# NEW DEL NORTE PROJECT

OVER 8 KM-LONG TREND

of

HIGH-GRADE GOLD-SILVER

and

GOLD-COPPER PORPHYRY MINERALIZATION

1. LG Vein and its southern extension

DECADE RESOURCES INC.

by Krzysztof Mastalerz

#### **Del Norte Trend**



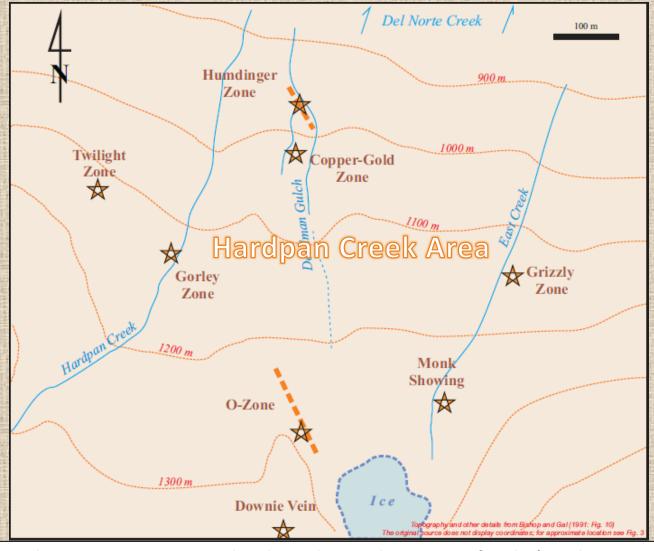
Del Norte Trend includes several closely spaced mineral showings which form NNW-SSE elongated belt of about 8 km length, located approximately 31-33 km NE of Stewart, BC. Showings of the Del Norte Trend were originally described as featuring the contact zone between the volcanogenic formations of the metalliferous Stikinia Terrain in the west and sedimentary rocks of the Bowser Basin to the east.

#### **Del Norte Trend – Early History**

- ➤ Part of the Del Norte Trend was originally staked as the "Bullion claim" sometime before 1913 as, most likely, a follow-up of earlier small-scale placer gold operations down the glacier toes of the Nelson, Del Norte and Willoughby valleys
- In 1939 the area of the Del Norte valley was explored by 15 open cuts and the sampling revealed erratic gold, copper and zinc mineralization (Mandy, 1939)
- ➤ In 1987 a significant silt gold anomaly was reported from the lower reach of the creek draining the Bullion showing and a rock sample form the Hardpan Creek area returned over 19 gpt gold (both areas located in the Del Norte valley)
- ➤ The Eskay Creek discovery catalyzed mineral exploration in the entire Stewart region including the Del Norte area. In 1990 a large-scale exploration program resulted in discoveries of several new mineral occurrences in the Hardpan Creek area (southern slope of the Del Norte valley). A diamond drilling program of 12 drill holes which totalled in 1119 metres resulted in several intersections returning significantly elevated copper and gold concentrations. The best interception of 15.3 metres returned 0.107 opt gold and 0.41% copper on the O Zone.
- ➤ In 1991 a 1 metre long chip sample from the NMG Vein (north of the Bullion showing, Del Norte Creek valley) returned 0.31 opt gold and 16.67 opt silver. The Crackle Zone of quartz-calcite stringers associated copper and gold mineralization has been discovered at the toe of Del Norte Glacier.
- ➤ Encouraging development of the nearby Red Mountain prospect induced another significant exploration effort in the Del Norte valley during the summer, 1993 the Crackle Zone mineralization was significantly extended (700 by 700 metres) and the best assayed rock sample returned just under 2 opt of gold.

#### Del Norte Trend - Hardpan Creek Area

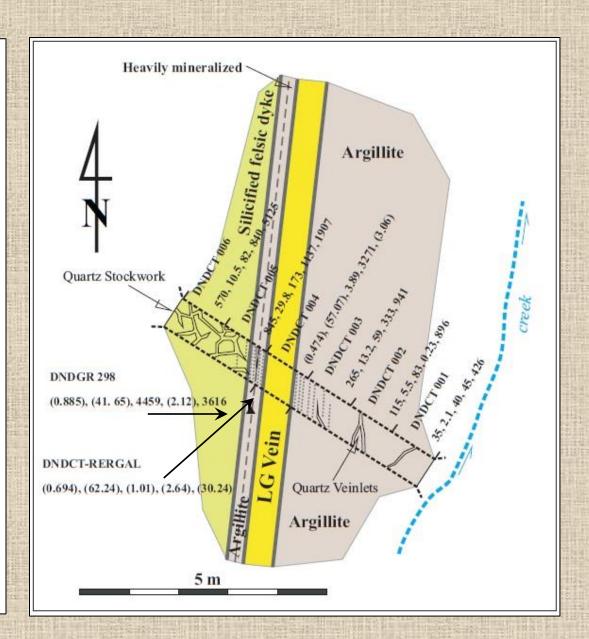
(1989-1991)



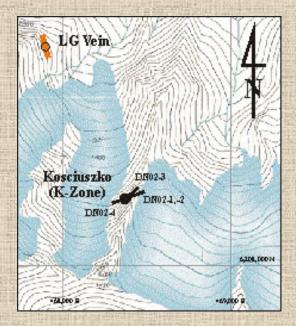
Extensive exploration programs completed on the southern part of today's Del Norte property resulted in discovery of numerous mineral occurrences in the Hardpan Creek area, south of the Bullion showing. Some of these occurrences have been drill tested in 1990 and returned significantly elevated concentrations of gold, silver and copper.

### Del Norte Trend – Discovery of the LG Vein

- The LG vein has been first described (and probably discovered?) by Goodgold Resources Ltd. in 1990. The exploration crew reported that the 80 cm wide quartz vein was exposed for about 8 metres along its strike.
- The wall-rocks of the vein were described as argillites and "felsic dyke" and display strong mineralization along both contacts. The wall-rocks include quartz stockwork and stringers.
- > The showing was trenched and systematically chip-sampled including the vein and its wall rocks for 6 metres (see sketch to the right; sketch based on original plan by Bishop and Gal, 1991: Fig. 9). The best reported sample returned 0.885 opt gold and 41.45 opt silver.
- In spite of the Goodgold's positive recommendation in 1991, the LG vein was not explored any further until 2003.

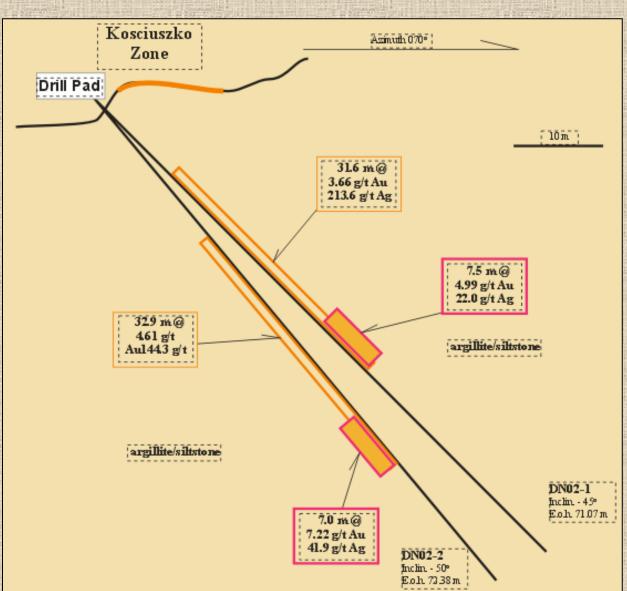


### Del Norte Trend – Discovery of the Kosciuszko Zone



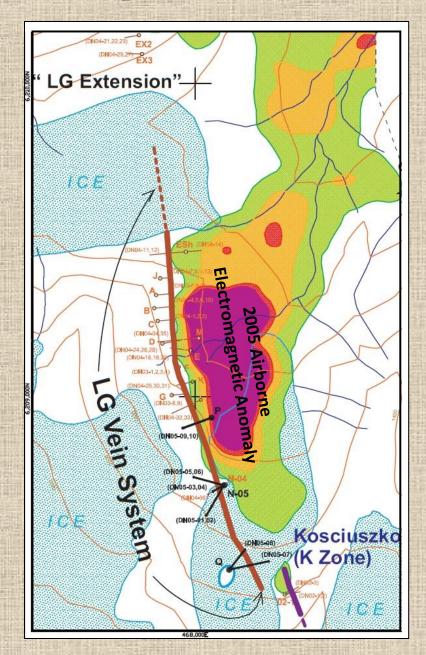
Kosciuszko Zone (K Zone) was discovered in 2002 on the high southern slope of the Nelson Creek valley, almost along the strike of the LG vein. A 10 metre long chip sample returned 0.179 oz/ton gold and 18.4 oz/ton silver.

The zone was drill tested (3 holes) and returned gold values ranging from 0.104 to 0.223 oz/ton and silver values ranging from 5.22 to 8.09 oz/ton over extensive intervals.



### **Del Norte Trend – LG Vein Exploration**

- In 2003 Lateegra Resources Corp. optioned the Del Norte property from Teuton Resources Corp. and drilled 9 holes testing the LG vein. Seven of these holes returned significant (including high-grade) gold-silver values.
- In 2004 Lateegra continued the drill-testing of the LG gold-silver vein. Thirty-six holes totaling 4,519 metres were completed in a series of two to fourhole fans targeting the LG vein. Drilling in 2004 infilled the area tested in 2003, delineating the LG vein over a horizontal distance of 750 meters.
- In 2005 Sabina Gold and Silver Corporation acquired the Del Norte property from Teuton Resources Corp. Ten holes totaling 1,400 metres were completed along the southern part of the LG vein and extending its documented strike for another 500 metres to the total length of 1.2 kilometre.
- Later that year a helicopter-borne AeroTEM II electromagnetic and magnetic survey was carried out on behalf of Teuton Resources Corp. and cover the Del Norte-Midas property with a total of 1,299.5 line-kilometres flown. A strong anomaly was discovered just east of the LG vein.



#### **Del Norte Trend – LG Vein Exploration**

#### **LG Drill Testing Highlights:**

#### In 2003:

Drill hole 2003-05 intersected 1.10 m interval of 0.416 opt (14. 62 g/t) gold and 76.41 opt (2619.7 g/t) silver

#### In 2004:

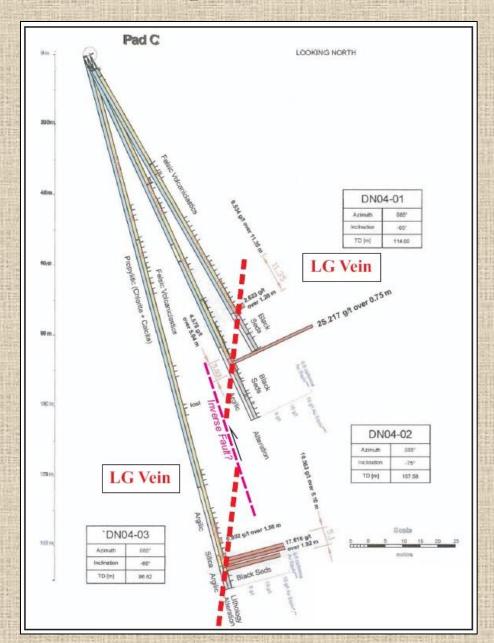
Drill hole 2004-02 intersected 3. 60 m interval of 0.244 opt (8.37 g/t) gold and 8.67 opt (2973.0 g/t) silver

Drill hole 2004-20 intersected 8.75 m interval of 0.206 opt (7.06 g/t) gold and 14.86 opt (5095.0 g/t) silver

#### In 2005:

Drill hole 2005-02 intersected 15. 54 m interval of 6.47 g/t gold and 346. 02 g/t silver including 0. 86 m interval of 71. 5 g/t gold and 3267.9 g/t silver

It has been estimated that the LG vein varies approximately between 0.8 and 1.2 metre in true width.



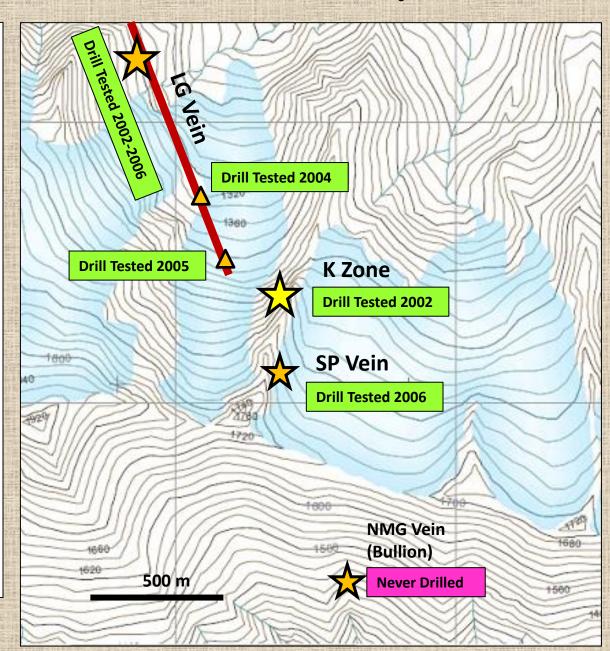
#### **Del Norte Trend – SP Vein Discovery**

In 2006 Sabina embarked on extensive prospecting program covering numerous areas of the property as a follow-up of the 2005 geophysical airborne survey. The SP vein was discovered a few hundred metres south of the Kosciuszko Zone beyond the crest of the Kosciuszko cliff

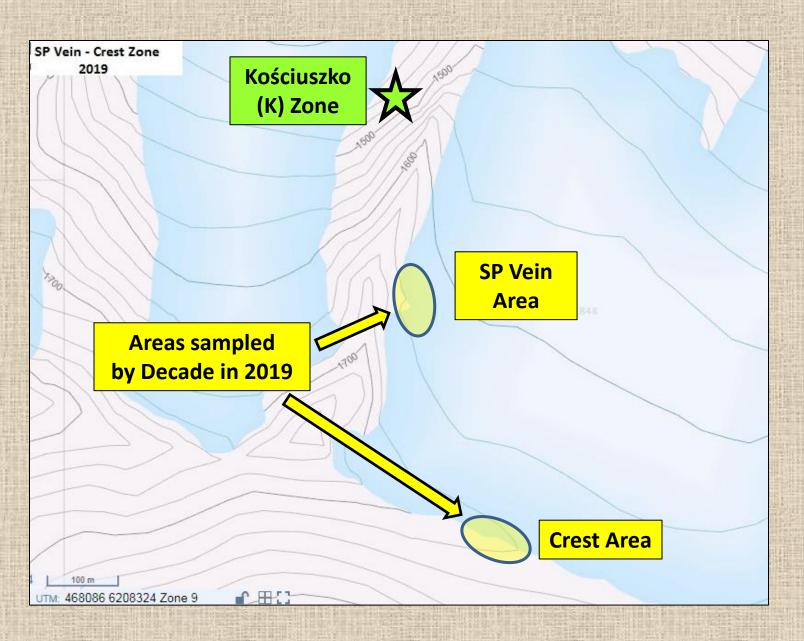
The SP vein was trenched and drill tested by two drill holes. Drill hole 2006-11 intersected 1.0 metre of quartz vein, which returned 26. 54 g/t gold and 1208.0 g/t silver. Drill hole 2006-12 intersected 3.97 m interval which returned 1.35 g/t gold and 20.7 g/t silver.

True width of the SP vein was estimated for about 1.0 metre.

The SP Vein is considered a southern extension and/or continuation of the LG vein



# 2019 Decade Exploration Southern Extension of LG Vein Trend



## 2019 Decade Exploration – SP Vein Area

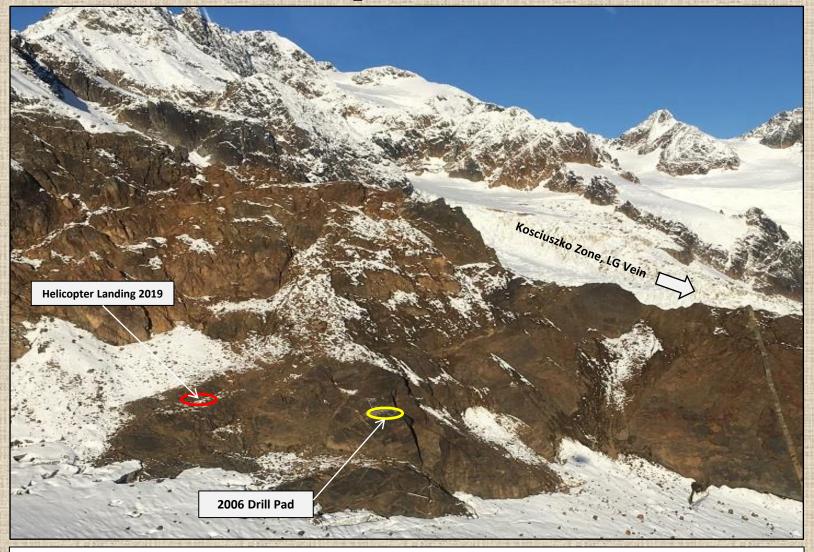


View looking north from the SP area.

The relics of the 2006 Sabina's drill pad on the steep slope underlain by steeply dipping eastward, well stratified dark-grey graywacke and siltstone (Bowser Lake Group?)

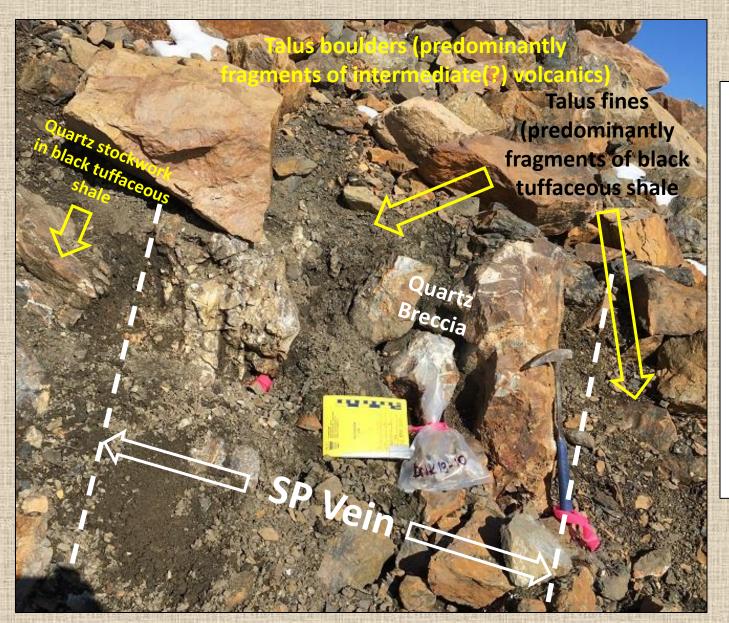
The well stratified sediments of the Bowser Lake Group filling in the western part of the Bowser basin are dipping eastward at gradually lower angle away from the basin margin.

## 2019 Decade Exploration - SP Vein Area



The SP vein area seen from the "Crest Zone" (looking toward NW). The LG vein and Kosciuszko Zone are located downslope, behind the steep ridge built out of steeply eastward dipping black sediments (dark brown weathered) of the right, lower part of the photo. The higher ridges in the background are built of volcanic rocks of the Hazelton Group.

## 2019 Decade Exploration - SP Vein



The SP vein (southern extension of the LG vein) is relatively poorly exposed in the SP area. Most of the area is covered with a veneer of loose talus scree deposits composed of large angular boulders of volcanic rocks and smaller-size debris of black tuffaceous sediments.

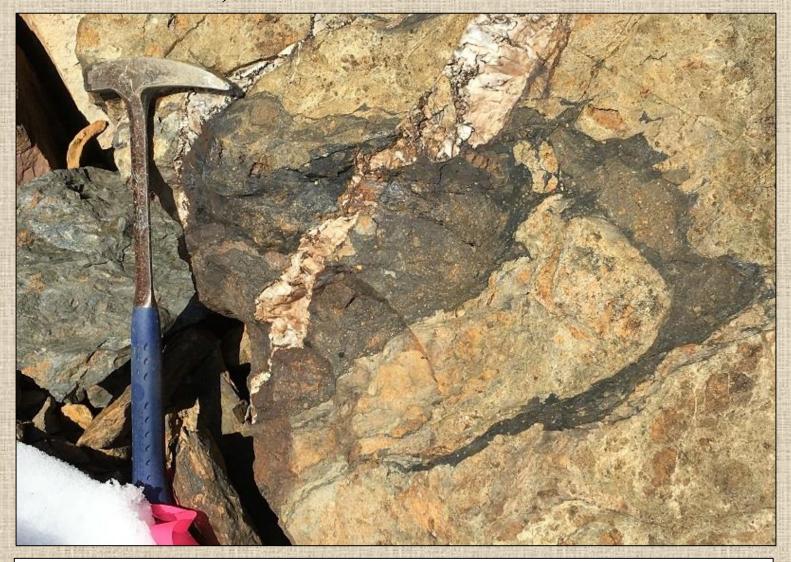
The SP vein is about 1.1-1.2 m wide (true width) and is dipping very steeply westwards.

### SP Vein Area, 2019; Quartz Stockwork in Black Shale



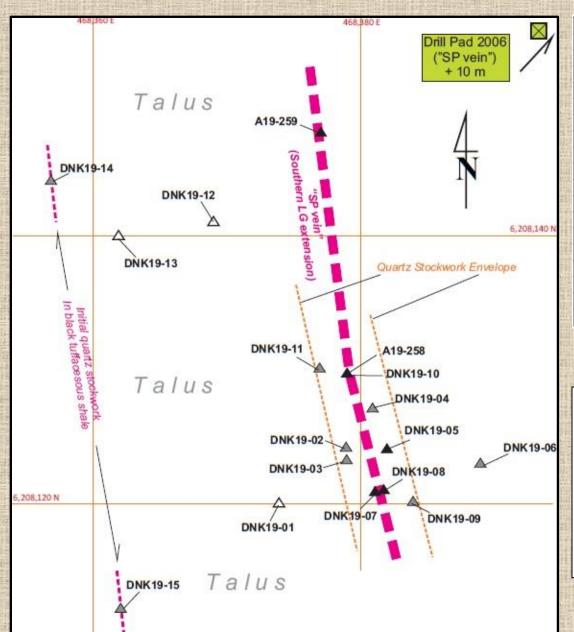
The SP vein is cutting throughout the black shale tuffaceous and mudstones (most likely, Salmon River Formation). Approximately 2-3 metres wide zones of black tuffaceous sediments host numerous quartz veins and veinlets and form stockwork-like feature on both sides of the SP vein.

#### SP Vein Area, 2019 – Talus of Intermediate Volcanics



Large boulders of the local talus scree of the SP vein area, are predominantly composed of fragments of dirty-greenish, intermediate(?) volcanics (pillow lava, broken pillow lava and pyroclastic flow-to-slump deposits, most likely remobilized) which sunk in coeval black, tuffaceous sediments. Note the younger, barren quartz-carbonate veins.

### SP Vein Area, 2019 – Rock Sampling Results



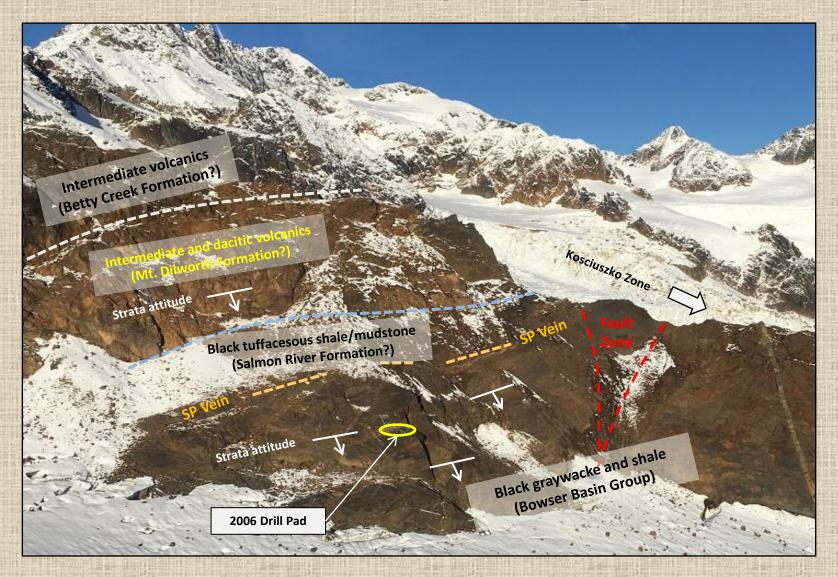
Element	Au	Ag	Cu	Pb	Zn	As	Sb
Sample	ppb	ppm	ppm	ppm	ppm	ppm	ppm
A19-258	6.59	91.4	812	2.06	2.01	1300	793
A19-259	751	67.7	200	0.953	4890	217	231
DNK19-01	19	2.6	15	21	107	74	8
DNK19-02	606	6.6	66	21	4010	2230	6
DNK19-03	72	1.6	48	37	957	167	7
DNK19-04	243	2.6	27	24	374	739	5
DNK19-05	19.6	3920	5820	1.91	2.7	654	4670
DNK19-06	146	2.8	36	47	810	275	35
DNK19-07	6.21	87.9	2000	1.91	2.51	866	1560
DNK19-08	776	14.9	43	366	1830	527	25
DNK19-09	86	10.2	55	102	627	289	15
DNK19-10	7.53	794	770	3.17	1.7	1860	716
DNK19-11	684	88.2	108	882	1030	360	49
DNK19-12	9	0.8	109	22	157	26	8
DNK19-13	8	1.1	33	12	120	24	4
DNK19-14	123	15.3	41	1100	292	117	17
DNK19-15	323	44.6	118	1030	304	610	46



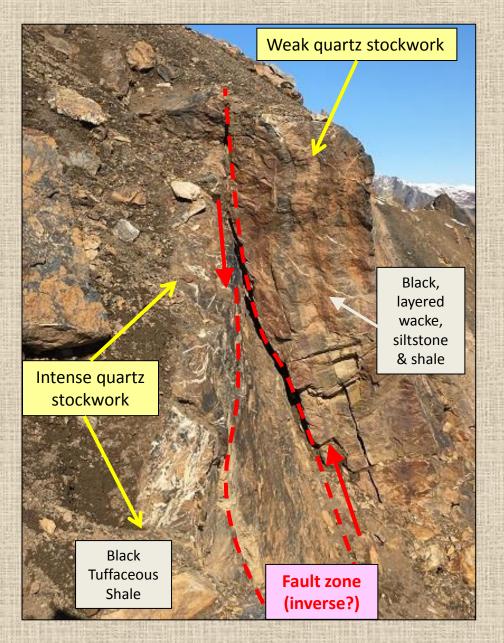
#### Sample colour guide:

- ➤ Blue SP vein
- Light grey quartz stockwork in black shale near the vein (1-3 metres away)
- Dark grey incipient stockwork in black shale away from the vein
- ➤ Green talus of intermediate volcanics (Betty Creek Fm?)

# SP Vein Area - Geological Interpretation



#### SP Vein Area – Structural Features



The wall-rocks of the SP vein display abundant evidence of faulting and/or shearing.

The photograph demonstrates a set of steeply dipping shear/fault surfaces which separate a slab of heavily stockworked, massive, black tuffaceous mudstone/shale (left /west side of the photo) from the well stratified package of siltstone-graywacke-shale to the right (east). The well stratified package includes just a few thin quartz veinlets.

Note the partly visible an imbricated slab of rock bound to two shear/fault surfaces.

The fault zone is interpreted as an inverse in character (hangingwall is displaced up-slip with respect to its footwall (note red arrows).

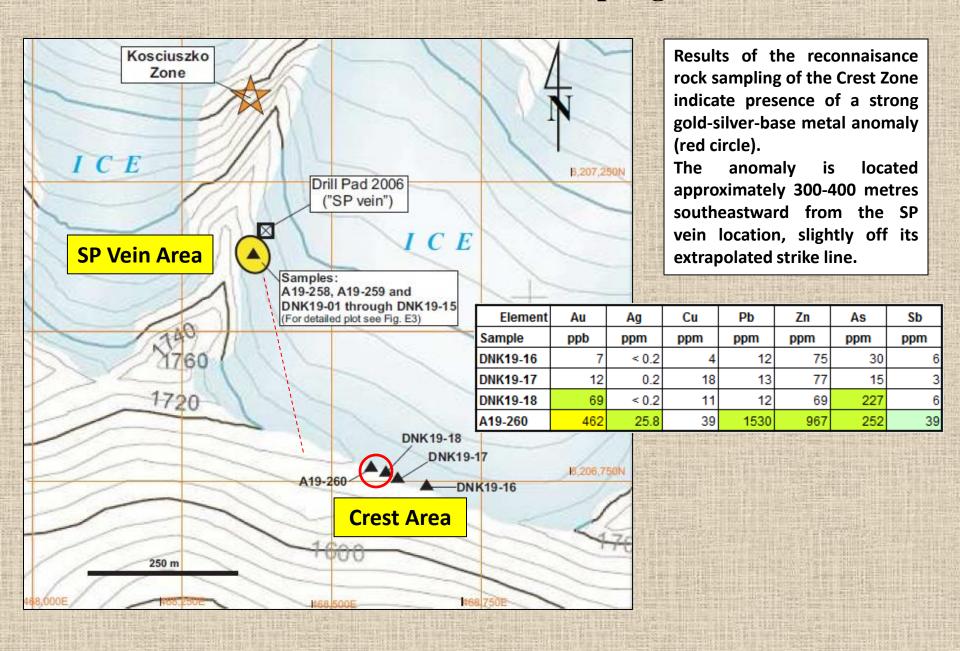
#### **Crest Zone – General View**

(looking southeastwards from SP vein area)



The Crest Zone area (approximately 400 metres southeastward from the SP Area) features a narrow ridge of heavily weathered tuffaceous sediments, and felsic-to-intermediate volcaniclastic rocks which locally host few barren-looking quartz veins and irregular pods. However, subordinate amounts of sphalerite and galena have been noted in some of these quartz bodies.

### **Crest Zone – 2019 Rock Sampling Results**



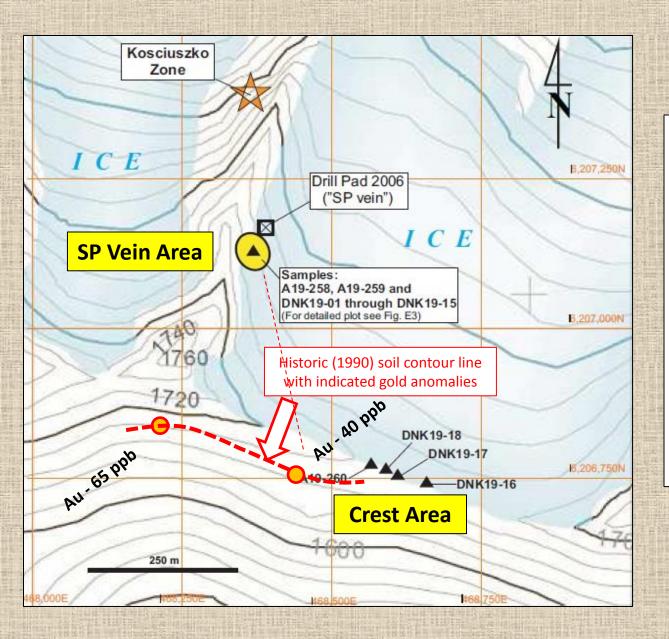
#### **Crest Zone – Western Part**

(looking west-northwestwards from the central Crest area)



The western part of the Crest Zone rises and exposes dark-greenish andesite volcanic rocks which display features of the greenshists –facies regional alteration.

# Crest Zone – Historic (1990) Soil Sampling Results



Results of the historic soil sampling by Goodgold in 1990 (dashed red line) indicated two significant gold anomalies (red circles) within a zone of interpreted stratigraphic footwall of the LG-SP vein complex, south of the watershed divide between the Nelson (north) and Del Norte (south) creeks.

The Crest Zone area requires more detailed prospecting, mapping and understanding of its structural geology.