So. 157 Howard Street
Spokane, Washington 99204
August 6, 1963

Memorandum

To: Chief, Division of Field Operations

From: Acting Field Officer, Region I

Subject: Application examination
CMK-6276 (Silver)
William R. McLure
Needle Gun, et al. Claims
Granite County, Montana

INTRODUCTION

Three prior applications for assistance to explore the Needle Gun, et al. Claims under the DMEA program were considered and denied. In two applications under Docket No. DMEA-1958 and Docket No. DMEA-2747 the applicant proposed to explore the Needle Gun vein by driving and/or extending an adit drift easterly. In a third application under Docket No. DMEA-4948 he proposed to explore near the intersection of the Needle Gun vein and a cross vein by sinking a shaft. These dockets contain four examination reports, one by John S. McWabb, Mining Engineer, U. S. Bureau of Mines, and James Quinlan, Geologist, U. S. Geological Survey (DMEA-1958), one by the same authors and one by Howard B. Nickelson, Geologist, U.S.G.S. (DMEA-2747), and one by William C. Prinz, Geologist, U.S.G.S. (DMEA-4948). In this application Mr. McLure proposes to deepen a shaft now 35-40 feet deep to explore the same intersection which is the subject of the report by Prinz (DMEA-4948).

The shaft it is proposed to deepen was started after Prinz examined the property; it was therefore deemed advisable to make another inspection which was done July 19, 1963, in the company of Mr. McLure. As the road from the old townsite of Granite to the Needle Gun property was in bad condition with high rock centers, McLure kindly offered to take me to the property in his jeep. About 6 hours was spent on the property, inspecting the new shaft, visiting several of the old trenches along an intersecting vein, called by McLure the "C" vein, as well as old trenches and pits along the Needle Gun vein west of the portal, and inspecting the dump at the portal of the Josephine tunnel on a claim adjacent to and north of McLure's Gold Coin claim.

The old pits along the "C" and the Needle Gun veins were so covered by soil and bush growth that all vein exposures were deeply buried and could not be seen. Fragments of vein material in the debris indicated only that the pits contained probable vein material - some quartz and some fragments of iron oxide - and that they were probably located along veins.

The character of the vein and mineral occurrence in the Needle Gun adit has been described and mapped by the various examiners above mentioned and was not entered.

The property, location and accessibility, and geology have all been described in the reports mentioned above and in the literature cited therein. This report will be limited to what was actually seen, a discussion of McLure's theory on which he basis his expectation of finding ore, conclusions and recommendations.

CONCLUSIONS AND RECOMMENDATIONS

It is concluded that the chance of making a significant discovery of silver-bearing ore is poor. It is recommended that the application be denied.

FACTUAL OBSERVATIONS

About 20 feet north of the portal of the Needle Gun adit (pl. 1) is a timbered shaft 4½ feet by 9 feet in section said to be about 35 feet deep. It is timbered by locally cut round timbers about 8 inches in diameter to a depth of 27 feet. The bottom of the shaft is filled with muck so that the measured depth is 30 feet. Dividers are about 10 feet apart and no ~~wall~~* plates are installed.

In the 3 feet or so between the bottom of the timber and the top of the muck is a vein composed of quartz and silicified wall rock up to 1-foot wide between walls of weathered granite. The vein appears to strike about N. 60° W. and dip about 76° NE, but due to the limited exposure in the shaft, these recorded elements of vein attitude may not be representative of the strike and dip of the vein as a whole. If this is the same as the vein shown near the portal of the adit, the strike would be more nearly N. 45° W. The trench north of the portal mentioned by Prinz as showing this structure has been covered by muck from the shaft. I believe the veins are the same. Two samples were taken at the bottom of the shaft and assayed:

* Divider

Sample No.	Location	Ounces/Ton Au	Ag
181-C	1 ft wide, NW corner	0.02	1.1
182-C	1 ft wide, SE corner	0.01	0.4

About 350 feet northwest of the shaft is a trench that from all appearances was put in by the old timers. McLure dates it about 1900. The bottom and sides are covered by deeply weathered soil, a foot or 2 thick on the sides, in which bushy growth several feet in height flourishes. The remains of the dump at the trench side is nearly level and similarly overgrown, but by scrapping around a few pieces of quartz and silicified rock heavily stained by iron oxide and some manganese oxide were found. No similar material in place could be found. On the sketch accompanying the application this trench is shown as being about N. 45° W. of the new shaft, but very heavy evergreen and shrub growth prevented a positive compass check however it is probably close. That it is on the "C" vein is pure speculation - it may be. At best it only indicates that the "C" vein extends northwesterly toward the easterly extension of the Josephine vein.

Returning to the Needle Gun portal the trench a few feet to the west was inspected. Prinz's description is accurate; a 4- to 5-inch vein near the southern end bordered on the north by a zone of crumbly, sheared, altered granite, stained by iron and manganese oxides. Tight iron-stained shear planes 2 to 4 inches apart in the granite are numerous for about 20 feet north of the vein.

We then started westerly and passed 3 or 4 trenches and pits said to be on the Needle Gun. While not as old as the one on the "C" vein, these trenches were in nearly as bad shape although at one there was more quartz and silicified rock, stained by iron oxide on the dump.

Although the applicant has not been able to lease the Josephine claim, adjacent on the north to the Gold Coin, he was most anxious for me to see the vein material on the dump. The portal of the Josephine tunnel is some 1,800 to 2,000 feet northwesterly of the Needle Gun portal and between 350 and 450 feet lower in altitude. The tunnel is caved and has been for some 50 years or more. According to McLure, the Josephine tunnel was formerly known as the Three Metals tunnel. The only known literature relative to this working is a brief description by Emmons and Calkins in Professional Paper No. 78, p. 208, as follows:

"The Three Metals tunnel, as shown by mine maps, cuts a vein 234 feet from the portal and follows it for 1,200 feet along the strike. The vein dips 80° E. According to Mr. Hector McDonald the ore is composed of quartz, pyrite, galena, and a little ruby silver. A few hundred dollars of ore has been shipped from this vein."

A grab sample of dump material, picked for high grade assayed 0.05 ounce gold and 70.4 ounces silver per ton, 16.1 percent lead and 18.0 percent zinc.

MCLURE'S THEORY

As pointed out by Prinz (DMEA-4948), McLure has taken out of the context certain statements made by Emmons and Calkins relative to the ore bodies found along the Granite-Bimetallic vein and has tried to make them apply to the Needle Gun, "C", and Josephine veins. Because at the Granite-Bimettalic vein ore shoots were formed by vein reopening accompanied by redeposition of primary minerals in an environment favorable for secondary enrichment, McLure assumes that similar vein reopening and redeposition took place on the Needle Gun and Josephine veins. Also, because another favorable environment at the Granite-Bimetallic mine has been at intersections of the main east-west vein with southeast-striking veins, he assumes that a similar deposit will be found along the intersection of the "C" and Needle Gun veins. Based on hearsay from an old timer, now deceased, who worked at the Josephine, he also assumes that the ore taken from that mine came at the intersection of the Josephine and the "C" vein.

Regarding the deposition of ore shoots at vein intersections in the Granite-Bimetallic mine, Emmons and Calkins say in the cited paper on p.p. 178-179: "The richest ore in this vein occurred above a junction of two veins forming a nearly horizontal line of intersection (fig. 24). Vertical junctions as illustrated by figure 25 were not enriched in this manner."

As described by Prinz and others, the Needle Gun vein is a weakly mineralized fissure showing no evidence of being reopened as has the Granite-Bimetallic vein. Of 6 channel samples taken by DMEA examiners in the Needle Gun tunnel the best contained 0.093 ounce gold, 3.6 ounces silver per ton, 0.15 percent lead and 6.4 percent zinc over a width of only 4 inches. This sample was taken about 760 feet from the portal, measured along the vein, at a point 100 to 200 feet below the surface. A grab sample of the "C" vein about 20 feet in from the tunnel portal assayed 0.06 ounce gold and 0.3 ounce silver per ton, 0.06 percent lead and nil zinc. Two

samples of the "C" vein taken by this examiner from the bottom of the winze assayed, respectively, 0.02 ounce gold and 1.1 ounces silver per ton over a width of 12 inches and 0.01 ounce gold and 0.4 ounce silver per ton over a 12-inch width. There is no evidence that the Needle Gun, the "C" vein, or their intersection offer much promise as a target for exploration.

Although the applicant has so far been unsuccessful in securing a lease on the Josephine claim, he says he still has hopes of doing so. The material on the dump was of small enough sized pieces to make a guess as to the nature of the ore source difficult. Suggestions of vugs and some banding of sulfides with granodiorite in between were observed indicating that the vein may have been reopened or that the ore could have come from a vein intersection. The tunnel has been caved since early in the century -- about 1906 -- and of the men who worked there none are known to be alive in the district. Thus, McLure's theory with respect to this vein might conceivably be correct, but it is difficult to postulate reopening of the Needle Gun at depth with no evidence of such in the 1,700 feet or so of tunnel in which it is exposed, as Prinz points out.

The idea of 2 or 3 deep diamond drill holes to explore the 3 veins at depth, if McLure had control of the Josephine, is somewhat intriguing, but he is not interested in any diamond drilling, having withdrawn from his application the single hole he originally planned.

It was pointed out that to deepen the shaft 150 feet as he proposed in his application would only reach a total depth of 180-190 feet, whereas by his own statement the top of the high-grade ore could be 200 to 300 feet deep. He immediately said he would be willing to deepen it 250 feet for a total depth of 280-290 feet. He also agreed that 100 to 150 feet of drifting should be done from the bottom of the shaft.

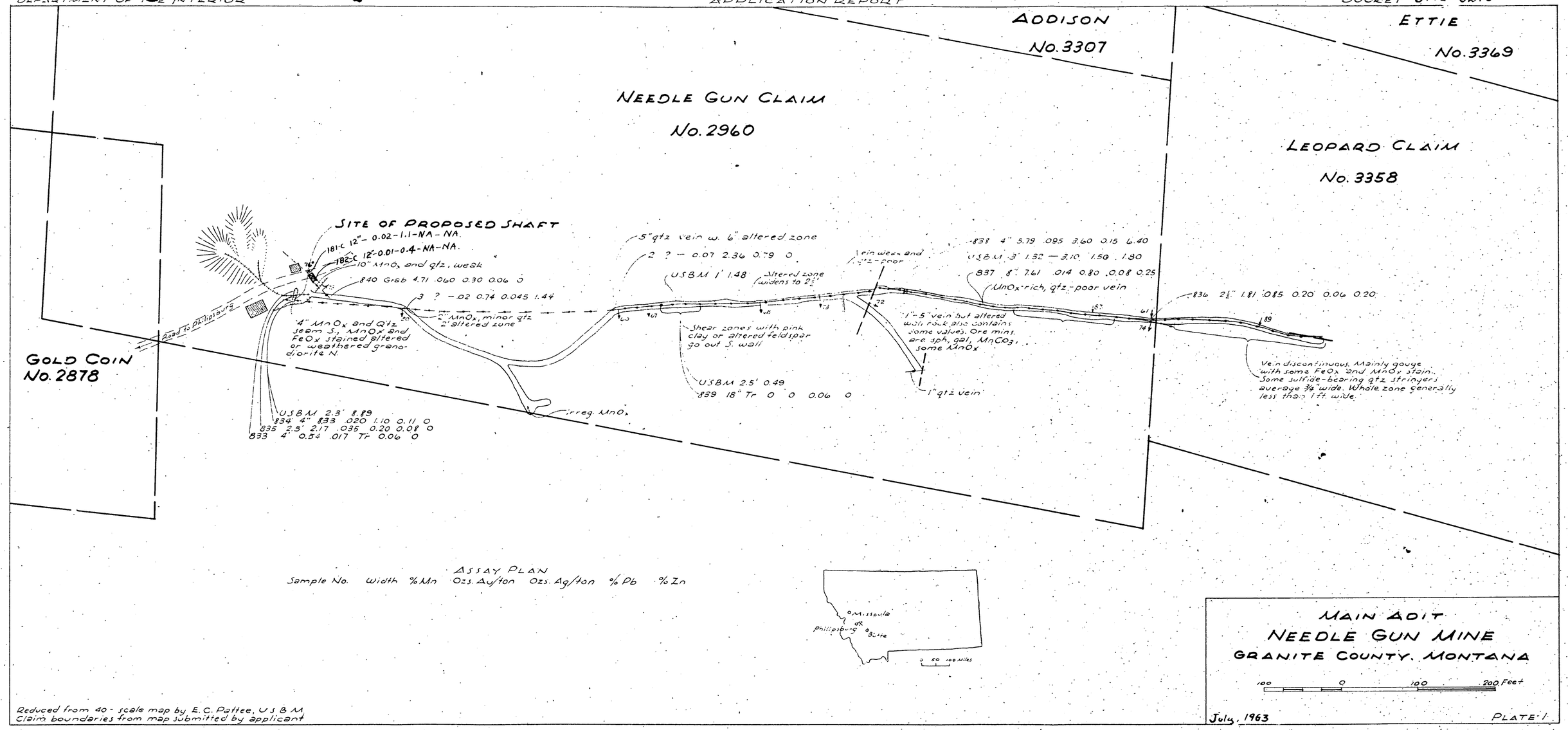
Although an attempt was made to explain the lack of criteria indicating vein reopening, it was soon discovered that it was completely futile. The applicant has become convinced that the Needle Gun is just like the Granite-Bimetallic, that at depth it will be found to have been reopened and filled with high-grade shoots and that other shoots will be found at vein intersections.

I advised the applicant that I had not had time to study Professional Paper 78 and that after doing so, I might still not be able to agree with his views, but on the chance that I might, I discussed elements of costs with him. He assured me that he understood the discussion was in no sense an implication that a contract would be forthcoming.

UNITED STATES
DEPARTMENT OF THE INTERIOR

APPLICATION REPORT

DOCKET OME-6276



Reduced from 40-scale map by E. C. Pattee, U.S.B.M.
Claim boundaries from map submitted by applicant

DMEA 4948

CONCLUSIONS AND RECOMMENDATIONS

After considering all the available data, it is concluded that the chance of a significant discovery resulting from deepening the shaft 250 feet and drifting 100 feet to explore the "C" vein and its junction with the Needle Gun vein is such a long shot as to be poor and it is therefore recommended that the application be denied.

D. R. MacLaren

Enclosure
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