

Rawlins, Wyoming
August 10, 1944

Subject: Spanish Trails group of LEAD-ZINC claims.

Purpose: To examine available workings, and geology in their vicinity.

Locators: Mr. Frank H. Ferris, P.O. Box 806, Rawlins, Wyoming and Mr. L.O. McLean, Casper, Wyoming.

Location: The claims lie in Secs. 5 & 6, T. 26 N., R. 86 W., 6th P.M., Carbon Co., Wyoming, near the head of the south fork of Miner Creek, a small tributary of Sand Creek. They are about 65 miles north of Rawlins via Route 287. From this point the Buzzard Ranch road is followed southward for 24 miles. The claims are about three miles southwestward from the ranch corrals.

None of the claims of the Spanish Trails Group have been patented. There are 16 claims in all, the entire group was located in the summer of 1941. The district is unorganized. The claims include:

- 1) "Spanish Trails" Nos. 1 to 9
- 2) "Done Moving" Nos. 1 & 2
- 3) "Mabel" Nos. 1,2,3,4,5

A claim map, on a 1" = 400' scale, made by the City Surveyor of Riverton, is available and was prepared in 1943. The claims shown on the map are tied to the SE. corner of Sec. 31, T. 27 N., R. 86 W., 6th P.M., Carbon Co., Wyoming.

History

Sometime prior to 1890 a stamp mill was erected on Sand Creek and ore, probably from the Mathilda Jane tunnel on Spanish Trails #2, was treated there. Presumably this was free-milling gold ore from oxidized pyrite-quartz veins. In March or April 1943 some of the claims were leased to John Keahey, Highway Commissioner, of Buffalo, Wyoming and associates. Mr. Keahey's organization is variously estimated to have spent between \$2500 and \$5000 during the summer of 1943. Some of the tunnels were mucked out and a few additional feet driven on the tunnel on Spanish Trails #4 claim. This was development work only and no ore was shipped.

According to Mr. Ferris his own assay sheets indicate that the ore runs from \$50.00 to \$56.00 per ton in combined Pb and Zn, is rather high in Ag but shows only \$0.07 in Au.

Observations

A substantial amount of work has, apparently, been done on these claims. The Mathilda Jane tunnel, now partly caved, is in the SW corner of Spanish Trails #2 claim, the portal being on the north bank of Miner Creek. This tunnel is some 450 feet long, bears NW., and has a 120 foot drift bearing about S. 70°W., going off the main haulage tunnel. On the east bank of Miner Creek is another tunnel in the northern part of Spanish Trails claim #4. This scales some 260 ft. in length and has two 40-ft. drifts extending southward from the main tunnel which itself bears about S. 80°E. This tunnel was not accessible at the time of inspection. A shaft with drifts aggregating 400 ft. or more in length, and bearing about N. 80°E., lies on the Mabel #1 claim but its portal is now caved.

In the southern part of the Ferris mountains the entire country rock is Pre-Cambrian. Chlorite schists, biotite schists, impure arenaceous slate, variegated and mottled blue-green, actinolite-bearing quartzite, and serpentine are abundant. Possibly some of the quartzites are actually siliceous hornfels. Near the head of Miner Creek this metamorphic complex has been intruded by a coarse-textured, strongly porphyritic granite. Also much uniform, light-grey to pink granite occurs to the northeast between the metamorphic rocks and the Buzzard Ranch.

The writer was guided by Mr. Ferris to an open pit on the ridge top east of Miner Creek. This opening is probably on Spanish Trails claim #4. The pit is about 15 X 20 ft. in cross-section and some 25 feet deep. Opening from the bottom of the pit is a shaft perhaps 30 ft. deep. In the pit and near the ground surface a number of narrow metalliferous quartz veins, striking N. 30°W. and dipping 85° westward, are exposed. The enclosing rock appears to be an impure serpentine, much of it riddled with secondary magnesite(?), and green schist both of which manifest strong shearing and crushing action. The quartz veins vary from 2 to 4 inches in width and in the aggregate are perhaps 12 to 18 inches thick. Individual veinlets are separated by intensely deformed and slickensided serpentine partings. Not more than a few inches of galena were seen near the surface but it is reported that at the bottom of the shaft the massive galena attains a thickness of 2 ft.

The ore consists chiefly of massive galena with appreciable pyrite, chalcopyrite, limonite and traces of azurite and malachite in a gangue of quartz with small amounts of epidote and actinolite.

It is obvious that at least near the surface one is dealing with a system of small, individual, metalliferous quartz veins which have been introduced along major shear zones or fault planes. It is also possible that there has locally been appreciable contact action occasioned by intrusion of the granites.

Conclusions

1. The Spanish Trails group of claims is in a structurally favorable environment. Further, there is evidence of relatively strong local mineralization and also intense hydrothermal action is suggested by the conspicuous rock alteration, particularly serpentinization.

2. Large scale mapping, in order to depict structural trends, contact relations and vein distribution in detail, seems a necessary prerequisite to any really helpful suggestions regarding further prospecting and development.

3. The individual veins appear small but some of the larger vein systems may reach substantial dimensions in the aggregate and the altered wall rock may itself also carry appreciable values. Because of branching of veins, and rapid variations in the tenor of sulphides within them, it would probably be necessary to work an entire shear zone rather than any one given quartz stringer or veinlet.

4. In the developmental stages at least it would seem advisable to follow the ore from surface exposures since rapid and unpredictable variations in the attitude of the veins and vein systems may well ensue with depth.

Respectfully submitted,


J. C. Haff