## Location/Identification

**MINFILE Number:** 092HNE199

**Name(s):** **TULAMEEN RIVER PLACER**
SOOTHERAN

**Status:** Past Producer
**Mining Method** Underground, Open Pit
**Regions:** British Columbia
**BCGS Map:** 092H056
**NTS Map:** 092H10W
**Latitude:** 49 32 01 N
**Longitude:** 120 53 21 W
**Elevation:** 870 metres
**Location Accuracy:** Within 500M

**Mining Division:** Similkameen
**Electoral District:** Yale-Lillooet
**Forest District:** Cascades Forest District

**UTM Zone:** 10 (NAD 83)
**Northing:** 5488918
**Easting:** 652730

**Comments:** Centre of an area of proven reserves on the Sootheran placer lease on the northwest bank of the Tulameen River, 1.2 kilometres northeast of the mouth of Britton (Eagle) Creek and 9.5 kilometres west-southwest of the town of Tulameen (Property File - N.C. Stines, 1929, map of old workings).

## Mineral Occurrence

**Commodities:** Gold, Platinum, Copper

**Minerals**
**Significant:** Gold, Platinum, Copper, Tetrahedrite
**Associated:** Quartz, Magnetite, Chromite, Olivine
**Mineralization Age:** Recent

**Deposit**
**Character:** Unconsolidated
**Classification:** Placer
**Type:** C01: Surficial placers

## Host Rock

**Dominant Host Rock:** Sedimentary

| Stratigraphic Age | Group | Formation | Igneous/Metamorphic/Other |
|---|---|---|---|
| Recent | Unnamed/Unknown Group | Unnamed/Unknown Formation | ------ |

| Isotopic Age | Dating Method | Material Dated |
|---|---|---|
| ------ | ------ | ------ |

**Lithology:** Gravel, Black Sand

## Geological Setting

**Tectonic Belt:** Intermontane
**Terrane:** Quesnel
**Physiographic Area:** Thompson Plateau

## Inventory

**Ore Zone:** SOOTHERAN LEASE
**Category:** Measured
**Quantity:** 218,000 tonnes

**Year:** 1929
**Report On:** Y
**NI 43-101:** N

| Commodity | Grade |
|---|---|
| Gold | 3.4400 grams per tonne |

**Comments:** Quantity is given in cubic metres. Commodity is given as gold equivalent for combined gold and platinum.

**Reference:** Property File - N.C. Stines, 1929, page 7.

## *Summary Production*

| | | Metric | | Imperial | |
|---|---|---|---|---|---|
| **Mined:** | | 2,283 | tonnes | 2,516 | tons |
| **Milled:** | | 0 | tonnes | 0 | tons |
| **Recovery** | Gold | 297,120 | grams | 9,553 | ounces |
| | Platinum | 7,100 | grams | 228 | ounces |

## *Capsule Geology*

The Tulameen River flows northward from the Cascade Mountains for 30 kilometres to Grasshopper Mountain, where it changes course and continues eastward for 10 kilometres to the town of Tulameen. The river then flows southeast for 25 kilometres before entering the Similkameen River at Princeton.

The upper part of the river runs through a wide valley extending from its headwaters in Paradise valley southward to Champion Creek. The river continues through a narrow rock-walled canyon between Grasshopper and Olivine mountains to the mouth of Olivine (Slate) Creek. The gravels in this canyon are generally not more than a metre thick and occur in the creek bed and in benches on the sides of the valley, either in or above the level of the canyon. Below Olivine Creek, a broad valley floor with deep gravel deposits opens up and continues past the towns of Tulameen and Coalmont to a point 2 kilometres below Granite Creek. The river then cuts through a canyon to a point 5 kilometres west of Princeton. Here, the river enters a broad valley that eventually merges with that of the Similkameen River at Princeton.

Gold and platinum deposits have been found over the lower 40 kilometres of the river. Most recorded production and exploration has occurred along two stretches. The upper stretch begins about 2 kilometres west of Tulameen and continues up the river for 12 kilometres to the mouth of Champion Creek. The lower stretch begins at Coalmont, just above the mouth of Granite Creek, and continues southeast for 19 kilometres to Princeton. See Tulameen River (092HSE235) for a detailed review of the lower section.

Metals found along the Tulameen River tend to occur in old sinuous channels buried deep below glacial gravels, which yield only spotty values. Gold occurs in rough, angular or slightly flattened, rarely well-flattened nuggets. Some of the nuggets contain abundant white quartz. One nugget found near the mouth of Lawless (Bear) Creek weighed 250 grams (Minister of Mines Annual Report 1932, page 140). Platinum forms small rounded grains of uniform size. They are smaller than the gold nuggets and are commonly pitted. Such nuggets produced at a hydraulic mine just below Britton (Eagle) Creek weighed 7.8 to 15.6 grams (Geological Survey of Canada Memoir 26, page 132). Larger platinum nuggets often have a coating or included crystals of cumulate chromite, sometimes with intergrown magnetite and inclusions of olivine (CIM Bulletin, June, 1976). Platinum is also found to occur in pebbles of olivine and chromite (Minister of Mines Annual Report 1924, page 176). The gravels worked along the upper river also yielded black sands comprised of magnetite and chromite, with significant gold and platinum values (Minister of Mines Annual Report 1923, page 187). The ratio of gold to platinum recovered in this part of the river is generally about 1 to 1, but is observed to decrease upstream to the mouth of Britton Creek, where it is 1 to 2 (Geological Survey of Canada Memoir 26, pages 132, 144; 243, page 59). Small quantities of native copper and gold-bearing pellets of tetrahedrite also occur in these placer deposits.

Some of the richest placers mined in the Tulameen district occur along the upper Tulameen River, in the canyon between Champion and Olivine creeks, both in the river bed and in adjacent gravel benches. Here, one deposit located 1 kilometre below Eagle Creek and 13 kilometres upstream from Tulameen (Sootheran lease), contains measured geological reserves of 218,000 cubic metres grading 3.44 grams of gold equivalent per cubic metre for combined gold and platinum (Property File - N.C. Stines, 1929, page 7). A shaft sunk on a bench 11 kilometres above Tulameen, also in the canyon, intersected coarse gold and platinum grading 4.8 grams of gold equivalent per cubic metre for combined gold and platinum (Minister of Mines Annual Report 1925, page 214). Precious metal grades continue to decline downstream from the canyon. Just below the canyon, 4 kilometres upstream from Tulameen, a hole drilled to a depth of 4.9 metres yielded 1.0 gram of gold equivalent per cubic metre for combined gold and platinum (Minister of Mines Annual Report 1947, pages 198, 199). Farther below the canyon, across from the mouth of Otter Creek at Tulameen, river gravels are estimated to yield 0.45 gram of gold per cubic metre, with traces of platinum (Assessment Report 6508, page 16).

Production of placer gold was first reported in 1877, and may have commenced as early as 1860. By 1887, most of the shallower gravel deposits mined along the Tulameen River are reported to be exhausted (Minister of Mines Annual Report 1887, page 278). A few operators along the upper section persisted through the early 1900s. One operation on the Schubert lease, 10 kilometres above Tulameen, recovered 620 grams of gold and also

some platinum from 1500 cubic metres of gravel (Minister of Mines Annual Report 1916, page 261). High platinum prices during the 1920s prompted a revival of placer mining along both the upper and lower sections of the river. Several deposits saw significant production during this time on the upper part of the river. The Sootheran lease, 1 kilometres below Britton (Eagle) Creek, was operated intermittently between 1925 and 1947, producing 3920 grams of platinum and 530 grams gold between 1926 and 1928 (N.C. Stines, 1929, page 26). Big Bend Platinum Gold Mining Company Ltd. produced 280 grams of gold and 930 grams of platinum from the J. Marks lease, 10 kilometres upstream from Tulameen (Minister of Mines Annual Report 1928, page 271). Sporadic exploration and production occurred during the 1950s, 1960s and 1970s, mostly below the canyon, between Olivine Creek and the town of Tulameen. Crude gold production for the entire river between 1885 and 1945 is estimated at 297,000 grams.

## *Bibliography*


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|---|---|---|---|---|---|
| **Date Coded:** | 1992/02/28 | **Coded By:** | Peter S. Fischl(PSF) | **Field Check:** | N |
| **Date Revised:** | 1992/02/28 | **Revised By:** | Peter S. Fischl(PSF) | **Field Check:** | N |