

Ministry of Energy & Mines Energy & Minerals Division Geological Survey Branch

BC Geological Survey Assessment Report 38660



ASSESSMENT REPORT

TITLE OF REPORT [type of survey(s)] PROSPECTING	TOTAL COST
AUTHOR(S) CRAIG KENNEDY SIGNATURE(S) CHOIG	Kennedy
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S)	YEAR OF WORK 2018
STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 5752587	
PROPERTY NAME KEN CO	
CLAIM NAME(S) (on which work was done) TENURE 1062583	
COMMODITIES SOUGHT Pb /Zo	
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN	
MINING DIVISION FORT STEELE NTS MAP SHEET	082.F.020
LATITUDE 0 " LONGITUDE 0	" (at centre of work)
OWNER(S) UTM COORDINATES 5441250N - 568350	E (discinite of work)
1) DARLENE LAVOIE 2)	
MAILING ADDRESS	
2290 DEWOLFE AVE	
KIMBERLEY B.C. V/A - 1P5	
OPERATOR(S) [who paid for the work]	
1) CRAIG KENNEDY 2)	
MAILING ADDRESS	
2290 DEWOLFE AVE	
KIMBERLEY B.C. VIA - 1P5	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size	
The property host middle aldridge turbidite sedimente in	and attitude):
middle aldridge sill package, a wide rogue sill occu	the toctual of the upp
of altered advert had to be the sill occo	piece a disrupted zone
of altered sediments, high temperature alteration garn likes indicate the potential of a re-activated early st	ets and lamprophyre
	ructure, a motal trap.
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS ASS	sessment report

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping			
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airbome			
GEOCHEMICAL			
(number of samples analysed for)			
Soil			
Silt			
Rock			
Other			
DRILLING			
(total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area) PROSPECT	TING 1:10,000	TENURE 1062583	5200,00
PREPARATORY/PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail			
Trench (metres)			
Underground dev. (metres)			
Other REPORT F HAR	S		100000
		TOTAL COST	

Assessment Report

PROSPECTING

KENCO PROPERTY

FORT STEELE MINING DIVISION

N.T.S. MAP SHEET 082F.020

UTM COORDINATES 5441250N - 568350E

OWNER
Darlene Lavoie
Kimberley BC

OPERATOR Craig Kennedy Kimberley BC

REPORT AUTHOR
Craig Kennedy
Prospector

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Kenco Property

PROSPECTING REPORT

Craig Kennedy October 2019

1.10 Location and Access

1.00 INTRODUCTION

The Kenco property is located approximately 50 km southeast of Cranbrook BC near the community of Yahk. Access is provided by good logging roads and most of the property is moderately steep with only a few cliff sections. Primary forest is thick with second growth area being quite bushy. The central and northern portions of the property are overburden covered making prospecting difficult.

1.20 Property

The Kenco property is composed of tenures 1062583 and 1066463. Both are owned by Darlene Lavoie of Kimberley BC.

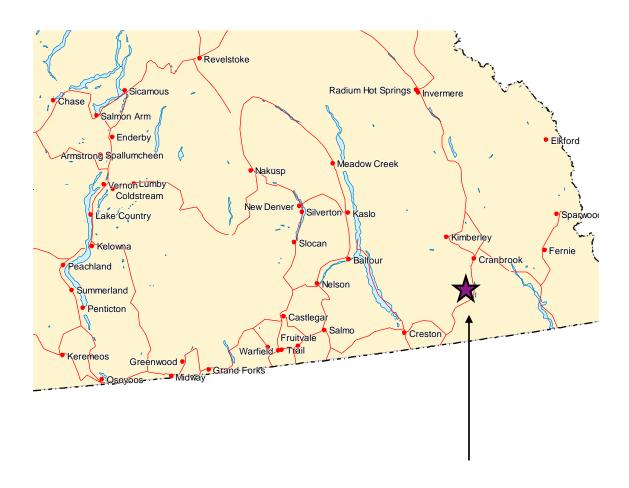
1.30 History

The property area has seen exploration activities over the last 100 years with the most recent work described in assessment reports 07626 and 20827.

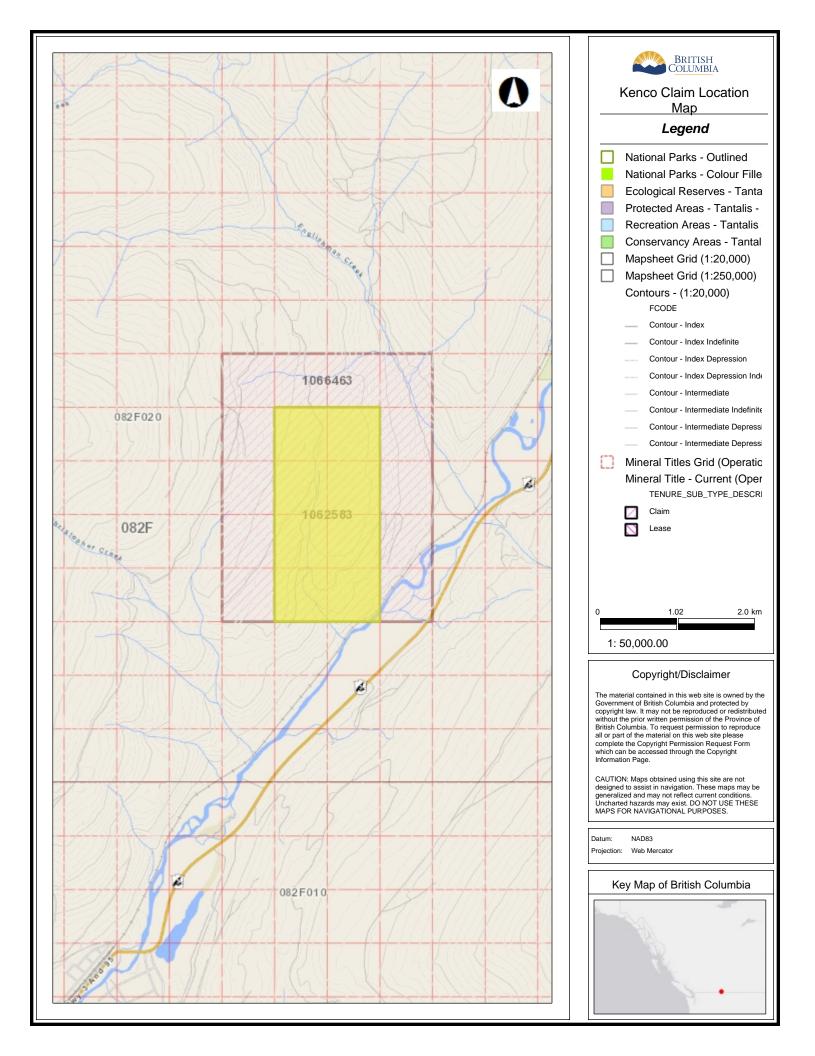
2.00 SUMMARY

An initial exploration program of prospecting was completed on the property in early summer of 2019. The program was a follow up to in-house planning which had compiled previous exploration work in the area including interpretation of historic seismic data.

Figure 1: Regional Location Map



Kenco Property Location



3.00 PROSPECTING PROGRAM

Prospecting was conducted through early to midsummer 2019. Two previous reported periods of work have been done on the main property area. The history of this work can be found in assessment reports 07626 and 20827. Assessment report 20827 describes results from two diamond drill holes.

The property was conceived following an in-house study by Dr. Fred Cook of existing seismic lines within the vicinity of the property. An idea was developed that in part, the property may host an inverted basin and that this theory could be tested with a relatively short drill hole. Previous drilling was not sufficiently deep enough to test this new concept. Historic phases of exploration work had found the property a focus for anomalous geology, geochemistry and geophysics. Two short drill holes had been inconclusive in finding adequate causes for the positive geochemistry and geophysics.

The initial focus of the prospecting was to confirm the anomalous geology reported on in previous reports. Major items of interest were existing structure and a large dio-gabbro sill/dike which dissects the mid portion of the property. The seismic study provided a conceptual target; what was required was evidence which could help in providing a deeper EM look at the property area.

As previously mentioned the property area has historic and recent logging activity that provides good access to and through the property. Unfortunately a large area of the property is overburden covered, making prospecting difficult. The following hi-lights were encountered during the prospecting program. It was confirmed that the property is host to mid-middle Aldridge stratigraphies, basically rocks in the footwall of the upper sill package. Previous reporting mentioned the existence of a matched "Monroe marker" interval in both drill holes. Prospecting located a surface exposure of a marker thought to be the one in the drill holes. This can be confirmed by collecting a piece and matching it with the use off a marker standard. If this is the "Monroe marker," it indicates the

approximate drilling depth to the Sullivan time interval would be in the range of 750 meters. Prospecting also located a large amount of diatreme float and subcrop on the edge of the old constructed logging landing. The subcrop material hosts clasts of dio-gabbro, lamprophyre and Aldridge looking sediment. The importance of this discovery is that the diatreme material represents the existence of a deep penetrating fault close by; this could represent a reactivated basin forming structure. If the structure is associated with positive base metal geochemistry the structure would become an important feature in regards to the inverted basin model. Narrow quartz, calcite veining and patches of silicified rock are associated with the diatreme float, blebs and disseminations and narrow veinlets of pyrite and pyrrhotite are common. Rare chalcopyrite was also noted.

Fifty meters to the northeast of the diatreme subcrop a narrow non-magnetic lamprophyre dike outcrops in a small cliff exposure; the dike strikes northerly and has a vertical dip. This dike provides confidence that a major structure is close by. This thought is compounded with the presence of lamprophyre clasts in the diatreme subcrop. The general strike of the sediments on the property is northeast with shallow to moderate dips to the west. The lithologies are typical of the Middle Aldridge with grey AE turbidites dominating. Interbeds and thicker sections of marker stratigraphy are also quite common. Of interest is a narrow bed of silicified dark grey to black fine grain quartzite. The quartzite bed can be traced for 25 meters before both ends disappear into overburden. This 30 centimeter bed hosts chlorite porphoblasts, fine biotite, pink garnet, pyrrhotite clusters, pyrite, rare chalcopyrite and sphalerite. The thought at present is that the bed represents a carbonate rich protolith which shows a suite of skarn type alteration; the unit may represent an exhalative early sedimentary event.

The dio-gabbro outcrops on the property and adjacent are typical of the belt type intrusives. They host hornblende, feldspar, green mica, rare fractures of epidote and occasional narrow quartz crystalline veins. On the property one exposure contains an abundance of rusty material which when broken these zones host

blebs and disseminations of pyrrhotite, pyrite and grains of chalcopyrite. An interesting outcrop occurs near an old cat trench, at this location you get to view a zone of disrupted sediments close to the dio-gabbro contact. Some of the contact sediments look like they were broken up during the injection of the dio-gabbro. Sediment fragments are altered white to whitish-grey and are quite hard. It is presumed some of the sedimentary clasts are albitized. Thin disrupted layers of silty argillite often have narrow darker beds hosting small diameter white speckles. These are speculated to be albite (scapolite) or white garnet.

In one zone of the outcrop, fragments of sediment are being replaced by chlorite, biotite and other colored micas. This gives the impression that the fragments are becoming concretions. On the whole, the physical character of the sediment contact disruption, fragmentation and alteration indicates an early injection of intrusive into wet sediments. On the property, where observed, the dio-gabbro contact seems conformable with bedding but at the zone of fragmentation much of the contact is obscured by overburden. The vast majority of the contact area on the property is speculated to be in the overburden covered draws. The sediments as mentioned previously are fairly standard looking Middle Aldridge rocks. The coarser stratigraphies have chlorite and are silicified with clusters and patches of pyrrhotite and pyrite. Some patchy black silicification was noted with some outcrops. No strong evidence of Pb/Zn mineralization was seen in the area of a previously established soil grid with strongly anomalous Pb/Z soil values. (AR 07626)

Breaking rusty dio-gabbro provides rare disseminations of chalcopyrite along with much more abundant pyrrhotite and pyrite. The rusty dio-gabbro zones relate well to the copper soil anomaly mentioned in assessment report 07626. Quartz vein float and crystalline narrow joint veins were seen in a number of areas, most material of this type is relatively iron free. At the old cat trench some very limonite altered quartz breccia subcrop was noted; the breccia was obviously from a narrow vein. This discovery is interesting because material of

this type is often Pb/Zn rich. It may indicate that the source of the previous mentioned Pb/Zn soil anomaly is related to a buried structurally controlled fracture system. Another potentially important observation is a number of spring related gossans in overburden. These gossans are related to iron rich lithologies which may host base metals.

4.00 CONCLUSION & RECOMMENDATIONS

Prospecting has discovered alteration and other evidence which indicates the Kennco Property is host to an anomalous geological zone. Previous exploration work reported in AR 07626 and 20827 targeted the area based on anomalous soil geochemistry, geophysics and geology. The alteration noted along the short interval of cat exposed contact coupled with the iron rich dio-gabbro does indicate a potentially focussed structurally controlled feature. The dio-gabbro's thickness is anomalous for intrusives which occupy this stratigraphic position regionally. This fact along with the other prospecting noted features implies focus for a higher heat zone which could be important in a base metal search.

The diatreme float verifies the geological feature noted during prospecting are related to a deep penetrating structure, this again would provide a focus for higher temperature. The exploration model based on seismic interpretation would indicate the structural zone maybe a re-activated basin conduit system. Diogabbro and lamprophyre clasts in the diatreme subcrop indicate a young explosive hydrothermal event. The base metal anomaly in soils may point to remobilization of a deeper metal rich target.

Future work should focus on confirming the boundaries of the historic Pb/Zn soil anomaly. Once the soil anomaly is defined a trenching program should be contemplated to discover a bedrock source for the soil anomaly. Previous drilling was relatively shallow with only one hole testing the dio-gabbro hangingwall contact; this hole reports the contact as non-conformable (AR 20827).

The exploration model at this time is targeting stratigraphy at the top of the base of the interpreted inverted basin. For this reason it is necessary to define the footwall geology of the dio-gabbro sill/dike complex and the trace of the deep seated diatreme hosting structure. A deep seeing EM geophysics coupled with ground magnetometer should be contemplated for this endeavor.

5.00 STATEMENT OF EXPENDITURES

Prospecting Kenco Property

Work performed: Summer-Fall 2018

Total:	<u>\$6200.00</u>
Report writing, drafting & maps	<u>1000.00</u>
Aug 25, 26, 29, Sep 29, Oct1, 4, 7, 22	
8 4X4 Truck @ 150/day	1200.00
Craig Kennedy - 8 days @ 500/day	\$4000.00

6.00 AUTHOR'S QUALIFICATIONS

As the author of this report I, Craig Kennedy, certify that:

- I am an independent prospector residing at 2290 Dewolfe Avenue, Kimberley, BC.
- 2. I have been actively prospecting in the East and West Kootenays district of BC for the past 38 years and have made my living prospecting for the past 29 years.
- 3. I have been employed as a professional prospector by major and junior mineral exploration companies.
- 4. I own and maintain mineral claims in BC and have optioned numerous claims to various exploration companies.

Craig Kennedy, Prospector

KENNCO PROSPECTING MAP

