Orogrande Creek.

For the hydraulic operations, the giants are supplied with water from ditches through a penstock. The head is usually about 100 feet. So far as could be determined, no giants were operated through the medium of a pump. This method of operating a giant should always be considered.

DISCUSSION OF AREAS NORTH FORK CLEARWATER RIVER

From Dicks Creek, below Dent, up the river to Moscow Bar, considerable hand-mining and sniping is done after high water has started receding. Swamp Creek has had some production. The values found along the river are apparently carried down from the upper region of the North Fork. The prospecting of the tributaries to this area would appear worth while.

In the Stocking Meadows area, it is reported that beryl has been found.

On Meadows Creek on the Little North Fork, values are reported.

From Moscow Bar to Bungalow Ranger Station, no indication of gold has been found. This also true of the river between Bungalow and the Forks (at the junction of Kelly Creek with the North Fork). However, many gravel banks above the highway and numerous bars in the river were observed along this route. A further investigation of this area, especially the gravel above the river banks would be worth the time spent.

From Fix Creek to a little below Cedars Ranger Station, numerous test holes have been sunk. It is claimed that they all showed good values.

Above Cedars, on Long Creek, Chamberlain Creek, Vanderbilt Gulch, Meadow Creek, and Dill Creek, operations have been carried on.

Early-day mining on Hidden Creek has not recently been investigated.

MOOSE CITY AREA

Moose City is one of the early-day scenes of gold mining in Idaho. A great deal of activity is still in evidence. Slide Creek, Deadwood Creek, Independence Creek, and Osier Creek are receiving attention. A discovery of cinnabar is rumored in the Moose Mountain area.

OROGRANDE CREEK

As noted on the map, work has been done from Crystal Creek to Elbow Creek. The junction of French Creek with the Orogrande is at present under investigation by outside interests.

PIERCE AREA

Gold was here first discovered in Idaho in 1860. Activity has continued unceasingly since that time. Canal Gulch carries values, but, because of heavy timber, is difficult to mine. The headwaters of French Creek, east of Pierce, Rhodes Creek, Clearwater Gulch, Armstrong Gulch, Shanghai Creek, Orofino Creek, and Quartz Creek may be mentioned. While these areas have been worked, and in some instances reworked, they are from time to time further investigated.

A 2-1/2 cubic foot, floating dredge of all steel construction has been working on Quartz Creek for the past year. It has a capacity of about 2,500 yards per day. It will continue operation up Quartz Creek and up Trail Creek. Values have been reported on Little Beaver Creek, branching off of Trail Creek. The dredge operator reports that he recovers 94 per cent of the values. His recovery practically checks the test data.

The Democrat Mountain area, because of inaccessibility, has not received too much attention. Cow Creek, Poormans Creek, Reeds Creek, and Snake Creek have been the source of some gold production.

Cinnabar has been found in cleanups in the Pierce district.

MUSSELSHELL AND ELDORADO AREA

The drainage of the Musselshell and Eldorado region is into Lolo Creek and thence to the Clearwater River. Activity has been reported on Lolo Creek below the confluence of Eldorado Creek, and further up the Eldorado.

Musselshell Creek, Gold Creek, and Dutchman Creek have locations and operations.

VEIN ACTIVITY

Early-day underground mining is known to have been attempted in the region under discussion. There was a modest production from this source. This is especially true on French Mountain, east of Pierce. Operations ceased at depths of about 150 feet because of base ores and lack of proper geological control over mining and prospecting operations. At present, vein or ledge mining, as it is called here, is exciting much interest and investigation.

The greater part of such work is still being done on or near French Mountain. Other veins in widely scattered areas have, however, been opened up. The work, with few exceptions, consists of simply having made the discovery with a little superficial sampling. Values thus found are felt to be sufficient to continue development work. Locally, the French Mountain district is believed to hold great promise.

About two miles up Silver Creek (just north of Orogrande Creek), there is a 50-ton cyanide mill. On Dutchman Creek, in the Musselshell area, there is a 5-ton Gibson mill using amalgamation (Pioneer mine).

Ledges have been reported sampled on the North Fork at Benton Creek; about one mile below Cedars; on Deadwood Creek (Moose City area); and on Doe Creek, an upper tributary to Kelly Creek (about 14 miles southeast of Moose City). This is a lead-silver vein.

CONCLUSIONS

The area under examination represents one of the oldest, if not the oldest, in the state, and, therefore, might be considered as holding little promise for future development. This, however, can not be concurred with. Only in recent years has this extensive territory been provided with roads and other facilities for making it accessible. Mining, and especially metallurgical processes, have been development which make possible the mining of types and grades of ore unthought of in previous years. The area would, therefore, appear to offer opportunity for further detailed investigation.

On the basis of past and present operations, there seems to be two well defined strips in which most of the work has been done. These are the following:

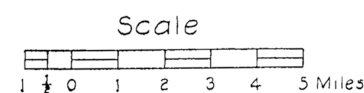
- 1). An area running from Stocking Meadows southeast to Eldorado Creek. This strip has a width which includes Democrat Mountain on the west and the junction of French Creek with Orogrande Creek on the east.
- 2). The Vanderbilt Gulch-Dill Creek area south to the Moose City area.

Between these two lies a large extent of ground which is supposed to be of little value. More detailed and systematic prospecting may prove otherwise.

It would appear desirable that a detailed geological survey be made of the area bounded by longitude $116^{\circ} 40'$ on the west; the Montana line and longitude $114^{\circ} 40'$ on the east; latitude $47^{\circ} 00'$ on the north; and latitude $46^{\circ} 10'$ on the south (or, at least, to the Lochsa River on the south).

MINING ACTIVITIES
NORTH FORK OF THE CLEARWATER
IDAHO BUREAU OF MINES AND GEOLOGY
MOSCOW, IDAHO JULY 1940

DRAWN BY W.W. STALEY
(ADAPTED FROM U.S. FOREST SERVICE MAP OF THE CLEARWATER NATIONAL FOREST, IDAHO—(1936))



- ▨ Mining and Prospecting
- ▲ Forest Service Lookout Stations
- △ Camp Grounds
- Roads

