

GeoTerra Resources, LLC

P.O. Box 5305, Bozeman, Montana 406.582.8491 email: rwaller@wispwest.net

Mining History

The Rose Mountain mining district includes an area at the headwaters of Gold and Pikes Peak Creek in the Deerlodge National Forest, Montana. Sahinen (1935) describes the Rose Mountain district as the headwaters of Gold Creek and its tributaries. Emmons and Calkins (1913) discuss the prospects at the head of Gold Creek, South Gold Creek and Pikes Peak Creek as a single district, but does not give the district a name beyond that of the creeks.

In these streams in the lower elevations (within the Pioneer mining district), the Gold Creek placers are credited with being the location of the first verified gold strike in Montana. In 1858 James and Granville Stuart along with their friend Reece Anderson found traces of gold in the stream. By 1862 the brothers and their associates were hard at work in the placers. While the strike sparked a gold rush to Montana and the community of American Fork sprang up along the stream, little actual production occurred and no profit was made from the stream until 1907 (Malone and Roeder 1976).

Also known as the Pineau Placer, the MacFarland placer is one of the largest producers in the district as well as being the best documented. The placer was located on the upper middle fork of Gold Creek around 1870, but development of the placer did not occur until 1896. Gus Pineau, Eugene McFarland and Green Dudley discovered the Friday placer mine in 1895. Shortly thereafter McFarland and Pineau, along with two new partners, began mining the other nearby claims. McFarland is credited with the camp associated with the placer. This camp is shown on USGS maps in 1905, 1908 and 1912. The remains of the camp include two cabins and several dumps.

The camp is credited with \$35,000 in gold dust and nuggets between 1896 and 1913. The gold was coarse, about the size of No. 8 buckshot. It has yielded large nuggets, typically 10 ounces, but the largest weighed in at 27 ounces and was displayed at the Larabee Bank In Deer Lodge, MT for many years. The gold was

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valued at \$16 to \$17 per ounce while the gravel was said to carry about 40 cents gold per yard (at \$20/oz gold price) (Emmons and Calkins 1913). Much of the coarser gold was obtained while drift mining along bedrock.

A #3 hydraulic giant nozzle with 150 feet of head was supplied with water by 1.5 miles of ditches connected to a 450,000 gallon dam on the Middle Fork of Gold Creek. Pineau continued to work the mine as an elderly man. After Pineau's death, Josephine Gilbert inherited the property in 1931. Gilbert continued to work the property and later J. H. Crockett did the same. In 1934, two to four men were reported to be working the claim. In 1939 the operation was upgraded with a stationary washing plant fed by a power shovel. A large, irregular-shaped pit was excavated that measured 70,000 square yards surface area and up to 4 yards in depth (Gilbert 1935; Lyden 1948; Lindeman et al 1984; Fredlund 1987).

In 1939 the property was obtained by the Master Mining Company. This company had acquired the patented and unpatented claims in the area. A dam was constructed on the South Fork of Gold Creek and the water was transported through two miles of ditches and flumes to work the gravel. The Master Mining Company worked the claims through the 1940s and 1950s with a hiatus during World War II.

The mine was worked as recently as 1985 by Clifford Jacobsen of Deer Lodge, Montana. In 1983, Jacobsen operated a small wash plant fed with a backhoe and the operation recovered approximately 580 ounces of coarse gold with nuggets weighing up to 14 ounces. Jacobsen abandoned the mining operation after suffering a heart attack and the claims were sold to Montana Mining and Timber Co. (MM&T) in 1986. The claims were not actively worked by MM&T but were explored through an extensive bulk sampling program. The results of the sampling program show identified reserves of approximately 19,590 troy ounces of placer gold. Probable inferred reserves on the remainder of the property that has not been tested are estimated at approximately 46,800 troy ounces.

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Site Location

The Gold Creek placer mines are located near the Granite-Powell County line within the Deer Lodge National Forest. To get to the property, take the Gold Creek exit off Interstate Highway 90 and proceed approximately 4.5-5 miles through the town of Gold Creek to Road 636. Road 636 forks off the gravel just before reaching the tailings at the old town of Pioneer. Proceed along Road 636 for approximately 8.5 miles to the junction of Road 1544. The old Middle Falls Placer now known as claim GS-1 begins near this road junction. The project site is comprised of nine claims totaling 940 acres situated in Sections 1, 2, 10, 11, 12, 14 and 15, Township 8 North, Range 12 West, Montana Principal Meridian.

Site Geology

The dominant rock in the district is granodiorite. In the lodes, deposition in open spaces is small; such ores consist mainly of quartz, calcite, pyrite and chalcopryrite with lesser amounts of galena, sphalerite, and tetrahedrite. Alteration of wall rock has been extensive. Some of the granite is a felty mass of sericite, calcite, quartz and pyrite; the alteration is such that often the original texture is no longer evident (Sahinen 1935).

Much of the placer gold is deposited along granitic bedrock and is contained in glacial till deposited during at least 2-4 different stages. The majority of the coarse gold is found within till of the earliest stage which rests on bedrock and is usually 1-3 feet thick. The early till is comprised mostly of tan and gray quartzite clasts and sometimes exhibits a rusty color. Some gold is found in an intermediate aged till which is comprised of a greater proportion of metasedimentary and metamorphic rocks such as schist and hornfels. Younger till covers much of the deposit as barren overburden and is comprised almost entirely of white granodiorite.

Erosional channels, possibly ancestral stream channels, and/or joints in the underlying bedrock that trend obliquely to the present stream course act as

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natural traps for the placer gold. These gold traps are expected to trend N20W with ten degrees deviation. In 1983-1885, Cliff Jacobsen, Deer Lodge, Montana, operated a small wash plant fed with a backhoe on the Pineau mine and the operation recovered a significant amount of coarse gold with nuggets weighing up to eight ounces. This operation encountered these erosional channels and, when found, they yielded over 40 ounces of coarse gold per day.

Gold Creek Placer Claims

Geo Terra Resources, LLC holds claims to approximately 940 acres of gold placer deposits in the upper Gold Creek drainage all of which is in Granite County. Much of the property consists of the old McFarland-Pineau mine and other historic mining claims known as the Venus Placer, Christian Placer, Sun Placer, Triangle Placer and Middle Falls Placer all originally located by the Master Mining Company in the 1940s. All of the historic claims have produced various quantities of gold over the past 100+ years and contain many old workings and prospect pits. Many of the placer camps are still intact though most of the cabins are severely deteriorated.

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Reserves

Identified reserves from Follman and Scott, 1985

Pineau (GS#3)	88,000 tons
Christian (GS#2)	450,000 tons
Lower Christian (GS#1)	115,000 tons
Total Identified Reserves	653,000 tons

Average gold content for Pineau and Christian placers at 0.03 oz/ton yields a total gold content of 19,590 ounces. At \$850/troy ounce the total gold value is \$16,651,500. At 80% recovery rate the operator could recover 15,672 troy ounces of gold worth \$13,321,200.

Inferred reserves from assessment work performed by owners and from Follman and Scott, 1985

South Gold Creek (GS#4, GS#6)	580,000 tons
Upper Middle Fork Gold Creek (GS#7, GS#8, GS#9)	980,000 tons
Total Inferred Reserves	1,560,000 tons

Average gold content of inferred reserves estimated at 0.03 oz/ton yields a total gold content of 46,800 ounces. At \$850/troy ounce the total gold value is \$39,780,000. At 80% recovery rate the operator could recover 37,440 troy ounces of gold worth \$31,824,000.

At the desired sale price of \$850,000 for the entire claim group, the price of identified gold reserves is selling for \$43.38 per troy ounce.

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Unique Features of this Mining Property

- 1) Historical mining activity dating to 1893 with extensive documentation, well studied by numerous government and private projects
- 2) Mining area has been previously disturbed, low environmental restrictions on future development
- 3) Good timber potential for extra profit
- 4) Vast landscape rock, building stone and aggregate resources consisting of hard slate, quartzite, schist and granodiorite
- 5) Developed county road access to all of the mining claims, easy transportation of equipment and resources
- 6) Placer gold is consistently of jewelry grade, coarse nugget form and commands 2-3 times gold spot price
- 7) Identified placer gold resources with well documented past production records
- 8) Rare geological conditions controlling placer gold deposition
- 9) One of the last undeveloped placer resources in Montana

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Quick Fact Sheet- Gold Creek Placer Mining Claims

Legal Description: T8N, R12W, Sections 1,2,11,10,11,12,14,15
(portions)

Total Acreage: 940 acres +/-

Identified mineral deposits: Placer gold in coarse nugget form, fine
gold to flour size, platinum group metals in
black sand and red sand concentrates

Identified placer gold resources: 19,590 troy ounces
Value @ \$850/oz = \$16,651,500

Inferred placer gold resources: 46,800 troy ounces
Value @ \$850/oz = \$39,780,000

Total identified and inferred gold resources: 66,390 troy ounces
Value @ \$850/oz = \$56,431,500

Total identified and inferred platinum group metals in black sand
concentrates at 1:2500 bulk/concentrate ratio as stated by Follman
and Scott, 1985 report:

Total tonnage = 2,213,000 tons bulk material
will yield 885 tons of concentrated black sands
assaying platinum group metals at average
\$2600/ton = \$2,301,000