

2014 & 2015 GEOCHEMICAL and PETROGRAPHIC  
ASSESSMENT REPORT ON THE  
**BEE CLAIMS**

**Clear Creek & Big Creek area, Yukon Territory**

**Dawson Mining District**

BEE 1 – 24: YD61309 – YD61332

63° 50' N Latitude; 137° 01' W Longitude

NTS sheets 115P/14

**Registered Claim Owner: W.D. MANN 100%**

**Field Work Performed August 10, 2014 & August 2 - 5, 2015**

November 30, 2015

By: William D. Mann, M.Sc., P.Geol.  
19 Hayes Cres.  
Whitehorse, Y.T., Y1A 0E1  
Tel: 867-667-7409  
[wdmgeology@gmail.com](mailto:wdmgeology@gmail.com)

With Petrographic Report By: Timothy Liverton, Ph.D.



Photo: Northern half of the BEE claims.

## Table of Contents

1.0	Introduction and Terms of Reference .....	4
1.1	Introduction .....	4
1.2	Terms of Reference .....	4
1.3	Sources of Information.....	4
1.4	Field Involvement of Qualified Person .....	4
2.0	Property Description and Location.....	5
3.0	Access, Physiography and Climate .....	5
4.0	History.....	7
5.0	Geology .....	11
5.1	Regional Geology .....	11
5.2	Property Geology .....	12
5.3	Structural Geology .....	13
6.0	Deposit Types.....	13
7.0	Mineralization .....	15
8.0	2014 & 2015 Work Programs .....	17
8.1	Petrographic Results .....	17
8.2	Rock Geochemistry Results .....	17
8.3	Soil Geochemistry Results .....	17
8.4	Personnel .....	18
9.0	Sampling Method and Approach .....	29
10.0	Sample Preparation, Analysis and Approach.....	29
11.0	Data Verification .....	30
12.0	Adjacent Properties .....	30
13.0	Interpretation and Conclusions.....	31
13.1	Interpretation.....	31
13.2	Conclusions .....	31
14.0	Recommendations .....	32
15.0	References .....	33

<u>Tables</u>		<u>Page</u>
Table 1:	Rock sample locations and descriptions	19

### List of Figures

Figure 1	Location Map	6
Figure 2	Photo: Gold-bearing quartz vein adjacent to Big Creek stock.	16
Figure 3	2015 Soil Geochemistry – Sample Numbers	20
Figure 4	2015 Soil Geochemistry – Au ppb	21
Figure 5	2015 Soil Geochemistry – Ag ppm	22
Figure 6	2015 Soil Geochemistry – W ppm	23
Figure 7	2015 Soil Geochemistry – Bi ppm	24
Figure 8	2015 Soil Geochemistry – Sb ppm	25
Figure 9	2015 Soil Geochemistry – Pb ppm	26
Figure 10	2015 Soil Geochemistry – As ppm	27
Figure 11	Gold in Soil on Victoria Gold’s adjacent Clear Creek claims	28

### Maps

Map 1	Geology, Access and 2014 & 2015 Rock Samples	in pocket
-------	--	-----------

### Appendices

Appendix 1	Statement of Qualifications
Appendix 2	Statements of Expenditures, 2014 & 2015
Appendix 3	Soil Sample Location Data
Appendix 4	Certificates of Analysis - Rocks
Appendix 5	Certificate of Analysis – Soils
Appendix 6	Petrographic Report - Liverton

## **1.0 Introduction and Terms of Reference**

### **1.1 Introduction**

The author staked the BEE claims in July 2014, and performed one day of field work in August 2014 during which rock samples were collected for petrographic and geochemical examination. Four days of work were performed in August 2015, with soil and rock samples collected for analysis. The BEE project lies at the headwaters of Clear Creek and Big Creek, and is accessible by placer mining and exploration roads.

### **1.2 Terms of Reference**

The author wrote this report to summarize the results of the 2014 and 2015 exploration programs, to summarize the geology and exploration potential of the claims, and to fulfill the requirements of an assessment report for filing under the Yukon Quartz Mining Act, Yukon Territory, Canada.

### **1.3 Sources of Information**

This report is based on information obtained by the author in the field, from government geological studies and summaries (Yukon Minfile), and from assessment reports, including geological, geophysical and geochemical maps, rock, soil and silt geochemical results, and trenching and drilling results from the property and the adjacent area. Some assessment reports were produced by operators of claim blocks now covered by the BEE property or in its vicinity, particularly geological mapping done in 1981 (Rainbird & Kelly) and in 2003 and 2005 (Schulze). Soil geochemistry covering parts of the claims was done in 1994 which identified anomalous Au & As in soil (Lueck) which was further extended in 2003 and 2005 (Schulze). Further prospecting and geochemical exploration was conducted in 2010 and 2011, which led to the discovery of several gold-silver showings on the current claims, as well as identifying further multi-element soil geochemical anomalies (Mann, 2010 & 2011). The author previously worked in the area in 1981, 2010 and 2011 before staking the claims.

The report written by the author on the BIG claims (which cover a larger area that includes the current BEE claims) has been extracted from extensively in this report (Mann, 2012). A complete list of references is presented in Section 15.0.

### **1.4 Field Involvement of Qualified Person**

Mr. William Mann, M.Sc., P.Geo. conducted all of the field work in the 2014 & 2015 programs.

## **2.0 Property Description and Location**

The project consists of 24 contiguous quartz mining claims (BEE 1 – 24) staked and recorded in 2014. The claims are located in the Clear Creek area, 125 kilometres east-southeast of Dawson City and 62 kilometres northwest of the village of Mayo, central Yukon Territory (Figure 1).

The BEE claims lie close to the boundary between the Dawson and Mayo mining districts, but entirely within the Dawson district on map sheet 115P/14 (Map 1). The Clear Creek project of Victoria Gold Corp. lies adjacent to the western and northern boundary of the BEE claims. This neighbouring property has been the subject of numerous drilling campaigns including significant work in 2010 and 2011, and hosts several significant zones of gold mineralization. The Rhosgobel (aka Juno), Rhosgobel South Gold-Tungsten and Contact zones on the Clear Creek property lie less than 500m from the boundary with the BEE claims.

## **3.0 Access, Physiography and Climate**

The BEE property lies at the headwaters of Big creek and Clear creek, a major placer mining creek that is serviced by a network of rough roads and trails. Some trails extend onto the property, however these might not be passable without upgrading (Map 1). The trails connect to the Clear creek road, which is in good condition during the summer. This road connects to the Klondike Highway, about 60km to the southwest. Alternate transportation is by helicopter from Dawson City (about 110km) or Mayo (about 65km).

The BEE claim block lies within the Yukon Plateau North ecoregion (Smith et. al., 2004). The property covers gentle to rugged terrain, with elevations ranging from 915 metres (3000 feet) to 1,800 metres (5,900 feet). Much of the property extends above the tree line at roughly 1450 metres (4100 feet), where it is covered by sparse tundra vegetation; ridge lines are covered by felsenmeer (broken outcrop and rubblecrop) with little vegetation (see cover photo). Forest cover is fairly thin and consists mostly of black and white spruce and subalpine fir forests covering low-lying stream valleys. Permafrost is fairly continuous in the area, and where present in forested areas is covered with stunted black and white spruce.

The climate is sub-arctic continental, with short, mild summers and long, very cold winters. Precipitation is fairly light, totalling less than 50 cm per year; however, long winters result in accumulations of up to one metre of snow prior to spring thaw. The exploration season extends from early June to late September.

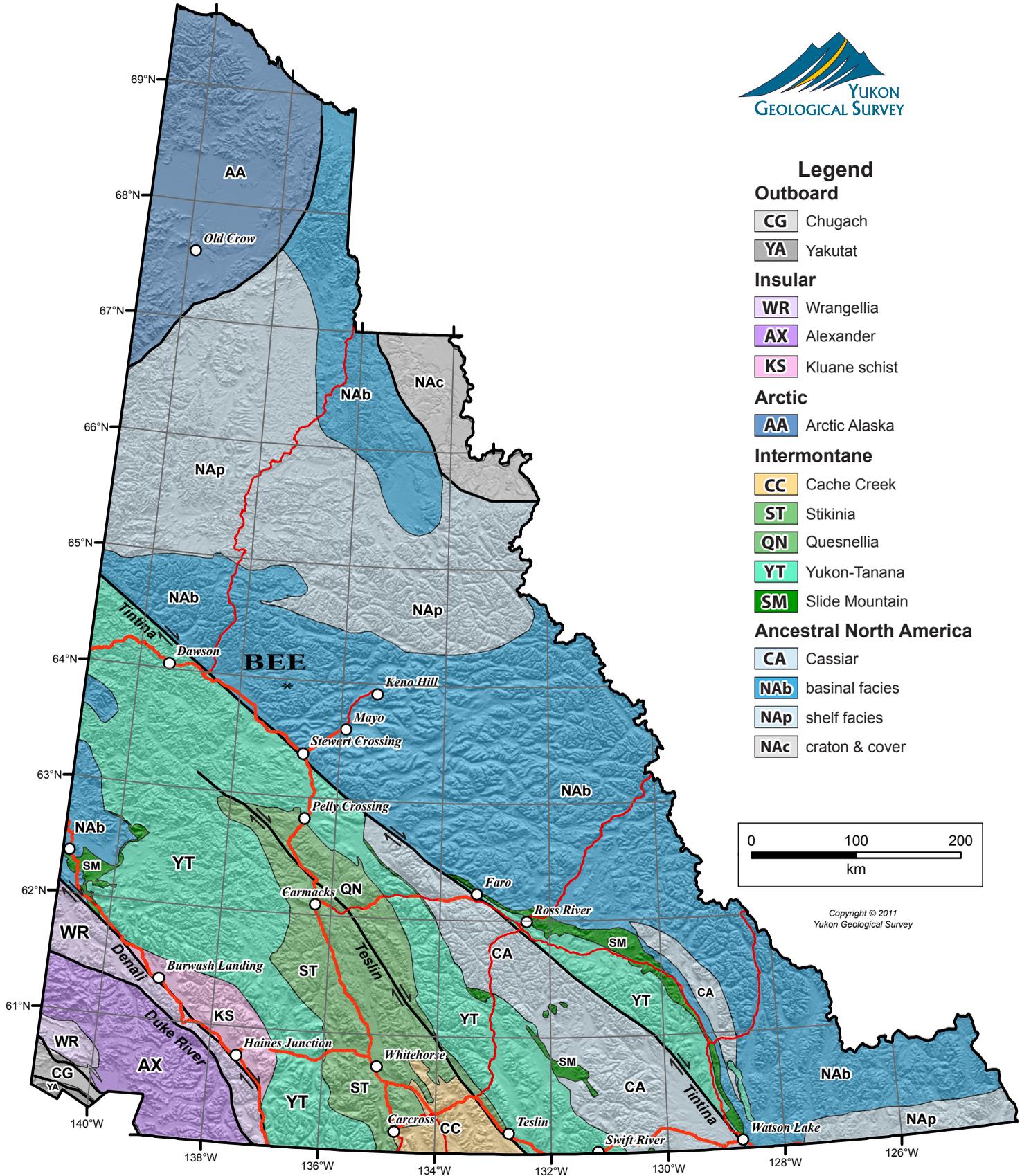


Fig. 1. LOCATION AND BEDROCK TERRANES - BEE PROJECT  
W.D. Mann

## 4.0 History

Placer mining began in the Clear Creek area in the late 1800s, with staking of numerous quartz claims and small mine workings occurring in the early 1900s. Placer mining continues to the present day, with total production of placer gold from the Clear Creek drainage estimated to exceed 130,000 ounces (Allen, 1999).

**1902** – the first quartz claims were staked in the area, on Left Clear Creek at Lewis Gulch and near 65 Pup. Claims were also staked on Josephine creek, and 3 short adits (4.6m, 19.8 & 20.7m) were driven on gold-bearing quartz-arsenopyrite-pyrrhotite veins related to the Josephine stock.

**1943 to 1954** - A dredge operated along Clear Creek, with undisclosed gold production.

**1948** – Geological mapping of the area conducted by the Geological Survey of Canada (Bostock, 1948, 1964).

**1961 to 1964** - Dredging for placer gold occurred, with declared production of 2,408 oz gold (Joy & VanTassell, 1971).

**1966** – Airborne magnetic survey of map sheet 115P conducted by the Geological Survey of Canada, map 7212G, scale 1:253,440. Also, map sheet 115P/14, geophysical map 3319G, at scale 1: 63,360.

**1971** - The first major quartz staking in the area now covered by the BEE claim block occurred in March 1971 when United Keno Hill Mines staked the NOP claims, partially covering the Rhosgobel stock, about 500m west of the current BEE claims. This work included tungsten and molybdenum analysis of soils from one of the claims. This exploration identified a northwest-southeast trending zone of scheelite-bearing quartz veins within the stock (Joy & VanTassell). In July 1971 a joint venture between Canada Tungsten Mining Corporation Ltd. and the Standard Oil Company staked the RHOSGOBEL claims to the northwest, largely covering the stock. Later that year, Silver Standard Mines Ltd. staked three groups of WR claims to the southeast and northwest. Tungsten was the main commodity targeted during this episode of exploration.

**1978** - A. Thom staked the RAIN 1-30 claims covering much of the Rhosgobel stock, and D. Hutton staked the BEE 1-16 claims slightly to the east (in the area of the current BEE claims), and the WIND claims to the northwest (Yukon Minfile).

**1979** - the Cortin Project, consisting of CCH Resources Ltd., Inco Ltd and Billiton Exploration Canada Ltd. staked the JUBJUB 1-32 claims adjoining the east margin of the BEE and RAIN blocks. The JUBJUB claims were staked to explore for the source of a silver in stream sediment anomaly, and cover part of the current BEE claims. The Cortin Project performed soil geochemistry and geological mapping, with samples analyzed for silver, zinc and tin. This work returned anomalous silver values from gossanous scree associated with quartz-arsenopyrite veins in the “West Ridge Area” (Kennedy, 1980 & Woodsend, 1981).

**1981** - Canada Tungsten Mining Corporation Ltd optioned the BEE and RAIN blocks and staked the CC 1-860 and SLUGGO 1-20 claims covering a large area containing the

present BEE claims. Surface exploration programs targeted tungsten, tin and gold mineralization, and outlined an east-west trending zone of scheelite and arsenopyrite-bearing quartz stockwork mineralization roughly 800 metres long by 200 – 400 metres wide at Rhosgobel. Random sampling of quartz-arsenopyrite veining at Rhosgobel returned gold values from 0.112 to 1.313 g/tonne (Rainbird & Kelly, 1981; Rainbird, 1982). The program also revealed a quartz vein stockwork zone within the Pukelman stock to the north. Several rock grab samples returned gold values from 0.020 to 0.882 oz/ton gold with sub-economic tungsten values. A soil line between the two stocks returned an average gold value of 300 ppb across 850 metres, with values ranging from 30 to 1540 ppb gold. The Big Creek stock and adjacent geology was mapped during this program. An extensive program of soil sampling, stream heavy minerals and silts was conducted. Petrographic work was also done. The option on the Bee and Rain claims was discontinued following the program.

**1981 – 1987** A dredge operated by Queenstake Resources Ltd. operated on Clear Creek and produced over 15,000 ounces of gold.

**1983** – Surficial geological mapping of the Clear Creek drainage (Morison, 1983).

**1984** - the RAIN claims were transferred to N. Harper who conducted trenching from 1984 to 1988.

**1987** - Blackstone Placer Mining Ltd. and N. Harper surrounded the remaining five WIND claims with 125 SLEET claims (Yukon Minfile). A gradient array IP survey was conducted. Gold bearing sulphide mineralization was discovered in bedrock exposed by placer mining in Left Clear Creek (the Creek zone), and was explored by Secret Pass Minerals. The RUM claims (partly covering current BEE claims) were staked and a prospectus written (Wallis, 1987). A sample which returned 0.112 oz/t Au is shown on the current BEE 12 claim. A Regional Geochemical survey of the area was conducted by the Geological Survey of Canada.

**1988** - Geological, Geochemical, Geophysical surveys, Trenching and Diamond Drilling were conducted on the RUM, RYE and ROLL claims for Goldrite Mining Corp. The main focus of the work was the Contact Zone, which was tested by 8 trenches and 8 drill holes totalling 1236m (Robinson, 1988). Some of the Rum and Rye claims covered ground now on the BEE claims.

**1989** – Diamond drilling was conducted by Cambridge Resources Ltd. to test the best IP anomaly on the WIND and SLEET claims, which underlies placer workings on Left Clear creek. Four short holes were drilled, with a best intersection of 0.546 ounces gold per ton over 0.49 metres from a pyritic fault structure (Feulgen & Stephen, 1989).

**1991** - Noranda Exploration Co. Ltd. optioned a block of claims on the east side of the Clear Creek property and carried out geochemical, magnetometer and IP surveys and minor bulldozer trenching. Rock samples on the RUM claims returned values of 0.4 g/t Au from a Qtz-py-asp vein on the current BEE 16 claim, and 0.25 g/t Au from the current BE 12 claim in gossan adjacent to the Big Creek stock.

**1992** – Hemlo Gold Mines and Noranda drilled six reverse circulation holes totalling 644m into the Saddle, Eiger and Pukelman zones (Bidwell, 1992). The best intersection from the Saddle zone was 414 ppb Au over 22m. The best result from the Eiger zone was 650 ppb Au over 88m. The best intersection in the Pukelman zone (southeast corner, also known as Contact Zone) was 1080 ppb Au over 10m. Gold in rock was determined from 10g of sample digested with aqua regia, by AA.

**1993** - Ivanhoe Goldfields optioned all claims in the area, and conducted soil geochemical surveys across the Rhosgobel stock and staked the WET 1 – 28 claims to the south (Fleming, 1993). The intrusives in the area were evaluated for Fort Knox type intrusive hosted gold mineralization. Ivanhoe was acquired by First Dynasty in 1994. The FAR 1-70 claims were staked by B. Lueck and R. Wongda in the area of the current BEE claims. The blocks were optioned by Farallon Resources Ltd., which carried out reconnaissance sampling before dropping the option (Yukon Minfile). Geological mapping of the area conducted by DIAND (Murphy & Heon, 1993, Murphy, 1997).

**1994** – Aurum Geological consultants, on behalf of Ivanhoe/ Starmin Mining Inc. carried out soil and rock sampling and geological mapping on Barney Ridge and the Saddle stock. A road was built to access the Rhosgobel anomaly. Lueck staked the TP 2, 4-8 and JD 1-91 claims. Grid soil sampling was conducted across the FAR 31-34 claims, outlining a strong gold-arsenic anomaly, measuring about 800 by 300 metres (on the current BEE 1-4 claims), covering the southeastern edge of the Rhosgobel stock (Lueck, 1994). Gold values ranged from background to 306 ppb. Lueck also conducted soil sampling across the TP claims to the south, obtaining spotty anomalous gold-arsenic values ranging from background to over 100 ppb.

**1995** - the Clear Creek area claims, including the RAIN, SLEET and WIND blocks were optioned by Kennecott Canada Inc. from First Dynasty (Coombes, 1995). The company conducted a 27 hole, 1970.5m reverse-circulation program across the central Rhosgobel stock, targeting the previously outlined anomaly. A resource of 40 million tonnes grading greater than 300 ppb gold was outlined to a depth of about 65m, with a high-grade core of 2 million tonnes grading greater than 1 g/tonne gold (Yukon Minfile). This resource occurs about 500m west of the BEE claims. Kennecott dropped its option in late 1995.

**1997** - New Millennium Mining Ltd, a wholly owned subsidiary of First Dynasty, became the operator of the main Clear Creek area claims.

**1998** - Newmont Exploration Ltd. entered into an option agreement with New Millennium on the CC, DUM, RAIN, RUM, RYE, SLEET, WET and WIND claims, overlapping and west of the current BEE claims (Stammers, 1998). Newmont carried out airborne and radiometric surveys across the entire block (and the current BEE claims), and geological mapping, rock and soil sampling across much of the property. The compilation of geophysical anomalies presented in the report is considered to be a very relevant and important exploration tool for the BEE claims. The Bear Paw Zone was identified by geochemistry, geophysics and prospecting.

**1999** - Redstar Resources Corporation entered into an option agreement with Newmont

on the Clear Creek claim groups. Redstar drilled two diamond drill holes in 1999 and nine further holes in **2000** at the Bear Paw Zone on the SLEET 18 and 20 claims, roughly three kilometres west of the BEE claims. Significant mineralization was intersected in all holes, ranging from 1.03 g/tonne across 1.50 metres to 2.30 g/tonne gold across 31.81 metres (Stammers, 1999). Mineralization was described as intrusive related, occurring within sediment-hosted breccia zones, as well as within narrow calc-silicate (skarn) horizons. The program included soil sampling along what is now the northern boundary of the BEE claims, with anomalous gold results. Redstar dropped its option in 2002.

The geology of the bedrock mineralized zones and the placer geology of the Clear Creek area were studied by the Yukon government (Marsh et. al., Allen et. al., Stephens et. al., 2000)

**2003** - Thor Explorations Ltd conducted one-day exploration programs on the FAR 31-34, 51-54 claims and the TP 2, 4-8 and JD2 claims. These programs confirmed the presence of anomalous gold and tungsten values from soil sampling within the FAR 31-34, 51-54 claims. On the TP block, a single soil sample returned a value of 0.326 g/t gold (Schulze, 2003).

**2005** - Thor Explorations Ltd contracted All-Terrane Mineral Exploration Services to conduct a two phase exploration program of soil geochemistry, geological mapping and prospecting. This work identified additional intrusive bodies on the southern edge of the property, minor skarn and dyke-hosted mineralization, and several areas of anomalous gold in soil. The best gold value, 1.63 g/t Au was returned from a grab sample of quartz-arsenopyrite float (Schulze, 2005).

**2006** - StrataGold Corporation (now a subsidiary of Victoria Gold Corp.) obtained the Clear Creek property and conducted a detailed trenching and soil sampling program on the Bear Paw breccia and Contact zones. In addition, infill sampling was conducted to follow-up on geophysical and historical gold anomalies identified by previous explorers.

**2009** - Golden Predator Corp. optioned the Clear Creek property from Victoria Gold Corp. The property initially consisted of 77 quartz claims. Over the course of GPs' 2 years of work, the Project was expanded via staking and an area of interest clause to its current 233 contiguous quartz claims of ~4,500 hectares.

**2010** – Golden Predator Corp. explored the claims covering the Rhosgobel, Pukelman, Contact, Eiger, Saddle, Josephine, Creek and Bear Paw zones. They conducted a program of RC and diamond drilling on the Saddle, Josephine, Contact and Bear Paw zones with gold mineralization identified on all except the Josephine. 3,662m of drilling was completed in 42 holes (Holes CC10-01 to CC10-04 were HQ oriented Diamond holes - 1,053.7 m.; and CC10-05 to CC10-42 R.C. holes for 2,588.91 m).

Much of the surrounding area was staked by competitors later in the year, including the BIG claims (which covered the current BEE claims and beyond) by Valley High Ventures. An initial geochemical and prospecting program was conducted on the BIG claims by Valley High Ventures, predecessor company of Bearing Resources Ltd. (Mann, 2011a). This work resulted in the discovery of 3 zones of gold in bedrock/ subcrop, with 18 soil samples and 28 rocks collected.

**2011** - Golden Predator Corp. conducted a program of 3,629m of diamond drilling in 18 holes at the Contact and Bear Paw zones. A total of 1,026 soil samples were collected over the property during the program. Results expanded an intriguing >100 ppb Au geochemical anomaly along the Saddle -- Josephine trend.

Bearing Resources Ltd. conducted additional geochemistry and prospecting on the BIG claims (Mann, 2011b). 169 soils and 16 rocks samples were collected during this program.

**2012** - Golden Predator Corp. returned 100% of the Clear Creek property to Victoria Gold Corp. The Regional Geochemical stream sediment samples collected by the GSC in 1987-1988 were reanalyzed by the Yukon Geological Survey using ICP-MS analytical techniques (Jackaman, 2012).

**2014** – W.D. Mann staked 24 BEE claims at the headwaters of Clear creek and Big creek, adjacent to the east of the Clear Creek project of Victoria Gold Corp.

## 5.0 Geology

### 5.1 Regional Geology

Geological mapping of the area was originally conducted in 1948 (Bostock, 1948 & 1964), and later mapped at 1:50,000 scale (Murphy & Heon, 1996). The regional geology has been comprehensively studied and described by Murphy (1997). A study of the geology and geochemistry of the gold deposits in the area (Marsh et. al., 1999) contains the following description of the regional geology:

*“The Clear Creek area is underlain by phyllite, quartzite, psammite, calc-phyllite, calc-silicate, grit and marble of the Yusezyu Formation of the Neoproterozoic to Early Cambrian Hyland Group (Murphy, 1997). The strata along the northern Selwyn Basin margin are imbricated by thrust faults of Jurassic and Early Cretaceous age. The Clear Creek area is in the hanging wall of the Robert Service Thrust within an east-trending, moderately north-dipping, transposed assemblage of lower greenschist facies rocks of the Tombstone Strain Zone (Murphy, 1997).*

*At the headwaters of Clear Creek, six Tombstone intrusions, the Saddle, Eiger, Pukelman, Rhosgobel, Josephine and Big Creek stocks, have surface exposures ranging from 0.2 to 3.5 km. They yield U-Pb dates of ~92 Ma and are part of the Tombstone plutonic suite (Murphy, 1997). Notable gold occurs within and surrounding all except the Big Creek stock. The Saddle, Pukelman and Rhosgobel stocks are composed of medium- to coarse-grained quartz monzonite characterized by large (1cm) alkali feldspar phenocrysts. Local zones are granitic and aplitic, particularly in the southern Rhosgobel stock. Biotite is the dominant mafic mineral, but hornblende is not uncommon. The Josephine and Big Creek stocks are composed of fine- to medium-grained, equigranular granodiorite. The Eiger stock is composed of fine to medium-grained, equigranular diorite with rare mafic phenocrysts. The intrusions have good exposure above treeline.*

*Contact metamorphism of the Hyland Group country rocks extends for as much as 0.5 km around the stocks and is dominated by a resistant, rusty weathering biotite hornfels.*

*Calcareous rocks are altered to calc-silicate and thin carbonate beds locally form small skarns. Dykes, a common feature of the Clear Creek area, are dominantly ESE-trending and dip steeply.*

*Compositionally they are dominantly felsic, mostly composed of the porphyritic quartz monzonite. Also common are granite, quartz-feldspar porphyry, and rhyolite dykes. The felsic dykes are generally 0.5 to 2 m wide. Pegmatite and aplite dykes are thinner and are sparse outside of the intrusions. Lamprophyre dykes are up to 12 m wide, contain sparse biotite phenocrysts and biotite-diopside nodules, and cut all intrusive phases.”*

The glacial history of the region is described by Allen et. al. (1999): “...the Clear Creek region was affected by the pre-Reid (early Pleistocene), Reid (middle Pleistocene), and McConnell (late Pleistocene) glacial periods. The pre-Reid glacial period, the most extensive glaciation in the Yukon with multiple stages, was the only event that directly affected the valleys of Clear Creek.”

## **5.2 Property Geology**

The Big Creek stock (aka Far stock) lies on the east side of the BEE claims (Map 1). This stock is composed of fine- to medium-grained, equigranular granodiorite of the early late Cretaceous Tombstone Intrusions. The southern ridge where the stock is exposed is granodioritic, while the northern ridge where gold mineralization was found in 2010 is more dioritic in composition and an older phase of intrusion. Gold is spatially associated with the margins of the dioritic phase of intrusion. The gold mineralization associated with the Big Creek stock may be an extension of the Rhosgobel/ Juno mineralized system, part of which lies on the western edge of the claims. The intrusions in the area of the claims are all metaluminous, calcic, medium-grained, and weakly porphyritic biotite+/-hornblende monzogranite to granodiorite (Murphy, 1997). The Rhosgobel stock on the southwestern side of the claims is of monzogranitic composition, with local K-feldspar megacrysts.

A variety of dykes are exposed distal to the stocks on the property. These dykes are likely to be of Tombstone age, as both the Tombstone and McQuesten suites form east-west trending belts of intrusions, and the BEE property lies within the Tombstone belt. However there could be some overlap between the two suites, due to proximity.

The Big Creek stock is surrounded by phyllite, quartzite, psammite, calc-phyllite, calc-silicate, grit and marble of the Yusezyu Formation of the Neoproterozoic to Early Cambrian Hyland Group. These metasediments are hornfelsed on all parts of the property. Shallowly buried intrusions are thought to underlie the entire property. A biotite hornfels occurs closest to the intrusions, with andalusite hornfels extending further from the contacts (Stephens et. al., 2000).

The Josephine Creek Fault is a major fault (extending about 10 km to the north of the property) which lies just east of the BEE claims, and runs south-southeast (parallel to the 165° faulting that is related to mineralization in the area). Numerous smaller faults, lineaments and faults interpreted from airborne geophysics are present on the property (Stammers, 1998). The east-

west trending linear branch of Big Creek which extends across the northern part of the BEE property is likely a fault, and may be a control on mineralization. The distribution of gold and various pathfinder elements in soils appears to confirm this interpretation. The extension of this structure to the west may be part of the Contact Zone of Victoria Gold, or a related structure.

### 5.3 Structural Geology

The structural geology of the area and structural controls on gold mineralization has been studied in some detail (Stephens et. al., 2000). The following quote from this report summarizes the structural geology of the area: *“Gold mineralization in the Clear Creek area is associated with ca. 92 Ma Tombstone Plutonic Suite intrusions emplaced into metasedimentary rocks of the Neoproterozoic to Early Cambrian Hyland Group. Hyland Group rocks have undergone four ductile deformations (D1-D4) in the structurally thick (>10 km) Jura-Cretaceous Tombstone high strain zone. Kinematic features indicate overall top-to-the-northwest movement on shallow shear planes. Four different types of quartz veins developed during ductile deformation and are associated with a progression from ductile to brittle-ductile behaviour. Three major brittle structural trends postdate ductile deformation. A set of sinistral ~165° striking faults developed and are crosscut by secondary east-west fracture zones in Hyland Group rocks. The Tombstone Plutonic Suite was then emplaced in a broadly east-west oriented belt, with some local control exerted by the ~165° oriented faults. Continued development of the east-west fracture set after the Tombstone Plutonic Suite intrusion, resulted in an extensive system of gold-bearing sheeted quartz veins. Finally, sinistral reactivation and associated quartz-tourmaline veining occurred on ~165° oriented structures.”*

The property lies only a few kilometers south of the outcrop of the Tombstone thrust fault, and the Tombstone high strain zone is related to this thrust. The parallelism of the mineralization, the intrusive belt and the strain zone reflect a regional structural control that may indicate a pre-existing basement structure.

### 6.0 Deposit Types

The claims lie within the Tombstone Gold belt, which is part of the Tintina Gold province. The most significant known deposit types in the area are intrusion-related gold deposits associated with intrusions of the late Cretaceous Tombstone suite. Regionally the Tombstone suite is related to gold mineralization at the Fort Knox gold mine in Alaska, the Brewery Creek gold mine in Yukon, the Keno Hill silver mining camp to the east and many other gold, silver and tungsten deposits and exploration targets within the Tombstone belt.

Tungsten is present in a skarn deposit at Harper Creek, and is also present as an accessory mineral in some intrusion-hosted gold zones including the Rhosgobel gold zone and South Rhosgobel W-Au zone adjacent to the BEE Claims. Molybdenum values are elevated in the

Rhosgobel stock, and tin is locally anomalous, especially to the southeast of the property. Silver is present in anomalous levels over much of the area, especially associated with lead at the Galena Zone of Victoria Gold.

There are three major types of gold deposits known in the Clear Creek area: a) Sheeted Veins within intrusions, with associated Bi and W (e.g. Rhosgobel, Pukelman) b) structurally controlled quartz-arsenopyrite veins (e.g. Contact Zone, Josephine Zone) and c) Breccia-hosted gold (e.g. Bear Paw Zone).

## 7.0 Mineralization

Gold mineralization in the area has been described by Marsh et. al. (1999): *“Various styles of auriferous mineralization occur in the Clear Creek area, but intrusion-hosted sheeted arrays of low-sulphide quartz veins are predominant and characterize the Tombstone gold belt.*

*Irregularly spaced auriferous quartz veins are found in the adjacent hornfels. The sheeted and stockwork-style quartz veins, within the granitoids and hornfels, show traces to a few percent sulphide minerals, mainly arsenopyrite, pyrite, and less commonly, pyrrhotite. Scheelite is common in a minority of the veins and in local skarn zones. Molybdenite, galena, chalcopyrite, and bismuthinite have been also been reported (Coombes, 1997). K-feldspar, muscovite, biotite and carbonate are common gangue minerals, with less abundant tourmaline, albite and sericite.*

*Sheeted veins cut all intrusive rock types including felsic and lamprophyre dykes. Their localized coincidence with aplite and pegmatite dykes, and the presence of high-salinity fluid inclusions in metal-rich veins (Marsh, unpub. data), suggests a genetic link between mineralizing fluids and the latter phases of magma crystallization.*

*Arsenopyrite-rich veins are rare within the stocks but are normally in the margins or hosted by the hornfelsed country rocks. Notable occurrences occur on the margin of Josephine Creek stock in the Josephine Creek valley, and within the Contact zone at the southern margin of the Pukelman stock in the adjacent hornfels. Disseminated arsenopyrite is visible outside of some veins and within the most highly altered wall rocks.”*

Analysis of multi-element geochemical data revealed the following: *“Sulphide-bearing quartz veins and hydrothermally altered wall rocks are represented by two other factors. The first of these is the As-Au-Bi ± Sb, Te ore related mineral association characteristic of intrusion-related gold deposits throughout the Tombstone gold belt. Less consistently, anomalous concentrations of Ag, Co, Cu, Fe, and Mo occur within these auriferous rocks. The second metal suite noted from the factor analysis is defined by Ag-Bi-Pb ± As, Au, Te and characterizes metalliferous vein samples that have uncommonly low Au:Ag ratios. The geochemical signature particularly characterizes many samples from in and around the Pukelman stock. It may identify a second metalliferous hydrothermal event in the Clear Creek area. Tungsten shows little consistent correlation with the metalliferous rocks in either element suite.”*

Mineralization discovered on the BEE claims consists of gold +/- silver enriched quartz-pyrite-arsenopyrite +/- tourmaline veins and breccias (figure 2), and felsic dykes mineralized with pyrite-arsenopyrite. In addition to elevated Au, Ag and As the rocks are locally enriched in Bi, Pb, Sb, W and other base and pathfinder elements.



Figure 2. Gold-bearing quartz-tourmaline-arsenopyrite-pyrite vein adjacent to Big Creek stock on BEE claims. Headwater Vein discovered in 2010, site of sample #19064 on Map 1.

## **8.0 2014 & 2015 Work Programs**

The 2014 work program consisted of prospecting and selection of petrographic samples, with 2 samples submitted for geochemical analysis and the preparation of 12 thin sections for petrographic examination (see Appendix 6 by Timothy Liverton). Some of the petrographic samples were collected on the property by the author in 2010 and 2011.

The 2015 work program consisted of soil geochemical sampling that extended a soil survey grid at the north end of the property that was begun in 2011 by Bearing Resources. 42 soil samples were collected and one rock.

Work on the BEE claims was supported from a truck camp located about 500m northwest of the property.

### **8.1 Petrographic Results**

Rocks for petrographic examination were selected by the author, who engaged consultant Timothy Liverton, Ph.D. to arrange the preparation of thin sections (by Vancouver Petrographic). Liverton examined the thin sections and has prepared a report on each rock that is presented in Appendix 6. 36 photomicrographic plates are described by Liverton and included in this report. Petrography of rocks in the immediate area has previously been conducted by John Payne of Vancouver Petrographics (in Rainbird & Kelly, 1981, pp 62-81 and in Coombes, 1995, pp 91-102). The rock locations are plotted on Map 1, and locations, descriptions and Au & Ag contents are presented in Table 1 below.

In Appendix 6 Liverton reports that most of the rocks examined are consistent with the outcrop of granitic plutons emplaced at shallow depth and subvolcanic and volcanic equivalent lithofacies. The large amount of tourmaline present is indicative of a boron-rich intrusion that has produced much explosive hydrothermal activity, and the frequent breccias, tourmaline and arsenopyrite are indicative of widespread mineralization. The presence of chrome phengite (bright green muscovite) bearing marble from a breccia fragment in a gold-bearing dyke in sample W11 does not correlate with the granitic/hydrothermal model indicated by the other rocks. It may indicate a thrust-fault zone containing ophiolitic rocks (a listwaenite) at relatively shallow depth.

### **8.2 Rock Geochemistry Results**

Two samples collected in 2014 and one collected in 2015 were analyzed geochemically. Sample locations are shown on Map 1, sample descriptions and details are presented in Table 1 and analytical certificates are in Appendix 4. The three rock samples described in this report all returned anomalous silver values, but only trace gold.

In addition to analytical samples, Map 1 shows the locations of petrographic samples as well as selected rock samples from 2010 and 2011 which returned elevated gold values.

### **8.3 Soil Geochemistry Results**

42 soil samples were collected in 2015 and analyzed geochemically. Sample locations are presented in figure 3, along with soils collected on the same grid pattern in 2011 and a few

samples from 2010. Analytical results for various elements (Au, Ag, W, Bi, Sb, Pb, As) are presented in figures 4- 10. Soil analytical certificates are in Appendix 5. Gold in soil on the adjacent claims held by Victoria Gold Corp. are shown in figure 11 for comparative purposes.

An east-west trending lineament near the northern boundary of the claims is shown by the trace of Big creek on figures 3 to 10. This lineament is also clearly evident in airborne magnetic and radiometric data collected by Newmont (Stammers, 1998). Coincident with this structure is a strong Au- W- Bi- As anomaly with moderately anomalous Ag and Sb over an area of roughly 300m by 200m. Values up to 912ppb Au, 19ppm W, 4.5ppm Bi and 748ppm As are present in this location, which is thought to be a significant mineralized break. This target is the southern extension of a Au in soil anomaly on the adjacent claims that is roughly 3km by 1.5km (fig. 11).

A second anomalous area is present about 600m to the south of the east- west break. This target is highly anomalous in Ag- Pb- Sb with sporadic Au & As and moderately anomalous Bi. values up to 4.0ppm Ag, 786ppb Au, 400ppm Pb and 9.1ppm Sb are present. This target is roughly 300m by 100m+, and is open to the south and east. Further soil sampling is recommended to test this anomaly.

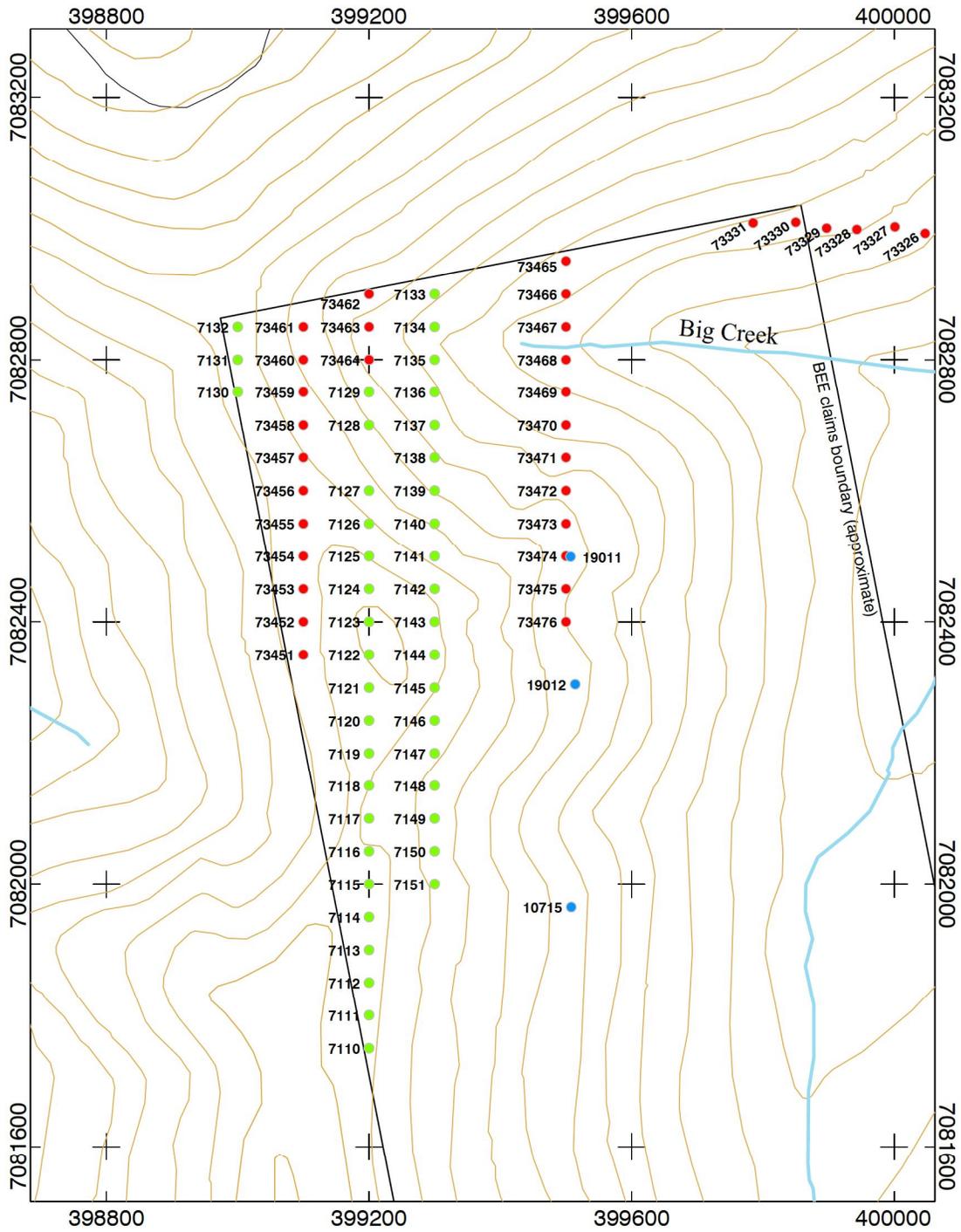
#### **8.4 Personnel**

All field work in the 2014 and 2015 programs on the BEE claims was conducted by the author and claim owner, William D. Mann, M.Sc., P.Ge., Consulting Geologist. The petrographic examination and interpretation was conducted by Timothy Liverton, Ph.D.

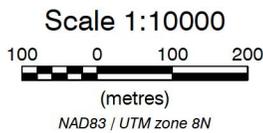
**Table 1. BEE Claims Rock Sample Locations and Descriptions**

Assay #	E	N	Au ppm	Ag ppm	Petrographic #	Description
<b>2015 Sample</b>						
2428	399204	7082026	0.0035	0.743	2428	float, breccia in quartzite host with cubic pits after pyrite, limonite and hematite, high As via XRF
<b>2014 Samples</b>						
BEE 1	398851	7079564	0.003	0.564	W1	Leucocratic microgranite (2-12mm feldspars) with grey quartz vein. Boulder, with local feldspar megacrysts.
BEE 2	399480	7082590	0.029	0.406	(BEE 2)	Outcrop, rusty hornfelsed metamorphic rocks with white QVs. Limonitic seams cut older quartz veins.
N/A	399421	7081217			W2	? Rhyolite with 0.5-1mm anastomosing grey veins. Boulder breccia, black cut by pale veins.
N/A	399500	7079688			W3	V. fine grained siliceous rock with branching 4mm black vein (? Schorl). Felsenmeer, hornfels.
N/A	399583	7082012			W4	Porphyry: 1-2mm phenocrysts, quartz-K-feldspar-muscovite
N/A	399593	7081980			W5	Float, Felsic dyke, Quartz-eye Porphyry with 3mm gray quartz vein
<b>2010 &amp; 2011 Samples</b>						
19208	400540	7079040	0.014	<0.5	W6	V. fine grained ? Rhyolite dyke with many voids (5%) from clay altered feldspar phenocrysts.
19210	400550	7080756	2.91	1.1	W7	Boulder, quartz vein, multiple pulses, locally vuggy. 4cm xenolith of ? Ultramafic in quartz
19211	400550	7080753	0.013	0.8	W8	V. fine grained ? Rhyolite with stockwork of qtz veins to 3mm, also very weathered 1 mm g/s ? Aplite. Boulder.
19213	400502	7080790	0.046	1.5	W9	Quartz breccia with ? Schorl. Boulder, 25cm wide Q-tourmaline bx vein, slicks on contact
65604	399513	7082302	0.197	2.3	W10	Outcrop, dark grey sulphide-bearing dyke with Qtz eyes.
65604	399513	7082302	0.197	2.3	W11	Breccia - 4cm rounded clast in fine gr. grey matrix
65604	399513	7082302	0.197	2.3	W12	0.5mm g/s green phengite?-quartz
						5cm crystals vesuvianite- or dravite in quartz

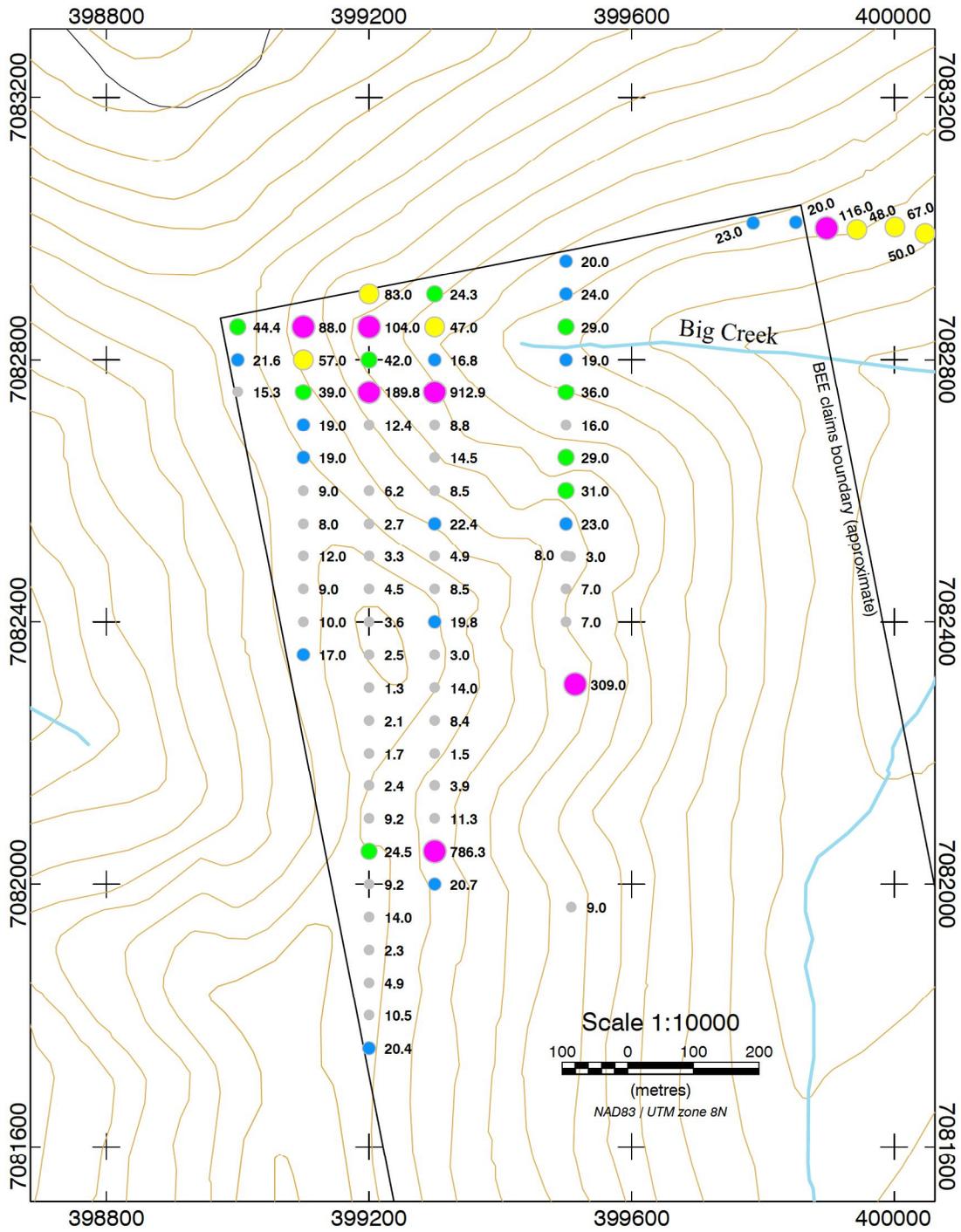
UTM NAD 83, zone 8



- 2010 soil sample, sample no.
- 2011 soil sample, sample no.
- 2015 soil sample, sample no.



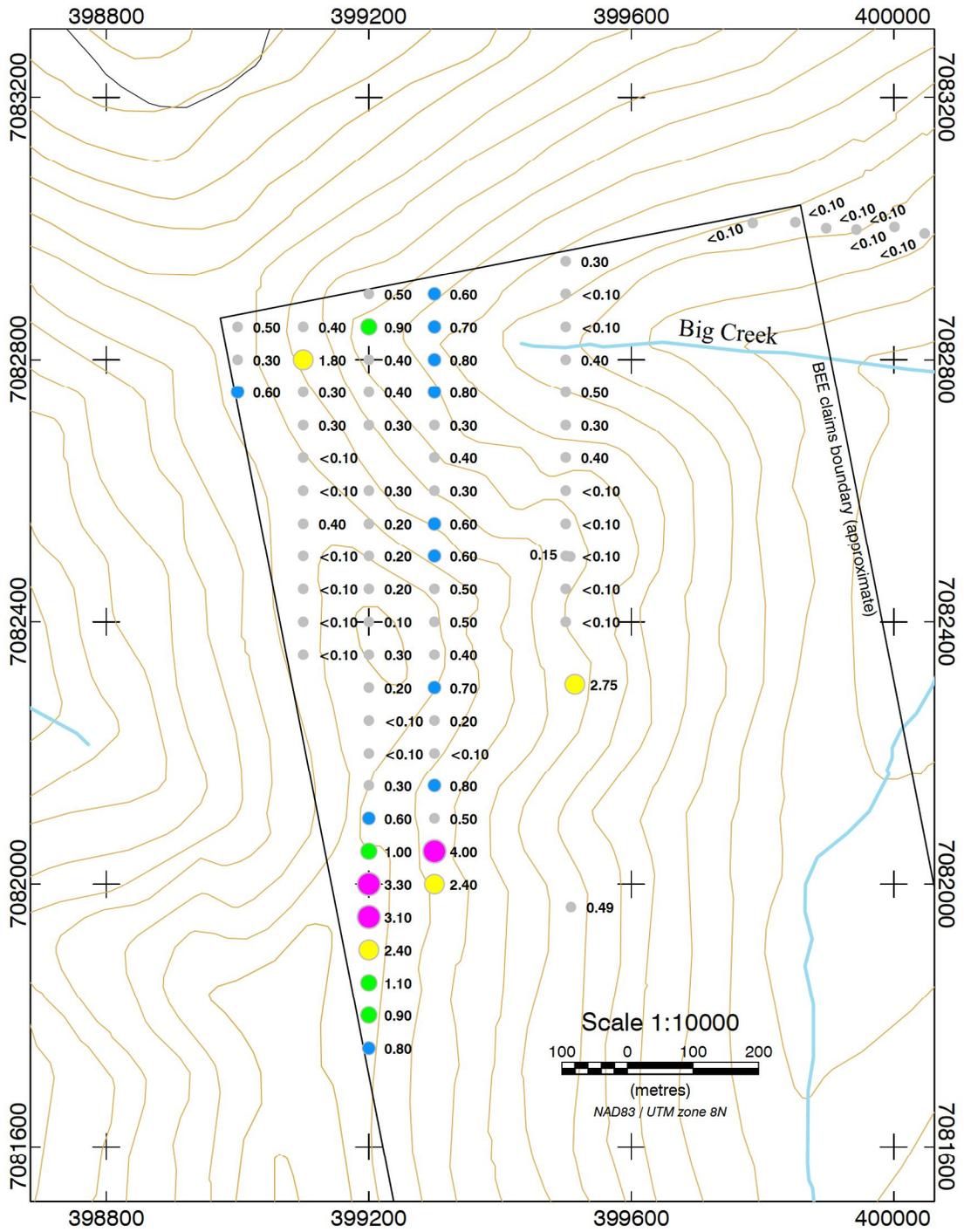
<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Sample Locations</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>



**Percentile**

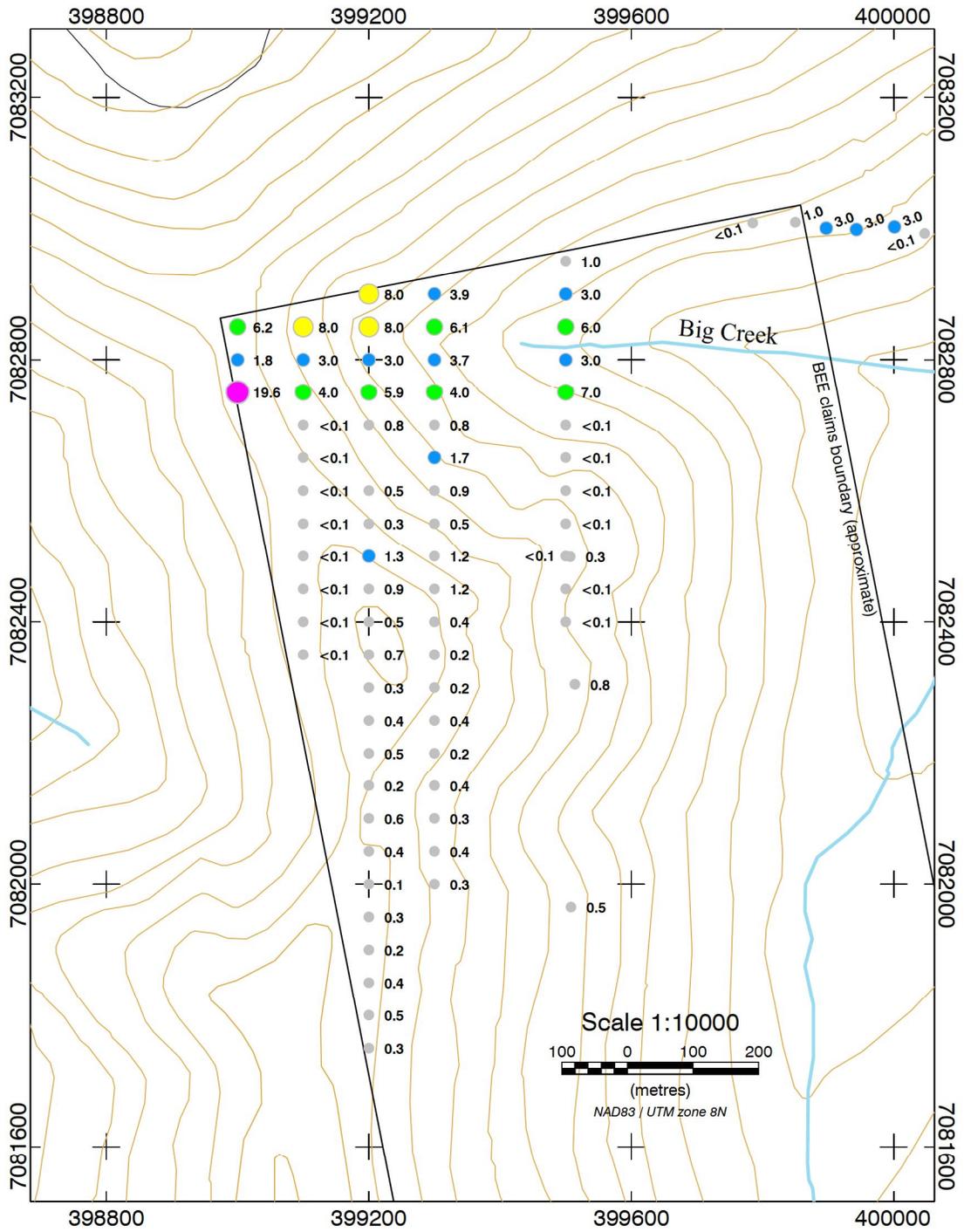
> 95	●	> 83
90 - 95	●	44.5 - 83
80 - 90	●	24.1 - 44.5
60 - 80	●	16 - 24.1
< 60	●	< 16

<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Geochemistry, Au ppb</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>



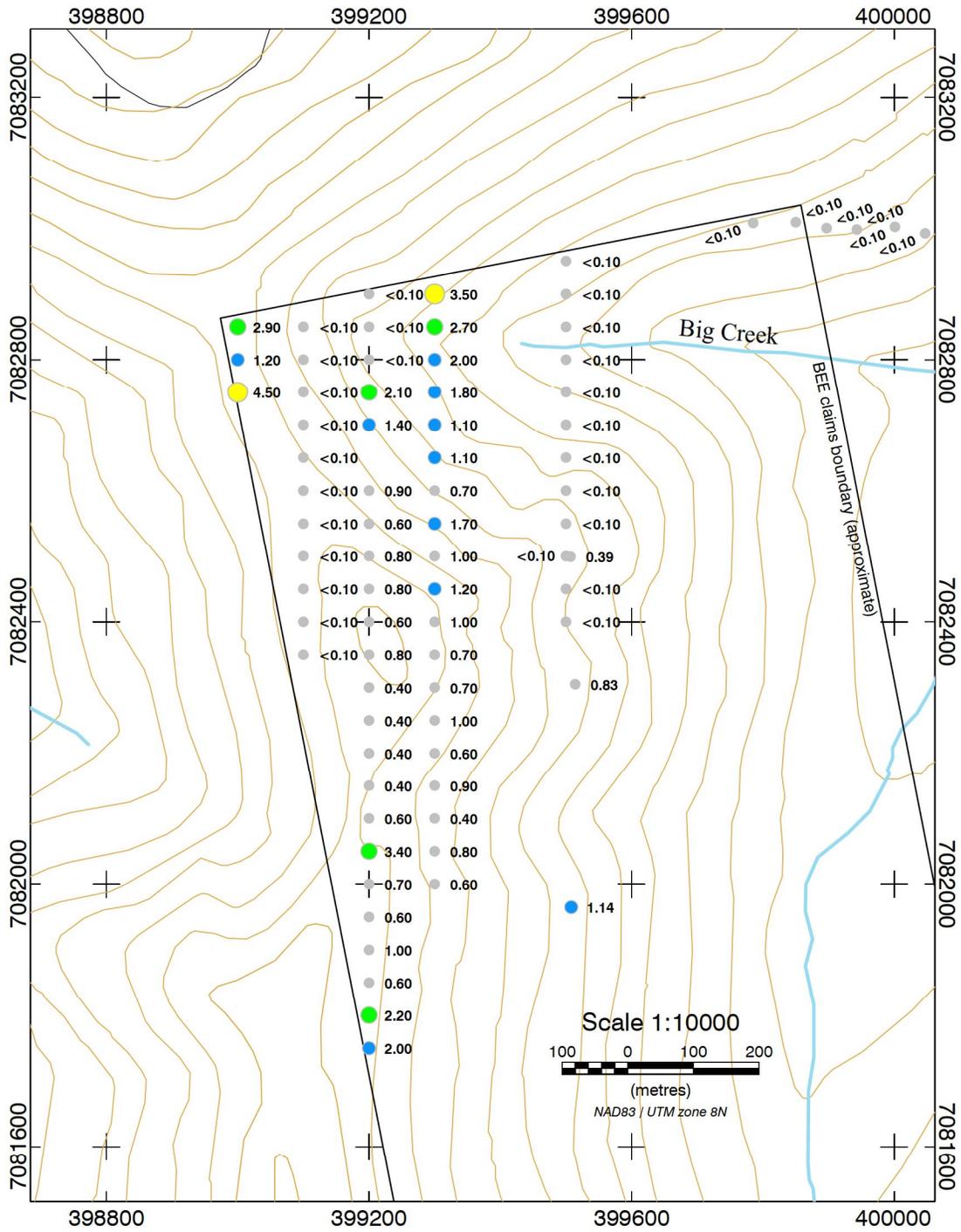
Percentile	Ag (PPM)
> 95	> 2.77
90 - 95	1.73 - 2.77
80 - 90	0.82 - 1.73
60 - 80	0.5 - 0.82
< 60	< 0.5

<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Geochemistry, Ag ppm</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>



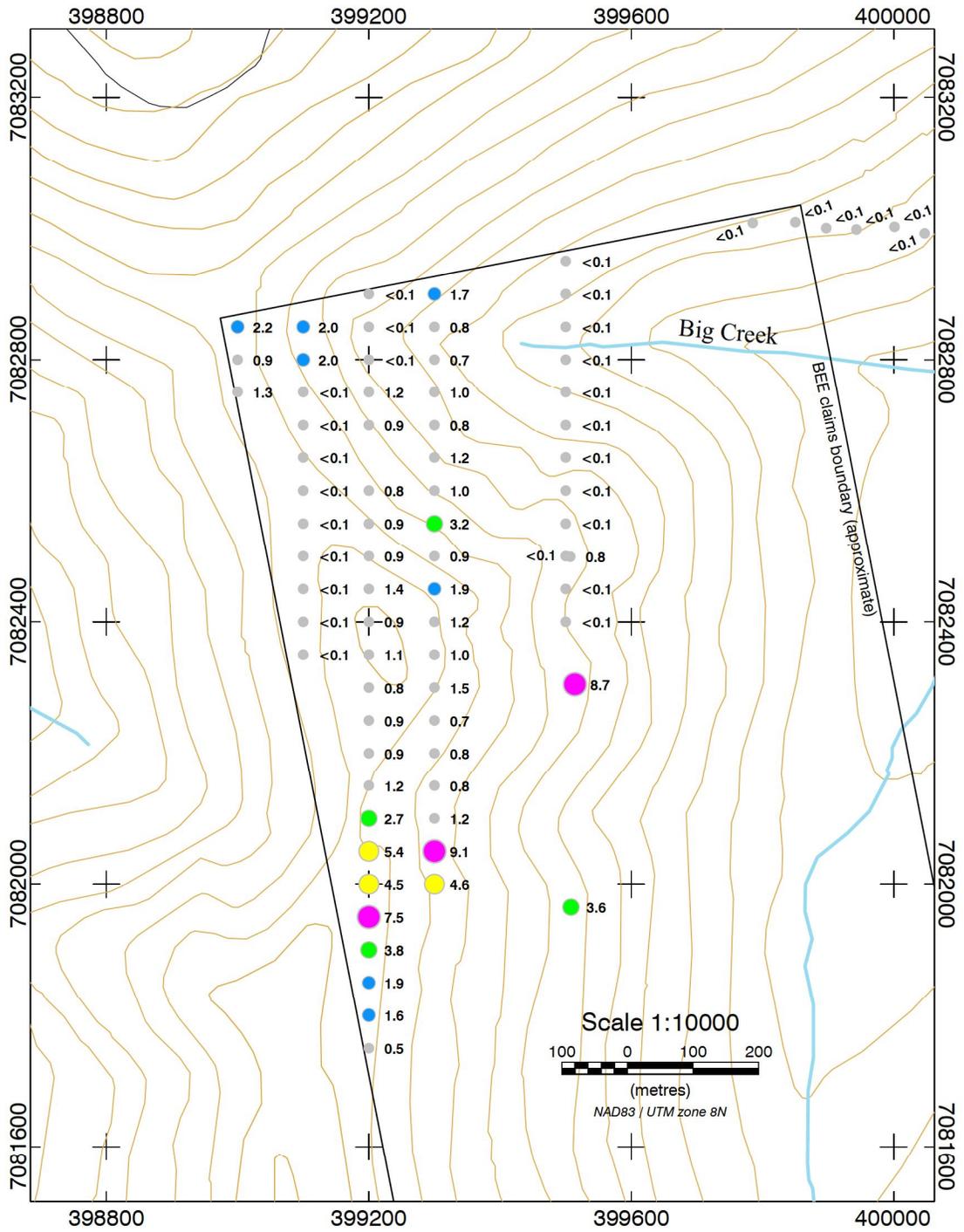
Percentile	W (PPM)
> 95	19.6
90 - 95	8.0
80 - 90	6.2
60 - 80	3.9
< 60	1.2
	< 1.2

<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Geochemistry, W ppm</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>



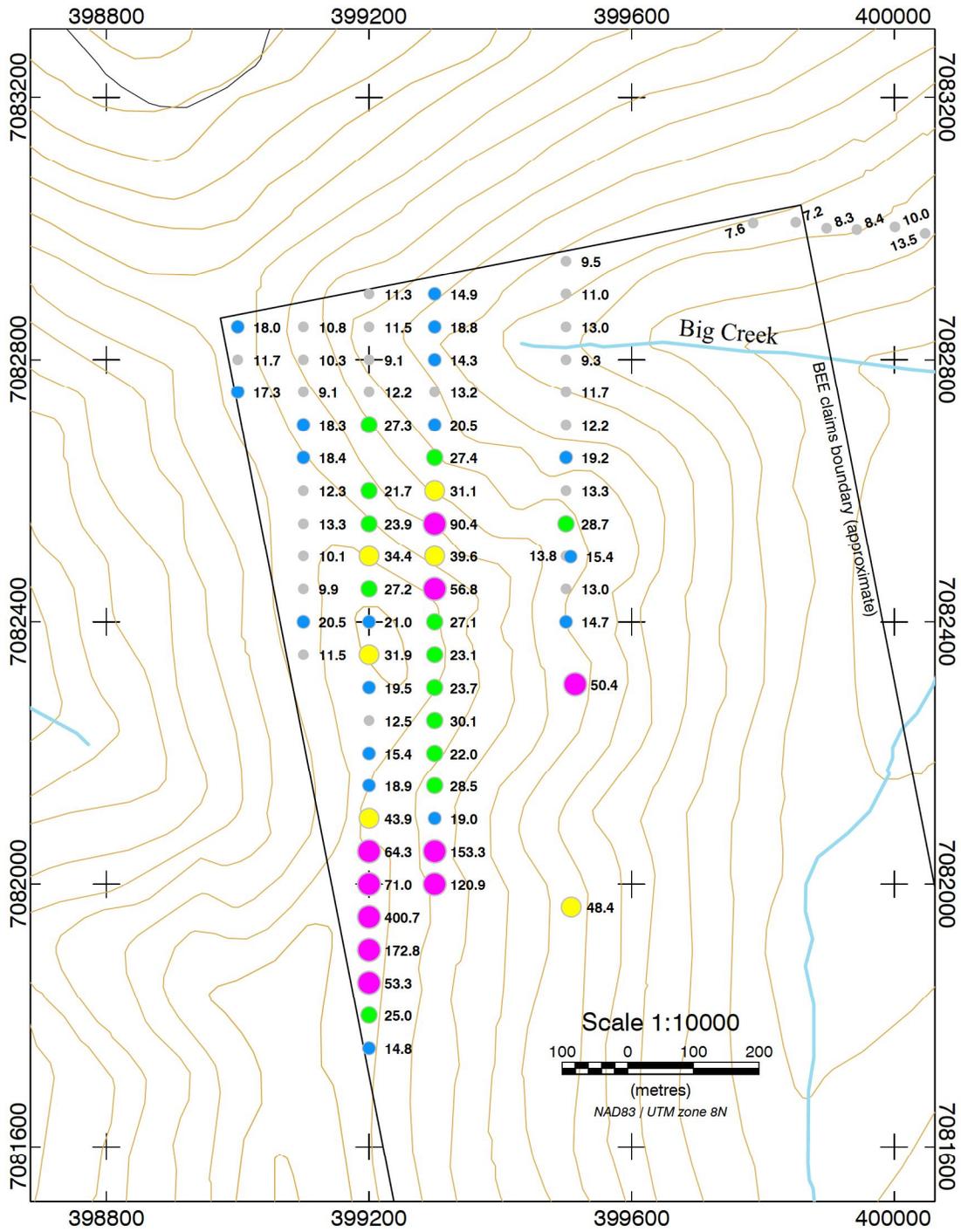
Percentile	Bi (PPM)
> 95	3.41 - 6.23
90 - 95	2.02 - 3.41
80 - 90	1 - 2.02
60 - 80	< 1
< 60	

<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Geochemistry, Bi ppm</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>



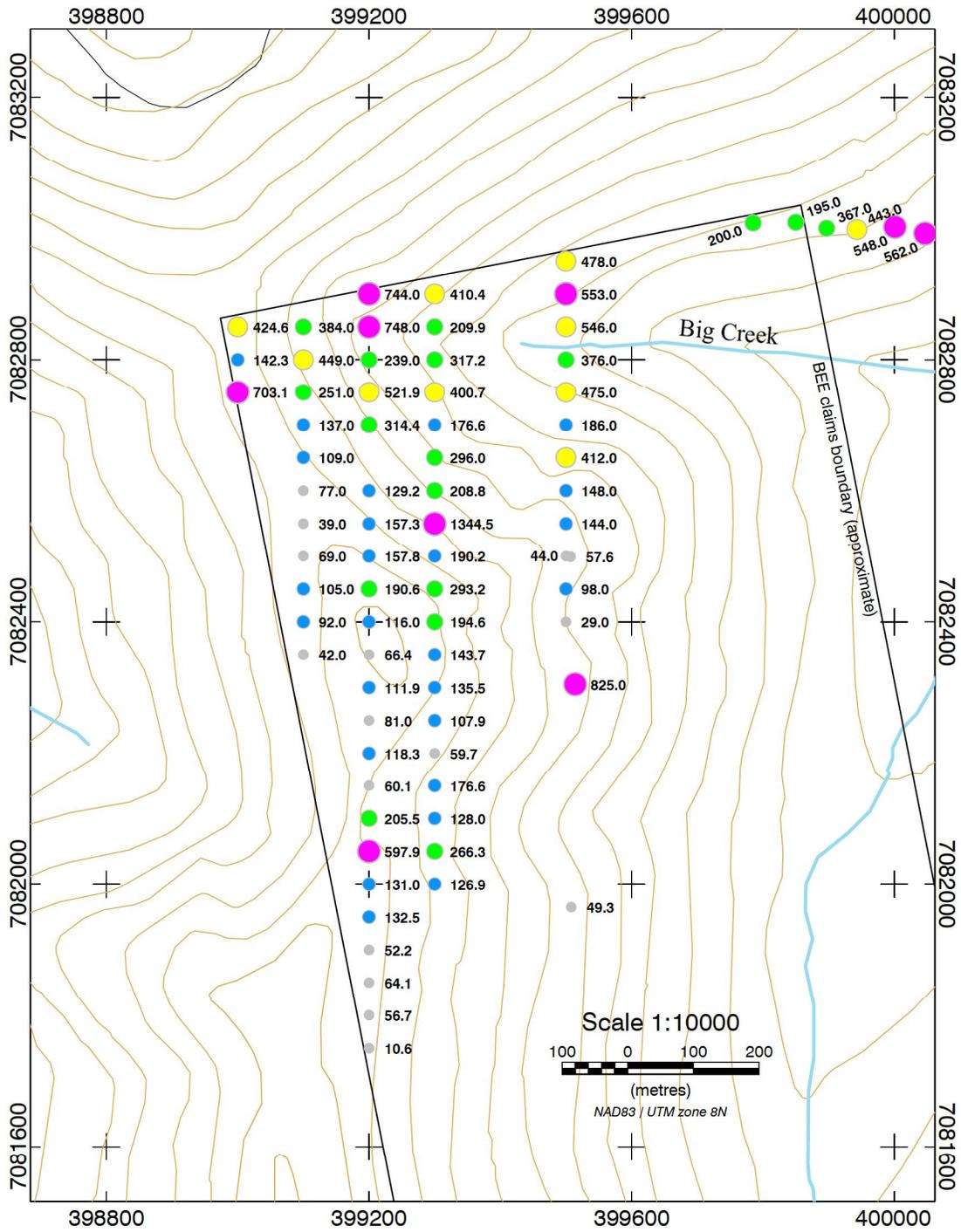
Percentile	Sb (PPM)
> 95	9.1
90 - 95	5.4 - 5.4
80 - 90	2.4 - 4.4
60 - 80	1.5 - 2.4
< 60	< 1.5

<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Geochemistry, Sb ppm</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>



Percentile	Pb (PPM)
> 95	> 48.5
90 - 95	30.3 - 48.5
80 - 90	21.5 - 30.3
60 - 80	13.9 - 21.5
< 60	< 13.9

<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Geochemistry, Pb ppm</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>



Scale 1:10000  
 100 0 100 200  
 (metres)  
 NAD83 / UTM zone 8N

Percentile	As (PPM)
> 95	> 547.2
90 - 95	387.3 - 547.2
80 - 90	190.4 - 387.3
60 - 80	89.8 - 190.4
< 60	< 89.8

<b>William D. Mann</b>
<b>BEE Claims</b>
<b>2010, 2011 and 2015 Soil Geochemistry, As ppm</b>
NTS: 115P14 December 2015
<i>map by Stewart Basin Exploration</i>

review

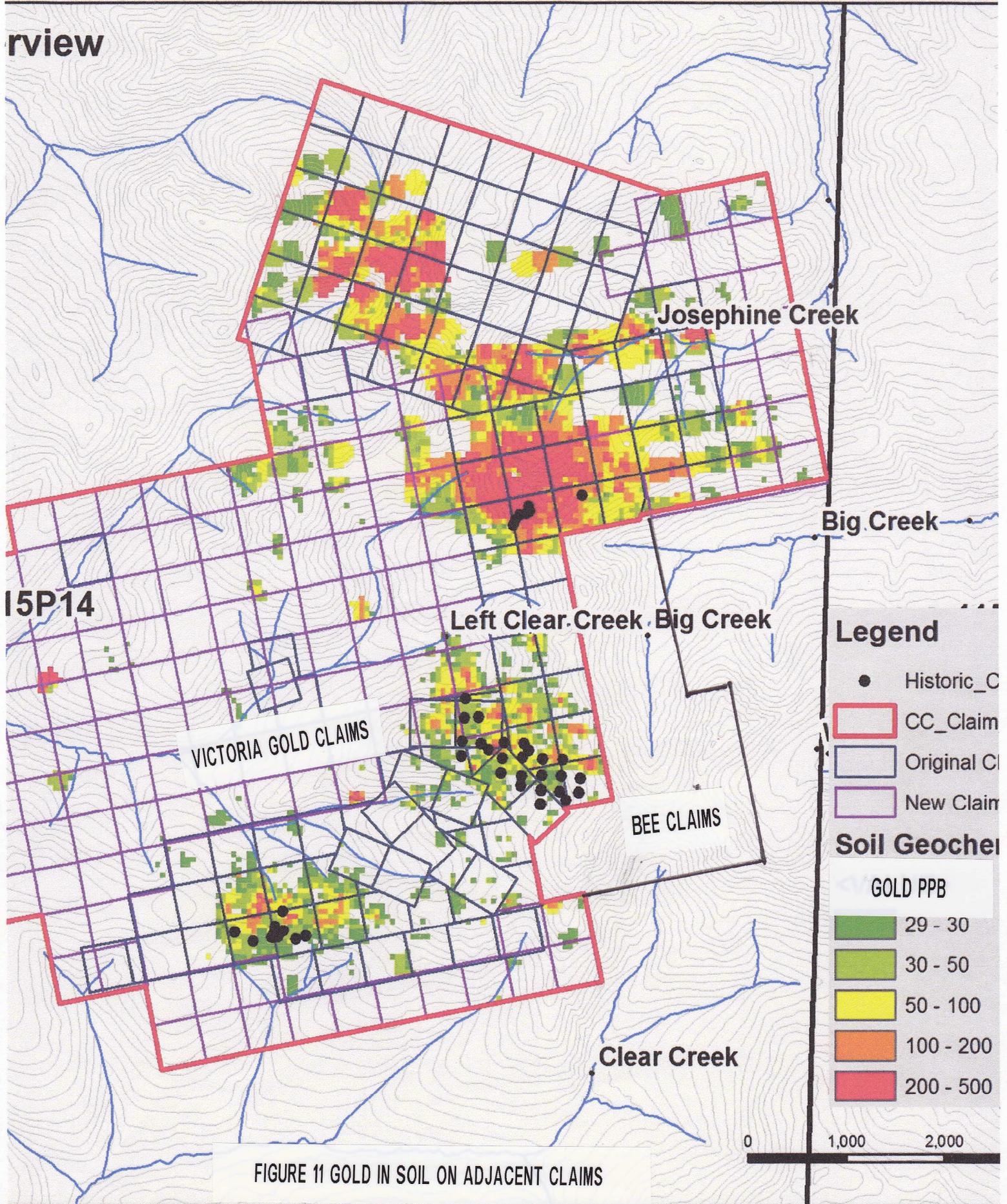


FIGURE 11 GOLD IN SOIL ON ADJACENT CLAIMS

## 9.0 Sampling Method and Approach

Soil samples were collected with a mattock from the “C” horizon, typically 10 to 30cm deep, or from talus fines. The soil horizon is too rocky to use a soil auger. Soils were collected along UTM north-south grid lines using a hand-held GPS, near the northern boundary of the property, and extended the coverage of surveys conducted in 2010 and 2011. The sample lines are spaced 100m apart, with sample locations spaced 50m apart along each line. The location accuracy of the GPS was generally within +/-3m, however on the steep north-facing slope near samples 7139- 7141 the accuracy was only +/-10 to 20m. Soil sample locations are shown in figure 3, and detailed in Appendix 3. One sample station was skipped due to the presence of very coarse rock talus with no fines available to sample, between samples 7127 and 7128.

Soil samples were placed into numbered kraft paper bags along with a sample tag. Soils bags were placed into large plastic bags in numerical order. These plastic bags were then combined into a rice bag for shipment to the laboratory, and sealed with a nylon zip tie.

Rocks samples for geochemical analysis were collected based on the appearance of potential mineralization. The samples were of float rock, as solid bedrock is rare while felsenmeer or talus is quite abundant. Chips were taken of boulders, with sample weight around 500g. Samples were placed into numbered plastic ore bags along with a sample tag. Samples were described in a notebook along with sample location. The sample bags were tied closed with flagging tape. Plastic ore bags were placed into rice bags and sealed with a nylon zip tie.

All samples were transported in the care of the author, and delivered directly to the Bureau Veritas (AcmeLabs) preparation laboratory in Whitehorse, Yukon.

## 10.0 Sample Preparation, Analysis and Approach

The 2014 and 2015 samples for analysis were placed into rice bags in the field by the author, sealed and secured. The samples were delivered directly to the Whitehorse preparation facility of Bureau Veritas (AcmeLabs) by the author.

Bureau Veritas Minerals Laboratories (BVML) holds global certifications for Quality ISO9001:2008, Environmental Management: ISO14001 and Safety Management OH SAS 18001 and AS4801.

At the preparation facility samples were dried at 60°C. Soil samples were sieved to -80 mesh. Rocks were crushed to 70% passing 10 mesh, then a 250g split was pulverized to 85% passing 200 mesh. The samples were then transported from Whitehorse to the Vancouver mineral geochemistry laboratory of BVML.

The rock samples were analyzed by BVML method #AQ252. 30g of sample was digested with 1:1:1 Aqua Regia followed by Ultratrace ICP-MS analysis for 37 elements. Gold analysis had a detection limit of 0.2ppb.

The soil samples were analyzed by BVML method #AQ200. 0.5g of sample was digested with 1:1:1 Aqua Regia followed by Ultratrace ICP-MS analysis for 36 elements. Gold analysis had a detection limit of 0.5ppb.

Quality control procedures were implemented at the laboratory, involving the regular insertion of blanks and standards and repeat analyses on the samples. Quality Assurance data is provided for each batch of samples and included with each analytical certificate (Appendices 4 & 5).

There was no evidence of any tampering with the samples during collection or shipping. All sample preparation was conducted by the laboratory.

## **11.0 Data Verification**

The number of samples collected in this work was small and the work early stage, therefore no blank or standard samples were submitted into the analytical stream by the author. Bureau Veritas has a rigorous internal data verification system that was deemed to be adequate for the purposes of this study.

## **12.0 Adjacent Properties**

The BEE claims lie immediately east and south of the Clear Creek property, a large block of mineral claims owned by competitor Victoria Gold Corp. The Clear Creek property hosts the Rhosgobel (aka Juno), Bear Paw, Pukelman, Contact, Saddle, Josephine, Eiger, Creek, Galena, South Rhosgobel W-Au zone and Tungsten Skarn zones. The first 8 of these zones have been drill tested. Some of these zones are enriched in silver, tungsten and molybdenum in addition to gold.

No drilling has been conducted on the Rhosgobel/ Juno zone since the work by Kennecott (Coombes, 1995). The 1995 drilling only tested the zone to 65m depth, therefore there is thought to be reasonable potential for the zone to expand to the east onto the BEE claims.

Recent work at the Clear Creek Property included drilling only on the Saddle, Bear Paw and Contact zones. Results from the Contact Zone included an intercept of 2.19 g/t Au over 25.50 m and 4.70 g/t Au over 7.50 m and several narrower or lower grade intercepts within a 231 m interval (Golden Predator news releases on corporate website). This zone is proximal to the BEE claims.

All information on the Victoria Gold Corp. property is publicly disclosed and described under Section 4.0: "History", and is separate from mineralization described in this report. Information from the adjacent property is not necessarily indicative of the mineralization on the BEE property, the subject of this report.

Open ground to the south and east of the BEE property have had historical exploration for tin and other commodities, with no known deposits near the BEE claims.

## 13.0 Interpretation and Conclusions

### 13.1 Interpretation

The BEE claims are thought to be entirely underlain at shallow depth by intrusions that extend from the outcropping Tombstone age Big Creek, Rhosgobel and Pukelman stocks, and therefore have good potential to host intrusion-related gold (+/- silver) deposits of Tombstone age. This is evident from the widespread distribution of hornfels altered metasediments, the presence of dykes of various compositions, and from interpretation of the airborne geophysical survey conducted by Newmont (Stammers, 1998). Strong E-W trends are evident near the northern boundary of the current BEE claims, and are seen in Total Field Magnetics, First Vertical Derivative magnetics, U, Th & K radiometric results. This E-W trend coincides on the BEE claims with a strong Au- W- Bi- As in soil anomaly described in section 8.3 above and are proximal to the Contact zone of Victoria Gold Corp.

Favourable east-west oriented structures are also present to the west of the Rhosgobel zone on the BEE claims. North-northeast oriented structures are also favourable for gold mineralization, and run through the middle of the claims. The north-northeasterly structures are expressed as linear creek valleys, from the headwaters of Clear Creek over to the headwaters of Big Creek. *“Preliminary analysis of fault geometry and connectivity suggests the most favourable sites for mineralization are east-west fracture zones connected to ~165° oriented faults. Other favourable structural sites include misoriented segments of ~165° faults and possibly northeast-striking structures connected to ~165° faults.”* (Stephens et. al., 2000).

Prospecting has identified three highly favourable areas with gold bearing rocks in outcrop (figure 2) or subcrop, two along the contacts of the northwestern lobe of the Big Creek stock and the other in the northern part of the claims associated with felsic dykes. The target adjacent to the Big Creek stock, with a best rock sample of 2.91 g/t gold may be a continuation of the Rhosgobel/ Juno mineralized system on the adjacent ground of Victoria Gold. The target in the northern part of the BEE claims, with a best rock value of 3.85 g/t gold and 21.2 g/t silver may be a splay from the Contact Zone mineralized system on the adjacent ground of Victoria Gold.

### 13.2 Conclusions

Gold mineralization is present on the BEE claims, notably on the northwest ridge of the Big Creek stock and in the northern part of the property. Quartz- arsenopyrite veins found in 2010 and pyrite- arsenopyrite mineralized felsic dykes found in 2011 are similar to those found on the adjacent property. Gold and pathfinder elements in soil have been found at highly anomalous levels over large areas of the property. Silver content associated with gold mineralization may contribute significantly to the economic potential of this property.

The BEE property has never been drilled, and the next phase of work should focus on soil grids, detailed mapping and prospecting to firm up drill targets at the Big Creek stock and the northern area targets which have returned multi-gram gold results. These targets are more or less

extensions of known mineralized zones on the adjacent competitor's property, and drill targets can be firmed up with a modest effort. The margins of the dioritic phase of the Big Creek stock appear to be a favourable environment for mineralization, and this relationship should be confirmed with further mapping and prospecting. The mineralized dykes in the northern part of the property appear to be related to an east-west structure that is roughly parallel to the Contact zone on the adjacent property owned by Victoria Gold Corp. Petrographic examination of a breccia fragment from this dyke has revealed phengite, a type of muscovite associated with thrust faulting. The Tombstone thrust may therefore be close to surface in this area.

Exploration to date on the property has been mostly on a cursory level, despite advanced exploration on the adjacent ground now held by Victoria Gold Corp. Small soil grids have been sampled on the western edge near the Rhosgobel stock, and in the northern part of the property with favourable results. Detailed mapping has not been conducted on the property. Targeted soil geochemistry around lineaments and geophysical anomalies, in conjunction with detailed mapping and prospecting is thought to be an effective method for developing drill targets on the property.

#### **14.0 Recommendations**

The next phase of work should consist of continuing the soil geochemistry grid started in the northern part of the property. It is likely that the Rhosgobel/ Juno Zone and the Contact Zone mineralized systems on the adjacent Clear Creek property of Victoria Gold Corp. continue onto the BEE property, and systematic soil sampling in these areas should help to demonstrate this. Additional sampling and prospecting should result in the development of drill targets in these areas.

Detailed geological mapping of the property would benefit further exploration. A scale of 1:5,000 is proposed.

## 15.0 References

Allen, T.L., Hart, C.J.R. and Marsh, E.E., 1999. Placer gold and associated heavy minerals of the Clear Creek drainage, central Yukon: past to present. In: Yukon Exploration and Geology 1998, C.F. Roots and D.S. Emond (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 197-214.

Bidwell, G. 1993. 1992 reverse circulation drill program at the Clear Creek Project for Hemlo Gold Mines. Assessment Report #093097.

Bostock, H.S., 1964. Geology, McQuesten, Yukon Territory. Geological Survey of Canada, Map 1143A, 1:253 440 scale.

Coombes, S. 1995. Reverse circulation drilling, geochemical sampling, geological mapping and road construction on the RAIN, WIND, SLEET, RUM, RYE, DUM, WET & CC claims by Kennecott Canada. Assessment Report #093372.

Duk-Rodkin, A., 1999. Glacial limits map of Yukon Territory. Geological Survey of Canada, Open File 3694, Exploration and Geological Services Division, Yukon Region, Indian and Northern Affairs Canada, Geoscience Map 1999-2, 1:1 000 000 scale.

Feulgen, S. & Stephen, J.C. 1989. Diamond drilling on the Rain, Wind and Sleet claims, Clear Creek, Yukon for Cambridge Resources Ltd. Assessment Report #092752.

Geological Survey of Canada, 1966. Airborne magnetic survey, Geophysical paper 7212, McQuesten, Yukon Map Sheet 115P, scale 1:253,440.

Geological Survey of Canada, 1966. Airborne magnetic survey, Geophysical paper 3319, Clear Creek map sheet 115P/14, geophysical map 3319G, at scale 1: 63,360.

Golden Predator Corp., 2011. Corporate website at: [www.goldenpredator.com](http://www.goldenpredator.com) .

Jackaman, W., 2012. Regional stream sediment geochemical data, McQuesten area, central Yukon (NTS 115P). Yukon Geological Survey, Open File 2012-9.

Joy, R.J. and VanTassell, R.E., 1971: Geological and Geochemical report on the NOP 1 to 10 Mineral Claims, Clear Creek, Dawson Mining District. Assessment Report #061132.

Kennedy, D.R., 1980: CCH Resources Ltd., Assessment Report #090550, Geochemical Survey, Jubjub claims 1 – 32, 115P/14.

Lueck, B.A., 1994: Geological and Geochemical Assessment Reports #093310 & #093270 for the FAR 1 – 70, TP 2, 4 – 8, FP 1 – 12 Claims and J D A 1 – 91; EFP 1 – 76 Claims, Dawson Mining Division.

Mann, W.D., 2011a: 2010 Geochemical Assessment Report #095563 on the BIG claims. Bearing Resources Ltd.

Mann, W.D., 2011b: 2011 Geochemical Assessment Report #095962 on the BIG claims. Bearing Resources Ltd.

Marsh, E.E., Hart, C.J.R., Goldfarb, R.J. and Allen, T.L., 1999. Geology and geochemistry of the Clear Creek gold occurrences, Tombstone gold belt, central Yukon Territory. In: Yukon Exploration and Geology 1998.

Murphy, D.C. and Heon, D., 1996: Geoscience Maps 1996-1 and 1996-2, Geological map of Clear Creek area and Sprague Creek area, western Selwyn Basin, Yukon (115P/14, 115P/15).

Murphy, D.C. 1997. Geology of the McQuesten River Region, Northern McQuesten and Mayo Map areas, Yukon Territory (115P/14, 15, 16; 105M/13, 14). Yukon Geological Survey Bulletin 6.

Poulson, K.H., Mortensen, J.K., Murphy, D.C., 1997: Styles of Intrusion-related mineralization in the Dawson-May area, Yukon Territory; in Current research 1997-A; Geological Survey of Canada, p. 1-10.

Rainbird, R.H., 1982: Geological and Geochemical Assessment Report #091368 on the West Ridge Claims, C.C. (1) 782-847, 850-859, 862-871, 973-881, 883-919, C.C. (2) 852-857, Dawson Mining Division; for: Canada Tungsten Mining Corporation Limited; by: Bema Industries Ltd.

Rainbird, R.H. and Kelly, D.A., 1981: Geological and Geochemical Assessment Report #090926 on the C.C. 1-860 (Fractions included), Sluggo 1-20, Rain 1-30 and Bee 1-14 Claim Groups, Dawson Mining Division; For: Canada Tungsten Mining Corporation Ltd.; by Bema Industries Ltd.

Robinson, S. 1988. Geological, Geochemical, Geophysical and Diamond Drilling report on the RUM, RYE and ROLL claims for Goldrite Mining Corp. Assessment Report #092748.

Schulze, C.M. 2004: Year-2003 Results on the FAR -TP Project, Thor Explorations Ltd. Assessment Report #094456.

Schulze, C.M. 2005: Year-2005 Geochemical and Geological Assessment Report #094654, FAR-TP project, Thor Explorations Ltd.

Smith, C.A.S., Meikle, J.C. & Roots, C.F. (editors) 2004. Ecoregions of the Yukon Territory: Biophysical properties of Yukon landscapes.

Stammers, M. 1998. Geological, Geochemical and Geophysical Report on the Clear Creek property, Newmont Mining. Assessment Report #093937.

Stammers, M. 1999. Geochemical and Diamond Drilling report on the Clear Creek property, Redstar Resources. Assessment Report #094058.

Stephens, J.R., Oliver, N.H.S., Baker, T. and Hart, C.J.R., 2000. Structural evolution and controls on gold mineralization at Clear Creek, Yukon. In: Yukon Exploration and Geology 1999.

Stephens, J.R. and Weekes, S., 2001. Intrusive-breccia-hosted gold mineralization associated with ca. 92 Ma Tombstone Plutonic Suite magmatism: An example from the Bear Paw breccia zone, Clear Creek, Tintina gold belt, Yukon. In: Yukon Exploration and Geology 2000, D.S. Emond and L.H. Weston (eds.), Exploration and Geological Services Division, Yukon, Indian and Northern Affairs Canada, p. 347-353.

Wallis, J.E., 1987. Evaluation report on the RUM claims, Yukon Assessment Report #062291.

Woodsend, A, 1981: Campbell Resources Incorporated; Assessment Report #090802, Geological and Geochemical Surveys, Jubjub claims 1 to 32.

Yukon Minfile, 115P: Yukon Geological Survey. Available in digital format at:  
<http://www.geology.gov.yk.ca>

## APPENDIX I

### STATEMENT OF QUALIFICATIONS

**WILLIAM D. MANN, M.Sc., P.Geo.**

**19 HAYES CRESCENT, WHITEHORSE, YUKON Y1A 0E1**

1. I am a member in good standing of the Association of Professional Engineers and Geoscientists of BC, Licence #31907.
2. I am a Graduate of Queen's University, 1986, with a Master of Science Degree in Mineral Exploration Geology.
3. I am a Graduate of the University of British Columbia, 1983, with a Bachelor of Science Degree in Geology.
4. I have worked in mineral exploration and mining continuously since 1979.
5. I conducted the field work program on the BEE Claims in 2014 & 2015.
6. I am consulting geologist and owner of the claims.

November 30, 2015

-----  
William D. Mann, M.Sc., P.Geo.

**2014 BEE Project Statement of Expenditures - William Mann**

<b>DATE</b>	<b>SUPPLIER</b>	<b>ITEM</b>	<b>COST</b>
<b><u>Expenses incurred</u></b>			
2014-08-09 to 11	William Mann	Field Expenses \$100/day	200.00
2014-08-09 to 11	William Mann	Senior Geologist @ \$500 per day	1,000.00
2014-08-09 to 11	William Mann	4x4 truck \$.62/km x 1000km	620.00
			<hr/>
			1,820.00 <b>\$1,820.00</b>

**INVOICE #**

<b><u>Petrography</u></b>				
2015-05-12	150339	Vancouver Petrographics	prepare thin sections	390.60
2015-06-29	2015-06-29	Timothy Liverton	report on thin sections	1,155.00
				<hr/>
				1,545.60 <b>\$1,545.60</b>

**Geochemical Analysis**

2015-05-26	BILLC1054-WHI15000023	Bureau Veritas	Rock geochemistry - 2 samples	125.90
				<hr/>
				125.90 <b>\$125.90</b>
			<b>SUBTOTAL</b>	<b>\$3,491.50</b>
		William Mann	Report preparation at 10%	<b>\$349.15</b>

---

---

TOTAL EXPENDITURES:     **\$3,840.65**

field work conducted August 10, 2014 with half day travel before & after

**Signed:**

**Date:**

---

**2015 BEE Project Statement of Expenditures - William Mann**

DATE	SUPPLIER	ITEM	COST	
<b><u>Expenses incurred</u></b>				
Aug 2 to 5	William Mann	Field Expenses \$100/day	300.00	
Aug 2 to 5	William Mann	Senior Geologist @ \$500 per day	1,500.00	
Aug 2 to 5	William Mann	4x4 truck \$.62/km x 1000km	620.00	
			<u>2,420.00</u>	<b>\$2,420.00</b>

**INVOICE #**

**Geochemical Analysis**

2015-09-15	VANI235192	Bureau Veritas	Soil geochemistry - 42 samples	884.21	
2015-09-15	VANI235191	Bureau Veritas	Rock geochemistry - 1 sample	36.70	
				<u>920.91</u>	<b>\$920.91</b>
			SUBTOTAL		<b>\$3,340.91</b>
	William Mann		Report preparation at 10%		<b>\$334.09</b>

---

---

TOTAL EXPENDITURES: **\$3,675.00**

field work conducted August 3 & 4, 2015 with half day travel before & after

Signed:

*owner of the claims*

Date:

2015

### APPENDIX 3 SOIL SAMPLE LOCATIONS

SAMPLE	E	N	SAMPLE	E	N
7110	399200	7081750	7131	399000	7082800
7111	399200	7081800	7132	399000	7082850
7112	399200	7081850	7133	399300	7082900
7113	399200	7081900	7134	399300	7082850
7114	399200	7081950	7135	399300	7082800
7115	399200	7082000	7136	399300	7082750
7116	399200	7082050	7137	399300	7082700
7117	399200	7082100	7138	399300	7082650
7118	399200	7082150	7139	399300	7082600
7119	399200	7082200	7140	399300	7082550
7120	399200	7082250	7141	399300	7082500
7121	399200	7082300	7142	399300	7082450
7122	399200	7082350	7143	399300	7082400
7123	399200	7082400	7144	399300	7082350
7124	399200	7082450	7145	399300	7082300
7125	399200	7082500	7146	399300	7082250
7126	399200	7082550	7147	399300	7082200
7127	399200	7082600	7148	399300	7082150
7128	399200	7082700	7149	399300	7082100
7129	399200	7082750	7150	399300	7082050
7130	399000	7082750	7151	399300	7082000

UTM ZONE 8 NAD 83



BUREAU  
VERITAS

MINERAL LABORATORIES  
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

Client: **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Submitted By: Bill Mann  
Receiving Lab: Canada-Whitehorse  
Received: May 25, 2015  
Report Date: May 28, 2015  
Page: 1 of 2

# CERTIFICATE OF ANALYSIS

# WHI1500023.1

## CLIENT JOB INFORMATION

Project: BEE  
Shipment ID:  
P.O. Number  
Number of Samples: 2

## SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	2	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ252	2	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

## SAMPLE DISPOSAL

DISP-PLP Dispose of Pulp After 90 days  
RTRN-RJT Return

## ADDITIONAL COMMENTS

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Bill Mann  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1  
CANADA

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: May 28, 2015

Page: 2 of 2

Part: 1 of 2

# CERTIFICATE OF ANALYSIS

WHI1500023.1

Method	WGHT	AQ252																			
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	
BEE 1	Rock	0.57	0.39	1.80	39.67	9.3	563	1.0	0.8	144	0.61	40.0	0.9	2.5	2.3	5.6	0.05	0.17	4.22	<2	0.02
BEE 2	Rock	0.46	0.17	19.79	33.23	26.5	406	9.1	2.8	61	0.98	375.9	0.8	28.9	5.9	1.7	0.06	0.55	4.15	<2	<0.01



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: May 28, 2015

Page: 2 of 2

Part: 2 of 2

# CERTIFICATE OF ANALYSIS

WHI1500023.1

Method	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252						
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	
MDL	0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	
BEE 1	Rock	0.010	5.1	2.1	0.01	11.5	0.001	52	0.08	0.013	0.03	3.7	0.4	0.03	<0.02	<5	<0.1	0.20	0.3
BEE 2	Rock	0.005	10.9	3.7	<0.01	8.7	<0.001	2	0.23	0.002	0.04	0.2	0.9	0.05	<0.02	<5	<0.1	0.03	0.4



Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client: Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: May 28, 2015

Page: 1 of 1

Part: 1 of 2

# QUALITY CONTROL REPORT

WHI1500023.1

Method	Analyte	WGHT	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
		Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca
Unit		kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%
MDL		0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01
Pulp Duplicates																					
BEE 2	Rock	0.46	0.17	19.79	33.23	26.5	406	9.1	2.8	61	0.98	375.9	0.8	28.9	5.9	1.7	0.06	0.55	4.15	<2	<0.01
REP BEE 2	QC		0.14	19.28	32.84	27.3	397	9.2	3.1	60	0.98	371.4	0.7	28.8	5.9	1.6	0.07	0.58	4.01	<2	<0.01
Reference Materials																					
STD DS10	Standard		13.40	154.37	153.40	379.6	1895	74.0	12.9	852	2.77	43.7	2.8	70.2	7.8	69.5	2.61	8.97	12.95	42	1.04
STD OXC129	Standard		1.23	30.01	6.39	44.7	22	77.8	20.2	420	3.04	0.7	0.7	169.7	1.9	189.6	0.05	0.03	<0.02	50	0.64
STD DS10 Expected			14.69	154.61	150.55	370	2020	74.6	12.9	875	2.7188	43.7	2.59	91.9	7.5	67.1	2.49	8.23	11.65	43	1.0625
STD OXC129 Expected			1.3	28	6.3	42.9	28	79.5	20.3	421	3.065	0.6	0.72	195	1.9		0.03	0.04		51	0.665
BLK	Blank		<0.01	0.02	<0.01	0.1	2	<0.1	<0.1	<1	<0.01	<0.1	<0.1	<0.2	<0.1	<0.5	0.01	<0.02	<0.02	<2	<0.01
Prep Wash																					
ROCK-WHI	Prep Blank		0.47	4.72	4.75	43.0	63	1.1	4.0	536	1.90	21.5	0.4	0.3	2.3	29.5	0.05	0.12	0.12	24	0.60



Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client: Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: May 28, 2015

Page: 1 of 1

Part: 2 of 2

# QUALITY CONTROL REPORT

WHI1500023.1

Method		AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm
MDL		0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1
Pulp Duplicates																			
BEE 2	Rock	0.005	10.9	3.7	<0.01	8.7	<0.001	2	0.23	0.002	0.04	0.2	0.9	0.05	<0.02	<5	<0.1	0.03	0.4
REP BEE 2	QC	0.005	10.6	3.6	<0.01	8.7	<0.001	2	0.23	0.002	0.04	0.3	0.8	0.05	<0.02	<5	<0.1	0.03	0.4
Reference Materials																			
STD DS10	Standard	0.076	17.1	55.6	0.77	331.9	0.083	7	1.01	0.067	0.33	3.3	2.9	5.11	0.27	298	2.2	4.63	4.4
STD OXC129	Standard	0.104	12.7	52.6	1.51	48.2	0.425	<1	1.51	0.593	0.36	0.1	1.6	0.04	<0.02	<5	<0.1	<0.02	5.6
STD DS10 Expected		0.073	17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	2.8	5.1	0.29	300	2.3	5.01	4.3
STD OXC129 Expected		0.102	13	52	1.545	50	0.4	1	1.58	0.6	0.37	0.08	1.1	0.03					5.6
BLK	Blank	<0.001	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1
Prep Wash																			
ROCK-WHI	Prep Blank	0.043	6.2	2.9	0.50	73.6	0.080	<1	1.09	0.132	0.13	0.1	7.2	0.02	0.03	<5	<0.1	0.03	4.2



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Submitted By: Bill Mann  
Receiving Lab: Canada-Whitehorse  
Received: August 12, 2015  
Report Date: October 06, 2015  
Page: 1 of 2

# CERTIFICATE OF ANALYSIS

WHI15000144.1

## CLIENT JOB INFORMATION

Project: BEE  
Shipment ID:  
P.O. Number  
Number of Samples: 1

## SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	1	Crush, split and pulverize 250 g rock to 200 mesh			WHI
AQ252	1	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	30	Completed	VAN

## SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps  
PICKUP-RJT Client to Pickup Rejects

## ADDITIONAL COMMENTS

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Bill Mann  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1  
CANADA

CC:



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted.  
\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: October 06, 2015

Page: 2 of 2

Part: 1 of 2

# CERTIFICATE OF ANALYSIS

WHI15000144.1

Method	WGHT	AQ252																			
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	
2428	Rock	0.87	0.28	32.78	18.15	99.7	743	10.3	4.9	126	6.59	183.0	1.2	3.5	6.6	1.7	0.18	4.91	0.14	14	0.02



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: October 06, 2015

Page: 2 of 2

Part: 2 of 2

# CERTIFICATE OF ANALYSIS

WHI15000144.1

Method	AQ252																		
Analyte	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	
Unit	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	
MDL	0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	
2428	Rock	0.030	10.1	9.4	0.01	22.9	0.001	2	0.37	0.004	0.09	0.2	1.2	0.08	<0.02	10	0.3	0.02	1.2



Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

**Project:** BEE  
**Report Date:** October 06, 2015

Page: 1 of 1

Part: 1 of 2

# QUALITY CONTROL REPORT

WHI15000144.1

Method	WGHT	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252
Analyte	Wgt	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	
Unit	kg	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	
MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	2	0.01	
Pulp Duplicates																					
2428	Rock	0.87	0.28	32.78	18.15	99.7	743	10.3	4.9	126	6.59	183.0	1.2	3.5	6.6	1.7	0.18	4.91	0.14	14	0.02
REP 2428	QC		0.31	33.69	17.73	103.1	765	10.5	4.7	127	6.64	175.6	1.2	3.2	6.6	1.7	0.16	4.93	0.13	14	0.02
Reference Materials																					
STD DS10	Standard		13.91	144.87	153.62	340.4	1747	75.1	13.5	842	2.78	39.6	2.6	74.2	7.6	58.9	2.53	8.15	11.27	45	1.04
STD OXC129	Standard		1.22	26.41	6.09	43.3	34	74.2	20.3	403	2.97	0.5	0.6	183.5	1.8	161.6	0.05	0.04	0.02	53	0.61
STD DS10 Expected			15.1	154.61	150.55	370	2020	74.6	12.9	875	2.7188	46.2	2.59	91.9	7.5	67.1	2.62	9	11.65	43	1.0625
STD OXC129 Expected			1.3	28	6.3	42.9	28	79.5	20.3	421	3.065	0.6	0.72	195	1.9		0.03	0.04		51	0.665
Prep Wash																					
ROCK-WHI	Prep Blank		0.51	4.12	1.70	36.1	9	1.2	4.0	476	1.58	1.2	0.4	<0.2	2.2	19.0	0.04	<0.02	<0.02	21	0.52



Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

**Project:** BEE  
**Report Date:** October 06, 2015

**Page:** 1 of 1

**Part:** 2 of 2

# QUALITY CONTROL REPORT

WHI15000144.1

Method		AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	AQ252	
Analyte		P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	S	Hg	Se	Te	Ga	
Unit		%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	%	ppb	ppm	ppm	ppm	
MDL		0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	0.02	5	0.1	0.02	0.1	
Pulp Duplicates																				
2428	Rock	0.030	10.1	9.4	0.01	22.9	0.001	2	0.37	0.004	0.09	0.2	1.2	0.08	<0.02	10	0.3	0.02	1.2	
REP 2428	QC	0.030	10.7	9.2	<0.01	23.8	0.001	<1	0.36	0.003	0.09	0.2	1.0	0.08	<0.02	15	0.3	<0.02	1.1	
Reference Materials																				
STD DS10	Standard	0.075	17.3	56.9	0.78	308.5	0.076	8	1.05	0.061	0.33	3.4	2.9	4.88	0.28	265	2.1	4.85	4.3	
STD OXC129	Standard	0.095	11.7	50.7	1.50	45.6	0.367	2	1.50	0.547	0.35	<0.1	1.2	0.03	<0.02	<5	<0.1	0.02	5.2	
STD DS10 Expected		0.0765	17.5	54.6	0.775	359	0.0817		1.0755	0.067	0.338	3.32	3	5.1	0.29	300	2.3	5.01	4.5	
STD OXC129 Expected		0.102	13	52	1.545	50	0.4	1	1.58	0.6	0.37	0.08	1.1	0.03					5.6	
Prep Wash																				
ROCK-WHI	Prep Blank	0.034	6.3	2.3	0.43	52.9	0.071	2	0.92	0.101	0.10	0.1	2.9	<0.02	0.02	<5	<0.1	<0.02	3.2	



BUREAU  
VERITAS

MINERAL LABORATORIES  
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

Client: **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Submitted By: Bill Mann  
Receiving Lab: Canada-Whitehorse  
Received: August 12, 2015  
Report Date: October 06, 2015  
Page: 1 of 3

# CERTIFICATE OF ANALYSIS

# WHI15000143.1

## CLIENT JOB INFORMATION

Project: BEE  
Shipment ID:  
P.O. Number  
Number of Samples: 42

## SAMPLE DISPOSAL

PICKUP-PLP Client to Pickup Pulps  
PICKUP-RJT Client to Pickup Rejects

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

Invoice To: Bill Mann  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1  
CANADA

CC:

## SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
Dry at 60C	42	Dry at 60C			WHI
SS80	42	Dry at 60C sieve 100g to -80 mesh			WHI
SVRJT	42	Save all or part of Soil Reject			WHI
AQ200	42	1:1:1 Aqua Regia digestion ICP-MS analysis	0.5	Completed	VAN

## ADDITIONAL COMMENTS



This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. \*\*\* asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

www.bureauveritas.com/um

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Client: **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: October 06, 2015

Page: 2 of 3

Part: 1 of 2

# CERTIFICATE OF ANALYSIS

WHI15000143.1

Method Analyte Unit MDL	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200								
	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	
7110	Soil	0.8	41.9	14.8	73	0.8	13.1	7.5	253	3.58	10.6	20.4	11.2	16	0.1	0.5	2.0	27	0.04	0.047	25
7111	Soil	1.3	31.1	25.0	94	0.9	18.9	7.6	348	3.70	56.7	10.5	6.1	11	0.3	1.6	2.2	46	0.06	0.054	23
7112	Soil	1.5	21.9	53.3	62	1.1	11.3	5.0	245	3.33	64.1	4.9	4.0	9	0.3	1.9	0.6	61	0.04	0.045	26
7113	Soil	2.2	44.6	172.8	153	2.4	17.3	6.7	563	4.86	52.2	2.3	2.3	9	0.5	3.8	1.0	50	0.06	0.119	25
7114	Soil	0.9	35.1	400.7	131	3.1	17.2	7.2	240	2.98	132.5	14.0	9.1	12	0.7	7.5	0.6	31	0.14	0.087	30
7115	Soil	1.4	42.1	71.0	68	3.3	25.4	11.1	229	3.03	131.0	9.2	1.2	13	0.2	4.5	0.7	28	0.05	0.078	27
7116	Soil	1.1	32.8	64.3	91	1.0	18.2	6.2	262	3.63	597.9	24.5	0.9	9	0.5	5.4	3.4	27	0.05	0.075	25
7117	Soil	1.2	27.3	43.9	99	0.6	22.7	9.0	295	2.95	205.5	9.2	2.2	12	0.5	2.7	0.6	42	0.08	0.048	25
7118	Soil	1.3	24.2	18.9	83	0.3	20.4	10.4	606	3.01	60.1	2.4	0.8	9	0.6	1.2	0.4	45	0.06	0.062	16
7119	Soil	0.9	22.3	15.4	59	<0.1	18.9	7.7	285	2.96	118.3	1.7	1.8	8	0.3	0.9	0.4	34	0.06	0.036	16
7120	Soil	0.9	26.2	12.5	55	<0.1	17.6	7.0	257	2.79	81.0	2.1	2.3	10	0.2	0.9	0.4	38	0.08	0.042	18
7121	Soil	1.6	33.7	19.5	68	0.2	17.9	9.5	374	3.54	111.9	1.3	1.1	15	0.3	0.8	0.4	48	0.07	0.119	19
7122	Soil	1.6	45.5	31.9	67	0.3	18.2	7.8	214	4.03	66.4	2.5	1.4	18	0.2	1.1	0.8	29	0.05	0.118	29
7123	Soil	1.1	41.1	21.0	71	0.1	26.0	10.0	331	3.82	116.0	3.6	2.6	19	0.2	0.9	0.6	36	0.06	0.078	24
7124	Soil	1.3	54.3	27.2	91	0.2	40.6	25.6	618	3.68	190.6	4.5	5.4	23	0.4	1.4	0.8	37	0.08	0.083	32
7125	Soil	1.2	54.3	34.4	91	0.2	31.3	14.3	345	3.96	157.8	3.3	5.9	28	0.4	0.9	0.8	29	0.06	0.079	30
7126	Soil	1.5	49.0	23.9	80	0.2	36.4	19.6	494	3.80	157.3	2.7	3.8	15	0.2	0.9	0.6	35	0.06	0.080	26
7127	Soil	1.0	48.6	21.7	86	0.3	24.9	13.7	390	4.09	129.2	6.2	10.3	25	0.4	0.8	0.9	30	0.08	0.070	30
7128	Soil	1.2	45.3	27.3	86	0.3	21.5	10.5	354	4.13	314.4	12.4	7.2	27	0.6	0.9	1.4	35	0.08	0.076	29
7129	Soil	1.0	45.3	12.2	68	0.4	26.0	17.8	341	3.28	521.9	189.8	13.9	19	0.3	1.2	2.1	27	0.09	0.047	35
7130	Soil	1.3	35.0	17.3	67	0.6	18.9	8.4	431	3.44	703.1	15.3	2.0	14	0.3	1.3	4.5	50	0.08	0.070	18
7131	Soil	1.6	24.9	11.7	51	0.3	17.1	6.3	226	2.80	142.3	21.6	0.7	11	0.2	0.9	1.2	50	0.06	0.061	18
7132	Soil	1.3	46.3	18.0	65	0.5	27.6	11.9	280	3.63	424.6	44.4	4.6	13	0.1	2.2	2.9	22	0.03	0.056	41
7133	Soil	1.8	49.0	14.9	65	0.6	18.8	11.0	437	3.62	410.4	24.3	2.0	17	0.2	1.7	3.5	38	0.07	0.098	24
7134	Soil	2.0	25.9	18.8	44	0.7	14.6	5.6	259	3.25	209.9	47.0	1.6	16	0.2	0.8	2.7	51	0.06	0.067	17
7135	Soil	1.9	23.6	14.3	41	0.8	14.8	5.6	191	2.65	317.2	16.8	0.8	17	0.3	0.7	2.0	38	0.05	0.081	16
7136	Soil	1.2	28.9	13.2	63	0.8	19.3	7.7	291	2.99	400.7	912.9	1.7	13	0.3	1.0	1.8	36	0.06	0.053	18
7137	Soil	1.7	44.5	20.5	99	0.3	33.0	23.0	697	3.99	176.6	8.8	4.1	19	0.3	0.8	1.1	43	0.08	0.082	26
7138	Soil	1.1	45.1	27.4	90	0.4	32.4	13.8	348	3.80	296.0	14.5	5.1	22	0.4	1.2	1.1	36	0.08	0.071	31
7139	Soil	0.9	40.3	31.1	99	0.3	41.0	24.7	636	3.62	208.8	8.5	10.2	20	0.7	1.0	0.7	33	0.10	0.058	31

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only.



# CERTIFICATE OF ANALYSIS

WHI15000143.1

Method	Analyte	AQ200															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.05	1	0.5	0.2	
7110	Soil	30	0.69	73	0.022	<20	2.02	0.005	0.21	0.3	0.02	2.6	0.4	<0.05	5	<0.5	<0.2
7111	Soil	28	0.37	69	0.042	<20	1.57	0.006	0.06	0.5	0.08	2.2	0.2	<0.05	5	0.7	<0.2
7112	Soil	22	0.19	58	0.045	<20	1.11	0.004	0.05	0.4	0.07	1.6	0.2	<0.05	6	<0.5	<0.2
7113	Soil	32	0.30	77	0.037	<20	1.51	0.005	0.08	0.2	0.16	1.8	0.3	<0.05	7	1.0	<0.2
7114	Soil	21	0.28	53	0.038	<20	0.79	0.004	0.05	0.3	0.05	2.2	0.2	<0.05	3	<0.5	<0.2
7115	Soil	18	0.13	59	0.017	<20	0.90	0.007	0.06	0.1	0.11	1.4	0.3	0.06	3	1.0	<0.2
7116	Soil	19	0.21	61	0.013	<20	1.08	0.004	0.05	0.4	0.06	0.9	0.3	<0.05	4	<0.5	<0.2
7117	Soil	23	0.32	76	0.031	<20	1.20	0.005	0.05	0.6	0.06	1.8	0.2	<0.05	4	0.6	<0.2
7118	Soil	28	0.38	75	0.036	<20	1.72	0.005	0.05	0.2	0.07	1.7	0.2	<0.05	5	<0.5	<0.2
7119	Soil	23	0.29	62	0.038	<20	1.17	0.004	0.03	0.5	0.05	1.6	0.1	<0.05	4	<0.5	<0.2
7120	Soil	22	0.35	63	0.038	<20	1.05	0.004	0.04	0.4	0.04	1.8	0.1	<0.05	4	<0.5	<0.2
7121	Soil	28	0.37	66	0.034	<20	1.54	0.008	0.07	0.3	0.14	1.4	0.2	0.06	6	0.8	<0.2
7122	Soil	25	0.28	58	0.014	<20	1.16	0.009	0.05	0.7	0.11	1.0	0.1	0.11	4	<0.5	<0.2
7123	Soil	23	0.43	68	0.023	<20	1.47	0.010	0.06	0.5	0.08	1.6	0.2	0.05	5	<0.5	<0.2
7124	Soil	25	0.38	76	0.023	<20	1.46	0.008	0.06	0.9	0.05	1.9	0.1	<0.05	5	0.6	<0.2
7125	Soil	23	0.41	69	0.022	<20	1.48	0.012	0.08	1.3	0.06	2.1	0.1	<0.05	5	0.6	<0.2
7126	Soil	26	0.40	67	0.028	<20	1.48	0.006	0.08	0.3	0.07	1.9	0.1	<0.05	5	<0.5	<0.2
7127	Soil	25	0.46	81	0.032	<20	1.43	0.009	0.08	0.5	0.03	2.3	0.2	<0.05	5	<0.5	<0.2
7128	Soil	28	0.46	87	0.039	<20	1.48	0.014	0.14	0.8	0.05	2.2	0.2	0.09	5	0.9	<0.2
7129	Soil	21	0.36	119	0.041	<20	1.03	0.008	0.11	5.9	0.06	2.8	0.3	<0.05	3	<0.5	<0.2
7130	Soil	33	0.39	82	0.048	<20	1.75	0.007	0.10	19.6	0.08	2.1	0.3	0.07	6	1.1	<0.2
7131	Soil	29	0.28	73	0.042	<20	1.56	0.007	0.06	1.8	0.06	1.4	0.2	<0.05	6	<0.5	<0.2
7132	Soil	19	0.16	63	0.014	<20	0.82	0.006	0.10	6.2	0.04	1.7	0.5	<0.05	3	<0.5	<0.2
7133	Soil	28	0.40	89	0.040	<20	1.60	0.011	0.14	3.9	0.08	1.7	0.4	0.07	6	<0.5	<0.2
7134	Soil	32	0.25	69	0.049	<20	1.32	0.007	0.07	6.1	0.15	1.5	0.3	0.05	7	<0.5	<0.2
7135	Soil	26	0.25	101	0.035	<20	1.13	0.008	0.07	3.7	0.08	1.1	0.2	0.08	5	<0.5	<0.2
7136	Soil	26	0.40	96	0.047	<20	1.46	0.007	0.08	4.0	0.05	1.7	0.2	<0.05	5	<0.5	<0.2
7137	Soil	38	0.52	101	0.047	<20	1.93	0.008	0.12	0.8	0.06	2.5	0.2	<0.05	6	<0.5	<0.2
7138	Soil	26	0.42	97	0.025	<20	1.58	0.009	0.09	1.7	0.05	2.2	0.2	0.05	5	0.6	<0.2
7139	Soil	23	0.40	93	0.030	<20	1.28	0.007	0.09	0.9	0.03	2.8	0.1	<0.05	4	<0.5	<0.2



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

**Project:** BEE  
**Report Date:** October 06, 2015

**Page:** 3 of 3

**Part:** 1 of 2

# CERTIFICATE OF ANALYSIS

WHI15000143.1

Method	Analyte	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200									
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
		ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm							
		MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL	MDL									
7140	Soil	1.6	53.7	90.4	133	0.6	37.7	19.6	551	4.02	1344.5	22.4	1.3	29	1.0	3.2	1.7	34	0.07	0.095	23
7141	Soil	1.1	59.2	39.6	102	0.6	34.9	18.9	401	4.59	190.2	4.9	7.1	28	0.3	0.9	1.0	22	0.05	0.076	34
7142	Soil	1.5	68.0	56.8	115	0.5	36.7	19.0	564	5.37	293.2	8.5	7.1	24	0.5	1.9	1.2	28	0.05	0.091	38
7143	Soil	1.4	70.3	27.1	107	0.5	32.1	18.3	645	5.19	194.6	19.8	11.0	30	0.3	1.2	1.0	26	0.06	0.105	39
7144	Soil	1.6	40.9	23.1	80	0.4	20.3	7.9	352	4.29	143.7	3.0	3.0	16	0.2	1.0	0.7	41	0.05	0.077	25
7145	Soil	1.2	58.8	23.7	74	0.7	23.6	9.6	166	3.86	135.5	14.0	2.1	10	0.2	1.5	0.7	17	0.03	0.103	25
7146	Soil	1.6	42.2	30.1	80	0.2	23.5	11.0	481	3.84	107.9	8.4	1.7	18	0.2	0.7	1.0	30	0.11	0.104	27
7147	Soil	1.5	22.8	22.0	91	<0.1	22.4	9.4	510	4.10	59.7	1.5	2.9	10	0.3	0.8	0.6	50	0.08	0.060	18
7148	Soil	1.6	28.7	28.5	59	0.8	19.6	7.5	208	3.68	176.6	3.9	3.2	10	0.2	0.8	0.9	41	0.04	0.052	26
7149	Soil	1.2	22.3	19.0	71	0.5	18.5	8.8	347	2.99	128.0	11.3	1.3	8	0.3	1.2	0.4	36	0.06	0.057	19
7150	Soil	1.0	29.6	153.3	109	4.0	23.8	12.3	529	2.88	266.3	786.3	5.2	12	0.9	9.1	0.8	27	0.08	0.056	31
7151	Soil	1.5	24.4	120.9	83	2.4	18.0	7.8	380	3.26	126.9	20.7	1.9	9	0.3	4.6	0.6	54	0.06	0.050	20



**BUREAU VERITAS** MINERAL LABORATORIES  
Canada

[www.bureauveritas.com/um](http://www.bureauveritas.com/um)

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

**Client:** **Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

**Project:** BEE  
**Report Date:** October 06, 2015

**Page:** 3 of 3

**Part:** 2 of 2

# CERTIFICATE OF ANALYSIS

WHI15000143.1

Method	Analyte	AQ200															
		Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
		ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
		MDL	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
7140	Soil	28	0.47	97	0.019	<20	1.68	0.018	0.10	0.5	0.11	1.3	0.2	0.11	5	0.7	<0.2
7141	Soil	26	0.50	107	0.013	<20	1.71	0.011	0.07	1.2	0.05	2.0	0.2	0.06	5	0.7	<0.2
7142	Soil	27	0.41	76	0.017	<20	1.54	0.010	0.06	1.2	0.06	1.8	0.1	0.06	5	1.0	<0.2
7143	Soil	28	0.52	66	0.019	<20	1.72	0.011	0.07	0.4	0.04	2.3	0.1	<0.05	6	0.7	<0.2
7144	Soil	30	0.42	79	0.032	<20	1.87	0.007	0.05	0.2	0.09	1.9	0.2	0.05	6	0.8	<0.2
7145	Soil	19	0.20	56	0.014	<20	1.10	0.005	0.04	0.2	0.11	1.1	0.1	0.09	4	<0.5	<0.2
7146	Soil	28	0.46	72	0.019	<20	1.57	0.007	0.06	0.4	0.10	1.1	0.1	<0.05	6	1.0	<0.2
7147	Soil	31	0.47	75	0.051	<20	1.72	0.005	0.06	0.2	0.06	2.4	0.1	<0.05	6	0.9	<0.2
7148	Soil	21	0.18	48	0.025	<20	1.10	0.004	0.04	0.4	0.07	1.4	0.2	<0.05	6	<0.5	<0.2
7149	Soil	21	0.28	61	0.022	<20	1.21	0.004	0.04	0.3	0.09	1.3	0.1	<0.05	4	0.5	<0.2
7150	Soil	18	0.25	78	0.023	<20	0.89	0.004	0.07	0.4	0.05	1.8	0.2	<0.05	3	<0.5	<0.2
7151	Soil	26	0.30	70	0.032	<20	1.41	0.004	0.05	0.3	0.08	1.6	0.2	<0.05	5	1.0	<0.2



Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client: Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: October 06, 2015

Page: 1 of 1

Part: 1 of 2

# QUALITY CONTROL REPORT

WHI15000143.1

Method	Analyte	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
		Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La
Unit		ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	%	%	ppm	
MDL		0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	2	0.01	0.001	1	
Pulp Duplicates																					
7128	Soil	1.2	45.3	27.3	86	0.3	21.5	10.5	354	4.13	314.4	12.4	7.2	27	0.6	0.9	1.4	35	0.08	0.076	29
REP 7128	QC	1.2	43.6	24.1	87	0.3	20.7	9.8	368	4.09	329.2	11.8	8.0	27	0.5	0.8	1.4	36	0.08	0.081	29
7151	Soil	1.5	24.4	120.9	83	2.4	18.0	7.8	380	3.26	126.9	20.7	1.9	9	0.3	4.6	0.6	54	0.06	0.050	20
REP 7151	QC	1.4	25.2	117.6	81	2.5	17.6	8.0	373	3.25	129.6	21.8	1.8	9	0.3	4.5	0.5	51	0.06	0.051	19
Reference Materials																					
STD DS10	Standard	14.4	169.2	154.7	398	2.2	75.6	13.9	984	2.97	49.9	63.3	7.3	72	3.0	8.4	12.8	49	1.13	0.085	19
STD DS10	Standard	15.1	155.9	154.7	367	1.9	77.4	13.4	981	2.98	50.9	74.9	8.7	71	2.9	8.2	13.4	46	1.09	0.086	20
STD OREAS45EA	Standard	1.7	731.2	14.4	35	0.3	375.7	53.1	445	26.63	12.3	59.1	10.3	4	<0.1	0.4	0.2	301	0.03	0.032	8
STD OREAS45EA	Standard	1.5	692.4	14.8	34	0.3	375.9	49.5	439	23.13	12.9	49.7	10.3	4	<0.1	0.3	0.3	279	0.03	0.033	8
STD DS10 Expected		13.6	154.61	150.55	370	2.02	74.6	12.9	875	2.7188	46.2	91.9	7.5	67.1	2.62	9	11.65	43	1.0625	0.0765	17.5
STD OREAS45EA Expected		1.6	709	14.3	31.4	0.26	381	52	400	23.51	10.3	53	10.7	3.5	0.03	0.32	0.26	303	0.036	0.029	7.06
BLK	Blank	<0.1	0.2	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	0.5	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1
BLK	Blank	<0.1	0.1	<0.1	<1	<0.1	<0.1	<0.1	<1	<0.01	0.6	<0.5	<0.1	<1	<0.1	<0.1	<0.1	<2	<0.01	<0.001	<1



Bureau Veritas Commodities Canada Ltd.  
9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA  
PHONE (604) 253-3158

**Client: Bill Mann**  
19 Hayes Cres.  
Whitehorse YT Y1A 0E1 CANADA

Project: BEE  
Report Date: October 06, 2015

Page: 1 of 1

Part: 2 of 2

# QUALITY CONTROL REPORT

WHI15000143.1

Method	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200	AQ200
Analyte	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te	
Unit	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	
MDL	1	0.01	1	0.001	20	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2	
Pulp Duplicates																	
7128	Soil	28	0.46	87	0.039	<20	1.48	0.014	0.14	0.8	0.05	2.2	0.2	0.09	5	0.9	<0.2
REP 7128	QC	27	0.48	91	0.038	<20	1.65	0.014	0.14	0.7	0.06	2.2	0.2	0.09	5	0.9	<0.2
7151	Soil	26	0.30	70	0.032	<20	1.41	0.004	0.05	0.3	0.08	1.6	0.2	<0.05	5	1.0	<0.2
REP 7151	QC	27	0.32	73	0.032	<20	1.48	0.005	0.05	0.3	0.10	1.7	0.2	<0.05	5	<0.5	<0.2
Reference Materials																	
STD DS10	Standard	57	0.86	435	0.084	<20	1.13	0.076	0.34	3.1	0.31	3.0	5.3	0.29	5	2.2	4.9
STD DS10	Standard	60	0.77	443	0.090	<20	1.17	0.076	0.38	3.3	0.31	3.3	5.7	0.28	5	2.6	5.3
STD OREAS45EA	Standard	902	0.10	155	0.108	<20	3.34	0.019	0.06	<0.1	0.02	85.1	<0.1	<0.05	13	1.3	<0.2
STD OREAS45EA	Standard	896	0.09	159	0.110	<20	3.19	0.019	0.06	<0.1	0.01	83.7	<0.1	<0.05	13	1.2	<0.2
STD DS10 Expected		54.6	0.775	412	0.0817		1.0259	0.067	0.338	3.32	0.3	2.8	5.1	0.29	4.3	2.3	5.01
STD OREAS45EA Expected		849	0.095	148	0.0984		3.13	0.02	0.053			78	0.072	0.036	12.4	0.78	0.07
BLK	Blank	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2
BLK	Blank	<1	<0.01	<1	<0.001	<20	<0.01	<0.001	<0.01	<0.1	<0.01	<0.1	<0.1	<0.05	<1	<0.5	<0.2

## **APPENDIX 6 –**

### **PETROGRAPHIC REPORT BY TIMOTHY LIVERTON, PhD.**

#### **CLEAR CREEK SPECIMENS - COMMENTS**

##### COMMENTS

The suite of 12 specimens consists of the following rock types:

a) A sheared and tourmaline altered granite, b) deuterically altered subvolcanic granitic intrusive, c) rhyolite and rhyolite breccia, d) various types of quartz vein material, some tourmaline breccia, some with some arsenopyrite, e) quartz-muscovite rocks that may be highly strained vein material or could be deformed metasediments and which also contain tourmaline, f) coarse-grained quartz-epidote (probably vein material) and g) a chrome phengite-bearing marble. The first six rock types are consistent with the outcrop of a granite pluton emplaced at shallow depth and its subvolcanic and volcanic equivalent lithofacies. The amount of tourmaline present is indicative of a boron-rich intrusion that has produced much explosive hydrothermal activity. Since the material obtained was from felsenmeer the weathering was considered sufficient to preclude preparation of quality polished sections. The only sulphide mineral noted was arsenopyrite and that was identified by crystal shape and alteration minerals in hand specimen. Fresh material might reveal other sulphides or sulphosalts. The frequent breccias, boron and arsenopyrite are indicative of widespread mineralization and the obvious further step is to map the property in detail, to sample and assay for gold. Tin should also be expected. The nature of the highly foliated quartz rocks would be determined by mapping.

The chrome phengite marble does not correlate with the granitic/hydrothermal model indicated by the other rocks. It is consistent more with a thrust-fault zone containing ophiolitic rocks (a listwaenite). This might be a different target for exploration.

##### RECOMMENDATIONS

Future exploration should begin with an attempt at mapping the property in detail. This may involve the use of frequent pitting, depending on topography, to obtain in-situ and fresh rock. Rock geochemistry over a large area could still be performed using samples from felsenmeer. The size and distribution of vein and breccia zones is likely to be critical in evaluating the prospect, as well as obtaining assays.

## BILL MANN'S CLEAR CREEK SPECIMENS

### W1

This rock is a sheared, tourmaline-altered monzo- to syenogranite. K feldspar (microperthite) phenocrysts are fairly euhedral and only occasionally cut by fractures. Plagioclase is heavily altered to sericite and clays. It is subhedral to anhedral with somewhat rounded outlines.

K-feldspar is up to 8mm long and plagioclase to 5mm. Small shear zones, typically 1mm wide cut the rock and are mineralized with tourmaline. A few lozenge-shaped remnants of minerals, now mostly voids in the slide with a few limonite grains are likely after arsenopyrite. One 8mm wide quartz vein cuts the rock, showing 1mm wide tourmaline selvages (brown). No original ferromagnesian remain.

Photomicrographs:

W1-2,5xp shows K feldspar phenocrysts with shearing running NW-SE (slivers of quartz and some tourmaline: blue-red interference colours). Sericitized/clay altered plagioclase and quartz are in the NE corner.

W1-2,5xp2 shows a large twinned K-feldspar in the SW corner, a shear zone with tourmaline in the centre and altered plagioclase and polygonized quartz in the NE corner.

W1-5,0xp shows altered plagioclase in the SW corner, quartz and tourmaline in the centre with K-feldspar along the N edge.

W1-10xp shows detail of tourmaline in a shear zone through quartz.

W1-10pp shows the same field in pp light. Note the many fluid inclusion trails in the quartz.

### W2

This rock is either a highly sheared quartz vein or a tectonized micaceous quartzite. It is composed of slightly elongated (approximately 0.8mm) polygonized quartz grains with some interstitial muscovite. Fractures, often 1mm wide, are filled with tourmaline and sericite. Finer fractures displace these. Open brecciated zones are also tourmaline-filled.

W2-2,5pp shows a displaced tourmaline-filled fracture

W2-2,5pp2 shows a brecciated portion of the rock

W2-5,0pp	shows coarse tourmaline crystals in quartz
W2-10xp	shows the fabric of quartz and muscovite
W2-10xp2	shows fine-grained tourmaline
W2-20pp	shows zoned tourmaline crystals

### **W3**

This strongly foliated rock is similar to W2: quartz with mica layers. Quartz grainsize is up to 1mm and some tourmaline (0.2mm) is found with the micaceous layers. It is cut by a 7mm wide tourmaline-quartz vein that branches into two 4-5mm veins.

W3-2,5pp	shows the foliated rock and the cross-cutting vein with subhedral tourmaline crystals
W3-2,5xp	is the same field under crossed polarizers
W3-5,0pp	shows the colour zoning in tourmaline
W3-10pp	gives further detail of tourmaline
W3-20pp2	shows euhedral brown crystals that are probably rutile, but could be cassiterite
W3-50pp	shows detail of these crystals
W3-20pp	shows a crystal that is likely cassiterite

### **W4**

This is a fine-grained, porphyritic, sub-volcanic ('hypabyssal') granitic intrusive c.f., toscanite, presumably deuterically altered. It has phenocrysts of quartz that are equant and < 4mm, with similar sized K-feldspars (subhedral microperthite) and muscovite pseudomorphs of elongate ferromagnesian in a groundmass of 0.15mm quartz, plagioclase and fine-grained muscovite.

W4-2,5xp	shows the K-feldspars and muscovite
W4-2,5xp2	shows quartz phenocrysts
W4-5,0xp	shows muscovite pseudomorphing a ferromagnesian mineral

### **W5**

An extremely weathered specimen of a granitic subvolcanic intrusive. Feldspars are recognized by their shape as they are altered to clays. Limonite is universally present. Quartz forms 5mm phenocrysts. The groundmass is quartz (< 0.2mm) and probably feldspar. A few muscovite

grains are recognizable. The phenocrysts show signs of strain, yet the rock is not obviously foliated. One 4mm quartz vein cuts the rock with no included opaques.

W5-2,5xp shows strained quartz phenocrysts

W5-2,5xp2 shows remnants of feldspars

## **W6**

This rock is composed mostly of quartz and is likely an altered rhyolite. Anhedral 2-3mm quartz phenocrysts are in a groundmass of 0.05-0.2mm grains. 4-5mm subhedral sericite pseudomorphs of (?) plagioclase and similar sized voids indicate phenocrysts. About 25% of the groundmass is very fine-grained (0.04mm) clay-altered feldspar with a little muscovite.

W6-5,0xp gives a general view

## **W7**

This is quartz vein material with some arsenopyrite. Subhedral crystals of (?) arsenopyrite up to 10mm long are enclosed in quartz that is polygonized into 6mm domains. Strain shadows are ubiquitous. The sulphide and also the quartz has been fractured (0.15mm wide) every 0.5mm or so. Fractures are clay filled. The slab shows pale green staining that is likely scorodite.

W7-2,5xp shows the arsenopyrite

## **W8**

This is a breccia. The clasts are of a probably rhyolitic composition: they are slightly foliated and composed of a groundmass of quartz and feldspar to 0.06mm containing sub-rounded highly clay-altered 0.5mm feldspar. The matrix of the breccia is very fine-grained and light brown - it is probably Fe-stained clay. None of it shows sufficient birefringence to indicate tourmaline.

Quartz veins from 0.08-2mm wide cut the rock.

W8-2,5xp shows quartz-filled fractures cutting the rhyolite clasts

W8-5,0pp shows the texture of the breccia

## **W9**

Quartz breccia with tourmaline. Clasts vary from 10mm separated by 0.15mm fractures to a

breccia of 0.2-0.5mm clasts in fine-grained brown tourmaline and chlorite. The larger quartz masses contain a few tourmaline crystals to 0.5mm long which vary from blue to brown. The quartz has undulose extinction and prominent fluid inclusion trails.

W9-2,5xp shows quartz clasts and tourmaline-bearing matrix

W9-5,0xp shows the angular clasts and tourmaline

W9-5,0xp2 shows tourmaline crystals in quartz

## **W10**

A very weathered quartz breccia. The texture is recognizable but all minerals other than the quartz are altered to yellow or brown iron hydroxides and clays.

W10-2,5pp2 shows the texture of the rock

## **W11**

This rock is entirely different from the rest of this collection. It is a tectonized marble containing quartz and brilliant green phengite (presumably chromian). It consists of 0.5-1.5mm carbonate grains with irregular masses of quartz to 2mm long (but overall content < 10%). Some quartz also forms layers that are polygonized into elongate domains, showing occasional deformation twinning. These layers contain trails of phengite inclusions and impart a distinct fabric to the rock. Elsewhere phengite occurs as inclusions in the carbonate along with a few opaques, some of which have been fractured and invaded by the mica.

W11-2,5xp shows the marble with a quartz layer containing phengite

W11-10xp shows detail of the same layer

W11-20pp and

W11-20xp show phengite in carbonate

W11-20pp2 shows phengite and acicular rutile or cassiterite in the carbonate

W11-10pp shows phengite enclosing an opaque mineral

W11-10xp2 shows a layer of phengite in the carbonate

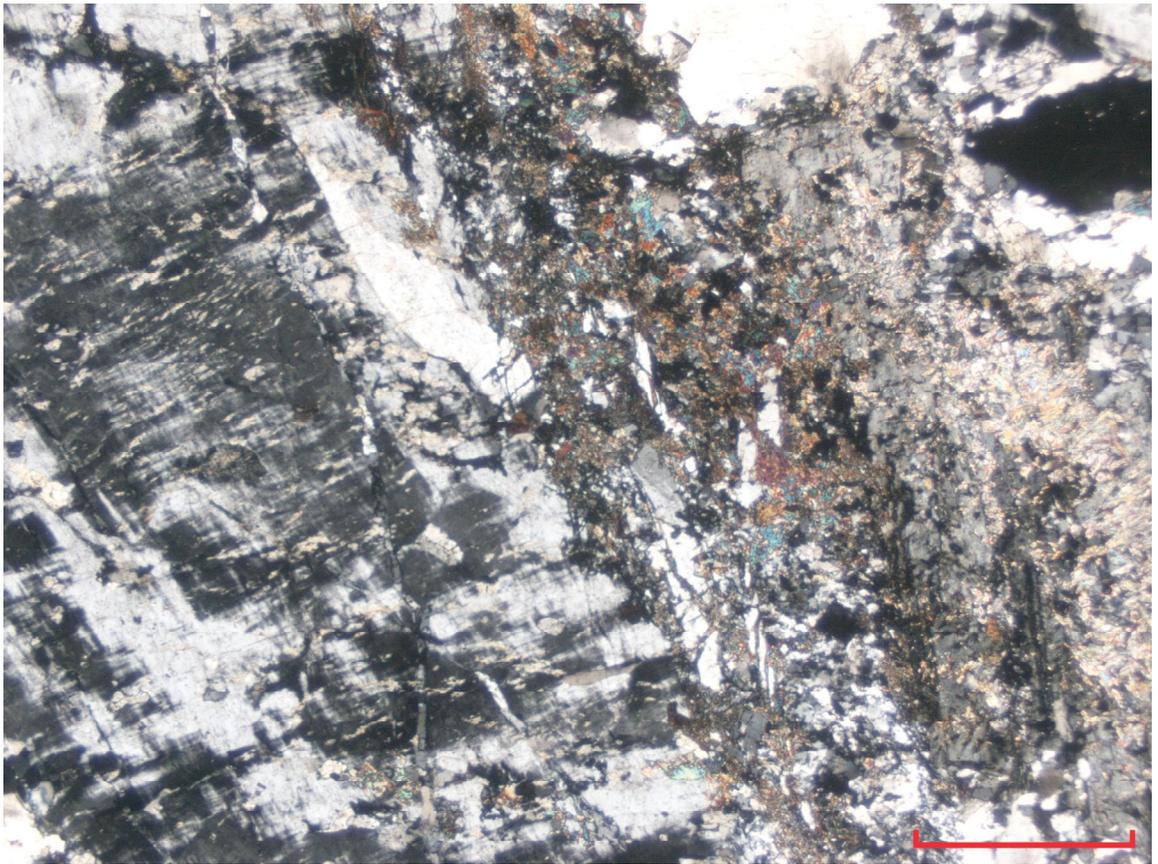
## **W12**

This specimen is of epidote in quartz. The epidote (section cut approximately normal to the prism faces) is in 5mm crystals which are enclosed in quartz. The quartz shows undulose extinction and

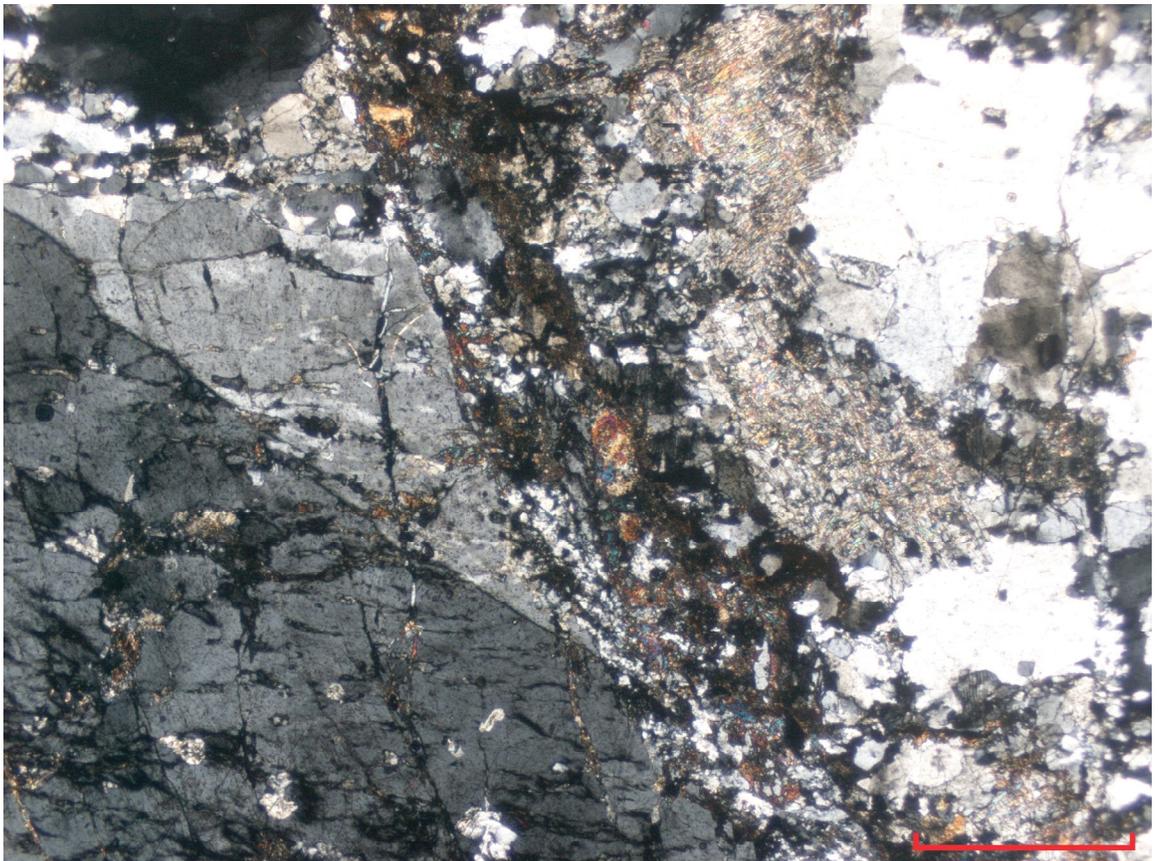
a few deformation bands.

W12-2,5xp      and

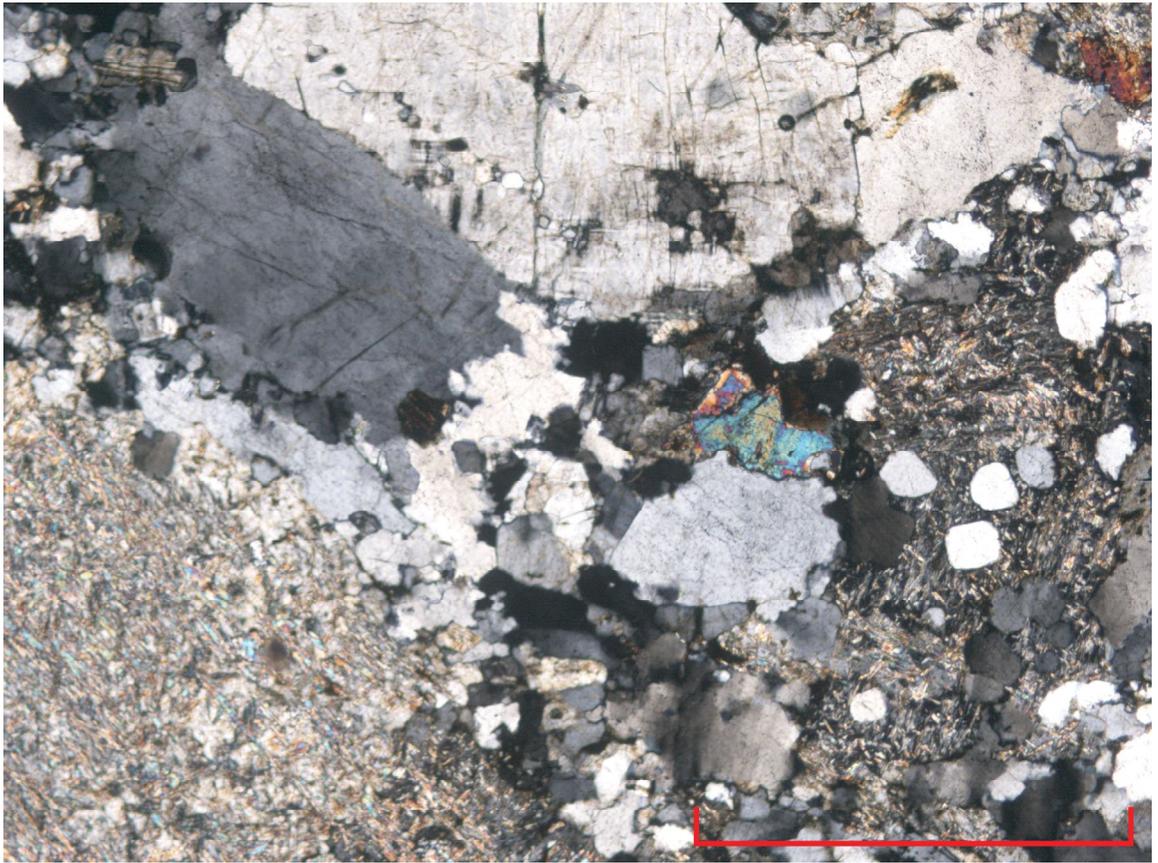
W12-5,0xp      show the euhedral, zoned epidote in quartz. Note the prominent fluid inclusion trails



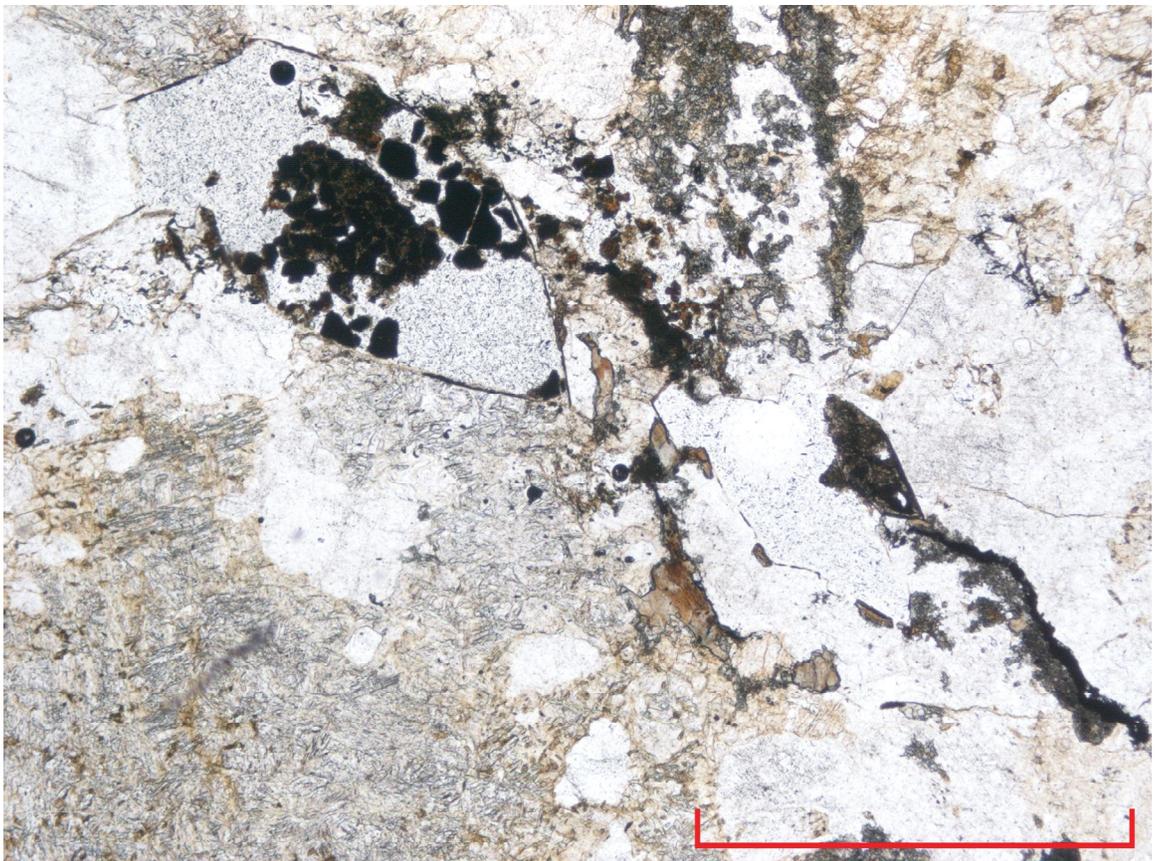
W1 {398851E, 7077564N} Sheared granite. Scale bar = 1mm



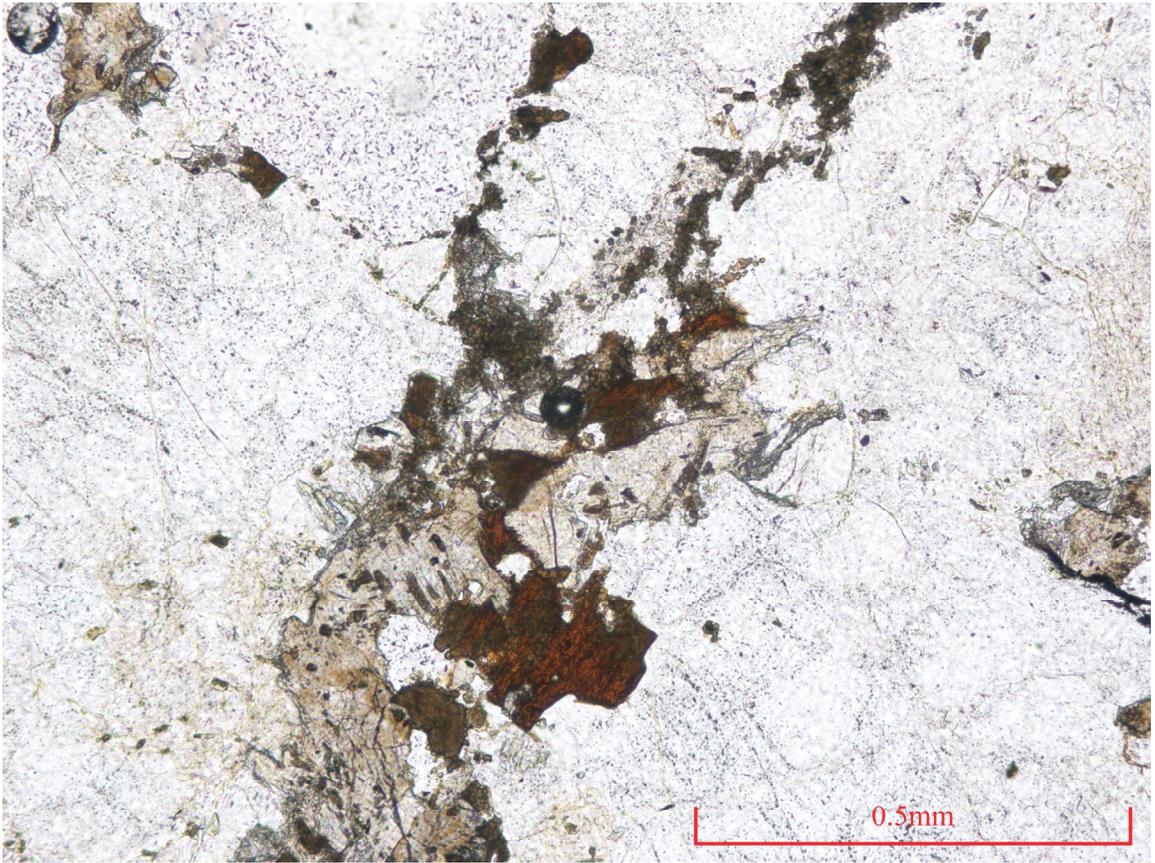
W1 {398851E, 7077564N} Sheared granite. Scale bar = 1mm



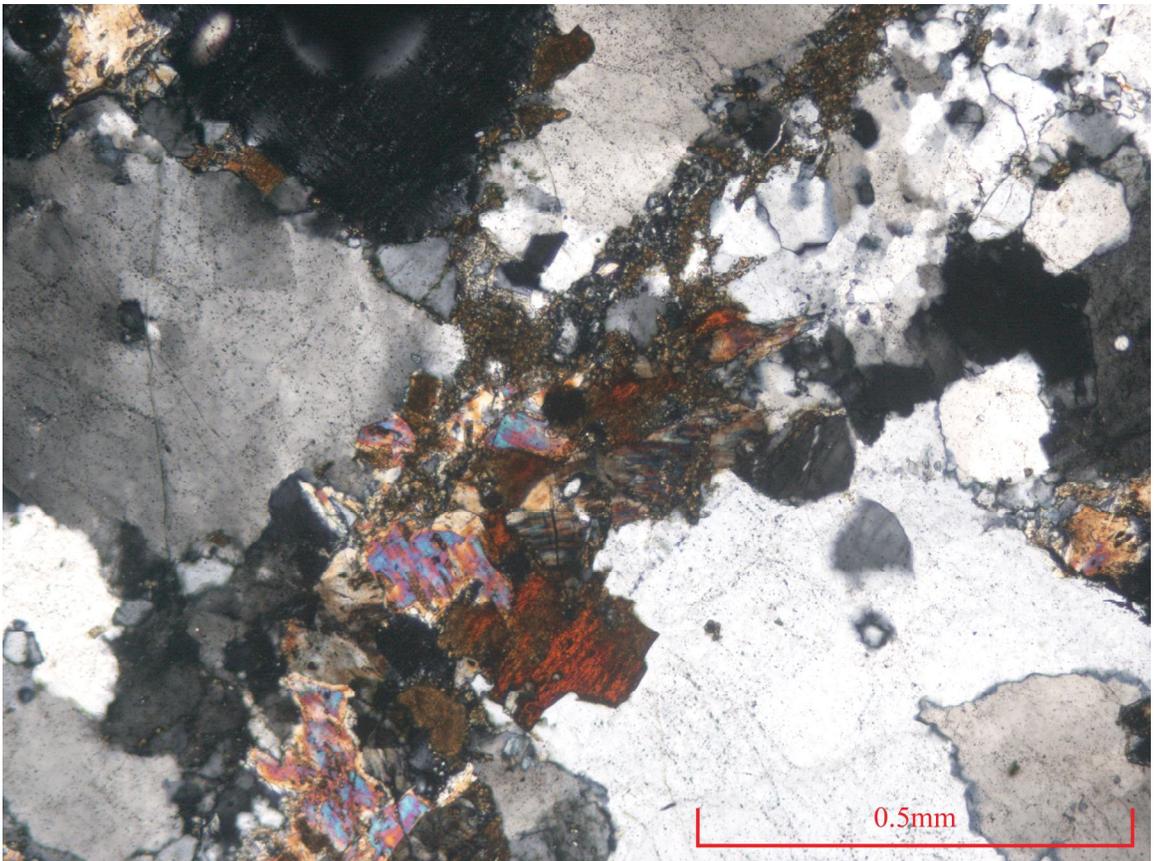
W1- quartz, altered plagioclase, tourmaline



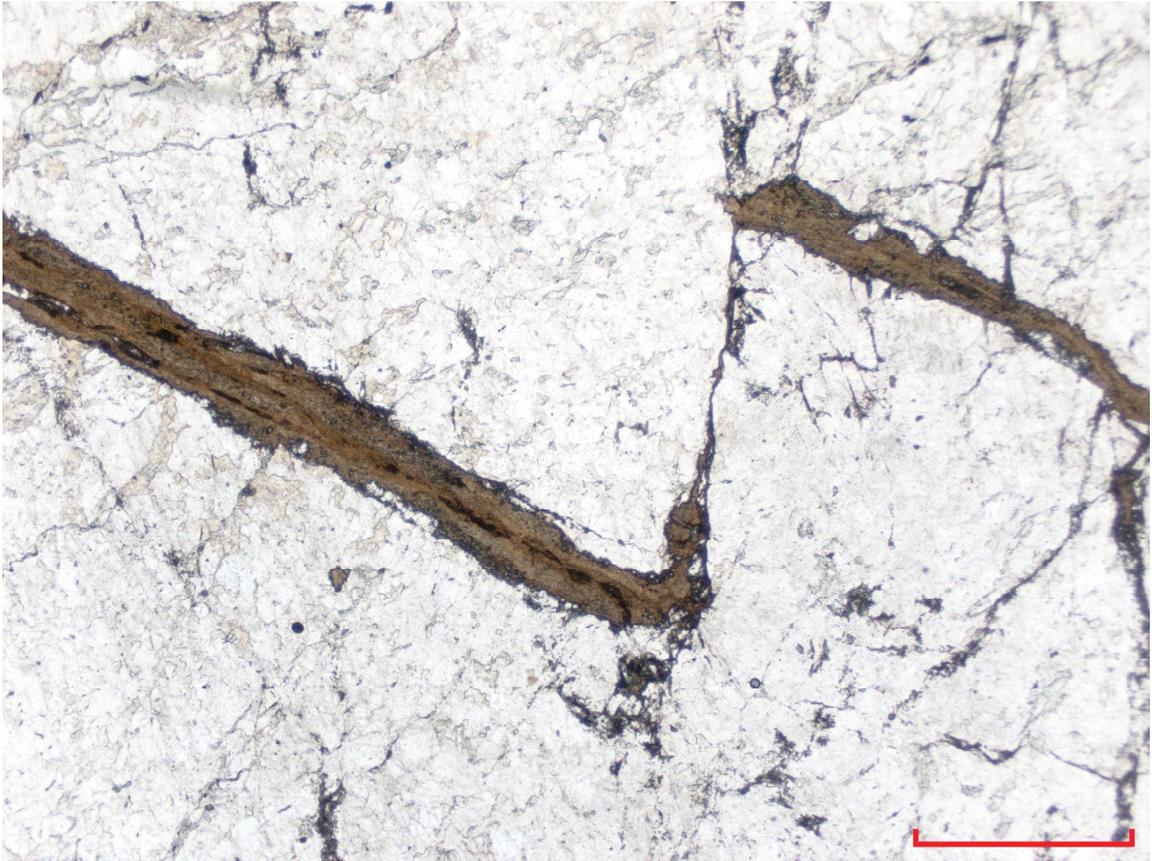
W1- voids after arsenopyrite



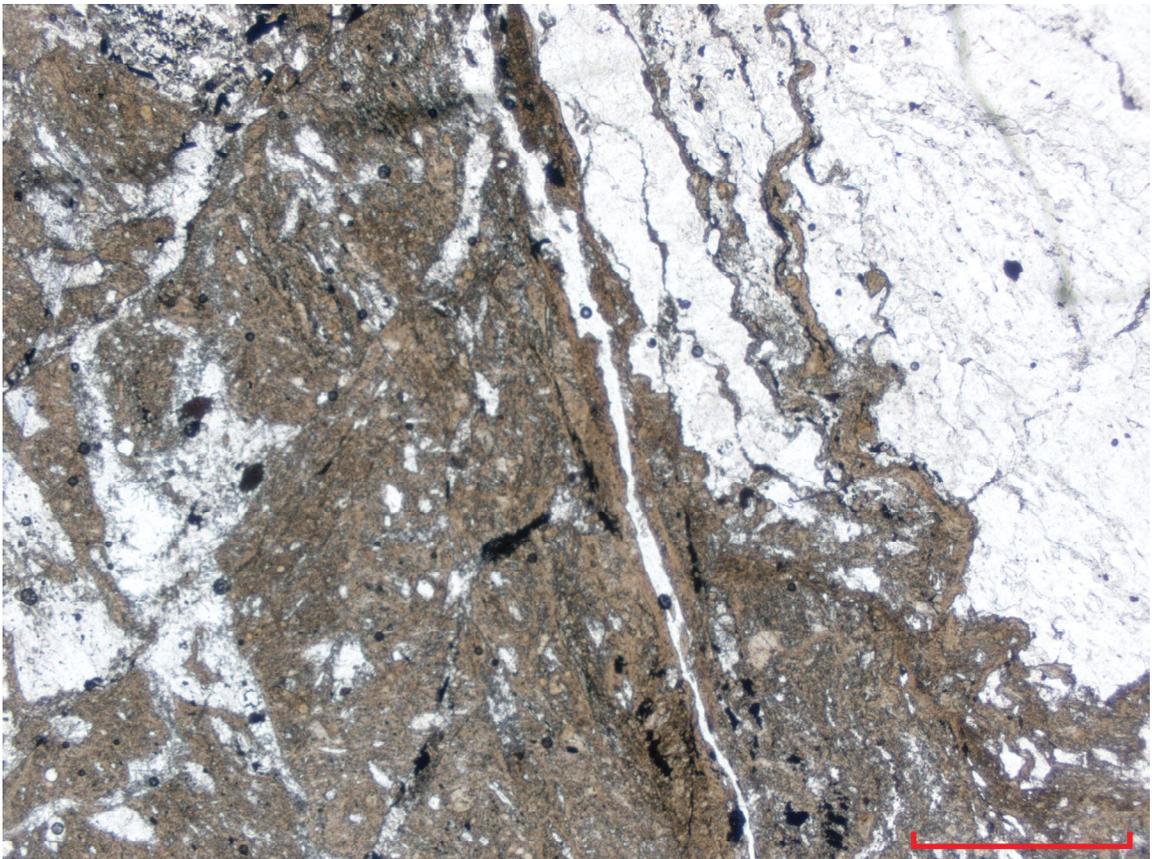
W1- toumaline in shear, pp light



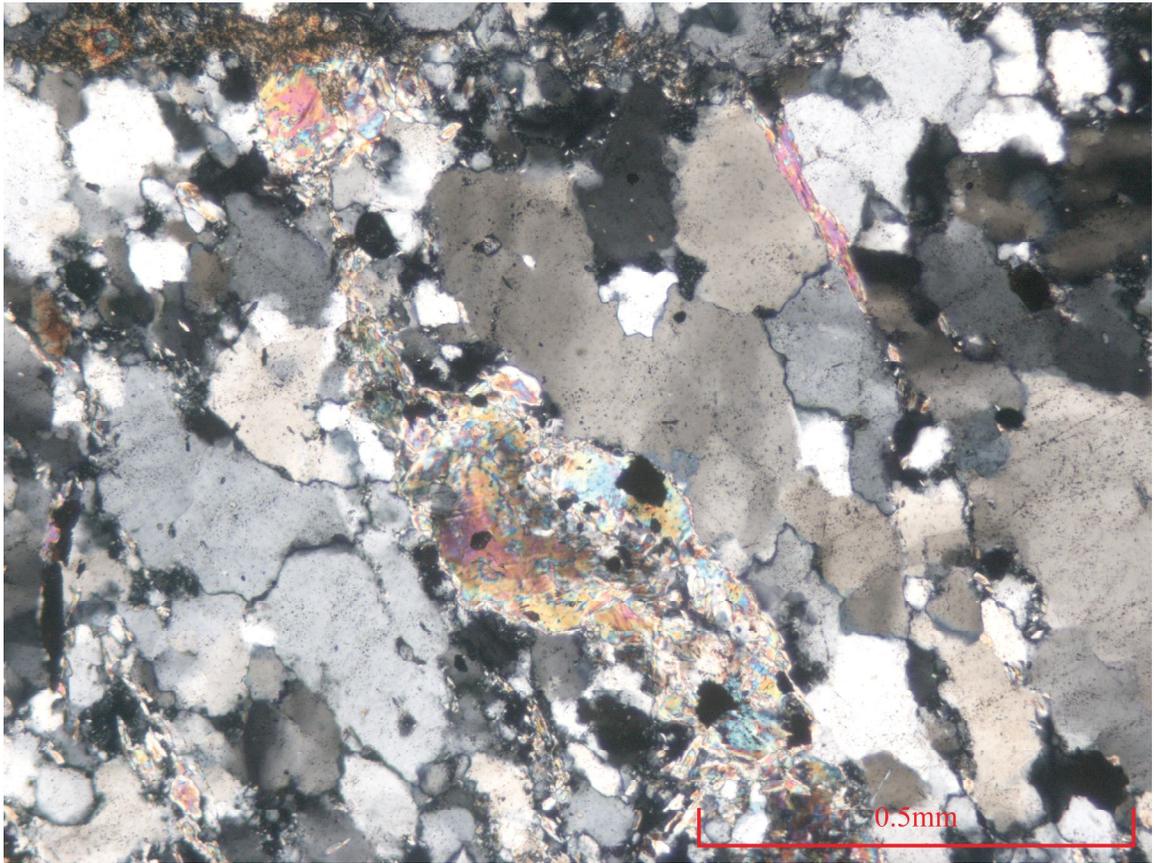
Same field, crossed polarizers



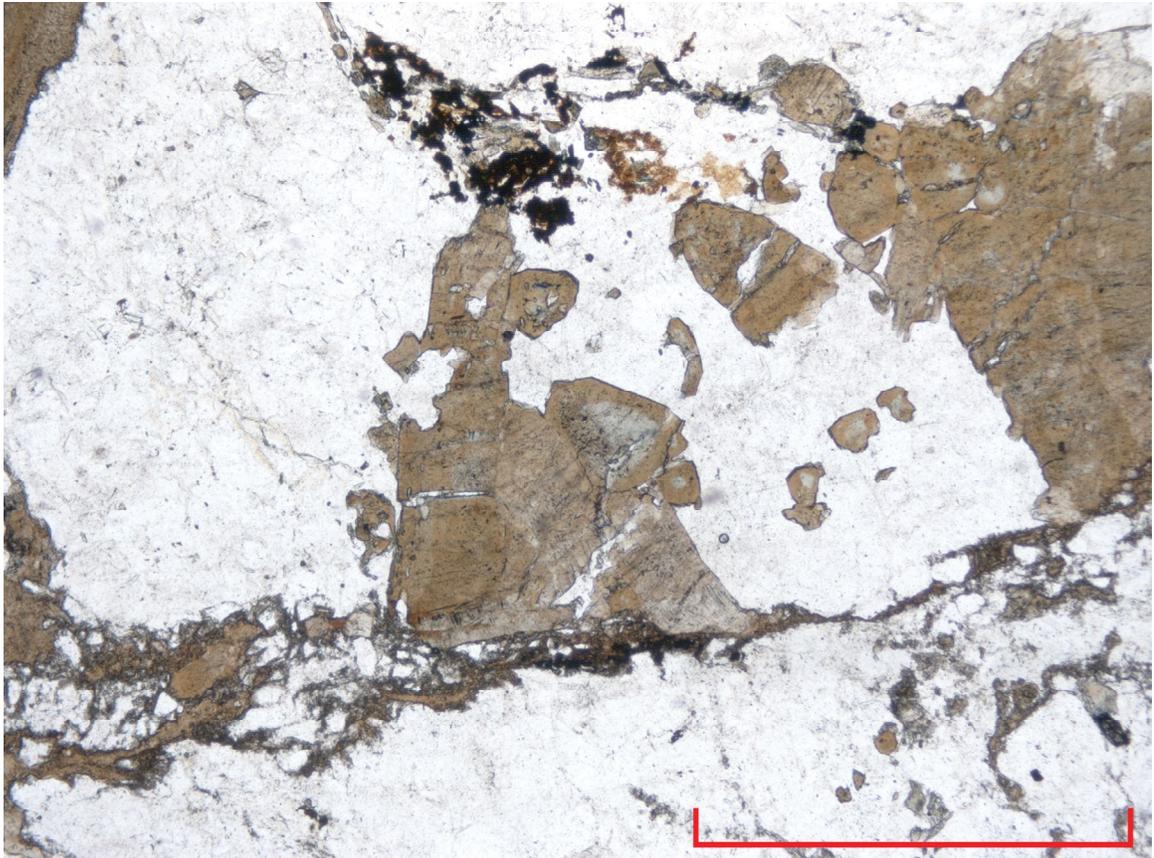
W2- {399421E, 7081217N} displaced tourmaline-filled fracture



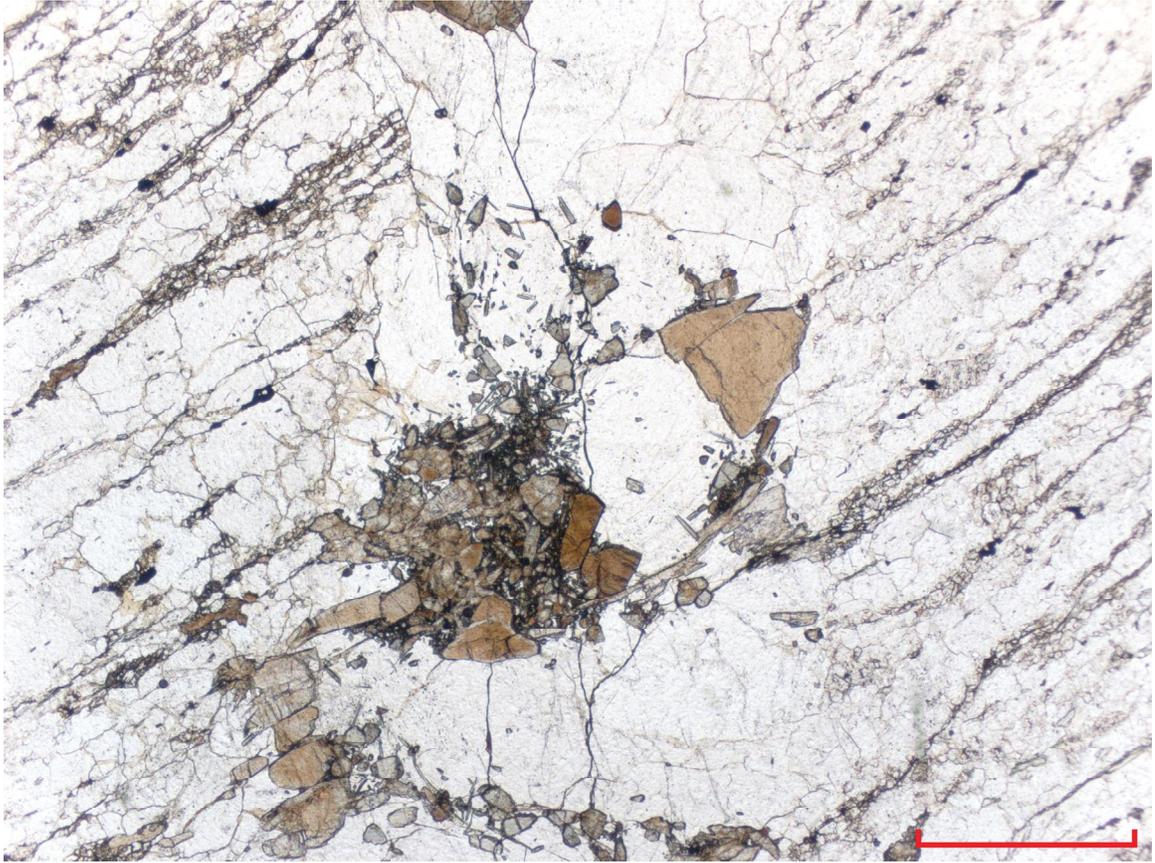
W2- breccia. Scale bars = 1mm



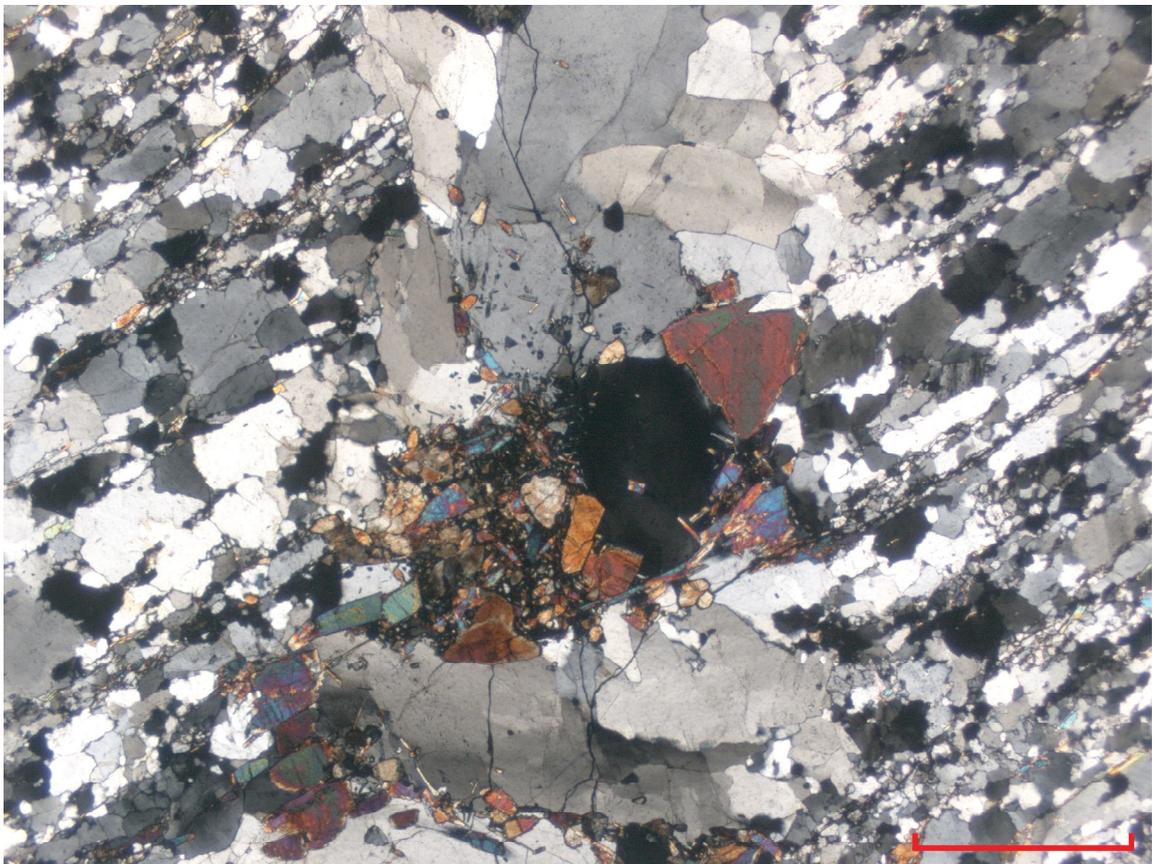
W2- sericite & tourmaline



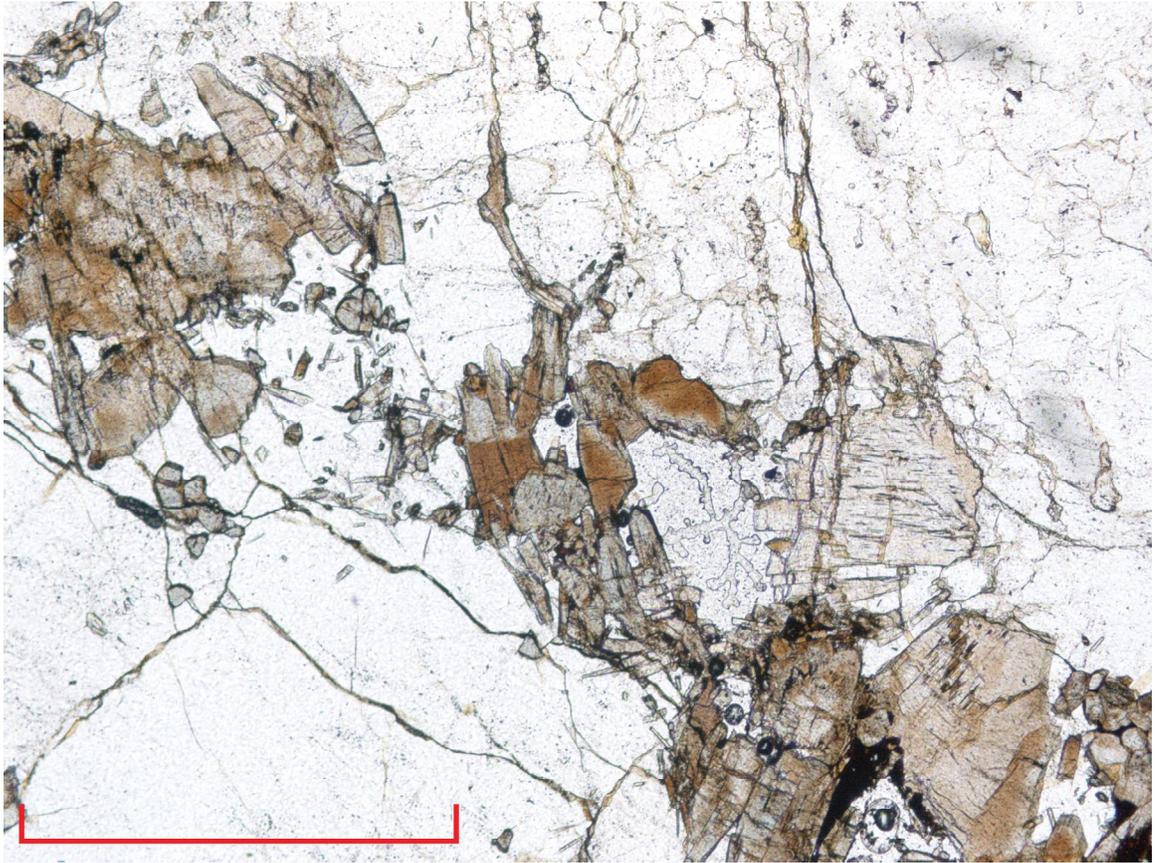
W2- zoned tourmaline crystals. Scale bar = 1mm



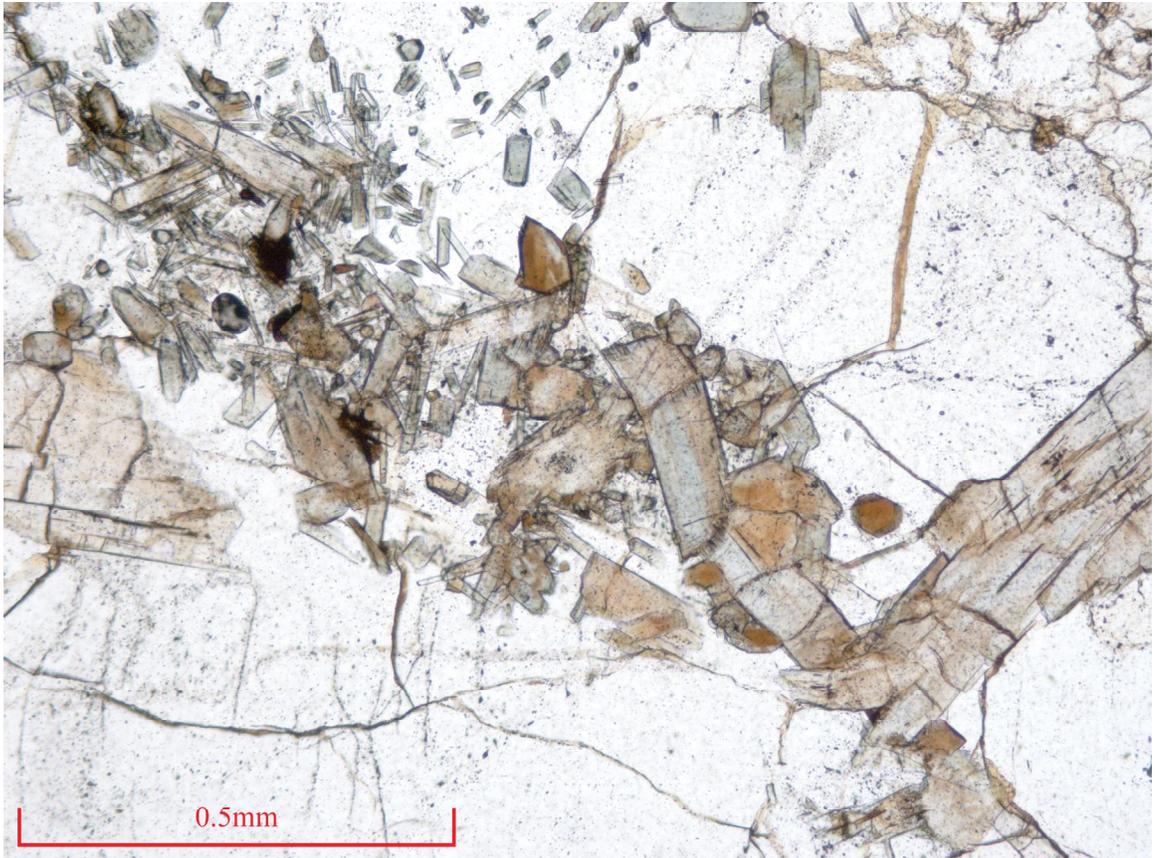
W3- {399500E, 7079688N} quartz-tourmaline vein, scale = 1mm



Same field, crossed polarizers



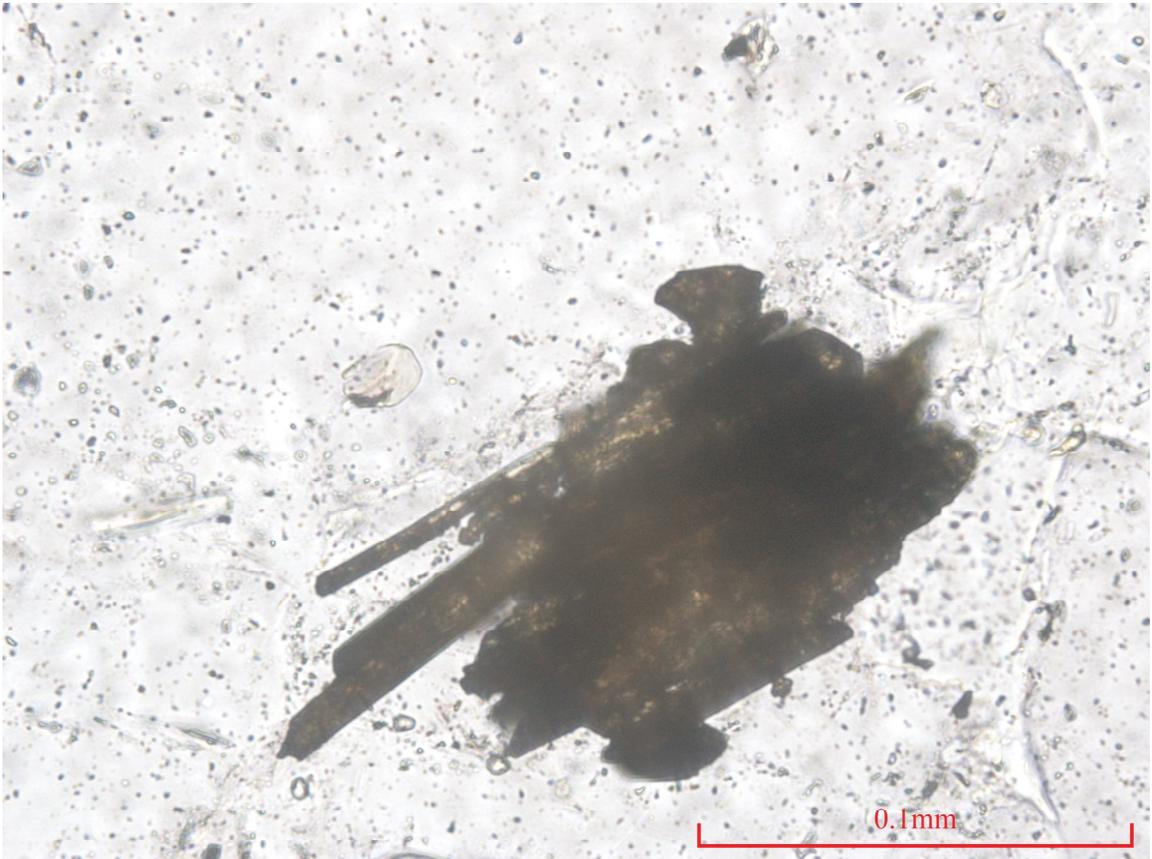
W3- tourmaline, scale bar = 1mm



W3- zoned brown & blue tourmaline



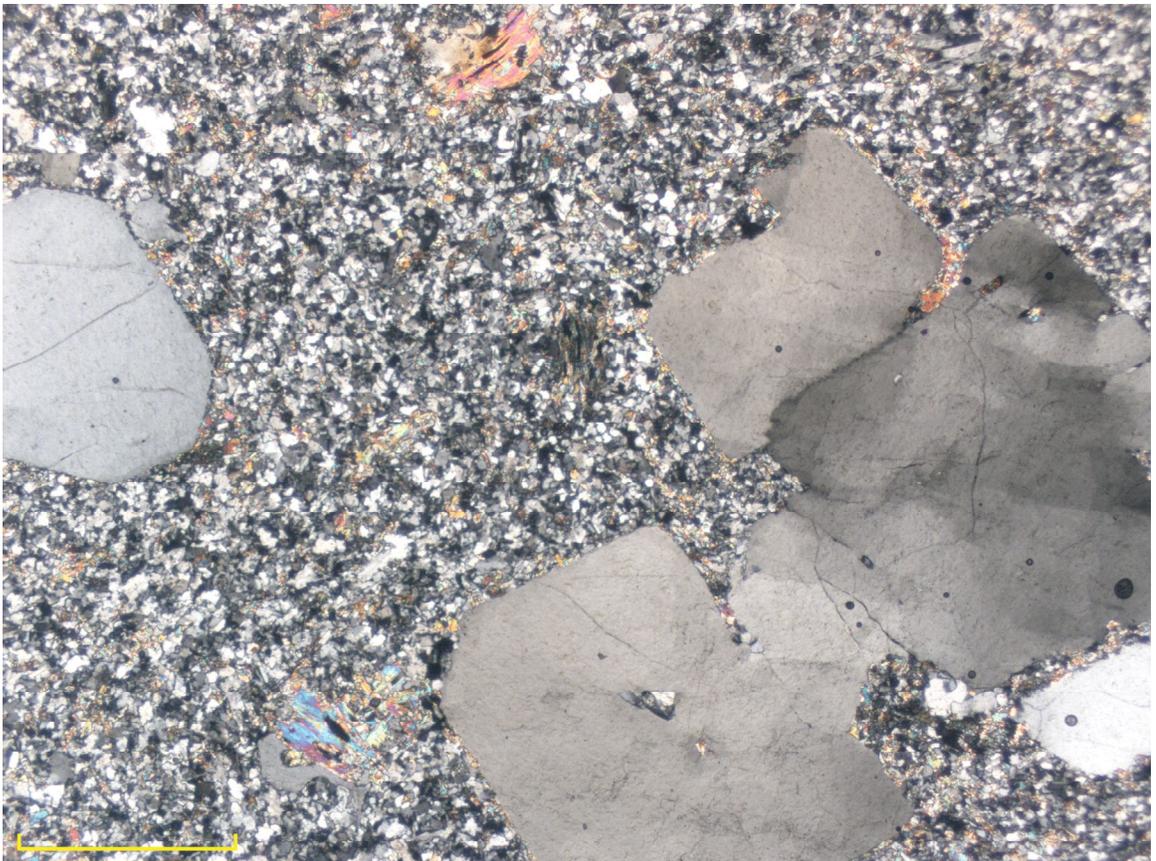
W3- rutile or cassiterite with tourmaline pp light



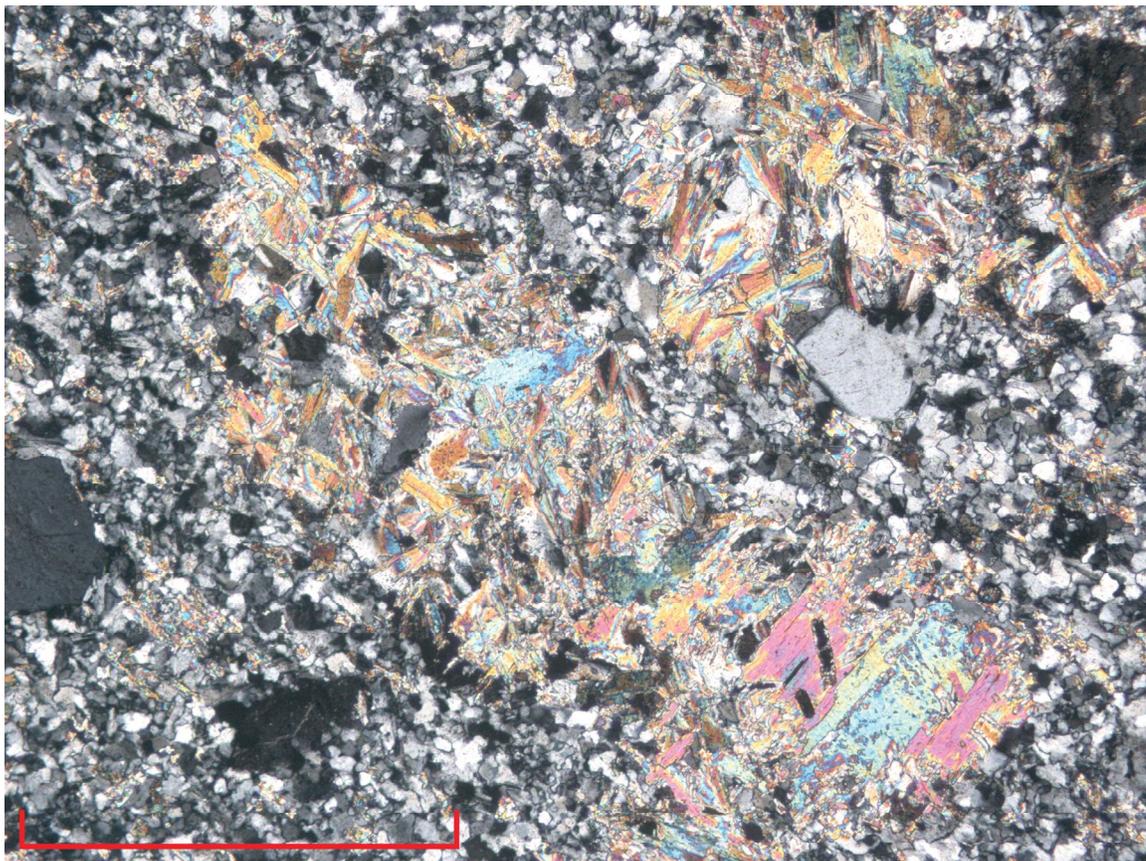
W3- detail of rutile? pp light



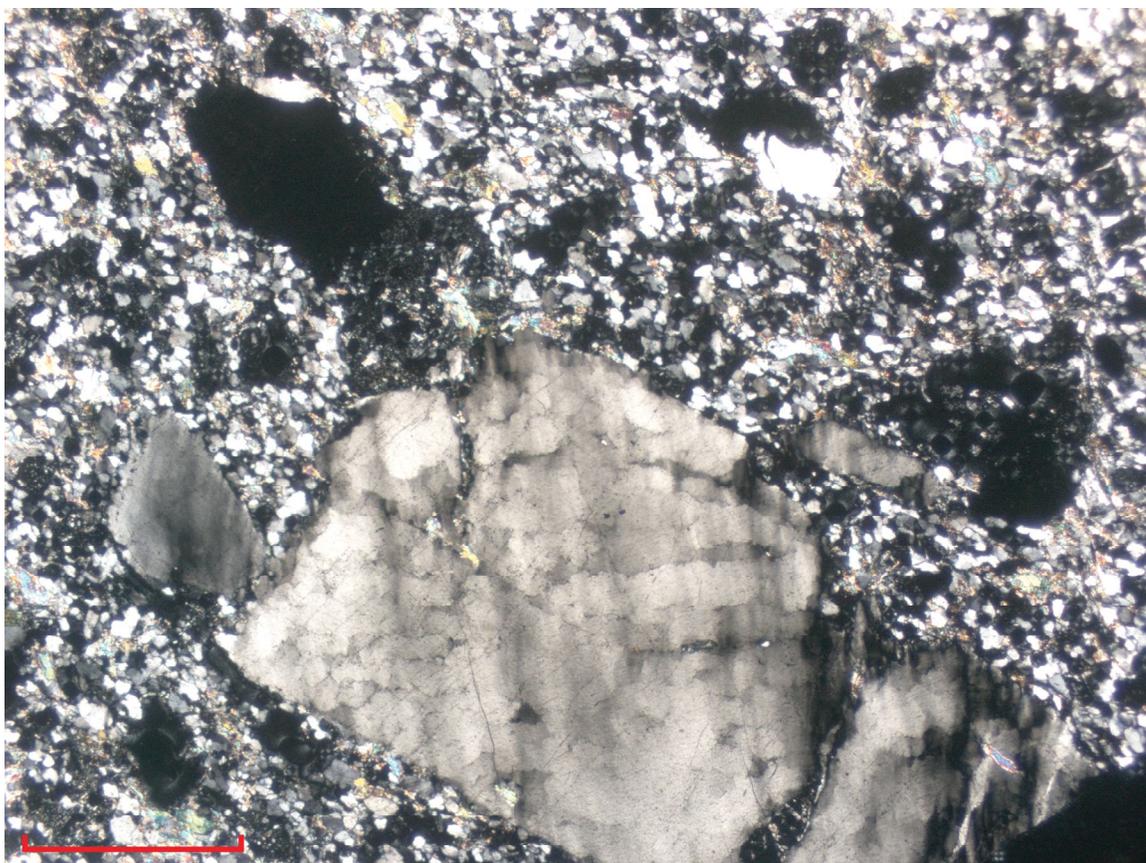
W4- K-feldspars & muscovite. XP, scale bar = 1mm



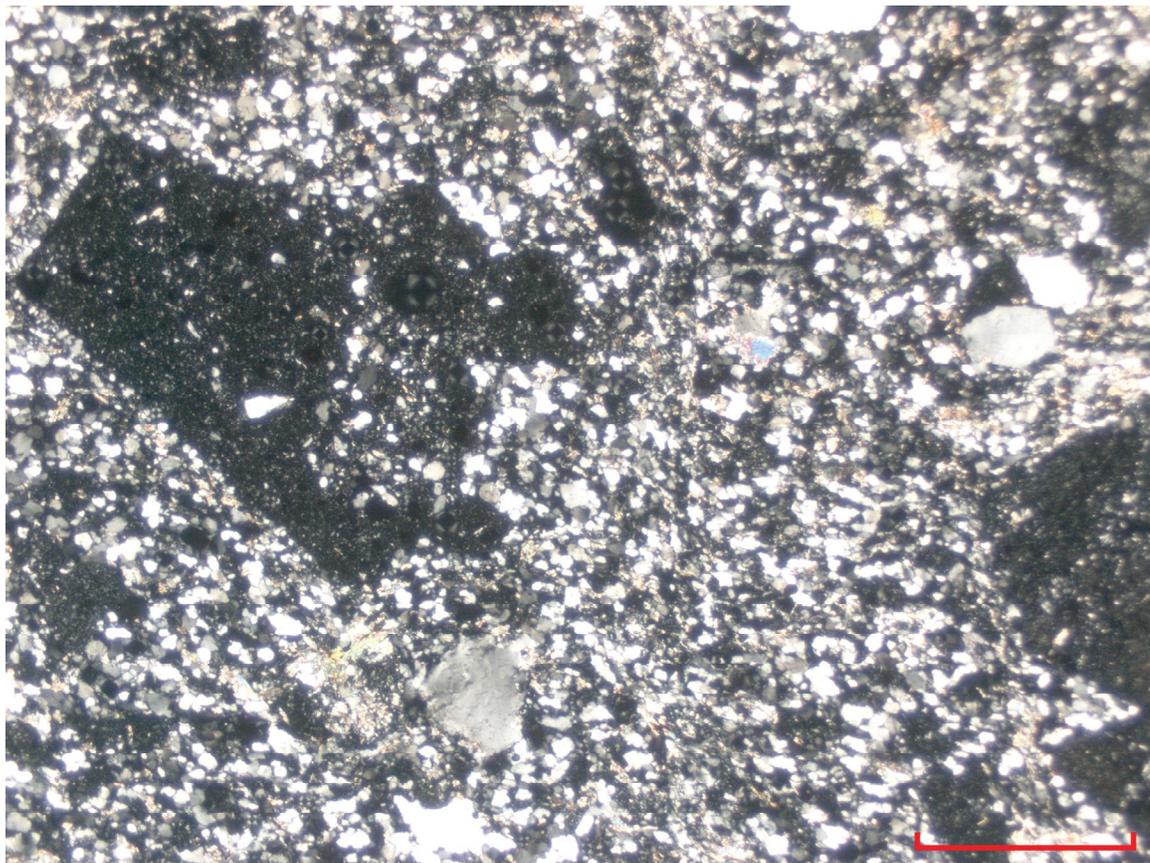
W4- Quartz phenocrysts. XP, scale bar = 1mm



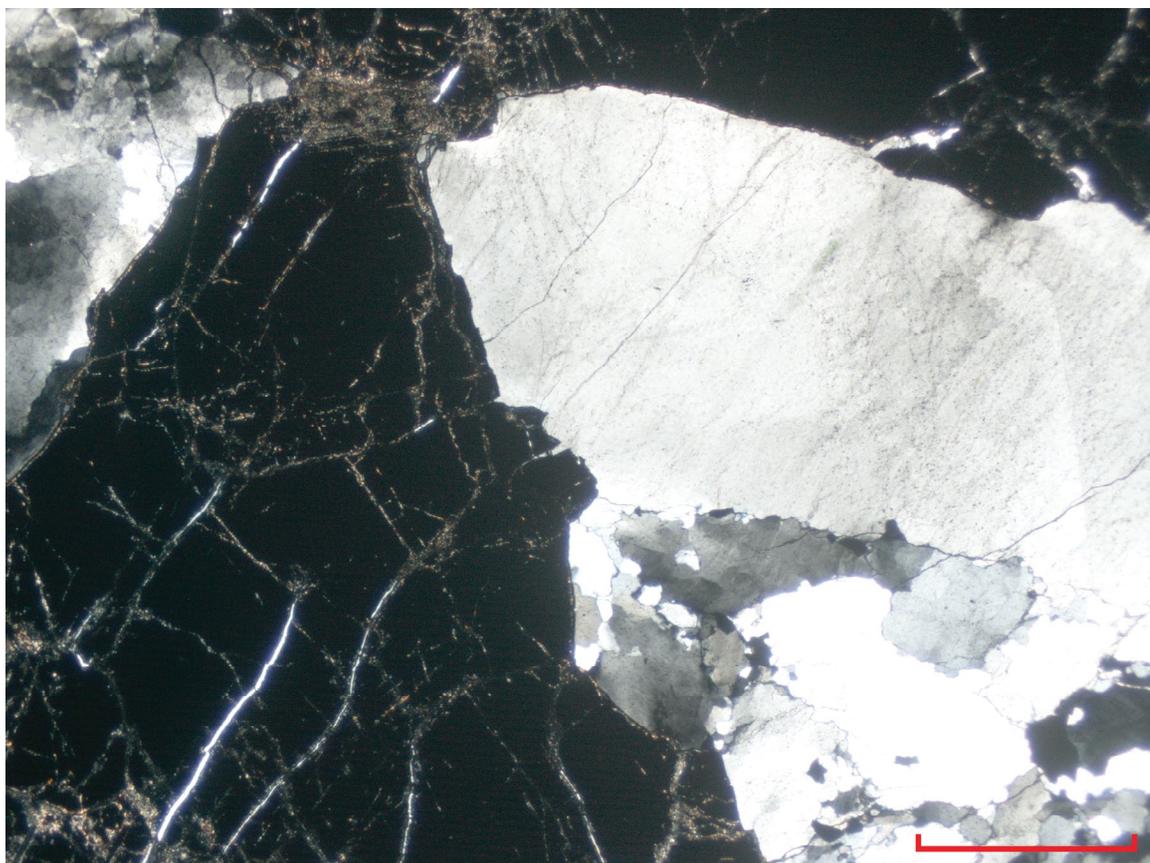
W4- muscovite pseudomorphing ferromagnesian. XP, scale bar = 1mm



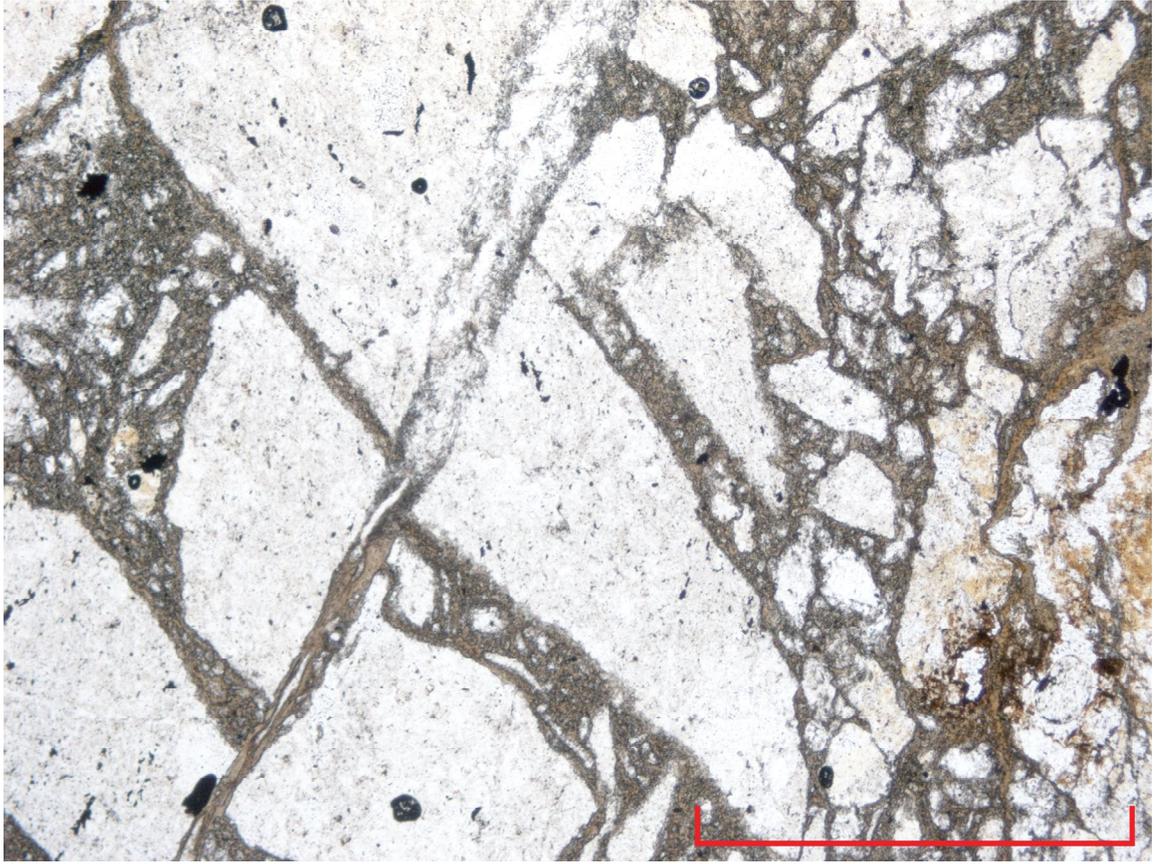
W5- {399593E, 7081980N} quartz phenocryst. XP, scale = 1mm



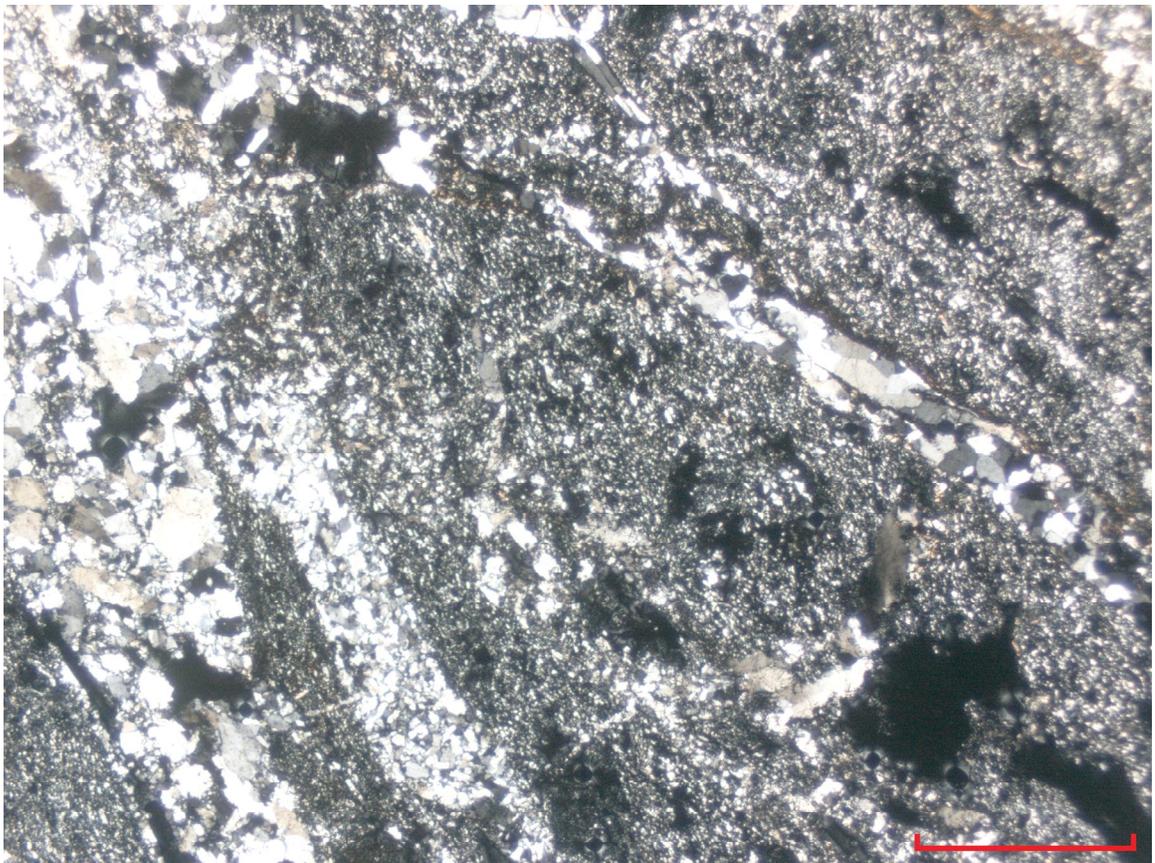
W5- remnants of feldspar phenocrysts. XP, scale = 1mm



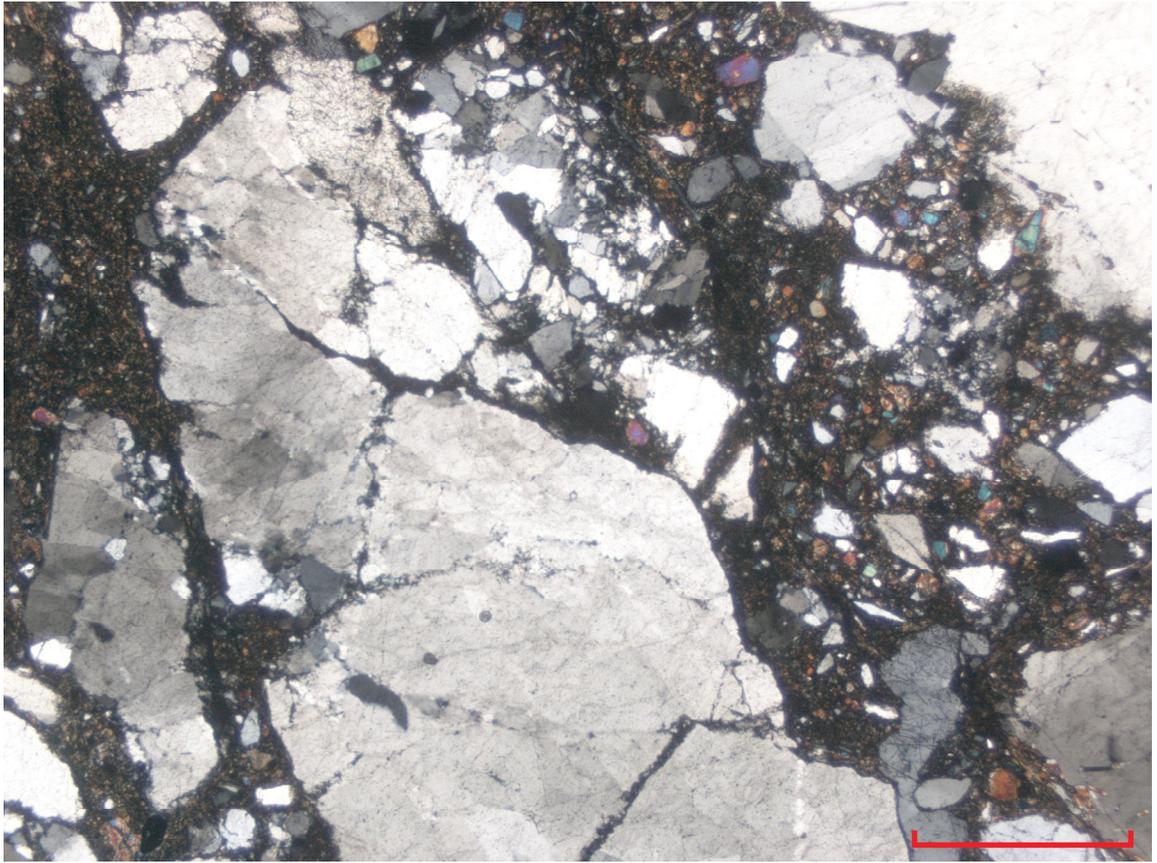
W7- arsenopyrite and quartz. XP, scale = 1mm



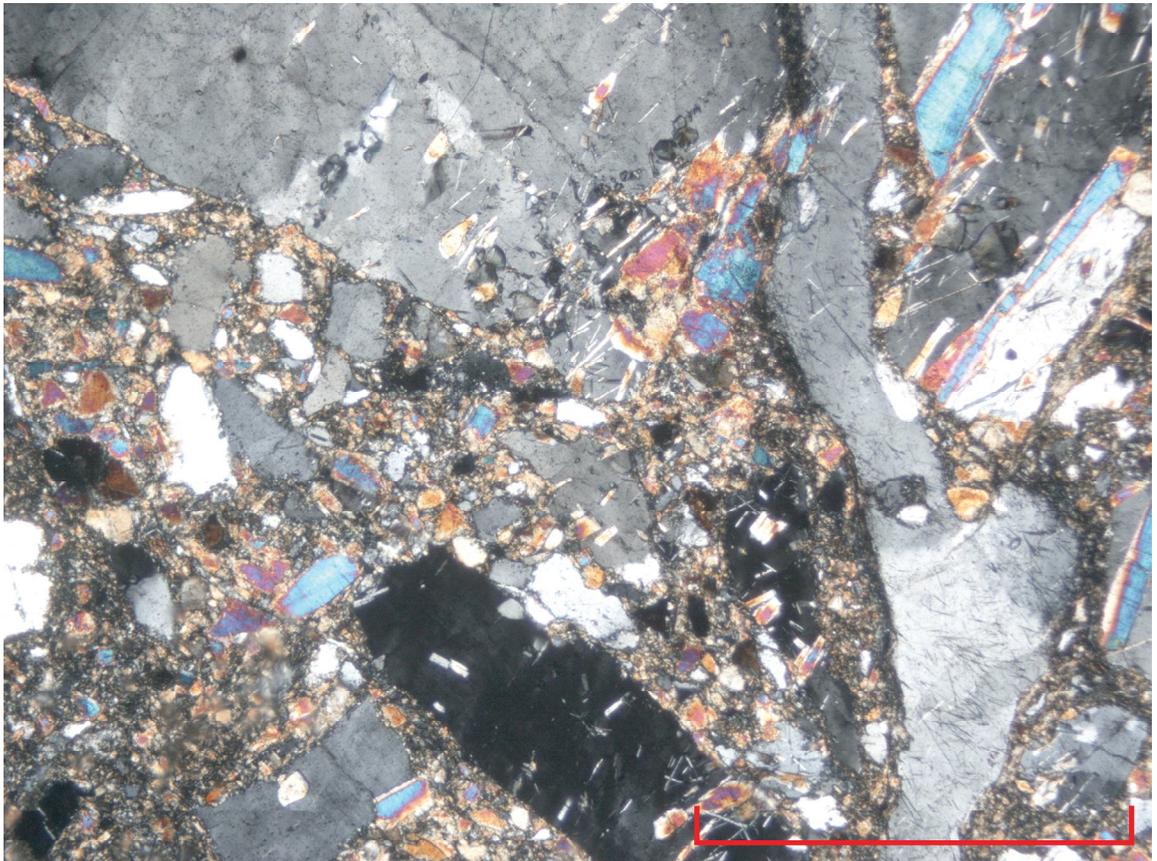
W8- breccia. pp light, scale bar = 1mm



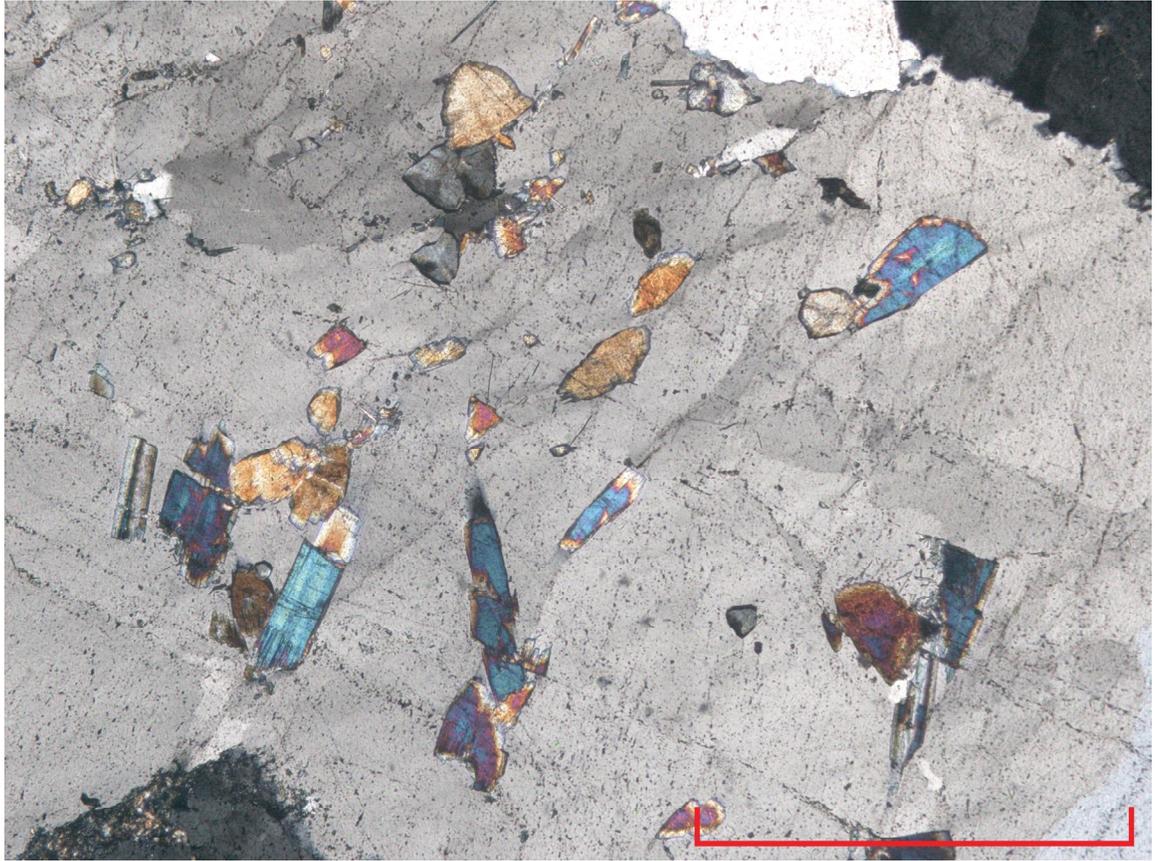
W8- breccia. XP, scale bar = 1mm



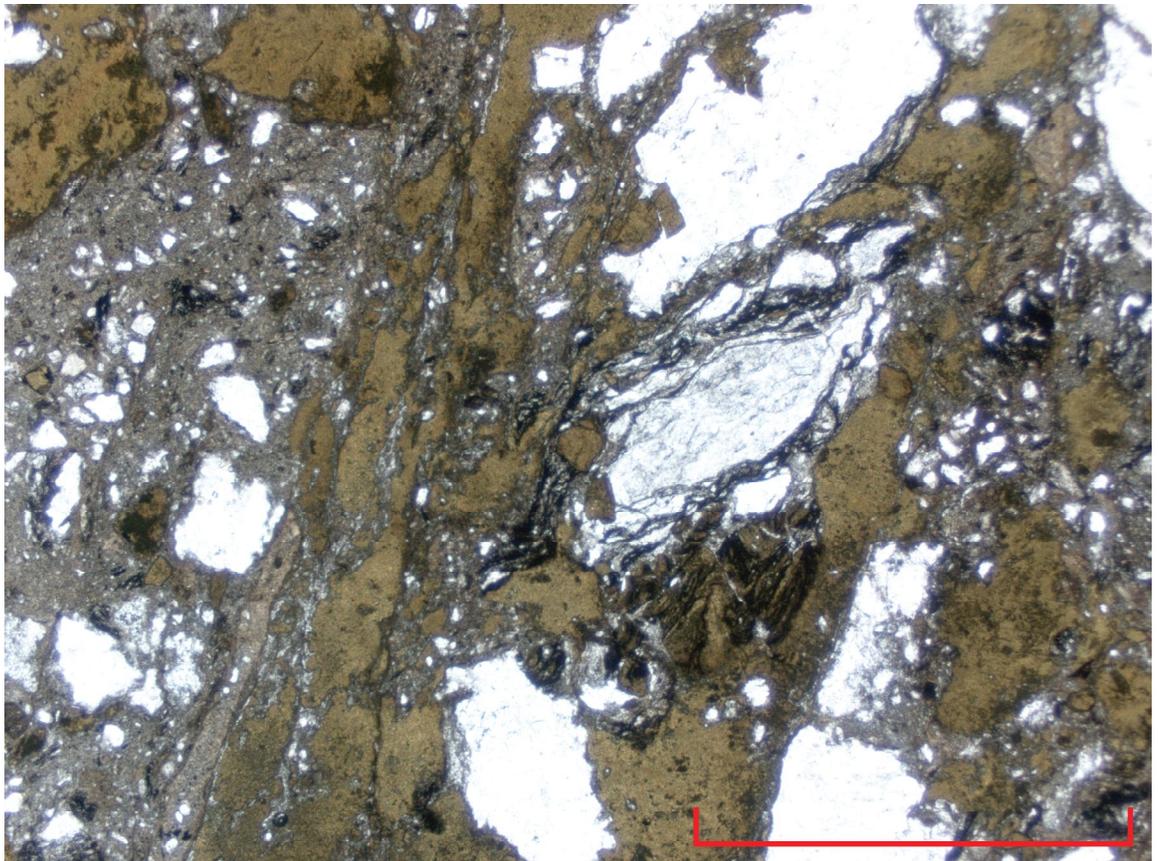
W9- breccia. XP, scale bar = 1mm



W9- breccia. XP, scale bar = 1mm



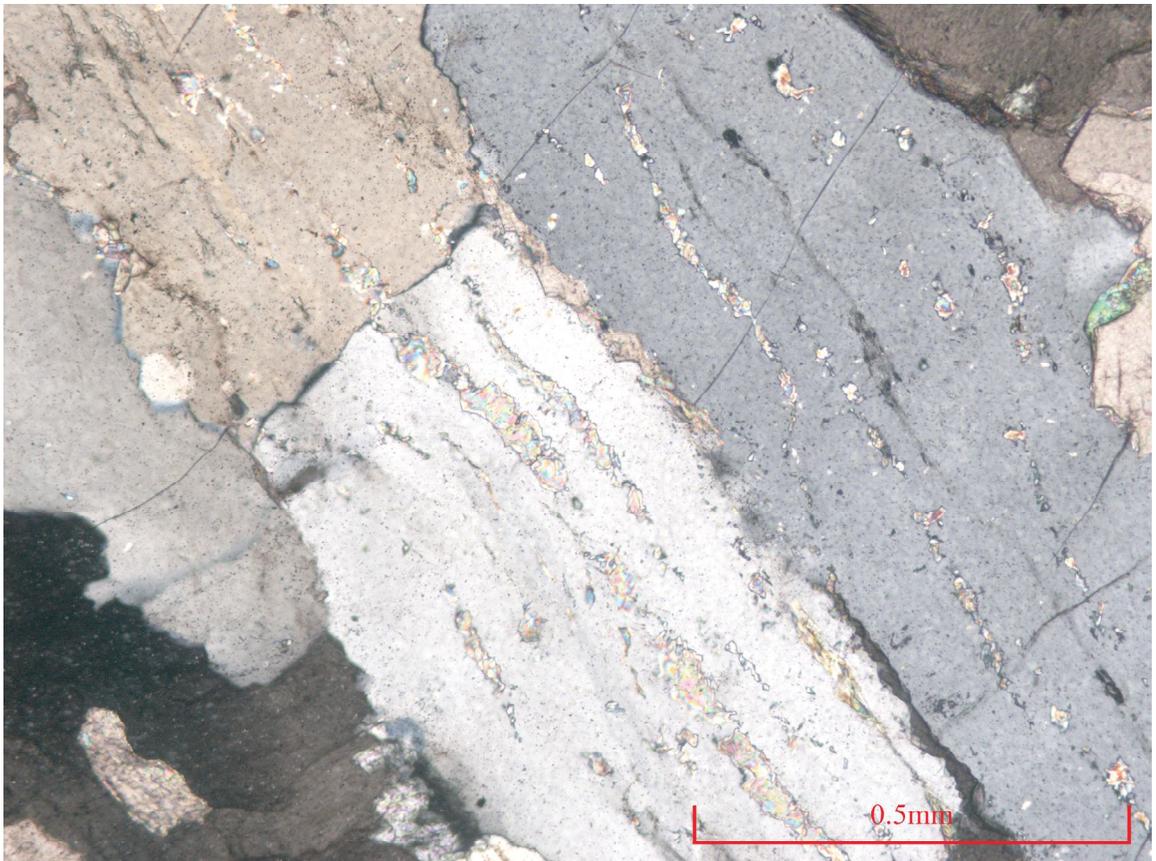
W9 (19213)- tourmaline in quartz. XP, scale bar = 1mm



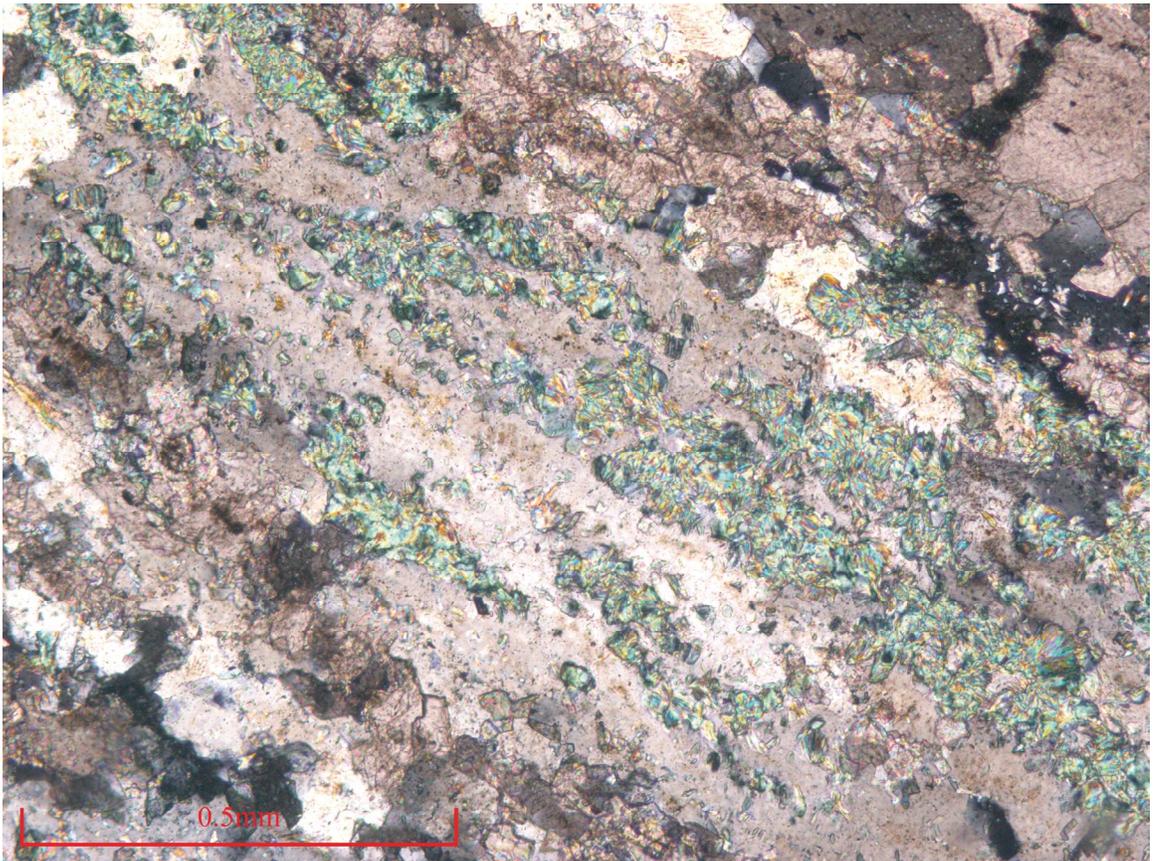
W10 (65604)- breccia. XP, scale bar = 1mm



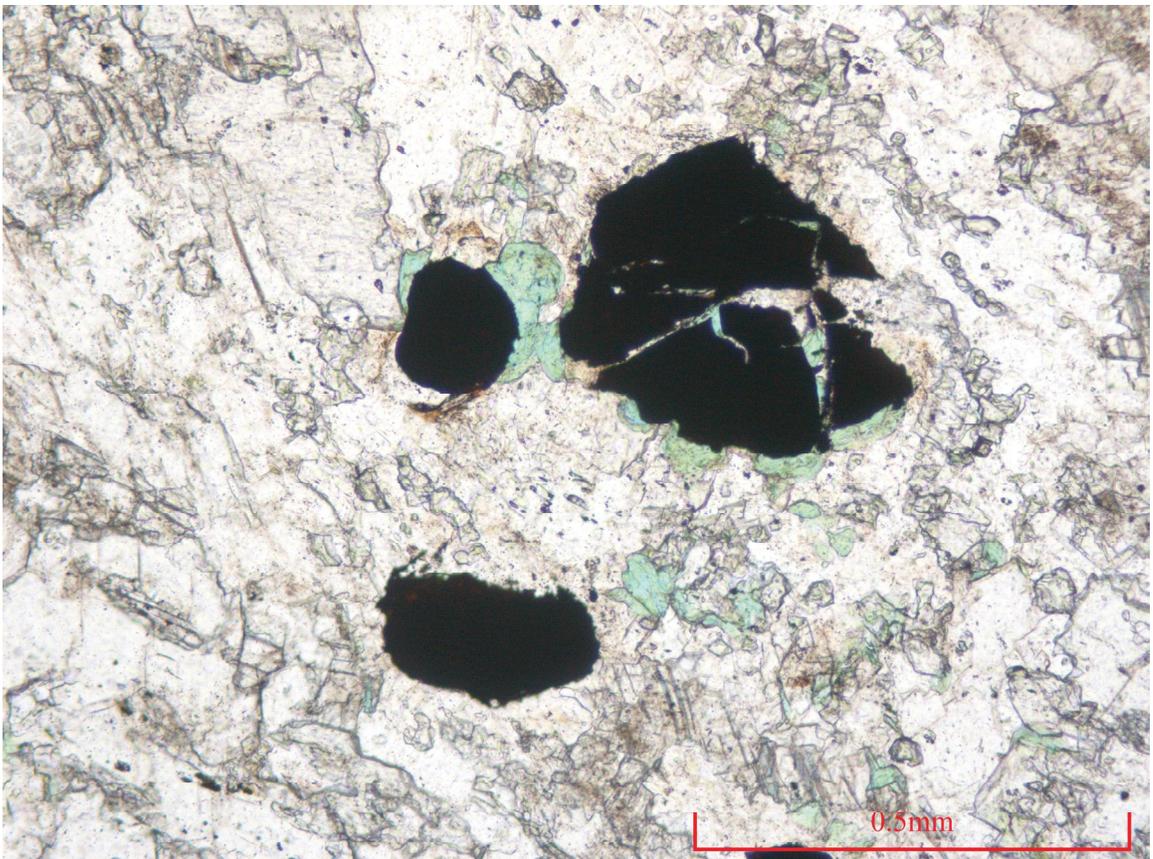
W11- marble with quartz & phengite. XP, scale bar = 1mm



W11- detail of quartz & phengite. XP.



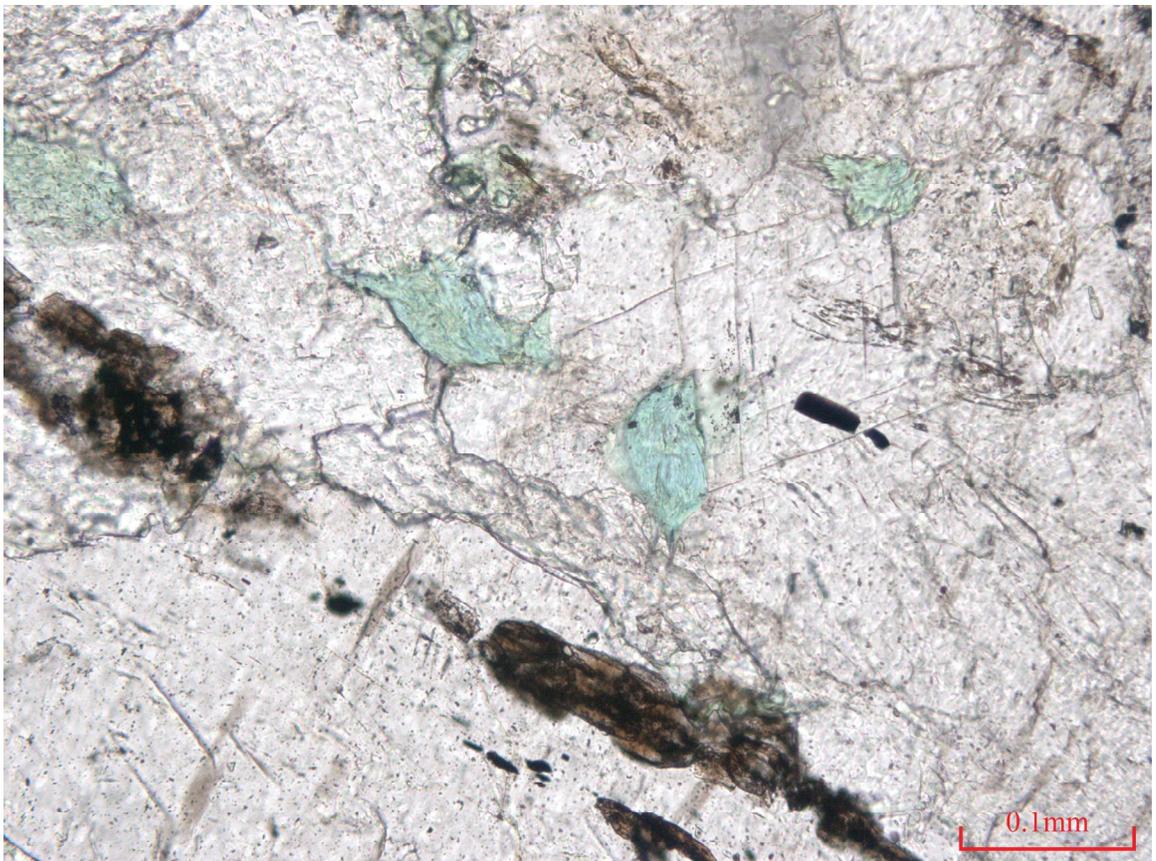
W11- phengite layer. XP.



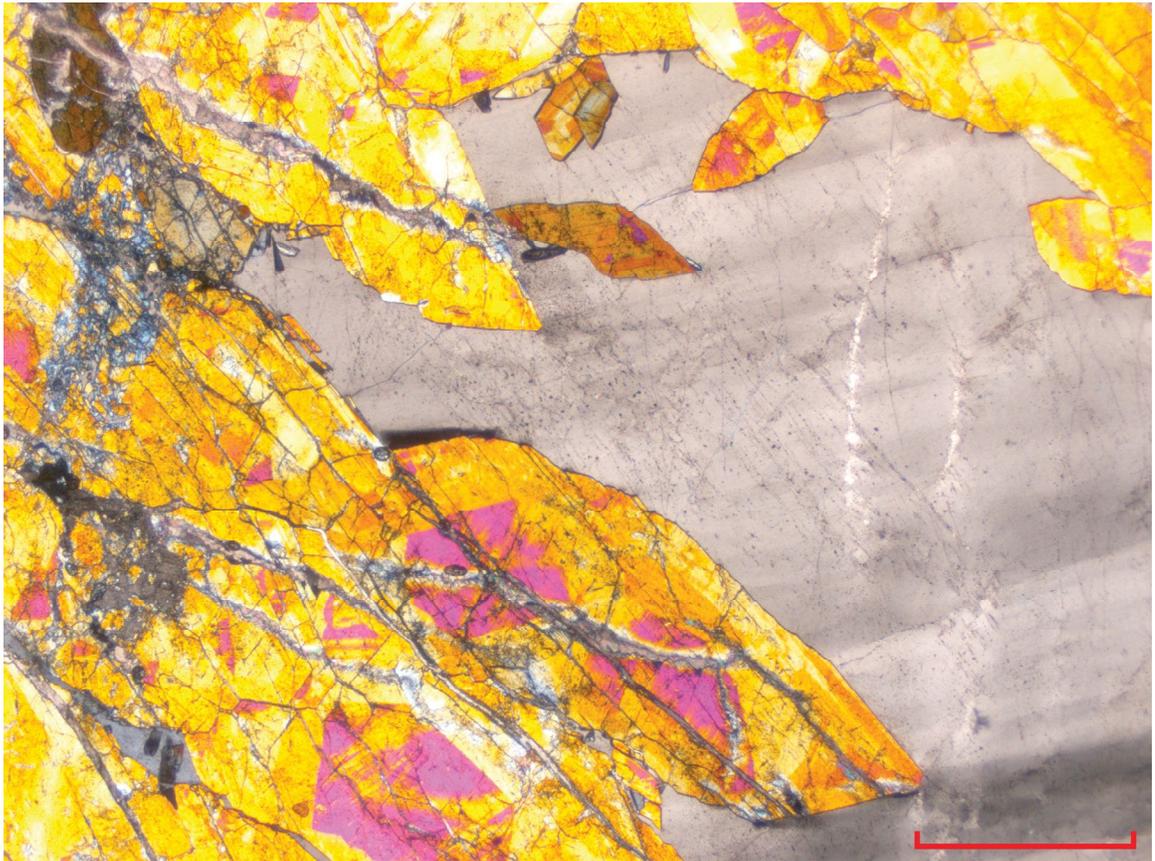
W11- opaques with phengite. PP light.



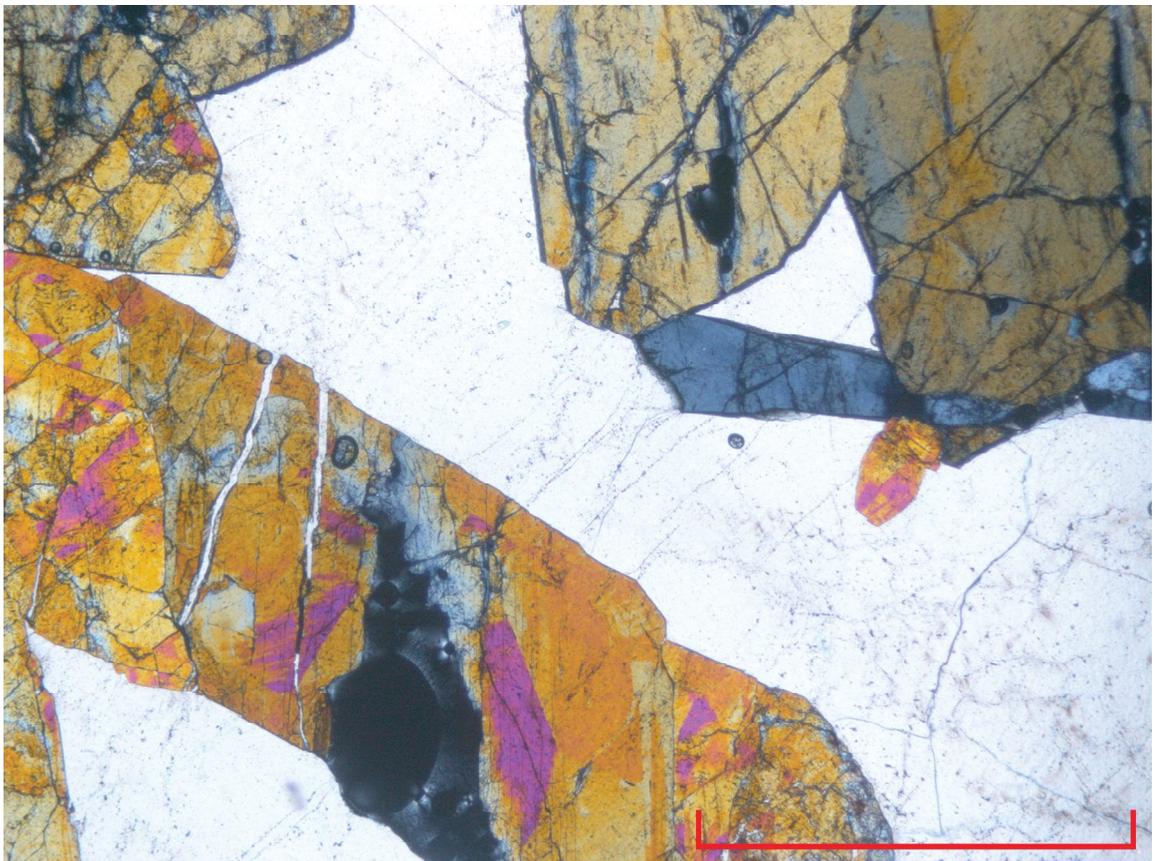
W11- phengite in carbonate. PP light



W11- phengite with (?) rutile. PP light



W12- epidote in quartz XP, scale bar = 1mm



W12- epidote in quartz XP, scale bar = 1mm

