

Clear Creek County

Georgetown-Silver Plume District

Lode gold was discovered in the **Georgetown-Silver Plume District** in 1859, but the district reached its zenith when silver was discovered in 1864. The oxidized ore near the surface was rich in gold, but more silver was found at depth. Production peaked in 1894 (Spurr et al., 1908). Later, zinc production became important during World Wars I and II (Lovering and Goddard, 1950). An additional reference is Eberhart (1969).

The geology is similar to that of the other Clear Creek County districts, except that most of the intrusive rocks are Silver Plume Granite with the Idaho Springs Precambrian metamorphic rocks. Tertiary stocks and dikes of various compositions are abundant. Mineralization occurs in two types of silver-lead-zinc veins and veins of pyritic gold. Silver-rich veins are galena-sphalerite-pyrite with very little gold; the pyritic gold veins are composed of pyrite-chalcopyrite and gold with some silver-bearing minerals and some galena and sphalerite. The most abundant silver-bearing minerals in the district are polybasite, tetrahedrite and proustite (Eckel, 1997), with several other uncommon silver and lead minerals.

Detailed discussions are available of the Pelican-Bismarck Vein, the Dives-Dunkirk Vein, the Colorado Central Vein, and the Griffith Lode in Lovering and Goddard (1950) and in Spurr et al. (1908).

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

- [Aetna](#)
- [Alaska Upper & Lower Tunnels \(Alaska-Occidental\)](#)
- [Albert \(Japanese Group\)](#)
- [Aldrich](#)
- [Amy \(Amy C\)](#)
- [Anglo Saxon Extension Mine](#)
- [Anglo Saxon Mine](#)
- [Annette Mine](#)
- [Annie May](#)
- [Antelope](#)
- [Ap Tunnel](#)
- [Atlas](#)
- [Azeda](#)
- [B & W \(Buster Occurrence\)](#)
- [Back Bone Upper & Lower](#)
- [Banner](#)
- [Bantala](#)
- [Barber - Elliott](#)
- [Bard Creek Occurrence](#)
- [Bismarck Pelican \(Pelican - Dives Mine\)](#)
- [Brown Lode](#)
- [Brown Mountain Tunnel](#)
- [Brown Reindeer](#)
- [Buxton](#)
- [Capitol Prize](#)
- [Centennial Group \(Barrel; Big I.\)](#)
- [Central Equator](#)
- [City](#)
- [Climax](#)
- [Colorado Central mine](#)
- [Consolidated Hercules](#)
- [Cora](#)
- [Croesus](#)
- [Democrat Mountain](#)
 - [Bonanza Tunnel](#)
 - [Buckeye Tunnel](#)
 - [Cliff Mine](#)
 - [Edgar Tunnel](#)
 - [La Plata Tunnel](#)
 - [Lathrop Level](#)
 - [Lower Junction adit](#)

- Matthews Tunnel (Rogers)
- Nyanza Tunnel
- Queen of the West Tunnel
- Ramshorn Tunnel
- Silver Glance Tunnel (Great Eastern Occurrence)
- Upper Junction adit
- White Pine Tunnel
- Denver Granite and Marble Company Quarry
- Diamond Mill (Ashby tunnel; Baxter lode)
- Diamond mine
- Dives Seven Thirty
- Douglas Tunnel
- Dropner
- Duncan
- Dunderberg mine
- Dunkirk
- East Butte
- East Griffith
- Eleanor Jane & Capital
- Equator mine
- Esperanza
- Eva Mine Complex
- Everett & Lebanon
- Fulton
- Gabanta (Ashby; Colorado Central; Everett; Snow Drift; Silver Plume; Hall; Iris; Scott; Peru; Lebanon)
 - Lebanon Group
- Georgetown Loop Mine
- Georgetown Occurrence
- Glasgow
- Golden Belt
- Golden Gate
- Griffith (Kelly; Moline; New Boston; Doric)
- Hamill Tunnel (Philadelphia)
- Headlight (Ramsdale Occurrence)
- Helmick (Aliunde)
- High Five
- Humboldt mine pegmatite
- Illinois (Mammoth; Up; Frostberg; Diamond; Denver; Bush; Wisconsin; Corry City; Seven-Thirty; Pelican; Dunderbay; Pay Rock; Burleigh; Mendota; Maine; Dunkirk; Zero)
- Illinois Mine
 - Burleigh Mine
 - Corry City Mine (Wisconsin Mine)
 - Diamond Mine
 - Maine Mine
 - Mendota Mine
 - Payrock Mine
 - Seven-Thirty Mine
- Juanita
- Junction mine
- Kantinka
- Kitty Owsley
- Last Chance Mine
- Lawson
 - Jo Reynolds Mine
- Mark One Ventures (Michell; 10000 - 1; Moline; Mineral Chief; Kelly Tunnel; Eva Mine; New Boston)
- Marshall (Ocean Wave; Welch; Dunaway; Kirtley; Argentine; Wide West; Equator)
 - Kirtley vein
 - Wide West
- Maximilian Gulch
- Mendota - Apex Shaft
- Mendota - Frostberg (Wasatch)
- Mendota Mine - Victoria Tunnel & Shaft
- Mid-Colorado
- Mine Dumps (MRDS - 10166250)
- Mineral Chief Mine
- Onondaga
- Oriental Tunnel
- Pay Streak
- Pelican - Bismark; Mendota; Smuggler Occurrence
- Portland
- Producer (MRDS - 10117333)
- Prudential Tunnel

- Pulaski - Upper & Lower
- Raymond
- Reindeer
- Republican Mountain Occurrence
- Ricci Winze
- Rio Grande Occurrence
- S P
- Saxon
- Sceptre (Queen City; Mineral Chief; Muscovite; Spartan)
- Seven Metals
- Sherman Mountain
- Silver Cloud
- Smuggler
- Snowdrift
- Star of the West
- Summit (Magnet; Woodley; Mascotte; Comet)
 - Magnet
- Sunburst - Astor
- Sunburst - Sceptre Group
- Sunkist
- Terrible; Silver Ore; Baltimore; Johnny Bull; Silver Cloud (Pelican Vein)
- Tishamingo
- Virginia City
 - Lincoln (Allen)
- War Baby Mine
- Winter Set
- Zeda & Weda
- Zero Mine

(Note: detailed descriptions of most of these mines is presented in either Spurr et al. (1908) or Lovering and Goddard (1950) or both.)

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

Acanthite Ag_2S	Coloradoite* HgTe	$\text{Zn}_5(\text{CO}_3)_2(\text{OH})_8$
Allanite-(Ce)	Copper	Iridium
Anglesite PbSO_4	Covellite CuS	Jalpaite Ag_3CuS_2
Ankerite	Dawsonite $\text{NaAlCO}_3(\text{OH})_2$	Kaolinite
'Apatite'	Dolomite	'K Feldspar var: Adularia'
Aragonite var: Flos Ferri	Enargite Cu_2AsS_4	Limonite
Arsenopyrite	Epsomite	Linarite $\text{PbCu}(\text{SO}_4)((\text{OH})_2)$
Augite	Fizélyite* $\text{Ag}_2\text{Pb}_{14}\text{Sb}_{21}\text{S}_{48}$	Magnesite var: Ferroan
Azurite* $\text{Cu}_3(\text{CO}_3)_2(\text{OH})_2$	Fluorite	Magnesite
Baryte	Freibergite*	Magnetite
Bianchite $(\text{Zn,Fe})\text{SO}_4 \cdot 6\text{H}_2\text{O}$	$(\text{Ag}_{4+2x})[(\text{Cu,Ag})_4(\text{Fe,Zn})_2]\text{Sb}_4\text{S}_{12}\text{S}_{1-x}$	Malachite $\text{Cu}_2(\text{CO}_3)(\text{OH})_2$
Bismuthinite* Bi_2S_3	Galena var: Argentiferous	Matildite* AgBiS_2
Bornite Cu_5FeS_4	Galena	Mckinstryite $\text{Ag}_{5-x}\text{Cu}_{3+x}\text{S}_4$
Bournonite PbCuSbS_3	Goethite	Minium Pb_3O_4
Calcite	Gold	Molybdenite
Cerussite	Goslarite $\text{ZnSO}_4 \cdot 7\text{H}_2\text{O}$	Muscovite
Chalcanthite	Gypsum	var: Sericite
Chalcocite Cu_2S	Hematite	Nagyágite*
Chalcopyrite CuFeS_2	Hessite Ag_2Te	$\text{Pb}_5\text{Au}(\text{Te,Sb})_4\text{S}_{5-8}$
'Chert'	Hydromagnesite	Orthoclase
Chlorargyrite AgCl	Hydrozincite	Pearceite
		$[(\text{Ag,Cu})_6(\text{As,Sb})_2][\text{Ag}_9\text{CuS}_4]$

Petzite* Ag_3AuTe_2	Pyromorphite $\text{Pb}_5(\text{PO}_4)\text{Cl}$	Stephanite Ag_5SbS_4
Platinum	Pyrostilpnite Ag_3SbS_3	Sulphur
Plattnerite PbO_2	Quartz var: Chalcedony	Tetrahedrite var: Mercurian
Polybasite	Rhodochrosite	Tetrahedrite
$[(\text{Ag,Cu})_6(\text{Sb,As})_2\text{S}_7][\text{Ag}_9\text{CuS}_4]$	'Scapolite' ?	Torbernite* $\text{Cu}(\text{UO}_2)_2(\text{PO}_4)_2 \cdot 12\text{H}_2\text{O}$
Polybasite-Tac	Scheelite	Uraninite
Proustite Ag_3AsS_3	Siderite	Uvite Tourmaline
Pyrargyrite Ag_3SbS_3	Silver	
Pyrite	Smithsonite ZnCO_3	
	Sphalerite	

Note: * denotes not confirmed in Eckel (1997).

References:

Eberhart, Perry. 1969. *Guide to Colorado Ghost Towns and Mining Camps*. Fourth, revised edition. Swallow Press, Athens, Ohio.

Eckel, Edwin B. 1997. *Minerals of Colorado*. Fulcrum Publishing, Golden, Colorado.

Lovering, T.S. and Goddard, E.N. 1950. *Geology and Ore Deposits of the Front Range, Colorado*. U.S. Geological Survey Professional Paper 223.

Spurr, J.E., Garrey, G.H. and Ball, S.H. 1908. *Economic Geology of the Georgetown Quadrangle (Together with the Empire District), Colorado. With General Geology*. U.S. Geological Survey Professional Paper 63.

www.mindat.org, accessed July 2015.