Preliminary Report on the

Little Granite Mine Black Range Mining District Sierra County, New Mexico

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W. Terry Geologist

N.M.B.M. & M.R. February 15, 1980

Summary

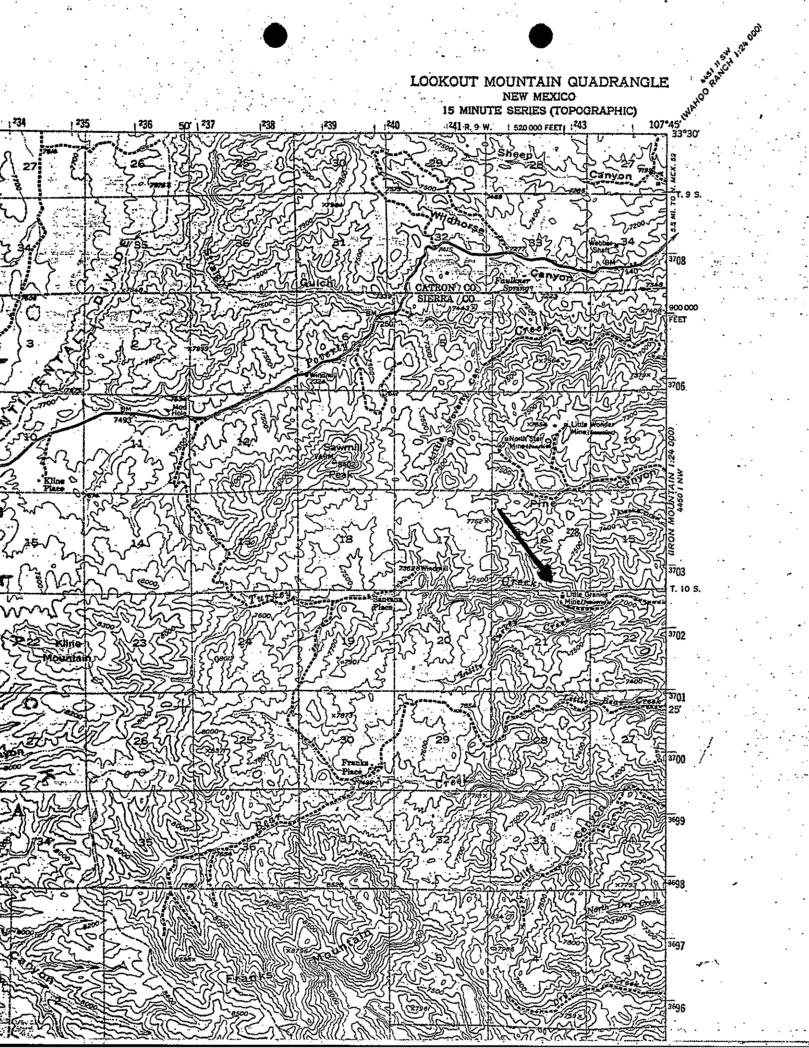
The workings of the Little Granite mine are nearly inaccessible and generally of unknown extent. Random samples from surface croppings show promising values, but no mining venture should be undertaken until the existence of economic ore is proven by additional sampling and diamond drilling.

Purpose and Scope of Report

The Little Granite Mine was briefly examined by Bureau personnel at the request of Mr. John Foster to determine if the property is worthy of additional exploration and development by Mr. Foster and his associate Frank Turley.

Location and Accessibility

The mine is located in NE½ sec. 21, T. 10 S., R. 9 W., in the Black Range Mining District, Sierra County New Mexico. It is shown on the U.S.G.S. Lookout Mountain, 1949 15-minute quadrangle (fig. 1). The mine property is reached by travelling north 2.2 miles from Winston on State Route 42, thence northwest via a dirt road along Turkey Creek. A locked gate is encountered approximately one mile from the paved road, but entry can be gained from the property owner. The road follows Turkey Creek for approximately 7 additional miles; parts of it are quite primitive, with the last quarter



mile being impassible.

History

No maps of the mine workings of claims, assays or any other data, except a verbal description of the location, was provided by Messers Foster and Turley; therefore, very little is known regarding the history or production, if any, of the Little Granite Mine.

The earliest known reference to the Little Granite was in an 1877 report \(\frac{1}{2} \) written when the mine was owned by Mr. Oscar Neisly. The 1887 report stated the vein was 2½ feet in width and carried 40 ounces silver to the ton and "some gold." The ore was said to be free milling, but no shipments were recorded. The mine was also mentioned by Harley \(\frac{2}{2} \) who stated, in part "mines in the [Grafton area] include the Gold Hill, Gold Coin, Little Granite (also known as "Mima"), and many others. Much ore in small lots has been taken from these prospects from surface cuts and shallow underground working." Harley \(\frac{3}{2} \) credits the miscellaneous prospects in the Grafton area with \$40,000 in production through 1932. How much of this, if any, can be credited to the Little Granite is unknown.

Propert on Mines of the Black Range and Apache Districts, Atchison, Topeka, and Santa Fe Railway, 1887.

^{2/} Harley, G.T., "The Geology and Ore Deposits of Sierra County, New Mexico, N.M.B.M. & M.R. Bull. 10, 1934, p. 81

 $[\]frac{3}{}$ Harley, G.T., op. cit., p. 78

Geology

The Little Granite vein occurs as open space filling in a medium— to brownish gray porphyritic volcanic unit believed to be andesitic in nature. The vein strikes N5°W, dips about 80° to the east, and is composed primarily of quartz and some calcite. The vein ranges from 1 ft (30 cm) to 3.5 ft (1.1 m) in width and was traced about 400 ft (122 m) north of the main shaft and roughly 400 ft (122 m) south of the main shaft. Ore mineralization can be observed as dark stringers ½ to 3/4 inches (1-2 cm) in width within the quartz and calcite gangue. Ore minerals include sparsely disseminated grains galena, chalcopyrite, and argentite/acanthite. Two vein samples collected at the site (see sampling) averaged .12 oz/t gold and 13.25 oz/t silver.

Property Description

The Little Granite consists of at least one unpatented lode claim. A 4" x 4" squared post, marked "S end center Little Granite" was found at the toe of the Little Granite dump. From this, a conjectural claim map was constructed.

Known workings consist of 3 shafts: the Little Granite,
7' x 7', a 2-compartment shaft 20 feet in depth, and a 7' x 7'
shaft (depth unknown) at creek level on the south side of
Turkey Creek directly across from the Little Granite dump.

This shaft is presently flooded to the collar. Other surface workings include an open cut, several short adits along the strike of the vein, all partially caved, a short tunnel east of the Little Granite shaft (apparently used for an explosive magazine) and a prospect above the main shaft. These are approximately located on figure 2.

Nothing is presently known regarding the extent or condition of the underground workings. The Little Granite judging from the volume of the dump, appears to have been the main entry to the mine. This shaft is believed to have been between 90 and 125 feet in depth, but is presently caved and plugged with timber and other debris at collar elevation minus 30 feet. The shaft is covered with pieces of rotted timber (fig. 3). A rough survey of the dump indicates a volume equivalent to at least 70 feet of 7' x 7' shaft. The older portion of the dump, however, has probably been eroded by Turkey Creek during the last 100 years. A view of the Little Granite operation, looking south across the shaft and dump toward a short adit on the south bank of Turkey Creek is shown in fig. 4.

The extent of development (drifting and stoping) from the Little Granite shaft is unknown. According to Harley 1/2 "[h] and sorting of the vein matter has been the rule, and the sorted product in most instances was shipped in sacks which were brought to the main freighting road on burros."

^{1/} Harley, op. cit., p. 81

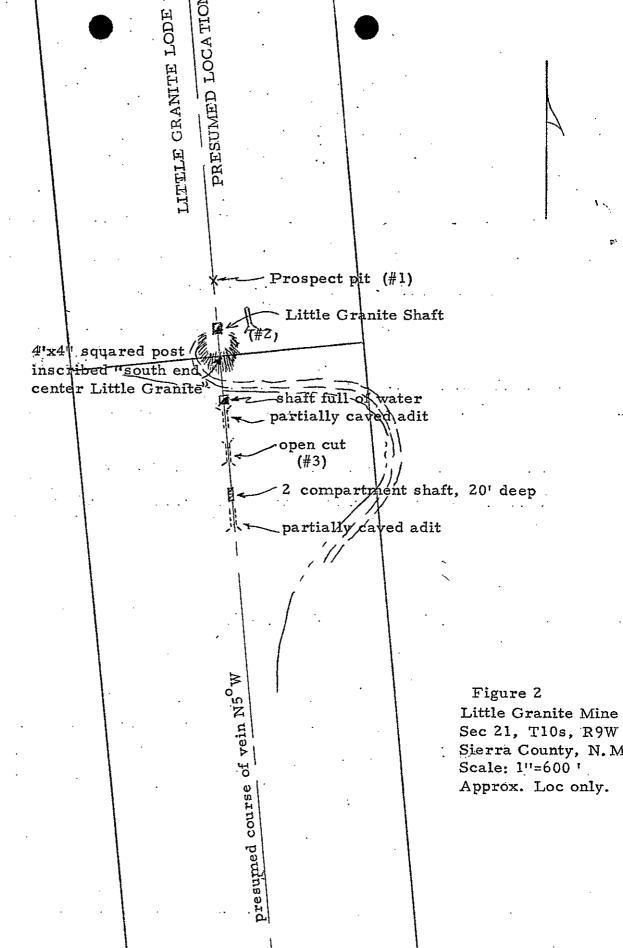
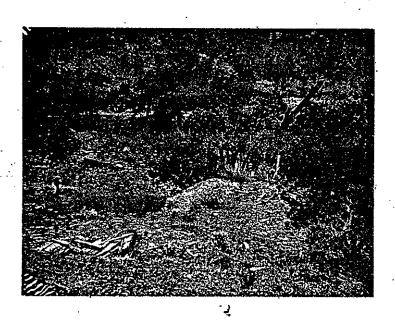




fig. 3. Little Granite Shaft showing deteriorated condition of timbering



This suggests that underground workings, when encountered will be small.

The above observations verify many unknowns regarding the Little Granite property. Plans for exploration and development must, therefore, be approached in the same manner as for any other raw prospect.

Sampling

Three samples were collected - #1, across the vein at a prospect pit approximately 100 ft (30 m) north of the Little Granite shaft; #2, is a grab sample from the main dump, and #3, was taken from the vein at an open cut

200 ft (60 m) south of the main shaft (refer to figure 2). These samples were assayed by the atomic absorption method and the results are shown in Table 1.

Sample	#	Au (oz/ton)	Ag (oz/ton)	width			
1		.12	7.3	1.3			
2		.05	10.9	(grab)			
3	<i>,</i> •	.12	15.6	3.3			

Table 1. Assays from Little Granite vein & dump

Lead, zinc, and copper were not determined. The average of the above samples (#2 not included) weighted for vein width is .12 ounces gold per ton and 13.25 ounces silver per ton for a total value of about \$547 per ton.

at today's precious metal prices. The straight average value of all three samples is .10 ounces gold per ton and 11.27 ounces silver per ton.

Conclusions

On the basis of the above values, an extensive mapping, sampling, and exploration program of at least two drill holes is suggested. The drill holes should be carefully located to yield optimum vein intercepts and avoid underground workings. (It is possible that the property has been drilled at least once in the past - a short piece of core composed of the same altered andesite that occurs abundantly on the Little Granite dump was found at the toe of this dump). One hole should be aimed to intersect the vein at some depth below the top of the hill to the north of the main shaft; another should test the vein at depth (below 100 feet).

Should further evaluation and drilling demonstrate the existence of economic ore at the Little Granite, the prospective operator is faced with three options:

- 1) cleanout and rehabilitate Little Granite shaft,
- 2) sink new shaft or incline, or
- 3) drive adit north into hillside.

The first of these options is the most expensive as it would require the erection of a suitable headframe and use of a hoist. The second option still requires the use

of a hoist. The third option is probably the best initial choice. Drifting, as compared to shaft sinking, hoisting, etc., is least expensive. Furthermore, should the vein prove to be economic at depth, stoping along this adit might provide funds to clean out and rehabilitate the shaft and workings. With this in mind, the above adit should be collared so as not to further damage the Little Granite shaft.

Other necessary work would include the consturction of at least 1/4 mile of access road and perhaps 1/2 mile of improvement work on the existing road.

One final suggestion - as soon as is practicable, a sample of the ore should be sent to Asarco's smelter at El Paso to determine if the ore will qualify as fluxing ore. If not, it will have to be milled prior to shipment.

cc: Frank Kottlowski
George Austin
Terry Siemers
Robert Eveleth
Files

FOR A.T. & S.F. TRAILROAD

- INSET -SEPT. 17TH, 1890. TWO MINERS

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