



### Location/Identification

**MINFILE Number:** 082KSE033  
**Name(s):** KOOTENAY QUEEN

**Status:** Prospect  
**Mining Method:** Underground  
**Regions:** British Columbia  
**BCGS Map:** 082K049  
**NTS Map:** 082K08W  
**Latitude:** 50 24 27 N  
**Longitude:** 116 23 40 W  
**Elevation:** 1980 metres  
**Location Accuracy:** Within 500M  
**Comments:** Location from Open File 1990-26.

**Mining Division:** Golden  
**Electoral District:** Columbia River-Revelstoke  
**Resource District:** Rocky Mountain Forest District

**UTM Zone:** 11 (NAD 83)  
**Northing:** 5584115  
**Easting:** 543030

### Mineral Occurrence

**Commodities:** Lead, Silver, Copper, Zinc

**Minerals**  
**Significant:** Galena, Sphalerite, Tetrahedrite  
**Associated:** Quartz  
**Mineralization Age:** Unknown

**Deposit**  
**Character:** Vein  
**Classification:** Replacement, Hydrothermal  
**Type:** I05: Polymetallic veins Ag-Pb-Zn+/-Au

### Host Rock

**Dominant Host Rock:** Sedimentary

Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Helikian	Purcell	Mount Nelson	-----

Isotopic Age	Dating Method	Material Dated
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**Lithology:** Dolomite

### Geological Setting

**Tectonic Belt:** Omineca  
**Terrane:** Ancestral North America  
**Physiographic Area:** Purcell Mountains

**Metamorphic Type:** Regional  
**Grade:** Greenschist

### Inventory

**Ore Zone:** SAMPLE  
**Category:** Assay/analysis

**Year:** 1915  
**Report On:** N  
**NI 43-101:** N

**Sample Type:** Grab

Commodity	Grade
Silver	2400.0000 grams per tonne
Lead	65.0000 per cent

**Comments:** Sample was of massive galena.

**Reference:** Minister of Mines Annual Report 1915, page 93.

### ***Capsule Geology***

The Kootenay Queen prospect is located at an elevation of 1980 metres in a small cirque on the south side of Delphine Creek in the Golden Mining Division.

Regionally, the area is underlain by Proterozoic clastic sedimentary rocks of the Purcell and Windermere supergroups and by lower Paleozoic strata of the Beaverfoot and Mount Forster formations (Geoscience Map 1995-1).

The Purcell Supergroup strata include the Aldridge, Creston, Kitchener, Dutch Creek and Mount Nelson formations. The Windermere Supergroup unconformably overlies the Purcell Supergroup rocks and includes the Toby Formation and Horsethief Creek Group (Paper 1990-1).

In the vicinity of the occurrence, rocks of the Kitchener and Dutch Creek formations have been further subdivided and assigned to the Van Creek and Gateway formations. The Van Creek Formation correlates with the Lower Kitchener Formation while the Gateway Formation is equivalent to the lower portion of the Dutch Creek Formation. The Mount Nelson Formation has been subdivided into seven discrete members, a lower quartzite, a lower dolomite, a middle dolomite, a purple dolomite, an upper middle dolomite, an upper quartzite, and an upper dolomite (Open File 1990-26).

Rocks of the Horsethief Creek Group, Beaverfoot and Mount Forster formations are folded and overthrust by rocks of the upper portion of the Dutch Creek Formation and the lower members of the Mount Nelson Formation. The sedimentary rocks have undergone regional metamorphism to at least greenschist facies.

The occurrence consists of a small adit driven for a distance of 43 metres along a 30 centimetre wide quartz vein. The vein is hosted in cream to buff dolomite of the upper dolomite member of the Mount Nelson Formation immediately below the Windermere unconformity (Open File 1990-26).

The main ore minerals are galena, tetrahedrite and sphalerite. Analyses of pure galena yielded 2400 grams per tonne silver and 65 per cent lead (Minister of Mines Annual Report 1915) and tetrahedrite contains 9 to 10 weight per cent silver (Open File 1990-26). The ore displays evidence of intense deformation and fine grained polygonal galena is common.

### ***Bibliography***

EMPR AR 1899-666; 1900-805; 1901-1013; 1902-135; \*1915-93

EMPR GEOS MAP 1995-1

EMPR OF 1990-20; \*1990-26, p. 37

EMPR PF (82KSE General File - Geology map by P. Billingsley, 1958)

GSC MAP 1326A

GSC MEM 148, p. 48; 369

Pope, A.J. (1989): The Tectonics and Mineralization of the Toby- Horsethief Creek Area, Purcell Mountains, Southeast British Columbia, Canada, unpublished Ph.D. Thesis, University of London, England

**Date Coded:** 1985/07/24

**Coded By:** BC Geological Survey (BCGS)

**Field Check:** N

**Date Revised:** 1995/08/28

**Revised By:** Gilles J. Arseneau (GJA)

**Field Check:** Y