

## La Plata County

### Needle Mountain District

The Needle Mountain District lies in the northeast corner of LaPlata County, in and around Chicago Basin, 6 miles east of the Needleton station stop. Vanderwilt (1947) points out that mineralization extends to the south to the headwaters of the Florida River and to the southeast to the headwaters of Vallacito Creek. Dunn (2003) notes that the district includes other smaller districts such as the Chicago District of Irving and Emmons (1905).

The Needle Mountains lie within a domal uplift of Precambrian rocks in the southwest part of the San Juan Mountains. On the south, southeast and west the dome is flanked by Paleozoic and Mesozoic sedimentary rocks, and to the north and northeast, the Tertiary volcanic rocks of the San Juans proper (Barker, 1969). Schmitt and Raymond (1977) found that mineralization in the district is associated with a highly altered upper Tertiary stock and numerous nearby quartz-sulfide fissure veins.

Veins in the Precambrian crystalline rocks contained gold, silver and copper. Pyrite, chalcopyrite and galena were commonly present in a gangue of quartz, rhodochrosite, fluorite, chalcedony with occasional barite and calcite. Detailed descriptions of much of the mineralization can be found in Steven et al. (1969).

Mining began in 1881 and lasted until roughly 1917 (Steven et al., Ibid). In early years, the only material that could be transported economically from the remote district was hand-sorted gold and silver ore. Gold was present only in local oxidized portions of the mineralized veins. In fact, vehicle access was not achieved until 1968. Vanderwilt listed production for 1934 of 80 ounces of gold with the Vallacito sub-district producing 29 ounces of gold and 4 ounces of silver in 1935-36.

Mines listed in the district (mindat.org) include:

- [Aetna Mine \(Patented Claim: Aetna\)](#)
- [Apache Mine \(Iron Valley; Patented Claim: Apache\)](#)
- [Aztec Mine \(Republic; Patented Claims: Aztec\)](#)
- [Black Giant Mine \(Patented Claims: Black Giant; Jr.; Baby Giant; Black Monster; Black Giant\)](#)
- [Black Horse Mine \(Patented Claim: Black Horse\)](#)
- [Brooklyn Group](#)
- [Cason Manganese Prospect](#)
- [Chicago Basin](#)
- [Chicago Basin Disseminated Molybdenum Deposit](#)
- [Emerald Lake Mine \(Emerald Lake Mill Site; Patented Claims: Emerald Lake Nos. 1-5\)](#)
- [Eureka Mine \(Patented Claim: Eureka\)](#)
- [Homestake Tunnel](#)
- [Irving Formation](#)
- [Jennie Hayes Mine \(Patented Claim: Jennie Hayes\)](#)
- [Little Jim Mine \(Southern Cross; E.A.K.; Patented Claims: Little Jim\)](#)
- [Mastadon Mine \(Golden Needle\)](#)
- [Mt. Eolus Mine](#)
- [Oregon Claims \(Unpatented Claims: Oregon No. 1; Oregon No. 2\)](#)
- [Pittsburg Mine](#)
- [Sheridan Mine \(Patented Claim: Sheridan\)](#)
- [Silver Star \(Shaaf; Silver Star Extension\)](#)
- [Slipper Tunnel](#)
- [Thunder Mountain](#)
  - [Cornucopia Vein](#)
  - [Johnson Vein](#)
- [Vallecito Group](#)
- [Waterfall Mine \(Bluff - Waterfall Mine\)](#)

Minerals listed in the district (mindat.org) include:

Acanthite	Freibergite	Polybasite
Anglesite	Galena	Pyrite
Arsenopyrite	Gold	Pyrophyllite
Autunite	'Gummitite'	Quartz
Azurite	Hematite	Rhodochrosite
Baryte	Hydrozincite	Silver
Bornite	Kaolinite	Sphalerite
Calcite	'Limonite'	Stephanite
Chalcopyrite	Magnetite	Tetradymite
<i>Colusite ?</i>	Malachite	Tetrahedrite
Covellite	Metatorbernite	Uraninite
Dickite	Molybdenite	'Wad'
Enargite	Muscovite var: Sericite	
Fluorite	Petzite	

#### References:

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Dunn, Lisa. 2003. Colorado Mining Districts: A Reference. Colorado School of Mines, Golden, Colorado.

Henderson, C.W. 1926. Mining in Colorado, a history of discovery, development and production. U.S. Geological Survey Professional Paper 138.

Irving, J.D. and Emmons, W.H. 1905. Economic Geology of the Needle Mountains Quadrangle of Colorado. U.S. Geological Survey Geologic Atlas, Needle Mountains Folio No. GF-131. Map Scale 1:62,500.

Schmitt, L.J. and Raymond, W.H. 1977. Geology and Mineral Deposits of the Needle Mountains District, Southwestern Colorado. U.S. Geological Survey Bulletin 1434.

Steven, T.A., Schmitt, L.J. Jr., Sheridan, M.J. and Williams, F.E. 1969. Mineral Resources of the San Juan Primitive Area, Colorado. U.S. Geological Survey Bulletin 1261-F.

Vanderwilt, J.W. 1947. Mineral Resources of Colorado. Colorado Mineral Resources Board, Denver, Colorado.

[www.mindat.org](http://www.mindat.org), accessed January 2015.