

# VICTORY RESOURCES CORPORATION

(Owner & Operator)

## GEOLOGICAL ASSESSMENT REPORT

(Event 4380051)

on a

## LINEAMENT ARRAY ANALYSIS

Work done on

**Tenure 589855**

of the 9 Tenure

**Toni 589855 Claim Group**

of the

### TONI PROPERTY

**Nicola Mining Division**

BCGS Map 092H.098

**Centre of Work**

5529000N, 689000E

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(Amended May 30, 2010)

**BC Geological Survey  
Assessment Report  
31207**

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## SUMMARY

The five claim Toni 589855 claim group of the TONI property covers an area of 4562 hectares located 200 kilometres northeast of Vancouver, 30 kilometres southwest of Merritt, and 16 kilometres west of the past productive Elk/Siwash (*MINFILE 092HNE096*) property in south-central British Columbia.

Production from the Elk/Siwash property, located within a Middle Jurassic intrusive peripheral to the Nicola volcanic contact, is reported as 1,518,777 grams (48,830 ounces) of gold and 1,903,000 grams (61,183 ounces) of silver recovered between 1992 and 1995. In 2004, global (bulk-tonnage and underground mineable) measured and indicated resources were reported to total 668,300 tonnes grading 9.66 grams per tonne gold (207,600 ounces) plus an additional 1,317,200 tonnes grading 4.91 grams per tonne gold (207,800 ounces) in the inferred category. Gold-bearing pyrrhotite and polymetallic gold-silver mineralization are hosted primarily by parallel to subparallel east-northeast trending pyritic quartz veins and stringers in altered pyritic granitic and, less frequently, volcanic rocks.

As indicated by the BC government supported MapPlace geological maps, the Property is predominantly underlain by the upper Triassic Nicola Group of basaltic volcanic rocks (*uTrNE*) in contact with a succession of Upper Triassic mudstone, siltstone, shale, and fine clastic sedimentary rocks (*UTrNsf*) which infringes into the Property in the southeast. An intrusive stock of late Triassic to early Jurassic granodiorite (*uTrJgd*) infringes into the Property along the central southwest.

The lineament array analysis on Tenure 589855 of the Toni 589855 Victory Resources property (Property) indicates dominant northerly structures, with subordinate east-west structures which could be primary controlling structures to mineralization in this general area.

The northerly structures may be influenced by the major north trending Kentucky-Alleyne fault system to the west where numerous mineral prospects are hosted by northerly trending structures as opposed to the mineral controlling easterly trending structures east of the property hosted by structures possibly influenced by the intrusive (*mJgr*) seven kilometres to the east.

This structural orientation may be the prime structural trend for mineral controls that may host potentially mineralized economic quartz veins as at the Elk/Siwash past producer (*MINFILE 092HNE096*) which is hosted by an intrusive.

In addition, potential of economic mineral zones within Nicola volcanic northerly trending structures on the Property is indicated in the Brew showing (*MINFILE 092HNE275*) nine kilometres to the east where the 40 metre wide northwest striking Brew fault hosts sections of strongly mineralized massive veins, narrow stringers and occasional disseminations of marcasite, pyrite and pyrrhotite and samples of pyritic clay-altered sections that have yielded up to 0.280 gram per tonne gold and 0.445 per cent arsenic.

The east-west indicated structures reflect the structural trend on the HN-WEN showing (*MINFILE 092HNE058*), located six kilometres north of the Property, where Victory recently completed a diamond drilling program which resulted in the delineation of the Adit 1 east-west trending quartz vein with a true width of up to 3.0 metres. Although the quartz vein returned relatively low gold values, the high upper level mineral associated mercury values of the quartz vein may indicate increased gold values to depth.

The significance of the Adit 1 vein is that it occurs within the Nicola volcanics 50 metres north of the W96-1 drill hole where a mineral hosting quartz vein was intersected from which assays averaging 16.578 gm/t Au, 18.185 gm/t Ag, and 0.75% Cu over 6.55 metres of core or 3.81 metres of 28.43 g/t Au and 0.98% Cu.

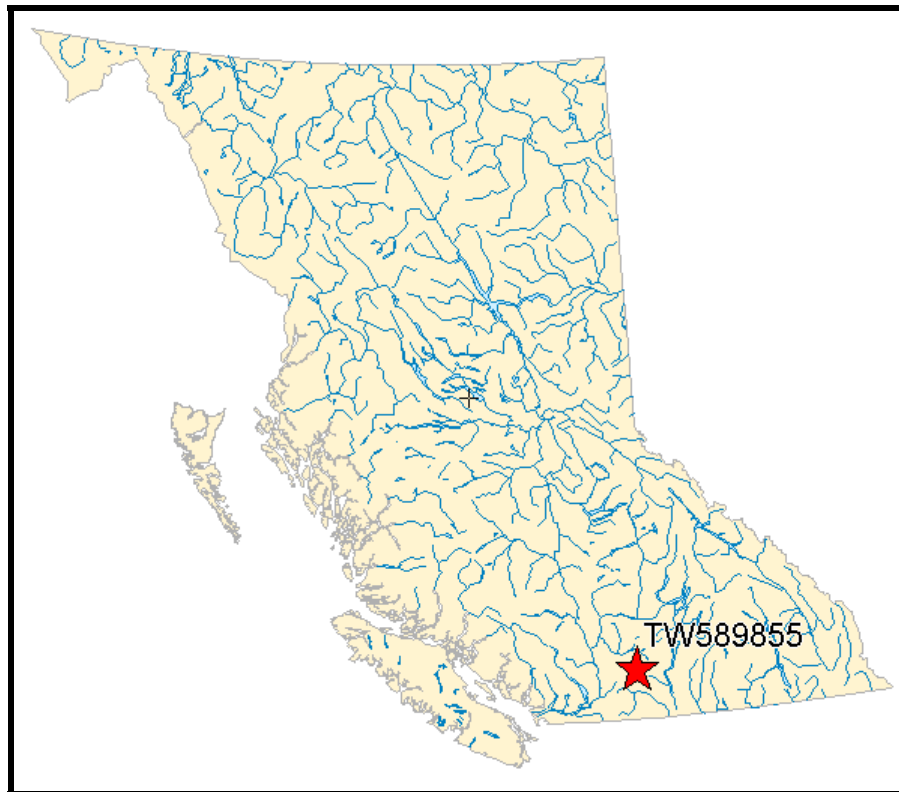
Excluding other variable geological conditions, the structures are essential in the localization of potentially economic quartz vein hosted mineralization within the Nicola volcanics on the Property. Other mineral deposit types such as skarn or porphyry mineralization are evident from the prospects as indicated by the Minfile reports included herein.

## INTRODUCTION

In October, 2009 a Lineament Array Analysis was completed Tenure 589855 of the nine claim Toni 589855 claim group (“Property”) of Victory’s TONI property. The purpose of the program was to delineate potential structures which may be integral in geological controls to potentially economic mineral zones that may occur on Tenure 589855 or other claims of the Toni 589855 property.

Information for this report was obtained from sources as cited under Selected References.

*Figure 1. Location Map*



## PROPERTY DESCRIPTION AND LOCATION

The Property is comprised of nine claims covering an area of 4562 hectares. Particulars are as follows:

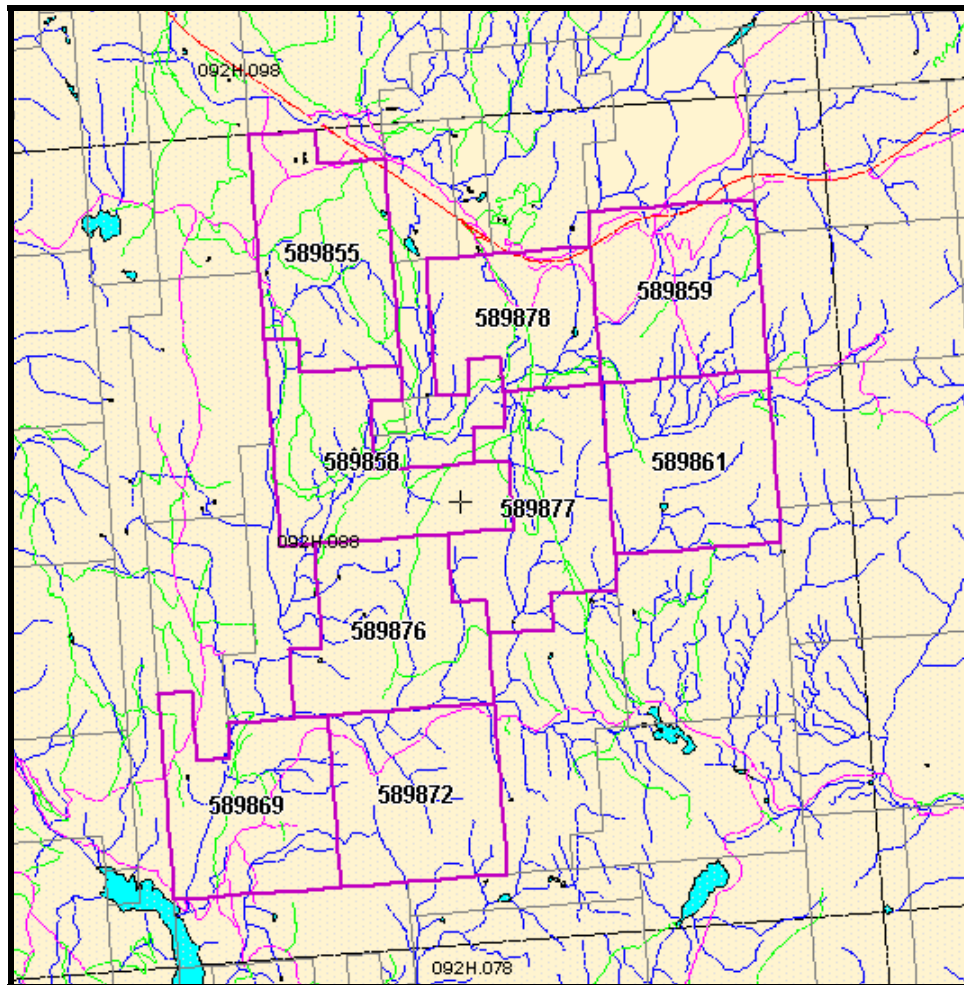
| <u>Tenure Number</u>   | <u>Type</u> | <u>Claim Name</u> | <u>Good Until</u> | <u>Area (ha)</u> |
|------------------------|-------------|-------------------|-------------------|------------------|
| <a href="#">589855</a> | Mineral     | TONI 6            | 20100120          | 520.4448         |
| <a href="#">589858</a> | Mineral     | TONI 7            | 20100120          | 520.72           |
| <a href="#">589859</a> | Mineral     | TONI 8            | 20100120          | 520.5291         |
| <a href="#">589861</a> | Mineral     | TONI 9            | 20100120          | 520.7518         |
| <a href="#">589869</a> | Mineral     | TONI 12           | 20100120          | 521.1597         |
| <a href="#">589872</a> | Mineral     | TONI 13           | 20100120          | 521.151          |
| <a href="#">589876</a> | Mineral     | TONI 15           | 20100120          | 520.9397         |
| <a href="#">589877</a> | Mineral     | TONI 16           | 20100220          | 520.7974         |
| <a href="#">589878</a> | Mineral     | TONI 17           | 20100220          | 395.6158         |

Total Area: 4562.1093 ha

\*Upon the approval of the assessment work filing, Event Number 4380051

The Property is located within BCGS Map 092H.098 of the Nicola Mining Division, 200 direct kilometres from Vancouver, 30 direct kilometres from Merritt and 18 kilometres northwest of the ELK (Siwash) past productive deposit of Fairfield Minerals Ltd. The centre of the work area is at 5529000N, 689000E (NAD 83).

Figure 2. Claim Map



## ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the Property is southward and eastward from Merritt via Highway 97C or the Coquihalla connector Highway for 40 kilometres to the northwestern portion of the Property.

The region is situated within the dry belt of British Columbia with rainfall between 25 and 30 cm per year. Temperatures during the summer months could reach a high of 35° and average 25°C with the winter temperatures reaching a low of -10° and averaging 8°. On the Property snow cover on the ground could be from December to April and would not hamper a year-round exploration program.

**Accessibility, Climate, Local Resources, Infrastructure, and Physiography (cont'd)**

Sufficient water for all phases of the exploration program could be available from the many lakes and creeks, which are located within the confines of the property. Water may be scarce during the summer months and any water required for exploratory purposes, would be transported.

Merritt, and/or Kamloops, historic mining centres could be a source of experienced and reliable exploration and mining personnel and a supply for most mining related equipment. Kamloops is serviced daily by commercial airline and is a hub for road and rail transportation. Vancouver, a port city on the southwest corner of, and the largest city in, the Province of British Columbia is three hours distant by road and less than one hour by air from Kamloops.

**HISTORY: PROPERTY & AREA****Area**

**ELK (END ZONE) prospect (Polymetallic veins Ag-Pb-Zn+/-Au)**

*MINFILE 092HNE041*

*Six kilometres east*

This prospect was discovered by Placer Dome Inc. in 1990 after trenching soil and geophysical anomalies outlined by Fairfield Minerals Ltd. in 1987 and 1989. Fairfield Minerals conducted additional trenching and sampling in 1991.

**PAYCINCI prospect (Volcanic redbed Cu)**

*MINFILE 092HNE084*

*Six kilometres east*

The Cincinnatti deposit was first explored by the Bates brothers in the early 1900s. A number of trenches, and one adit 120 metres long, were excavated between 1899 and 1913. Payco Mines Ltd. and Alscope Consolidated Ltd. conducted geological and geophysical surveys, trenching and diamond and percussion drilling between 1963 and 1967. An additional 15 holes totalling 1000 metres were drilled by Gold River Mines and Enterprises Ltd. in 1973 and Sienna Developments Ltd. in 1979. The deposit was most recently sampled by Pacific Copperfields Ltd. in 1992.

In 1998, Christopher James Gold Corp. optioned the property. Reserves are estimated at 1.8 million tonnes grading 1 per cent copper (Tom Schroeter, 1998).

**TOMCAT prospect (Volcanic redbed-Cu; Subvolcanic-Cu-Ag-Au (As-Sb); Porphyry Mo (Low F-type)**

*MINFILE 092HNE086*

*Six kilometres west*

The occurrence was initially prospected and trenched by W. Murray between 1906 and 1913. Pyramid Mining Company Ltd. drilled 13 holes totalling 1042 metres in 1965.

**DAISY prospect (Volcanic redbed-Cu)**

*MINFILE 092HNE091*

*One kilometres west*

This deposit was first explored in 1915, when several trenches and a 3-metre long adit were excavated. Cominco conducted diamond drilling and trenching in 1979. One intersection returned 0.14 per cent copper over 32 metres. J.M. Murphy completed soil and geological surveys in 1983 and 1984. Unuk Gold Corp. worked the property in 1997.

**History: Property & Area (cont'd)****Area (cont'd)**

**SIWASH** prospect (*Alkalic porphyry Cu-Au; Cu skarn*)

*MINFILE 092HNE111*

*Four kilometres east*

This occurrence was geologically mapped, soil sampled and geophysically surveyed by Phelps Dodge Corporation, Utah Mines Ltd. and Brenda Mines Ltd. between 1972 and 1980.

**SHRIMPTON CREEK PLACER** *past producer (Surficial placers)*

*MINFILE 092HNE180*

*Adjacent to Property*

The creek was worked by F. Keeling in 1939, between 6.4 and 8 kilometres above Missezula Lake.

**ELK (SOUTH SHOWING)** prospect (*Au-quartz veins; Polymetallic veins Ag-Pb-Zn+/-Au*)

*MINFILE 092HNE261*

*Ten kilometres east*

The showing was initially uncovered in a series of hand trenches excavated by Fairfield Minerals Ltd. in 1986. The company conducted various geophysical, geological and soil geochemical surveys in 1987, in addition to 975 metres of trenching. Placer Dome Inc. completed additional geophysical surveys and excavated eight trenches totalling 481 metres in 1989.

**ELK (NORTH SHOWING)** prospect (*Intrusion-related Au pyrrhotite veins; Au-quartz veins; Polymetallic veins Ag-Pb-Zn+/-Au*)

*MINFILE 092HNE281*

*Ten kilometres east*

The showing was discovered by Fairfield Minerals Ltd. in 1986 after hand trenching in an area of abundant quartz float. The company conducted various geophysical, geological and soil geochemical surveys in 1987, in addition to 553 metres of trenching. Additional geophysical surveys were completed over the showing by Placer Dome Inc. in 1989.

**ELUSIVE** showing (*Intrusion-related Au pyrrhotite veins; Au-quartz veins*)

*MINFILE 092HNE293*

*Seven kilometres east*

The showing was initially trenched by Fairfield Minerals Ltd. in 1988 after detecting a gold soil anomaly over the occurrence in 1987. The trenches were resampled by Placer Dome Inc. in 1989.

**ELK (LAKE ZONE)** prospect (*Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn+/-Au*)

*MINFILE 092HNE295*

*Ten kilometres east*

This prospect was discovered by Fairfield Minerals Ltd. in 1989 after trenching soil and electromagnetic anomalies outlined in 1987 and 1989. Placer Dome Inc. drilled 4 holes totalling 259 metres in 1990.

## **GEOLOGY MAP LEGEND**

### **Pleistocene to Recent**

PIRal

Unnamed alluvial till

PIRvk

Unnamed alkalic volcanic rocks

### **Upper Triassic**

#### **Eastern Volcanic Facie**

uTrNE

lower amphibolite/kyanite grade metamorphic rocks

uTtNsf

mudstone, siltstone, shale, fine clastic sedimentary rocks

uTrNMI

basaltic volcanic rocks

uTrJum

unnamed ultramafic rocks

#### **Central Volcanic Facies**

uTrNc

andesitic volcanic rocks

### **Late Triassic to Early Jurassic**

LTrJgd

unnamed granodiorite intrusive rocks

LTrJdr

dioritic to gabbroic intrusive rocks



## **GEOLOGY: REGIONAL**

The Aspen Grove geological district is located within the regional Quesnel Trough, a 30 to 60, km wide belt of Lower Mesozoic volcanic and related strata enclosed between older rocks and much invaded by batholiths and lesser intrusions (Campbell and Tipper, 1970). The southern part is the well-known Nicola belt, continuing nearly 200 km to its termination at the U.S. border and containing the important copper deposits of the Highland Valley, Craigmont, Copper Mountain, Afton, Brenda, in addition to the historic Hedley gold camp.

The Nicola Group has been divided into western, central, and eastern belts on the basis of lithology and litho-geochemistry and by major fault systems. Variation from calc-alkaline to shoshonitic compositions from west to east has been interpreted to reflect eastward dipping subduction in the Nicola arc.

## **GEOLOGY: PROPERTY**

The Property is situated within the eastern belt of the Nicola Group which is in a fault contact with the central belt of the Nicola Group. The fault is the northerly striking Kentucky-Alleyne fault zone and is within two kilometres west of the Property.

As indicated by the BC government supported MapPlace geological maps, the Property predominantly is underlain by the upper Triassic Nicola Group of basaltic volcanic rocks (*uTrNE*) in contact with a succession of Upper Triassic mudstone, siltstone, shale, and fine clastic sedimentary rocks (*UTrNsf*) which infringes into the Property in the southeast. An intrusive stock of late Triassic to early Jurassic granodiorite (*uTrJgd*) infringes into the Property along the central southwest.

A batholith of granodiorite (*uTrJgd*) is located within three kilometres west of the MAL mineral skarn prospect where copper mineralization is concentrated in the skarn zones with reported pyrite, subordinate magnetite and chalcopyrite associated with quartz-calcite veins.

## **GEOLOGY: PROPERTY AREA**

The geology on some of the more significant mineral *MINFILE* reported occurrences, prospects, and past producers on the Property and peripheral to the Property (Figure 3) are reported as follows:

### **ANNIE OAKLEY, WART showing (Polymetallic veins Ag-Pb-Zn+/-Au)**

*MINFILE 092HNE029*

*Six kilometres east*

This showing is hosted in variably silicified andesite of the Upper Triassic Nicola Group, 1.2 kilometres northwest of the Middle Jurassic Osprey Lake batholith.

The andesite is cut by a fault zone (Annie Oakley fault), striking 130 degrees and dipping 20 degrees south. This fault is possibly a splay off the Brew fault (see Brew, 092HNE275), 1.35 kilometres northwest. The zone is strongly clay altered and occasionally cut by quartz veins up to 6 centimetres wide. Trace to 1 per cent fine-grained pyrite is present within the fault.

### **TOMCAT prospect (Volcanic redbed-Cu; Subvolcanic-Cu-Ag-Au (As-Sb); Porphyry Mo (Low F-type)**

*MINFILE 092HNE086*

*Six kilometres west*

This deposit is hosted in green laharc breccia or basaltic flow breccia near the contact with red laharc breccia of the Upper Triassic Nicola Group (Central belt, Bulletin 69). The unit strikes north-northwest and dips 60 degrees east. Massive basaltic flows outcrop to the northeast. Alteration of the breccia consists of some chloritization of olivine and pyroxene, and sericitization of feldspar.

**Geology: Property Area (cont'd)**

**ELK (END ZONE) prospect (Polymetallic veins Ag-Pb-Zn+/-Au)**

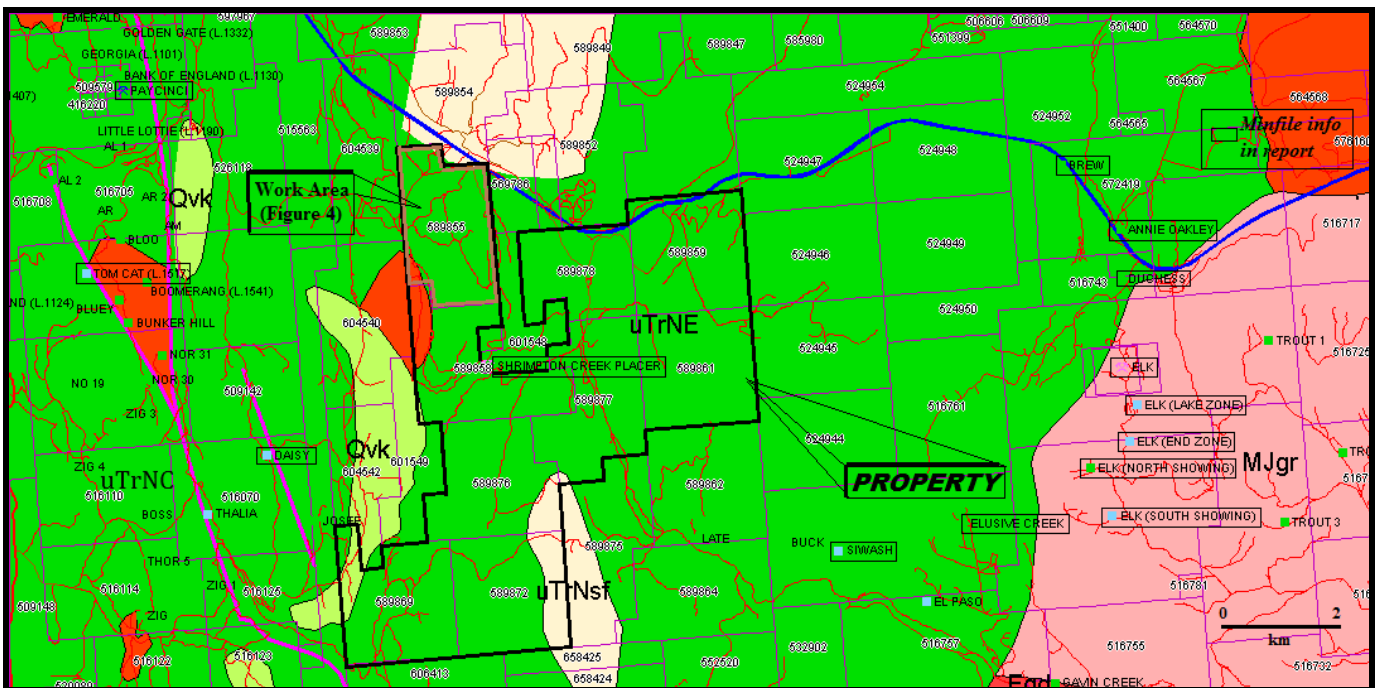
MINFILE 092HNE041

Six kilometres east

The Elk (End Zone) prospect is hosted in the northwestern margin of the Middle Jurassic Osprey Lake batholith, about 1300 metres southeast of andesitic volcanics of the Upper Triassic Nicola Group. Near the occurrence the intrusion is cut by a few feldspar porphyritic dikes and plugs of the early Tertiary Otter intrusions.

Trenching uncovered two zones of quartz veining in weak propylitic-altered quartz monzonite. The southern vein system contains quartz veins 1 to 20 centimetres wide in a 2 to 3-metre wide zone of shearing and moderate to strong argillic and phyllic (sericitic (?)) alteration. The zone strikes northeast for 190 metres and dips approximately 55 degrees southeast. Attitudes of individual veins vary along the strike of the zone. To the east, veins strike 065 degrees and dip 80 degrees south. This attitude gradually changes along the zone to the west, where the veins strike 045 degrees and dip 65 degrees south. The main 20-centimetre wide vein is more or less continuous and has numerous splays along shears, especially to the east. The zone is cut by a 1.5-metre wide zone of intense argillic alteration and shearing, which displaces the western half northward by 3 metres. A 10 to 30-centimetre wide andesitic dike occurs 2 metres south of the mineralized structure, over part of its strike length

Figure 3. Property, Index, Geology, & Minfile



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**Geology: Property Area (cont'd)**

*TOE prospect (Volcanic redbed Cu; Alkalic porphyry Cu-Au)*

*MINFILE 092HNE060*

*Nine kilometres east-northeast*

The Toe occurrence consists of minor copper mineralization located sporadically in the area between Paradise and Boot lakes, 21 kilometres northeast of the community of Misesezula Lake. This area lies 18 kilometres east of the historical Aspen Grove copper camp, between Merritt and Princeton.

The Toe occurrence is hosted in the Upper Triassic Nicola Group, which regionally consists of alkalic and calcalkalic volcanics and intrusions of island arc origin, and which is the principal component of the Quesnel Terrane in southern British Columbia (Geological Survey of Canada Maps 41-1989, 1713A). This belt has been of major economic interest because of its potential for porphyry copper-gold mineralization.

The occurrence lies in the Eastern belt or facies of the Nicola Group, which is characterized by submarine volcanoclastic rocks and volcanic flows (Bulletin 69; Geological Survey of Canada Map 41-1989). Exposure is limited in the Paradise and Boot lakes Breccias containing rounded volcanic, dioritic and granitic fragments in a granitic matrix crosscut Nicola rocks, Osprey Lake batholith and Otter intrusions rocks. The elongate breccia bodies vary in width from 5 to 30 metres and trend northeasterly.

These zones may be portions of major fault structures, but displacement, if any, is not readily apparent. Andesite dikes are the youngest units mapped, postdating all of the above. They are dark greyish green, fine grained and vary in thickness from 30 centimetres to 5 metres. They are commonly muscovite-altered and brown weathering. Strong orange and blue clay alteration is also evident in these rocks.

Mineralization appears to be spatially associated with these (Tertiary (?)) andesite dikes which are locally cut by quartz veins. The Nicola Group lithologies mapped on the Elk property consist of dark greyish green, massive basaltic andesite (some porphyritic containing pyroxene and/or amphibole phenocrysts and some containing 0.5-millimetre laminae of sand-sized black grains); pale grey-green siliceous laminated tuff; and brownish green to pale green agglomerates containing fragments from 5-50 centimetres in size. The Nicola rocks are occasionally silicified, carbonatized or epidote-altered. Iron oxide staining and finely disseminated pyrite are common.

Nicola rocks on the west side of the property dip approximately 60 degrees west, forming the east limb of a syncline. The syncline trends roughly north-south and its axis passes about 5 kilometres west of the property. Structural deformation in the area appears to be minimal.

The Osprey Lake granitic rocks are pinkish grey, medium to coarse-grained, equigranular quartz monzonite to granodiorite in composition. Pink, sugary textured aplite dikes cut the quartz monzonite. Quartz diorite related to the batholith is far less common and occurs as stocks. Dikes of quartz monzonite and hornblende-biotite-quartz monzonite also occur. Alteration includes weak to strong propylitic, argillic, phyllic and silicic assemblages.

The Otter intrusions comprise quartz feldspar porphyry, feldspar porphyry and quartz-biotite-feldspar dikes and stocks. The quartz feldspar porphyry is extensively clay altered.

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## Geology: Property Area (cont'd)

### **PAYCINCI** prospect (Volcanic redbed Cu)

MINFILE 092HNE084

Six kilometres west-northwest

The deposit is located in the southern portion of an area of hilly upland situated in the centre of the Aspen Grove copper camp, known as the Fairweather Hills. The Fairweather Hills region is underlain by the Central volcanic facies of the Upper Triassic Nicola Group, comprising intermediate, feldspar and feldspar augite porphyritic pyroclastics and flows, and associated alkaline intrusions. The intrusions vary from diorite to monzonite in composition and are thought to be comagmatic with the Nicola Group, ranging in age from Late Triassic to Early Jurassic.

Locally, the area is underlain by red and green laharic breccias, augite andesite porphyry and minor sediments of the Nicola Group (Central belt, Bulletin 69). The units generally strike north-northwest and dip east. This sequence is broken up into a series of tilted fault blocks trending north.

Hypogene and supergene copper mineralization occurs in green laharic breccia, near the contact with red laharic breccia to the east. This mineralization consists primarily of disseminated and fracture controlled chalcocite and native copper, accompanied by lesser malachite and azurite, and minor chalcopyrite, bornite, cuprite and pyrite. Drilling indicates chalcopyrite becomes more abundant at depth at the expense of chalcocite. This mineralization is exposed along the crest and east flank of a small northerly trending ridge, over a north-south distance of 400 metres.

### **DAISY** prospect (Volcanic redbed-Cu)

MINFILE 092HNE091

One kilometre west

A shear zone 20 to 30 metres wide, striking north-northwest and dipping steeply west, cuts massive green andesite and underlying coarse red volcanic breccia (lahar (?)) of the Nicola Group (Central belt, Bulletin 69). The volcanics strike 140 degrees and dip 35 degrees northeast. An elongate body of diorite occurs along a splay of the north-striking Kentucky-Alleyne fault system to the southeast.

### **ELK** past Producer (Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn

+/-Au; Au-quartz veins)

MINFILE 092HNE096

Six kilometres east

The Elk property is underlain by Upper Triassic volcanics and sediments of the Nicola Group and by Middle Jurassic granites and granodiorites of the Osprey Lake batholith. The contact between these units trends northeasterly across the property. Early Tertiary feldspar porphyry stocks and dikes of the Otter intrusions occur throughout the property. The western property area is underlain by steeply west-dipping andesitic to basaltic flows, agglomerates, tuffs and minor siltstone and limestone units of the Nicola Group. The eastern half of the property is underlain by granitic rocks of the Osprey Lake batholith. Early Tertiary feldspar porphyry and quartz feldspar porphyry stocks and dikes of the Otter intrusions cut both of the above.

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**Geology: Property Area (cont'd)****SIWASH prospect (Alkalic porphyry Cu-Au; Cu skarn)***MINFILE 092HNE111**Four kilometres east*

Two significant copper showings occur immediately north and south of an elongate, northwest-trending body of diorite up to 400 metres wide, in andesite of the Upper Triassic Nicola Group. This intrusion may be one of a number of monzonitic to dioritic bodies of Late Triassic to Early Jurassic age that are thought to be comagmatic with the Nicola Group.

**DUCHESS showing (porphyry Cu +/-Mo+-Au)***MINFILE 092HNE137**Six kilometres east*

The Duchess occurrence is hosted in the Upper Triassic Nicola Group, which regionally consists of alkalic and calcalkalic volcanics and intrusions of island arc origin, and which is the principal component of the Quesnel Terrane in southern British Columbia (Geological Survey of Canada Maps 41-1989, 1713A). This belt has been of major economic interest because of its potential for porphyry copper-gold mineralization.

The area of the Duchess occurrence straddles the contact between the Eastern belt or facies of the Nicola Group, which is characterized by submarine volcanoclastic rocks and volcanic flows, and the Osprey Lake batholith to the east (Bulletin 69; Geological Survey of Canada Map 41-1989). The volcanics generally consist of augite porphyritic andesitic or basaltic flows and lapilli tuffs, and are accompanied by diorite and minor argillaceous sedimentary rocks (Assessment Reports 4525, 18041, 20994).

The Osprey Lake batholith is a large, composite, locally megacrystic granite to granodiorite intrusion of Middle Jurassic age (Geological Survey of Canada Paper 91-2, page 95).

The Duchess occurrence is on the northwestern margin of the batholith, which in this area consists of hornblende biotite granodiorite with a weak foliation parallel to its margin (Assessment Report 4525). The adjacent andesitic volcanics have been contact metamorphosed and hydrothermally epidotized, with minor secondary carbonate (Assessment Report 4525).

**SHRIMPTON CREEK PLACER past producer (Surficial placers)***MINFILE 092HNE180**Adjacent to Property*

Shrimpton Creek flows southwest from its headwaters immediately south of The Wart for 10 kilometres. The creek continues south-southwest for 6 kilometres before entering Missezula Lake, 38.5 kilometres north of Princeton. Most of the creek flows through a broad, gently sloping valley, which steepens somewhat in the lower 4 kilometres.

**ELK (NORTH SHOWING) prospect (Intrusion-related Au pyrrhotite veins; Au-quartz veins;***Polymetallic veins Ag-Pb-Zn+/-Au)**MINFILE 092HNE281**Six kilometres east*

The Elk (North Showing) is hosted in the northwestern margin of the Middle Jurassic Osprey Lake batholith, about 200 metres southeast of andesitic volcanics of the Upper Triassic Nicola Group. The intrusion is cut by andesitic dikes of Tertiary age (?) in the vicinity of the showing.

Trenching has uncovered quartz vein cutting granite and andesitic dikes. It strikes 055 degrees for 78 metres and averages 25 centimetres wide. Vein widths vary from 15 to 80 centimetres due to structural deformation.

**Geology: Property Area (cont'd)****ELK (SOUTH SHOWING) prospect** (*Au-quartz veins; Polymetallic veins Ag-Pb-Zn+/- Au*)*MINFILE 092HNE261**Ten kilometres east*

The Elk (South Showing) is hosted in the northwestern margin of the Middle Jurassic Osprey Lake batholith, about 250 metres east of andesitic volcanics of the Upper Triassic Nicola Group. The intrusion is cut by andesitic dikes of Tertiary age (?) in the vicinity of the showing.

Trenching over an 800 by 300 metres area has intersected a zone of erratic quartz veining in altered granite, in association with breccia or intensely argillic-altered andesite dikes.

One prominent zone of mineralization consists of a breccia zone containing rounded fragments of granite and andesitic volcanics in a clay-altered matrix. The zone trends 060 degrees, similar to the andesite dikes. A series of quartz veins, 0.5 to 3 centimetres wide and striking 060 to 065 degrees, follows the northern contact of the breccia. The veins contain up to 10 per cent pyrite and variable (usually less than 1 per cent), chalcopyrite, sphalerite and galena. Panel sampling analyses indicates the breccia-hosted zone of veining averages 3.36 grams per tonne gold over a width of 12.0 metres for a strike length of 34 metres (Assessment Report 19835, page 41).

Additional quartz veining is evident in the area of trenching. The veins are typically accompanied by halos of weak to strong argillic alteration and yellow-orange iron sulphate (?) staining

**BREW showing** (*Alkalic porphyry Cu-Au; Subvolcanic Cu-Ag-Au; As-Sb*)*MINFILE 092HNE275**Nine kilometres southeast*

This occurrence is hosted in volcanics and minor sediments of the Upper Triassic Nicola Group, 2.6 kilometres northwest of the Middle Jurassic Osprey Lake batholith. The volcanics consist primarily of andesite and fine-grained diorite. The contact between the two units is gradational, suggesting the diorite may be a subvolcanic equivalent of the andesite. Minor tuffs, lapilli tuffs, agglomerates, and feldspar porphyritic andesite are also present. The sediments consist of mudstone, siltstone, shale, and rare carbonate, intercalated with the pyroclastic units.

A major fault zone, the Brew fault, striking 140 degrees and dipping steeply southwest, is exposed along the Coquihalla Highway for 600 metres.

The zone is approximately 40 metres wide. It is somewhat gossanous and exhibits carbonate and clay alteration and sporadic silicification. Some quartz +/- calcite stringers and blebs are present but not common. Pyrite is ubiquitous along the entire fault. Sections of the zone are strongly mineralized with massive veins, narrow stringers and occasional disseminations of marcasite, pyrite and pyrrhotite. Samples of pyritic clay-altered sections have yielded up to 0.280 gram per tonne gold and 0.445 per cent arsenic (Assessment Report, 18041, page 8, samples 128665, 44719)

A sample from a zone of quartz stringers analysed 0.600 gram per tonne gold (sample 239716).

This fault is traversed by several significant fault/shear zones striking 100 to 120 degrees. One major crossfault, the Mugwump fault, is exposed west of the Brew fault, striking 100 degrees and dipping 60 degrees south.

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**Geology: Property Area (cont'd)****ELUSIVE** showing (*Intrusion-related Au pyrrhotite veins; Au-quartz veins*)

MINFILE 092HNE293

*Seven kilometres east*

The Elusive Creek occurrence is hosted andesitic volcanics of the Upper Triassic Nicola Group (Eastern volcanic facies), about 250 metres west of the Middle Jurassic Osprey Lake batholith.

**ELK (LAKE ZONE)** prospect (*Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn+/-Au*)

MINFILE 092HNE295

*Ten kilometres east*

The Elk (Lake Zone) prospect is hosted in the northwestern margin of the Middle Jurassic Osprey Lake batholith, about 1000 metres southeast of andesitic volcanics of the Upper Triassic Nicola Group. The intrusion is cut by andesitic dikes of Tertiary age (?) in the vicinity of the deposit.

A zone of quartz veining and associated alteration, up to 4 metres wide, is hosted in moderately to strongly propylitic and argillic altered and sheared quartz monzonite, near and paralleling a west-striking andesitic dike. The zone is centred about the 1-metre wide dike in surface exposures. Trenching and drilling have traced the zone over a strike length of 150 metres and 78 metres down dip. It strikes west and dips about 55 degrees south. The deposit consists of a zone of intense argillic and sporadic sericitic alteration occasionally cut by quartz veins of similar orientation as the enclosing zone.

**Mineralization: Property Area****ANNIE OAKLEY, WART** showing (*Polymetallic veins Ag-Pb-Zn+/-Au*)

MINFILE 092HNE029

*Ten kilometres east*

A sample of chips from a 2-centimetre wide drusy quartz vein, associated with a narrow clay shear, assayed 2.43 grams per tonne gold, 38.1 grams per tonne silver, 0.27 per cent copper and 1.71 per cent arsenic (Assessment Report 21922, page 9, Table 2, sample WART-R2). Two other samples of quartz vein material, containing scattered grains and bands of galena and sphalerite, assayed 1.17 to 2.23 grams per tonne gold, 264.7 to 1046 grams per tonne silver, 0.15 to 0.53 per cent lead, 0.92 per cent zinc and 0.38 to 0.82 per cent arsenic (Assessment Report 21922, page 9, Table 2, samples WART-R1, WART-R3). A bulk sample yielded 1.2 grams per tonne gold and 0.7 gram per tonne silver (Assessment Report 20994, page 10, sample 16961).

**ELK (END ZONE)** prospect (*Polymetallic veins Ag-Pb-Zn+/-Au*)

MINFILE 092HNE041

*Four km south*

Quartz veins of the southern zone are mineralized with pyrite (up to 20 per cent), galena (up to 10 per cent) and lesser sphalerite, chalcopyrite, tetrahedrite and arsenopyrite. The surrounding altered intrusive contains up to 5 per cent pyrite. Sulphides are lacking in the northern zone of quartz stringers. A section of the southern zone analysed 2.49 grams per tonne gold over a true width of 2.0 metres and a strike length of 40 metres, based on 32 panel and chip samples (Assessment Report 22368, page 39 trench SL91-4). Individual panel samples assayed up to 13.82 grams per tonne gold over a true width of 0.42 metre (Assessment Report 22368, page 4, trench SL91-4). Silver to gold ratios are elevated, similar to the Elk (Lake zone) occurrence to the north

**Mineralization: Property Area** (cont'd)**TOE prospect** (Volcanic redbed Cu; Alkalic porphyry Cu-Au)

MINFILE 092HNE060

Fourteen kilometres east

A major copper soil anomaly occurs within the Toe claim group, measuring 3500 by 900 metres; a mercury anomaly is associated (Assessment Reports 1049, 1586). The highest soil anomaly was 0.07 per cent copper (Assessment Report 1586)

**PAYCINCI prospect** (Volcanic redbed Cu)

MINFILE 092HNE084

Six kilometres southwest

Hypogene and supergene copper mineralization occurs in green laharic breccia, near the contact with red laharic breccia to the east. This mineralization consists primarily of disseminated and fracture controlled chalcocite and native copper, accompanied by lesser malachite and azurite, and minor chalcopyrite, bornite, cuprite and pyrite. Drilling indicates chalcopyrite becomes more abundant at depth at the expense of chalcocite. This mineralization is exposed along the crest and east flank of a small northerly trending ridge, over a north-south distance of 400 metres.

Drill indicated reserves are 54,000 tonnes grading 0.876 per cent copper (Assessment Report 7654, page 1). Precious metal values are generally low. Six rock samples analysed 1.1 to 2.4 per cent copper, 0.005 to 0.010 gram per tonne gold and 1.3 to 5.7 grams per tonne silver (Assessment Report 14108, Figure 5, samples 2051 to 2056). One chip sample taken along a trench yielded 0.89 per cent copper over 49 metres (George Cross News Letter No. 90 (May 8), 1992).

**TOMCAT prospect** (Volcanic redbed-Cu; Subvolcanic-Cu-Ag-Au (As-Sb); Porphyry Mo (Low F-type)

MINFILE 092HNE086

Six kilometres west

The laharic breccia is erratically mineralized with chalcocite, magnetite, bornite, chalcopyrite, native copper and hematite, as disseminations and fracture coatings. Trenching and diamond drilling has intersected this mineralization over a width of 30 metres and a depth of at least 45 metres. One drillhole analysed 0.32 per cent copper over 45.7 metres (Minister of Mines Annual Report 1965, page 157, hole 1). Two chip samples assayed 2.4 and 1.6 per cent copper over 2.1 and 3.0 metres respectively (Minister of Mines Annual Report 1913, page 223).

**DAISY prospect** (Volcanic redbed-Cu)

MINFILE 092HNE091

One kilometre west

The shear zone is erratically mineralized with minor bornite and chalcocite smeared along fractures, over a strike length of 350 metres. Malachite and azurite occur frequently along fractures. Hematite and magnetite are also reported. This mineralization is best developed in the andesite. An overlying bed of volcanic sandstone is barren, while only minor amounts of mineralization are found in the breccia. Two samples taken over 4 metres yielded up to 11 grams per tonne silver, 1.07 per cent copper and trace gold (Assessment Report 12351, page 6). An additional chip sample assayed trace gold, 3.4 grams per tonne silver and 0.8 per cent copper over 9.1 metres (Minister of Mines Annual Report 1928, page 222). A sample of sorted ore assayed trace gold, 61.7 grams per tonne silver and 7.8 per cent copper (Minister of Mines Annual Report 1915, page 224).

A second area of copper mineralization occurs 400 metres south-southeast, where copper carbonates and sulphides are developed along fractures.



**Mineralization: Property Area** (cont'd)

**ELK** past Producer (Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn +/-Au; Au-quartz veins)

MINFILE 092HNE096

Sixteen kilometres southeast

Gold-silver mineralization on the Elk property is hosted primarily by pyritic quartz veins and stringers in altered pyritic granitic and, less frequently, volcanic rocks. Crosscutting relationships indicate that the veins are Tertiary in age; they may be related to Tertiary Otter intrusive events.

To date, mineralization has been located in four areas on the Elk property: Siwash North, South Showing (092HNE261), North Showing (092HNE281) and Siwash Lake (092HNE041, 295).

The Siwash Lake zone is 800 metres south of the Siwash North deposit; the North Showing and South Showing areas are 2 and 3 kilometres south of Siwash North respectively.

In the Siwash North area, gold occurs in veins measuring 5-70 centimetres wide, hosted by a zone of strongly sericitic altered granite and, in the west, volcanic rocks. In general, the mineralized zone trends east-northeast with southerly dips from 20-80 degrees (from east to west), and appears to be related to minor shearing. Quartz veining occurs in a number of parallel to subparallel zones. Each zone consists of one or more veins within an elevation range of 5 to 10 metres that can be correlated as a group to adjacent drillholes. In the eastern parts of the area, up to six subparallel zones occur. Five of these zones are consistent enough to be labelled the A, B, C, D and E zones.

Mineralization in the west has been identified in one or locally two zones (the B and C zones). The main mineralized zone (B) is consistent, with only minor exceptions, across the entire drill grid. The Siwash North structure has been tested to 335 metres down dip and along a strike length of 925 metres. The zone remains open to depth and along strike.

At surface, supergene alteration has leached out most of the sulphides with some pyrite and chalcopyrite remaining. Mineralization occurs primarily as native gold, occasionally as spectacular aggregates of coarse flakes in frothy quartz (strong pyrite boxwork) or in fractures in the vein. Electrum was noted in one area as very coarse-grained flakes associated with strong manganese staining. Gold is rarely seen in boxworks in sericitic (phyllic) alteration.

In drill core, mineralization has not been affected by supergene processes. Metallic minerals in drill core include pyrite, chalcopyrite, sphalerite, galena, tetrahedrite, maldonite ? pyrrhotite and native gold in order of decreasing abundance). Gold is strongly associated with pyrite and with a blue-grey mineral. Photomicrographs show the gold commonly in contact with this mineral, which may be a gold-bismuth alloy (maldonite?) or a copper-bismuth- antimony sulphosalt.

Gangue mineralogy consists primarily of quartz and altered wallrock fragments. Ankerite is commonly present, with lesser amounts of calcite. Minor barite is also present. Fluorite was noted in one vein as very small (less than 1 millimetre) zoned purple cubes scattered in the quartz.

Stronger alteration generally accompanies higher grade gold mineralization. Seven main types of alteration were recognized in the granitic rocks throughout the property: propylitic, argillic, sericitic, potassium feldspar stable phyllic, phyllic, advanced argillic and silicic. Locally, potassic alteration, skarnification and silicification are evident, but are relatively minor and do not appear to be related to mineralization.

**Mineralization: Property Area** (cont'd)**ELK Past Producer** (cont'd)

Propylitic alteration is generally light green with biotite and hornblende altered to chlorite, and plagioclase is saussuritized. In volcanics, the colour is generally olive green, and the rock is soft. Argillic alteration is exemplified by bleached rock, with plagioclase white and clay-altered; potassium feldspar is slightly altered. Volcanics are bleached to light green or grey. Sericitic alteration is typically pale green with a micaceous sheen, with plagioclase altered to sericite; trace disseminated pyrite may be present. This type of alteration is often associated with quartz veins and appears to be the lowest grade alteration associated with gold mineralization. It is not recognized in volcanics.

Potassium feldspar stable phyllic alteration is light pink, green or yellowish with potassium feldspar fresh and pink and blocky. Plagioclase and mafic minerals are altered to fine-grained quartz-sericite-pyrite. It often occurs with veins and is associated with gold mineralization; it is not recognized in volcanics.

Phyllic alteration is generally grey, fine-grained quartz-sericite-pyrite alteration usually associated with veins and often gradational to quartz and often auriferous. Advanced argillic alteration is exemplified by most or all of feldspar being destroyed, quartz is "free-floating". The alteration is often sheared and white in colour and is often associated with quartz veins. Volcanics are white or blue coloured. Silicic alteration is quartz veining or replacement that is hard with moderate conchoidal fracture. There is a strong symmetrical zoning of alteration around the quartz veins: vein-advanced argillic-phyllic-potassium feldspar stable phyllic-argillic-propylitic.

Measured geological reserves of the Siwash North deposit are 308,414 tonnes grading 22.17 grams per tonne gold and 24.68 grams per tonne silver using a cutoff grade of 10 grams per tonne gold. Reserves are based on results from 107 drillholes at 50-metre grid spacings along 804 metres of strike length to 304 metres downdip. All veining intercepts have been adjusted for true width and assays diluted to 2-metre mining widths (George Cross News Letter No. 223 (November), 1991).

The revised drill indicated reserve, based on more realistic open pit and underground mining widths of 0.39 to 0.79 metre with a 20.5 grams per tonne gold cutoff grade, is 122,458 tonnes averaging 54.5 grams per tonne gold (George Cross News Letter No. 65 (April 2), 1993).

From 1992 and 1995 (inclusive), 16,570 tonnes of ore were mined and milled and 1,518,777 grams (48,830 ounces) of gold and 1,903,000 grams (61,183 ounces) of silver recovered.

In 1996, Fairfield shipped all remaining stockpiles, estimated to contain 2700 tonnes and grading greater than 12 grams per tonne (Information Circular 1997-1, page 21). A total of 994 metres of ramp access and three development levels exist underground.

Reverse circulation drilling, underground diamond drilling, reclamation, road construction, water sampling and aerial photography were also undertaken during this period.

Surface and underground diamond drill programs were carried out in the Siwash Mine area from 1994 to 1996 to define the resource. Exploration surface drilling was also carried out during the 1995 and 1996 field seasons to test trench targets between the Siwash mine site and the South Showing area 2.5 kilometres to the south. Limited prospecting and environmental monitoring was undertaken from 1997 to 1999.

In 1995, Fairfield Minerals with the support from the Explore B.C. Program carried out an extensive program including geochemistry, 13,972 metres of surface and underground diamond drilling in 315 holes and reserve calculations.

**Mineralization: Property Area** (cont'd)**ELK Past Producer** (cont'd)

Surface drilling was done on fences 10-50 metres apart, underground drilling on fences 10 metres apart. Reserve calculations by the company and consultant Roscoe Postle gave the following results (Explore B.C. Program 95/96 - A38):

Probable (undiluted) 16,991 tonnes at 28,200 tonnes at  
50.2 g/t gold 26.6 g/t gold

Possible (undiluted) 50,260 tonnes at 66,400 tonnes at  
42.0 g/t gold 31.4 g/t gold

The 1996 exploration program consisted of 6873 metres of drilling in 91 holes. The Siwash zone has been traced along a 914 metre strike length and down dip to 245 metres.

Reserves estimated by the company at January 1, 1996 were 121,350 tonnes grading 25.4 grams per tonne gold and 35.3 grams per tonne silver.

These include a diluted, probable open-pit resource of 11,340 tonnes grading 58.97 grams per tonne gold, an underground probable resource below the open pit of 20,225 tonnes grading 26.74 grams per tonne gold, and a further possible underground resource of 89,790 tonnes grading 23.66 grams per tonne gold (Information Circular 1997-1, page 21).

Surface diamond drilling totaling 1413.96 metres in 12 holes was completed on the Siwash Mining lease during 2000 testing the B, WD and Gold Creek West (GCW) zones.

A trenching program was carried out in 2001 in the Siwash East Area consisting of six trenches totaling 202 meters. Almaden Resources and Fairfield Minerals Ltd. merged into Almaden Minerals Ltd. in February, 2002.

In 2002, Almaden undertook a 26 hole surface diamond drill program for a total of 4995.67 metres testing the B, WD, GCW and Bullion Creek zones. During the 2003 field season a 6570 metre, 30 hole, diamond drill program was carried out by Almaden in the Siwash North area testing the WD zone. The WD vein system is located approximately 100 metres north of the Siwash B zone vein and has been tested over a strike length of 610m and down dip for 380m.

By the end of May 2004, a total of eight mineralized veins had been discovered on the property. Four vein systems had been drilled in the Siwash area: the B system with a strike length of 900 m has been tested down dip to 320 m; the WD zone with a strike length of 650 m has been tested to 370 m down dip; the GCW zone with a strike length of 300 m has been tested to 130 m down dip and the Bullion Creek (BC) zone which has been tested with two holes to a depth of 75 m.

A new 43-101 compliant resource was calculated using drill data for the Siwash B and WD veins, just two of eight known mesothermal vein structures on the property.

Global (bulk-tonnage and underground mineable) measured and indicated resources were reported to total 668,300 tonnes grading 9.66 grams per tonne gold (207,600 ounces) plus an additional 1,317,200 tonnes grading 4.91 grams per tonne gold (207,800 ounces) in the inferred category (News Release, Almaden Minerals Limited, May 28, 2004).

Included in the global figures is a higher grade, underground-mineable resource totaling 164,000 tonnes grading 33.69 g/t gold in the measured and indicated category, plus another 195 200 tonnes grading 16.38 g/t gold in the inferred category.

**Mineralization: Property Area** (cont'd)**ELK Past Producer** (cont'd)

In 2004 a diamond drill program consisting of 10,265 meters of NQ drilling in 44 holes was completed. As reported by Almaden in 2001, a possible extension to the B and WD vein systems was found roughly two kilometres along strike to the east, on the other side of an area of overburden cover and no outcrop, as part of a trenching program. Grab samples of the vein material taken at surface returned averaged analyses of 31.6 grams per tonne gold and 104.4 grams per tonne silver (News Release, Almaden Minerals Limited, March 4, 2005). This discovery added about two kilometres of prospective, unexplored strike length to the high-grade vein system.

**SIWASH prospect** (Alkalic porphyry Cu-Au; Cu skarn)

MINFILE 092HNE111

Four kilometres east

The northernmost showing consists of chalcopyrite pods, veinlets and disseminations in skarn-altered andesite over an area 120 metres long and 50 metres wide. Some pyrite and malachite accompany this mineralization. Secondary minerals include epidote, albite, chlorite, garnet and actinolite. A channel sample assayed 0.42 per cent copper over 21.3 metres (Assessment Report 5547, page 8).

The second showing is 460 metres south-southwest, in albitized and slightly silicified andesite. Mineralization consists of chalcopyrite, mostly as disseminations, but also as veinlets, over a 36 by 20 metre area. The showing is intruded by a pinkish monzonite dike containing pyrite and sparse chalcopyrite. A channel sample assayed 0.43 per cent copper over 9.1 metres (Assessment Report 5547, page 8). A sample of a 0.3-metre section of black gouge in a northeast-striking shear zone assayed 0.4 per cent copper (Assessment Report 5547, page 9). Chalcocite and magnetite are reported to accompany mineralization in one or both showings.

Several other occurrences are found in the vicinity. Minor chalcopyrite is hosted in sheared andesite and is disseminated in weakly chloritized andesite

**DUCHESS showing** (Porphyry Cu+/-Mo+-Au)

MINFILE 092HNE137

Ten kilometres east

This alteration zone is mineralized with pyrrhotite and minor chalcopyrite, which are disseminated in the volcanics or localized in fractures. Locally pyrrhotite forms aggregates between 2 and 5 centimetres across. The chalcopyrite is erratic in its distribution and is generally weak. Pyrite was not recorded.

Strongly altered fault zones, with gold and silver mineralization, occur immediately north of the Duchess occurrence in the Wart claim group (see Annie Oakley (092HNE029) and Brew (092HNE275)).

**SHRIMPTON CREEK PLACER** past producer (Surficial placers)

MINFILE 092HNE180

Adjacent to Property

Particles of flat, well-worn, flaky gold, 1.5 to 3 millimetres in diameter, were recovered from unsorted glacial material. Most of the gold was found near surface. Material lying on or near bedrock was found to be barren of gold.

**Mineralization: Property Area** (cont'd)**ELK (SOUTH SHOWING)** prospect (Au-quartz veins; Polymetallic veins Ag-Pb-Zn+/-Au)

MINFILE 092HNE261

Ten kilometres east

One chip sample taken across a stockwork of quartz veins with 1 to 10 per cent disseminated pyrite and minor arsenopyrite and galena assayed 36.3 grams per tonne gold and 18.5 grams per tonne silver across 2.8 metres (Property File - Fairfield Minerals Ltd., 1987).

The granite itself hosts zones of strong, blue, clay alteration containing fine disseminated pyrite. A chip sample taken across one such zone assayed 5.93 grams per tonne gold and 12.8 grams per tonne silver over 1.7 metres (Assessment Report 16644, page 13)

**BREW** showing (Alkalic porphyry Cu-Au; Subvolcanic Cu-Ag-Au; As-Sb)

MINFILE 092HNE275

Nine kilometres southeast

The zone has been traced on surface for 400 metres and is 30 to 40 centimetres wide. It is comprised of strongly gossanous clay and fault gouge containing 1 to 2 per cent pyrite. Quartz and quartz-calcite stringers and quartz blebs occur sporadically throughout the zone. A sample of quartz vein material yielded 0.14 gram per tonne gold and 14.4 grams per tonne silver (Assessment Report, 18041, page 8, sample 239774).

**ELUSIVE** showing (Intrusion-related Au pyrrhotite veins; Au-quartz veins)

MINFILE 092HNE293

Four kilometres east

Trenching immediately west of Elusive Creek, over an east-west distance of 230 metres, has uncovered a zone of granite and quartz monzonite dikes striking east-northeast, cutting porphyritic andesite. The dikes are silicified and show moderate epidote and potassic alteration. Andesitic dikes are also present.

Anomalous precious metal values have been detected in the granitic dikes. Best results have come from quartz veined or hematite-stained granite. Quartz veins are infrequent. Most strike southeast and average 2 centimetres thick. A chip sample taken across 0.8 metre of granite with a 1-centimetre wide quartz vein assayed 1.29 grams per tonne gold (Assessment Report 18511, page 25). A second sample taken across a small quartz mass in granite assayed 5.90 grams per tonne gold over 0.5 metre (Assessment Report 18511, page 17).

Elevated gold values are also present where the granite is strongly fractured and locally argillic altered. A sample of such granite assayed 2.83 grams per tonne gold over 1.0 metre (Assessment Report 18511, page 24).

Generally low gold values are present in the surrounding andesite. A sample of chlorite-altered andesite with trace chalcopyrite and magnetite assayed 0.93 gram per tonne gold over 0.5 metre (Assessment Report 18511, page 25).

**Mineralization: Property Area** (*cont'd*)

**ELK (LAKE ZONE) prospect** (*Intrusion-related Au pyrrhotite veins; Polymetallic veins Ag-Pb-Zn+/-Au*)

MINFILE 092HNE295

Ten kilometres east

The veins vary from 5 to 34 centimetres wide and locally contain up to 75 per cent pyrite, 10 per cent chalcopyrite, 40 per cent galena and 10 per cent sphalerite. The surrounding altered intrusive is occasionally mineralized with pyrite and up to 15 per cent chalcopyrite. Higher gold values are accompanied by intense argillic alteration containing pyrite and maldonite (?). A sample of an argillic-altered pyritic dike assayed 12.69 grams per tonne gold over a true width of 0.86 metre (Assessment Report 19835, page 42, trench SL89-1). Gold is also associated with pyrite, chalcopyrite and locally high concentrations of galena and sphalerite. Tetrahedrite is also locally present.

A sample of a 15-centimetre wide quartz vein with 15 per cent combined pyrite, chalcopyrite and galena assayed 59.93 grams per tonne gold (Assessment Report 21443, page 43, trench SL90-2).

Drilling yielded gold values of up to 2.43 grams per tonne over a true width of 2.0 metres (Assessment Report 21443, page 46). Silver values are higher here than in the Elk (Siwash North) deposit (092HNE096), possibly due to the higher galena content of the quartz veins. Silver values in drill core range up to 141.9 grams per tonne over 0.5 metre (Assessment Report 21443, core logs, hole 90-56, 37.3 to 37.8 metres).

**2009 LINEAMENT ARRAY ANALYSIS**

Orthophoto maps obtained from MapPlace were utilized as the base map for the lineament array analysis on Tenure 589855. The analysis was accomplished using a stereographic projection viewing of the maps and marking the lineaments on an overlay. A total of 171 lineaments were marked (Figure 4), compiled into a 10 degree class interval, and plotted as a rose diagram as indicated on Figure 5.

Figure 4. Indicated Lineaments on Tenure 589855

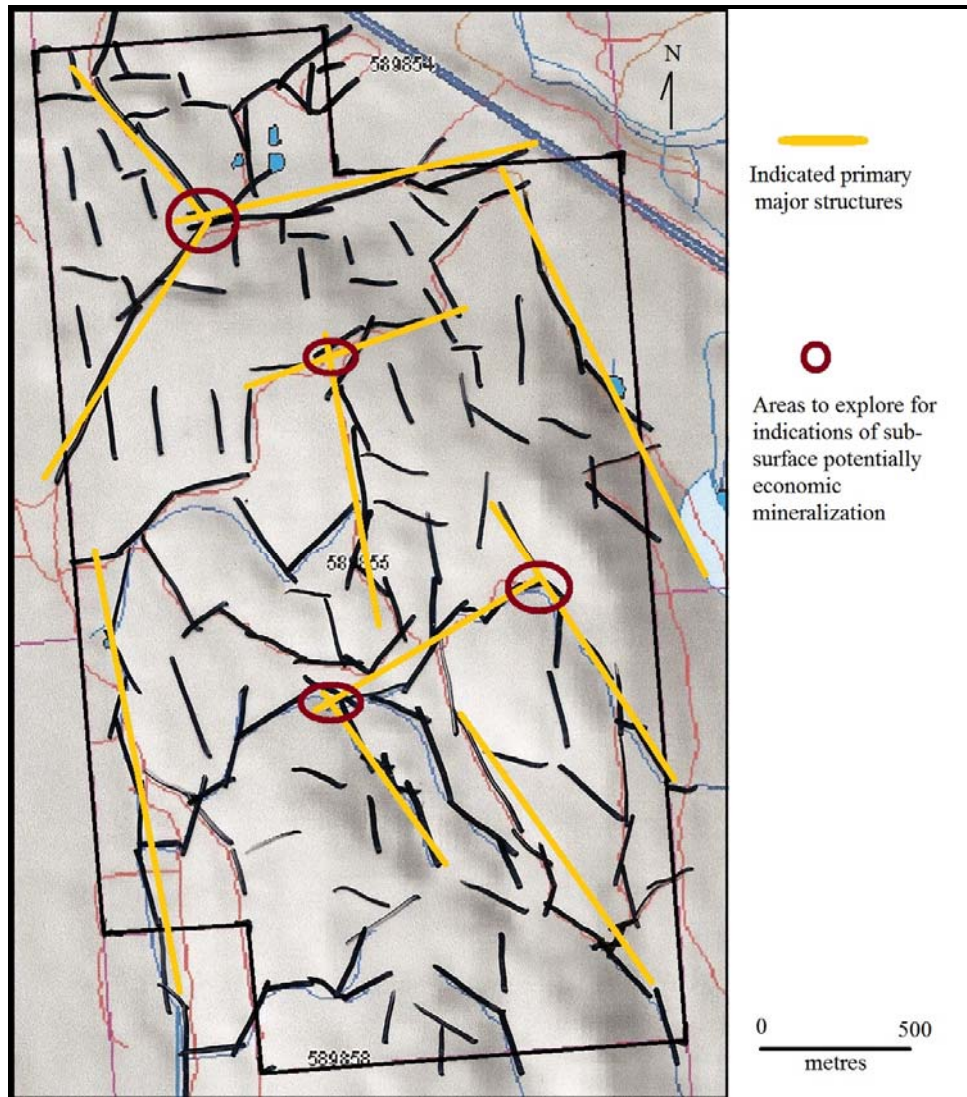
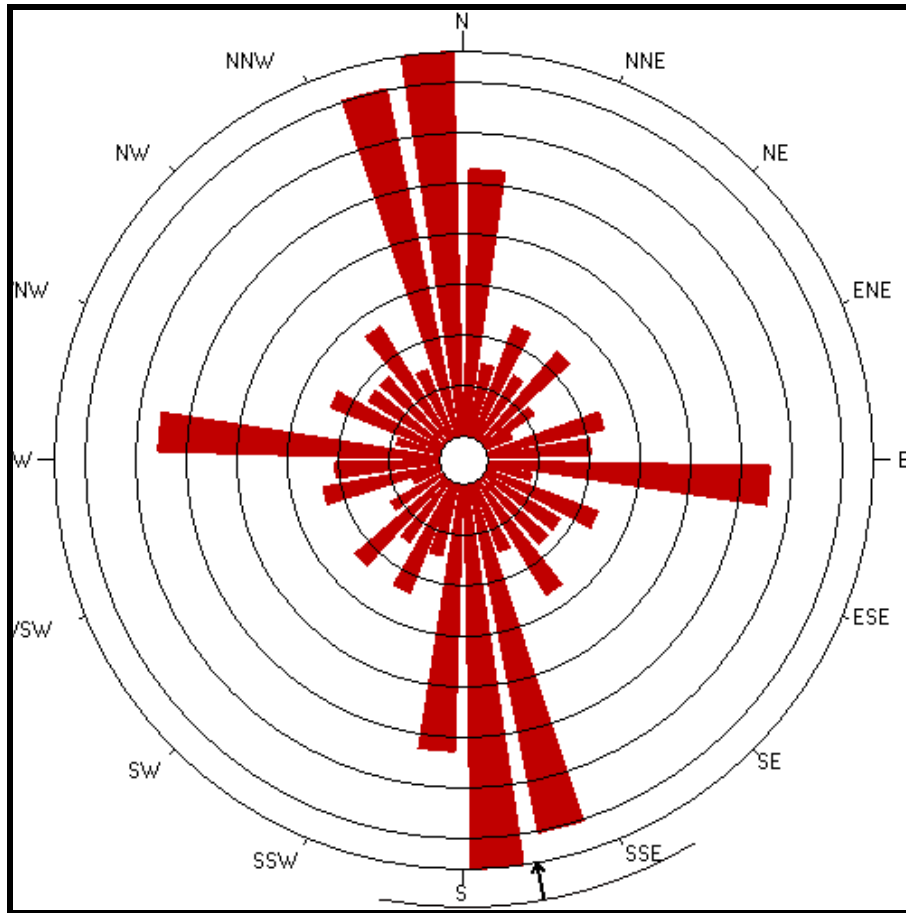


Figure 5. **Rose Diagram from lineaments of Figure 4.**



Axial (non-polar) data  
 No. of Data = 171  
 Sector angle = 10°  
 Scale: tick interval = 2% [3.4 data]  
 Maximum = 15.2% [26 data]  
 Mean Resultant dir'n = 170-350  
 [Approx. 95% Confidence interval = ±21.0°]  
 (valid only for unimodal data)



## INTERPRETATION

The lineament array analysis on Tenure 589855 of the Toni 589855 Victory Resources property (Property) indicates dominant northerly structures, with subordinate east-west which could be primary controlling structures to mineralization in this general area.

The Property area structures may be influenced by the major north trending Kentucky-Alleyne fault system to the west where numerous mineral prospects are hosted by northerly trending structures as opposed to the mineral controlling easterly trending structures east of the property hosted by structures possibly influenced by the intrusive (*mJgr*) seven kilometres to the east.

The northerly trending structural trend indicates that this orientation may be the prime structural trend for mineral controls that may host potentially mineralized economic quartz veins as at the Elk/Siwash past producer (*MINFILE 092HNE096*) which is hosted by an intrusive.

The east-west structures reflect the structural trend on the HN-WEN showing (*MINFILE 092HNE058*), located six kilometres north of the Property, where Victory recently completed a diamond drilling program which resulted in the delineation of the Adit 1 east-west trending quartz vein with a true width of up to 3.0 metres. Although the quartz vein returned relatively low gold values, the high upper level mineral associated mercury values of the quartz vein may indicate increased gold values to depth.

The significance of the Adit 1 vein is that it occurs within the Nicola volcanics 50 metres north of the W96-1 drill hole where a mineral hosting quartz vein was intersected from which assays averaging 16.578 gm/t Au, 18.185 gm/t Ag, and 0.75% Cu over 6.55 metres of core or 3.81 metres of 28.43 g/t Au and 0.98% Cu.

In addition, potential of economic mineral zones within Nicola volcanic northerly trending structures on the Property is indicated in the Brew showing (*MINFILE 092HNE275*) nine kilometres to the east where the 40 metre wide northwest striking Brew fault hosts sections of strongly mineralized massive veins, narrow stringers and occasional disseminations of marcasite, pyrite and pyrrhotite and samples of pyritic clay-altered sections that have yielded up to 0.280 gram per tonne gold and 0.445 per cent arsenic.

Excluding other variable geological conditions, the structures are essential in the localization of potentially economic quartz vein hosted mineralization within the Nicola volcanics on the Property. Other mineral deposit types such as skarn or porphyry mineralization are evident from the prospects as indicated by the Minfile reports included herein.

Respectfully submitted  
Sookochoff Consultants Inc.



Laurence Sookochoff, PEng

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**MapPlace** – Map Data downloads

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**Rowe, J.D.**, 1995: 1995 Geochemical Report on the Wave Property for Fairfield Minerals Ltd. AR 24,253.

**Sookochoff, L.** – 2009: Geological Assessment Report on the TW633144 Claim Group for Victory Resources Corporation

## STATEMENT OF COSTS

The Lineament Array Analysis was completed from October 10, 2009 to October 13, 2009 to the value as follows:

|   |                 |
|---|-----------------|
| Laurence Sookochoff, P.Eng. two days time @ \$ 750.00 ----- | \$ 1,500.00     |
| Maps -----  | 1,500.00        |
| Report -----  | <u>3,500.00</u> |
|   | \$ 6,500.00     |
|   | =====           |

## **CERTIFICATE**

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with an address at 120 125A-1030 Denman Street, Vancouver, BC V6G 2M6.

I, Laurence Sookochoff, further certify that:

- 1) I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
- 2) I have been practicing my profession for the past forty-three years.
- 3) I am registered and in good standing with the Association of Professional Engineers and Geoscientists of British Columbia.
- 4) The information for this report is based on information as itemized in the Selected Reference section of this report and from work the author has performed on the Toni Property since 2006.
- 5) I have no interest in the Property as described herein.
- 6) I am a director of Victory Resources Corporation.



Laurence Sookochoff, P. Eng.