

ESG

ITEM 65

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SULPHUR

NEVADA

SOME 1966 CONCLUSIONS

- 1) There is no present production of sulphur and the possibility of finding large tonnages amenable to production of pure sulphur are poor.
- 2) Directly mined, high grade ore, say over 70%, could be available in only small tonnages.
- 3) There is a better possibility of producing limited tonnages of sulphur rock for agricultural uses. In relation to percentage of total sulphur, it might be advantageous from a price standpoint to produce agricultural sulphur.
- 4) Based on the evidence now available, the properties would be rated in the following order of potential economic significance:
 - a) Sulphur
 - b) Alum
 - c) Deep Gulch
 - d) Hot Springs Point
 - e) San Emidio
 - f) Tognoni
 - g) Humboldt
 - h) Cuprite.
- 5) Bi-product material might enhance the value of some ores. This is particularly true of mercury. Cinnabar is known to be present in significant quantities at the Sulphur and San Emidio properties.
- 6) Transportation must be considered in property evaluation. The Sulphur, Hot Springs Point and Humboldt areas are well situated near railroads, but the others are poorly situated at distances of 45 miles or more from railroads. Soil conditioner, mainly for Central California market, might not be dependent on railroad location; it might be better transported by truck.

DEEP GULCH

Esmeralda County, Nevada.

This property is in section 36, T4S, R42E, 12 miles south of Goldfield and one mile west of highway 95. There was no activity at the property but it had been relocated in May 1966.

Sulphur occurs at the top of a prominent hill. Although outcrops are often poor, the entire hill over an east-west distance of about 800 to 1000 feet appears to be made up of a breccia (altered) that contains some recognizable fragments of a fine grained volcanic rock. There are some areas of intensely bleached and altered rocks and others where coarse, sinterous silica is abundant. At the very top of the hill--- and overlying some of the sulphur---is a flat lying, strongly silicified capping. The main bulk of the material, however, is a loose, unconsolidated breccia. Part of this, at least, is crudely banded with a nearly horizontal attitude. The origin of the breccia is uncertain.

Most of the breccia contains no sulphur. There is some suggestion that the sulphur concentrations are along two north-south zones; there is practically no sulphur left in place, so its original distribution is hard to determine. A west zone has been prospected or mined over a length of about 200 feet and a width of about 20 feet. A second possible zone about 100 feet to the east is less distinct. It is suggested by a short adit at the south end, and an open cut and underground workings at the north end. Both of these mined areas are under the silicified capping; this fact plus the occurrence of several horizontal bands of sulphur suggest deposition beneath an impervious capping. The sulphur commonly replaces the matrix of the breccia and some is in fairly massive form. A small stockpile suggests that some relatively high grade ore was shipped, perhaps 50%.

As in most other deposits, the possibility of finding an adequate tonnage to support a mill is quite small. A favorable factor here, however, is the relatively large area underlain by breccia as a potential host. It is likely that most recovery would have to be by underground methods in soft and ravelly ground.

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