

Location/Identification

MINFILE Number:	092P 005		
Name(s):	<u>RAYFIELD COPPER</u>		
	RAYFIELD RIVER, RAYFIELD FELDSPAR, DANSEY, BD, I.D.S., PAT, VB, WIN		
Status:	Prospect	Mining Division:	Clinton
		Electoral District:	Fraser-Nicola
Regions:	British Columbia	Resource District:	100 Mile House Natural Resource District
BCGS Map:	092P035		
NTS Map:	092P06E	UTM Zone:	10 (NAD 83)
Latitude:	51 18 48 N	Northings:	5686404
Longitude:	121 05 20 W	Easting:	633191
Elevation:	930 metres		
Location Accuracy:	Within 500M		
Comments:	Location of diamond drill hole 6, Assessment Report 19,927.		

Mineral Occurrence

Commodities:	Copper, Feldspar, Nepheline Syenite, Gold		
Minerals	Significant:	Bornite, Chalcopyrite, Chalcocite, Copper, Malachite, Cuprite, Feldspar, Nepheline	
	Associated:	Feldspar	
	Alteration:	Feldspar, Epidote, Chlorite, Hematite, Sericite	
	Alteration Type:	Potassic	
	Mineralization Age:	Unknown	
Deposit	Character:	Vein, Disseminated	
	Classification:	Porphyry	
	Type:	L03: Alkalic porphyry Cu-Au	
	Dimension:	2500x600x0 metres	Strike/Dip: 000/

Host Rock

Dominant Host Rock:	Plutonic		
Stratigraphic Age	Group	Formation	Igneous/Metamorphic/Other
Triassic-Jurassic	-----	-----	Unnamed/Unknown Informal
Isotopic Age	Dating Method	Material Dated	
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Lithology: Leucocratic Syenite, Monzonite, Diorite, Amphibole Syenite, Syenitic Pegmatite, Aplite, Nepheline Syenite

Geological Setting

Tectonic Belt:	Intermontane	Physiographic Area:	Cariboo Plateau
Terrane:	Quesnel		

Inventory

Ore Zone:	SAMPLE	Year:	2016
Category:	Assay/analysis	Report On:	N
		NI 43-101:	N

Sample Type: Grab

Commodity	Grade
Copper	0.292 per cent

Comments: a grab sample (16PZR002) of malachite stained pegmatite hosting blebby chalcopyrite and bornite mineralization

Reference: Assessment Report 36513

Ore Zone: SAMPLE

Year: 2015

Category: Assay/analysis

Report On: N

NI 43-101: N

Sample Type: Grab

Commodity	Grade
Copper	0.263 per cent

Comments:

Reference: (Assessment Report 35761)

Ore Zone: DRILLHOLE

Year: 2008

Category: Assay/analysis

Report On: N

NI 43-101: N

Sample Type: Drill Core

Commodity	Grade
Copper	0.13 per cent

Comments: over 67 metres in hole 08-05

Reference: Assessment Report 30271

Ore Zone: DRILLHOLE

Year: 1990

Category: Assay/analysis

Report On: N

NI 43-101: N

Sample Type: Drill Core

Commodity	Grade
Copper	0.19 per cent

Comments: over 15.0 metres in hole 374-16

Reference: Assessment Report 30271

Ore Zone: DRILLHOLE

Year: 1990

Category: Assay/analysis

Report On: N

NI 43-101: N

Sample Type: Drill Core

Commodity	Grade
Copper	0.17 per cent

Comments: over 51.0 metres in hole 374-20

Reference: Assessment Report 30271

Ore Zone: DRILLHOLE **Year:** 1990
Category: Assay/analysis **Report On:** N
NI 43-101: N
Sample Type: Drill Core

Commodity	Grade
Copper	0.18 per cent

Comments: over 43.4 metres on an extension of previously started hole 374-3
Reference: Assessment Report 30271

Ore Zone: DRILLHOLE **Year:** 1989
Category: Assay/analysis **Report On:** N
NI 43-101: N
Sample Type: Drill Core

Commodity	Grade
Gold	0.035 grams per tonne
Copper	0.129 per cent

Comments: over 164 metres in hole 374-6, along with three drill holes ending in greater than 0.1 per cent copper values
Reference: Assessment Report 19927

Ore Zone: DRILLHOLE **Year:** 1970
Category: Assay/analysis **Report On:** N
NI 43-101: N
Sample Type: Drill Core

Commodity	Grade
Copper	0.42 per cent

Comments: over 6.1 metres
Reference: Assessment Report 19927

Ore Zone: TRENCH **Year:** 1968
Category: Assay/analysis **Report On:** N
NI 43-101: N
Sample Type: Chip

Commodity	Grade
Copper	0.05 per cent

Comments: over 48.0 metres, including values up to 0.23 per cent copper over 3.0 metres
Reference: Assessment Report 1723

Capsule Geology

The Rayfield Copper occurrence is along the Rayfield River, approximately 7.5 kilometres northwest of the western end of Young Lake.

Regionally, the area is underlain by several phases of a concentrically zoned, probably Late Triassic to Early Jurassic, syenitic to monzonitic to dioritic plutonic complex. The complex occurs as a window through Miocene to Pleistocene alkaline plateau basalts of the Chilcotin Group, which blanket much of the Cariboo Plateau. The core of the complex consists of leucosyenite composed almost entirely of alkali feldspars with 1 to 3 per

cent amphibole and trace amounts of white mica, magnetite and quartz (Assessment Report 2135). Syenite pegmatite dikes are common, with feldspar making up more than 95 per cent of the rock. Other less common syenite pegmatites contain minor amphibole minerals, less common nepheline and rare quartz.

Locally, prospecting and sampling has identified visible low-grade copper mineralization, between 0.05 per cent and 0.1 per cent copper, over an area of approximately 600 by 2500 metres. Mineralization consists of bornite and chalcopyrite, largely altered to malachite, occurring in feldspar (alteration?) veinlets and fracture fillings and as disseminations replacing mafic minerals and blebs up to 3 millimetres in size associated with syenite pegmatite dikes. Chalcocite, cuprite and native copper mineralization have also been reported. The most widespread veinlet set is sheeted, trending north-northwest and dipping 40 to 60 degrees west. Alteration minerals include potassium feldspar, epidote, chlorite, sericite and hematite.

In 1968, chip sampling of the north trench averaged 0.05 per cent copper over 48.0 metres, including values up to 0.23 per cent copper over 3.0 metres (Assessment Report 1723).

In 1970, diamond drilling at the north end of the mineralized zone is reported to have yielded up to 0.42 per cent copper over 6.1 metres (Assessment Report 19927).

In 1989, diamond drilling yielded up to 0.129 per cent copper and 0.035 gram per tonne gold over 164 metres in hole 374-6, along with three drillholes ending in greater than 0.1 per cent copper values (Assessment Report 19927).

In 1990, diamond drilling is reported to have yielded intercepts of up to 0.19 per cent copper over 15.0 metres in hole 374-16, 0.17 per cent copper over 51.0 metres in hole 374-20 and 0.18 per cent copper over 43.4 metres on an extension of the previously started hole 374-3 (Assessment Report 30271).

In 2008, diamond drilling yielded intercepts of 0.13 per cent copper over 67 metres in hole 08-05 and 0.10 per cent copper over 33 metres in hole 08-07 (Assessment Report 30271).

In 2015, three grab samples (RD15-R02 to RD15-R04) yielded from 0.119 to 0.263 per cent copper (Assessment Report 35761).

In 2016, a grab sample (16PZR002) of malachite-stained pegmatite hosting blebby chalcopyrite and bornite mineralization assayed 0.292 per cent copper (Assessment Report 36513).

The earliest recorded work on the property was in 1963, when Kennco Explorations (Western) Limited completed programs of geological mapping and geochemical sampling (soil and stream sediments) on the Pat group of claims.

In 1966, Cominco Limited completed a program of soil sampling (800 samples) and magnetometer surveying on the I.D.S. 1 to 16 claims located adjacent to the Pat group. In 1967 and 1968, Rayfield Mining Company Ltd. completed ground and airborne geophysical surveys on the area immediately southeast as the Joe claims.

In 1968, Mr. C. Dansey restaked the property as the BD claims and undertook a program of bulldozer trenching, then subsequently optioned the property to Amax Exploration Inc. During 1968 through 1970, Amax Exploration Inc. completed programs of geological mapping, soil sampling (approximately 1230 samples), magnetometer and induced polarization surveys and 31 percussion drill holes, totalling 1749 metres, on the area.

In 1989, the Rayfield 1 to 7 group of claims were staked by The Vernon Exploration Group and optioned to Brenda Mines Limited, who completed a program of induced polarization (36 kilometres) and eight diamond drill holes, totalling 1140.9 metres. A further 15 diamond drill holes, totalling 3505 metres, were completed in 1990.

During 2006 through 2008, Candorado Operating Company Ltd. completed programs of soil sampling, seven diamond drill holes, totalling 1584.2 metres, and a 409.0 line-kilometre airborne geophysical survey on the area as the Rayfield River property. During 2014 through 2016, programs of prospecting, geological mapping and minor geochemical sampling were performed on the area as the Rayfield 1-2 claims.

Bibliography

EMPR AR 1966-135, 1967-127, 1968-159

EMPR ASS RPT 528, 859, 954, 1172, *1723, 1758, *2135, *19927, 29110, 29538, *30271, *35761, *36513

EMPR GEM 1969-184,367, *1970-218, 1972-316, 1973-271, 1972-316, 1973-271

EXPL 1990-53

EMPR OF 1991-10-81

GSC MAP 1966-3, 1278A

GSC MEM *363

EMPR PFD 650224, 13503, 13504, 13505, 820325, 82086

Date Coded: 1985/07/24

Coded By: BC Geological Survey (BCGS)

Field Check: N

Date Revised: 2019/12/07

Revised By: Karl A. Flower (KAF)

Field Check: N