

Ministry of Energy and Mines
BC Geological Survey

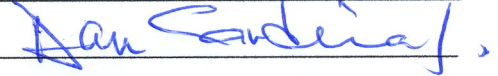
Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geological Assessment Report - Follow-up Surveys

TOTAL COST: \$ 14,590.00

AUTHOR(S): D.G. ((Dan) Cardinal, P.Ge.

SIGNATURE(S):



NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): _____

YEAR OF WORK: 2013

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): Event No. ID 5468702; Recorded Date September 22, 2013

PROPERTY NAME: Master Ace Claim Group

CLAIM NAME(S) (on which the work was done): Master Ace (710602)

COMMODITIES SOUGHT: Gold

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: _____

MINING DIVISION: New Westminster

NTS/BCGS: NTS:092H/06; BCGS:092H.035

LATITUDE: 49 ° 18 ' 48 " LONGITUDE: 121 ° 09 ' 11 " (at centre of work)

OWNER(S):

1) Dan Cardinal

2) _____

MAILING ADDRESS:

1883 Agassiz Ave.

Agassiz, BC V0M 1A3

OPERATOR(S) [who paid for the work]:

1) Same

2) _____

MAILING ADDRESS:

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

Bridge River Terrane, Mississippian - Permian, lower order fault-shear, Coquihalla Gold Belt, iron carbonate, talcose schist,

ultramafic, Hozameen Group, compression-transpression, accretion, terranes, Cadwallader, Ladner Group, Jurassic-Cretaceous

granodiorite, pyrite, arsenopyrite, pyrrhotite, alteration, sulphide assemblages, Mt. Outram pluton, quartz veins

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: AR 14527 and AR 15086

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	Mapping & sampling, x-sections	710602 (hand trenching)	\$5,400.00
Photo interpretation			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for...)			
Soil			
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralographic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres)/trail	Helicopter support	710602	\$2,975.00
Trench (metres)	25 m - Hand trenching		\$3,515.00
Underground dev. (metres)			
other	Report: field compilation & documentation	710602	\$2,700.00
TOTAL COST:			\$ 14,590.00



Print and Close

Cancel

Mineral Titles Online

Mineral Claim Exploration and Development Work/Expiry Date Change

Confirmation

Recorder: CARDINAL, DANIEL
GEORGE (104232)Submitter: CARDINAL, DANIEL
GEORGE (104232)

Recorded: 2013/SEP/22

Effective: 2013/SEP/22

D/E Date: 2013/SEP/22

Confirmation

If you have not yet submitted your report for this work program, your technical work report is due in 90 days. The Exploration and Development Work/Expiry Date Change event number is required with your report submission. **Please attach a copy of this confirmation page to your report.** Contact Mineral Titles Branch for more information.

Event Number: 5468702

Work Type: Technical Work
Technical Items: Geological

Work Start Date: 2013/AUG/15

Work Stop Date: 2013/SEP/19

Total Value of Work: \$ 14590.00

Mine Permit No:

Summary of the work value:

Tenure Number	Claim Name/Property	Issue Date	Good To Date	New Good To Date	# of Days Forward	Area in Ha	Applied Work Value	Submission Fee
584006	MA ZONE	2008/may/11	2013/oct/15	2015/oct/15	730	189.61	\$ 2844.10	\$ 0.00
710602	MASTER ACE	2010/mar/02	2013/oct/15	2015/oct/15	730	294.85	\$ 4422.81	\$ 0.00
710682	MASTER ACE	2010/mar/02	2013/oct/15	2015/oct/15	730	63.21	\$ 948.19	\$ 0.00
1011324	MASTER ACE	2012/jul/20	2013/oct/15	2015/oct/15	730	84.23	\$ 942.16	\$ 0.00
1017734	MASTER ACE	2013/mar/12	2014/mar/12	2015/oct/15	582	42.13	\$ 335.51	\$ 0.00
1017736	MASTER ACE	2013/mar/12	2014/mar/12	2015/oct/15	582	21.06	\$ 167.71	\$ 0.00

Financial Summary:

Total applied work value: \$ 9660.48

PAC name: Dan Cardinal
Debited PAC amount: \$ 0.0
Credited PAC amount: \$ 4929.52

Total Submission Fees: \$ 0.0

Total Paid: \$ 0.0

Please print this page for your records.

The event was successfully saved.

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EVENT NUMBER: 5468702

**BC Geological Survey
Assessment Report
34478**

GEOLOGICAL ASSESSMENT REPORT

GEOLOGICAL FELLOW-UP SURVEYS

(Master Ace North Zone – Orogenic Style Gold-Bearing Structure)

ON THE

MASTER ACE CLAIM GROUP

(Tenure Nos.: 584006, 710602, 710682, 1011324, 1017734 & 1017736)

Surveys Conducted On Master Ace Tenure 710602

(work centered at: UTM: 634500E - 5464000N/49°18'48" N – 121°9'11"W)

Work Conducted Between August 15 to September 19, 2013

Located At:

NEW WESTMINSTER MINING DIVISION

NTS: 092H/06 BCGS: 092H.035

Co-ordinates (centered on claim group):

Latitude: 49° 18' 12" N; Longitude: 121° 08' 26" W

UTM: Zone 10 635000E; 5463000N

Report Prepared By:

D.G. (Dan) Cardinal, P.Geo., F.G.A.C.

1883 Agassiz Ave.

Agassiz, BC V0M 1A3

December 11, 2013

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Figure 5 – Old Trench - Cross-Section: Ultramafic

Figure 6 – Old Trench - Cross-Section: Granite

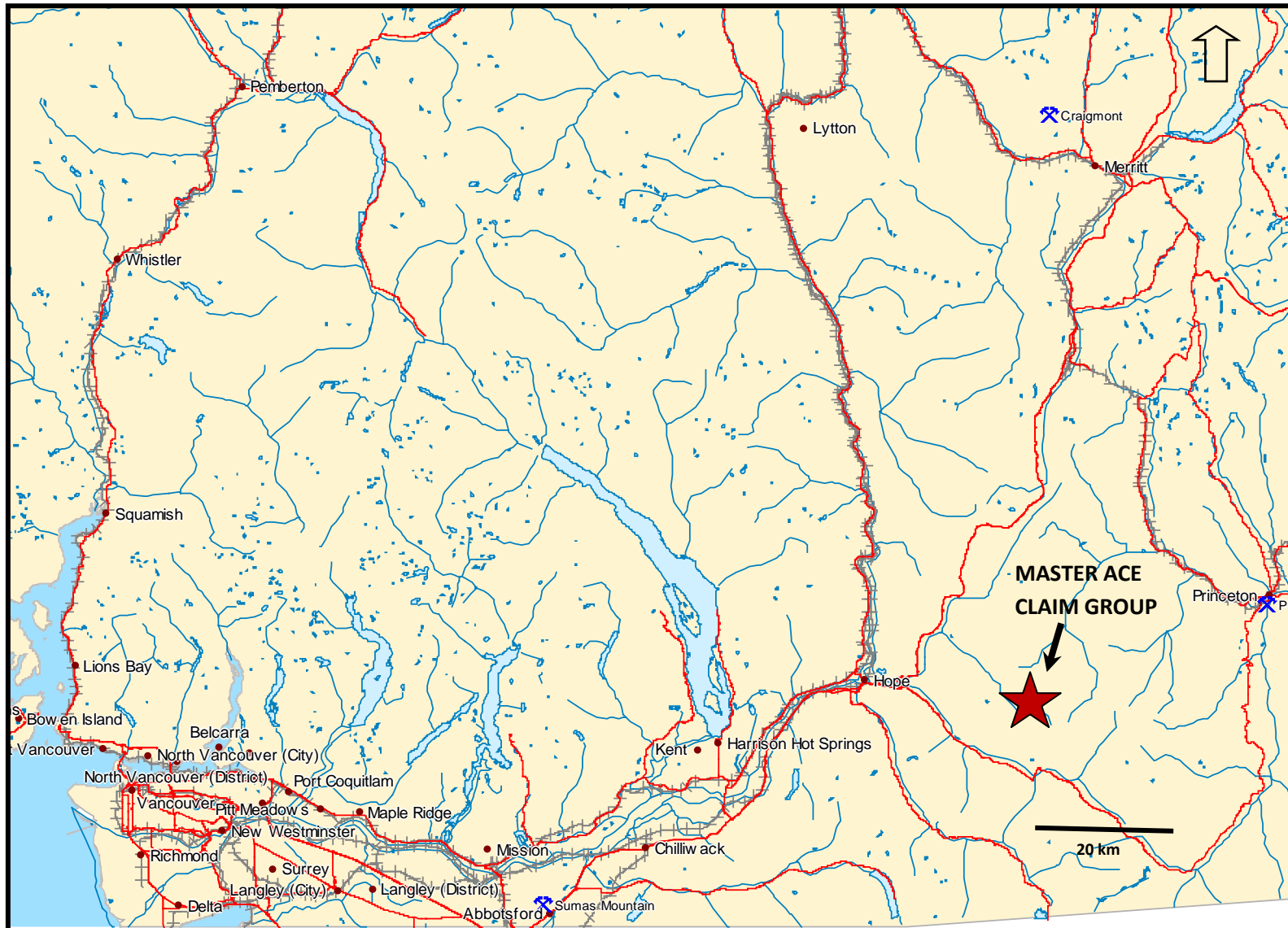
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Photo 1: Re-opening old trench – malachite staining

Photo 2: Old open-cut with quartz veins



LOCATION MAP of SOUTHWESTERN BRITISH COLUMBIA Figure 1.

Location of Master Ace Mineral Claim Group
 Tenure Nos. 584006, 710602, 710682, 1011324, 1017734 & 1017736

NTS Mapsheet: 92H/06 (092H.035)
 Lat. 49° 18' 12"N; Long. 121° 08' 26"W

UTM: Zone 10 635000E - 5463000N
 Southwestern British Columbia

A. INTRODUCTION

The **Master Ace Claim Group** is located 23 km due south-east of the town of Hope. The Sowaqua Creek logging road located east of the claims coming within 3.5 km of the surveyed area. Due to challenging topography, present access to the claims is best achieved by utilizing a helicopter permanently based in Hope.

The claim group is comprised of 6 contiguous claim blocks covering 695.09 hectares registered to D.G. Cardinal (the author of this report). The claims straddle, and cover, much of a northwest trending, orogenic style, gold-bearing (Master Ace) structure traceable of some 4 km along strike.

Historically, the following quote in 1932 by Mr. P.B. Freeland, Inspector of Mines of the BC Ministry of Mines, spurred interest to rediscover the mineralized veins in this area, which states.....*"At the lower elevations in the granite numerous parallel quartz-fissures from a few inches to 4 feet in width, and striking about north and south (mag.), have been uncovered in open-cuts and short tunnels. The mineralization in these veins varies: some containing pyrite, chalcopyrite, arsenopyrite, and molybdenite, and others pyrite alone. Along the south-west contact of the peridotite, striking diagonally across the granite veins, another quartz vein, varying from 2 to 6 feet in width and containing pyrite, arsenopyrite, and chalcopyrite, is traceable for several miles"....."Many samples were taken from the outcrop of these veins over 4-foot widths and the results varied from a trace in gold and silver to: Gold 0.26 oz. per ton; silver, 5.52 oz. per ton. Picked samples assayed as high as \$14 in gold per ton."*

In 2012, the author conducted reconnaissance mapping in the area Freeland describes the old workings. During the mapping a series of mineralized veins hosted in granite with old open-cuts were discovered. Encouraged by these findings, it warranted further investigation to try located the remaining old trenches described by Freeland. In 2013, the author with a field assistant returned to this site, referred by the author as the 'North Master Ace' zone. Several old workings were discovered mapped and sampled herein documented as by part of the assessment report.

The regional geological setting is tectonically comprised of 2 juxtaposing accretionary terranes, sutured by a first order, compressional structure referred to as the Hozameen Fault. To the south-west of the accretionary zone is the east verging Bridge River terrane, comprised of Permian to Jurassic age Hozameen Group consisting of a thick sequence of deep water-derived pelagic-cherty sedimentary and volcanic rocks. To the north-west, is the Cadwallader terrane consisting of the Ladner Group sediments that includes basement Triassic mafic volcanic arc rocks (Spider Peak Formation). Overlying the Ladner package are marine to non-marine Jackass Mountain sedimentary and conglomerate rocks. The Spider Peak Formation and Ladner Group are in fault-contact with ophiolitic rocks of undetermined age. This geological setting makes up the Coquihalla Serpentine Belt, also referred to as the Coquihalla Gold Belt.

The Coquihalla orogenic event is intruded by post accretionary granitic stocks of Eocene age including the Mount Outram pluton.

Underlying bedrock on the property is dominately composed of intensely foliated, north-west trending, steeply west-dipping, cherty-graphitic argillites cut by remobilized quartz and calcite veins and boudins of the Hozameen Group. Of importance, is a semi-concordant, west dipping, northwest striking serpentized, ultramafic sill-like body of unknown age, hosted within the cherty argillites. The sill has experienced intense shearing and alteration, more so along its' footwall side, in structural contact with the argillite. This footwall structure consists of several metres wide of alteration- talcose shears which hosts quartz-iron carbonate veins and lenses, carrying anomalous gold-silver-copper values and associated arsenopyrite and bismuth herein referred to as the Master Ace structure. The Mount Outram intrusive is believed to have played a role in the alteration and gold mineralization.

Between August 15 to September 19, 2013, a total of 8 days were spent by the author and field assistant, searching and identifying a number of the old workings and, re-opening some of the trenches for sampling. This work is herein documented and submitted for assessment work credits under Event Number: 5468702.

B. LOCATION AND ACCESS

The Master Ace claim group is located 23 km south-east of the town Hope, BC (Figure 1). It is situated along the eastern edge of the northern Cascade Range. The region has experienced log harvest activity over the years and a series of old logging roads, constructed along local valley floors, approach the base of the claims from the eastern and western sides. Sowaqua Creek logging road is one such access road, which follows the valley floor flanking the eastern side of the claim group. The logging road is accessible from Hope via the Coquihalla Highway. However, due to the mountainous terrain and challenging topography, the claims are best accessed by helicopter permanently based in Hope - a short 30 minute ferry trip.

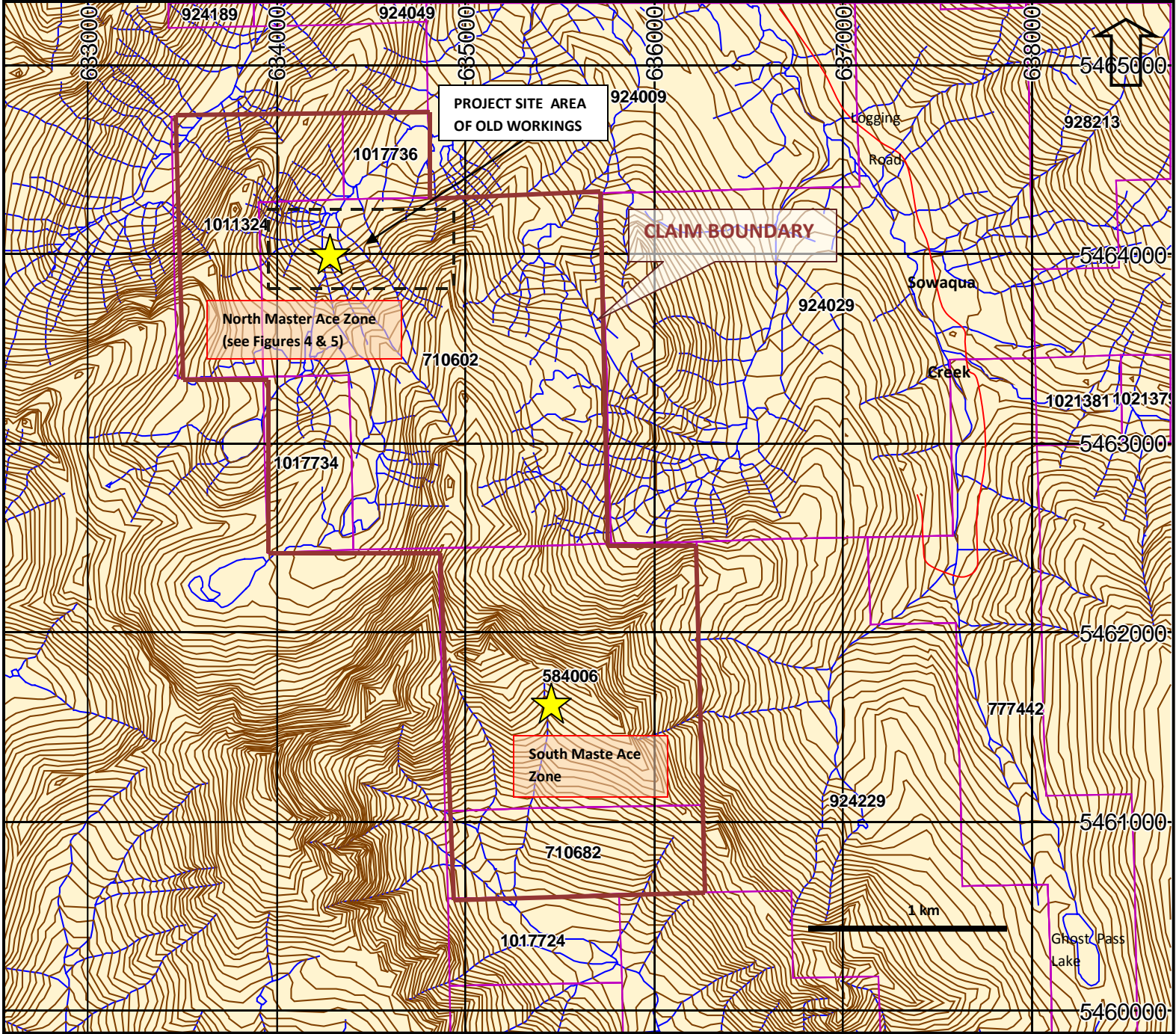
The work conducted on the claims are at an elevation of about 1300 metres located at the headwaters of small east flowing stream, which empties into Sowaqua Creek (Figure 2). Initially, a 2 day (Aug. 15 & 16, 2013) hike was made to the North Master Ace zone from the logging noted above, traversing up the east flowing stream. It is a 3 hour arduous hike to the zone. After a short examination of the old workings, it was decided that a small base camp would need to be established at project site utilizing helicopter support. In September, a 2-person fly camp was mobilized to the project site and over a 6 day period, work was conducted on the North Master Ace zone consisting of re-opening some of the old trenches including mapping and sampling as described below .

C. MINERAL TENURE INFORMATION

Table 1.

Tenure Number	Claim Name	Good To Date	Area in Ha	Registered Owner
584006	MA ZONE	Oct. 15, 2015	189.61	104232
710602	Master Ace	Oct. 15, 2015	294.85	104232
710682	Master Ace	Oct. 15, 2015	63.21	104232
1011324	Master Ace	Oct. 15, 2015	84.23	104232
1017734	Master Ace	Oct. 15, 2015	42.13	104232
1017736	Master Ace	Oct. 15, 2015	21.06	104232
			695.09	

The claims comprise 6 contiguous claim blocks encompassing 695.09 hectares referred to as the Master Ace claim group (Figure 2). They fall within the New Westminster Mining Division and within NTS: 092H/06. The claims are owned 100% by D.G. Cardinal. The claims can be viewed on the BC Ministry of Energy, Mines and Petroleum Resources website at: www.mtonline.gov.bc.ca



MASTER ACE CLAIM GROUP

Tenure Numbers: 584006, 710602, 710682, 1011324, 1017734 & 1017736

NEWMINSTER MINING DIVISION

NTS Mapsheet 092H/06

Claim Center – UTM Co-ordinates: Zone 10 635000E – 5463000N

FIGURE 2

D. BRIEF HISTORICAL BACKGROUND

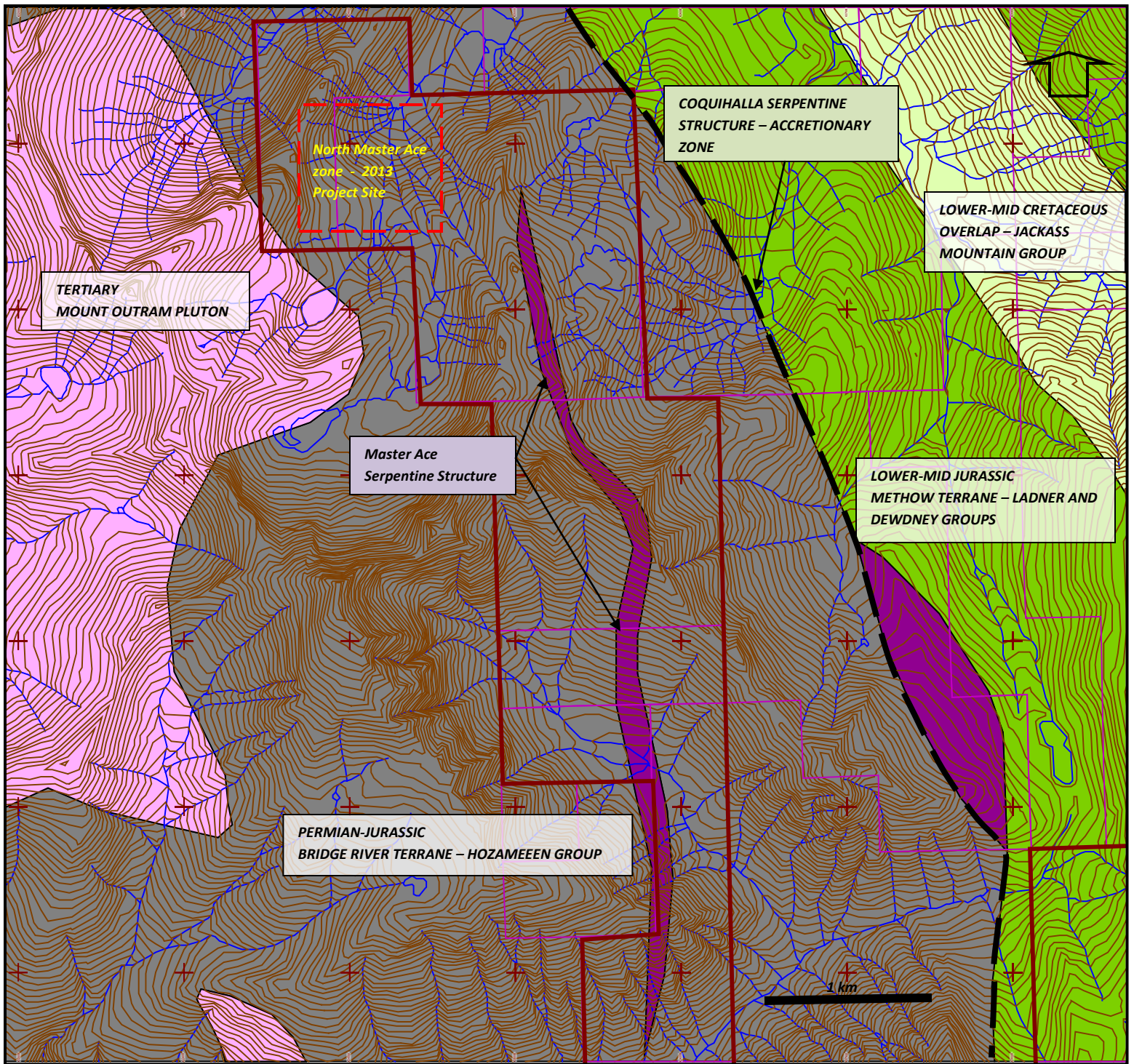
Between mid 1920s to the mid 1930s, a small group of prospectors from the historical community of Coalmont in the Tulameen River valley near Princeton, conducted seasonal prospecting in the headwaters of the Sowaqua Creek watershed. During this period molybdenite mineralization was discovered along a creek now referred to as Rice Creek, after prospector Ernie Rice of Coalmont. Mr. Rice also discovered gold-bearing quartz veins along a serpentinite structure along the western side of Sowaqua Creek valley, and systematically prospected the structure over several seasons, staking the main area of mineralization as the 'Master Ace' claims.

In 1932, Mr. P.B. Freeland, Mines Inspector of the BC Ministry of Mines examined the main workings and reported as follows: *"Along the southwest granite veins, another quartz vein, varying from 2 to 6 feet in width containing pyrite, arsenopyrite, and chalcopyrite is traceable for several miles. Many samples were taken from the outcrop of these veins over 5 foot widths and the results varied from a trace in gold and silver to: Gold, 0.26 oz. per ton; silver, 5.52 oz. per ton. Picked samples assayed as high as \$14.00 in gold per ton."*..... This vein system describes what this report now refers to as the 'North Master Ace zone'.

However, over time prospecting in this area gradually ceased and the Sowaqua Creek watershed remained dormant of any mineral exploration for almost a half century. During the 1970s several mining companies attempted to locate the old Master Ace showings but met with little success. In subsequent years D. Cardinal also tried locating the workings without any success. However, following a meeting with one of the remaining members of the Rice family, it was found that the Master Ace showing was plotted incorrectly on the mineral inventory map. Based on this information, the old Master Ace claims were rediscovered and subsequently staked.

In 1986-87, a junior resource company optioned the claims and conducted reconnaissance geological and sampling surveys along the southern end of the serpentine structure (Master Ace south zone). The exploration included some limited drilling but due to difficulties (poor drill core recovery) some of the drill holes did not reach their intended targets. No exploration work was ever carried out on the northern end of the structure (Master Ace north zone) where much of the historical work described by Freeland was conducted. The claims were eventually allowed to lapse. No exploration has been conducted since the latter part of the 1980s to present.

With the advent of mineral staking-online, the Master Ace has been held by various interested parties. However, the claim holders did not attempt to carry out any field work. Recently, the claims covering the Master Ace lapsed and the author had another opportunity to re-acquire the ground.



MASTER ACE CLAIM GROUP

REGIONAL GEOLOGICAL TECTONIC FRAMEWORK AND ROCK TYPES

FIGURE 3

E. REGIONAL GEOLOGICAL FRAMEWORK

The regional tectonostratigraphic framework, along which the Master Ace claim group lies, is comprised of 2 main distinct Cordilleran accreted terranes (Figure 3). These terranes make up part of the extreme south western extension of the Intermontane Belt. A prominent structural contact between the terranes referred to as the Hozameen Fault makes up part of the regional tectonic framework. The fault, a crustal break, is a compressional, terrane collision-accretion boundary caused by the eastern verging Permian-Jurassic age Bridge River complex on the southwest, and Triassic, Cadwallader volcanic arc (Spider Peak Formation) – Jurassic Methow (Ladner-Dewdney groups) apron-basinal clastic rocks to the northeast. The Hozameen fault is represented by semi-continuous belt of northwest trending serpentinite, which underpins the volcanic arc. This structural complex is a deep seated, steeply dipping, west-verging reverse thrust fault.

The western edge (along the Fraser Canyon) of the Hozameen accretionary- terrane complex is dextrally off set by the Paleogene age Fraser Fault and has been displaced some 115km to the northwest, it is laterally equivalent and linked to the Bridge River and Cadwallader-Methow terranes mapped in the Bridge River-Lillooett district. Post accretionary, Tertiary age Mount Outram pluton intrudes the western portion of the Master Ace claim boundary.

The Hozameen Fault is spatially related to several historical gold occurrences including 3 past producing gold mines (e.g. Carolin, Pipestem & Emancipation). This mineral belt and former mining camp is colloquially known as the 'Coquihalla Gold Belt'.

The Hozameen Group, which makes up part of the Bridge River terrane, underlies the claim group. It is comprised of thick sequence of ocean-derived sediments, mainly chert layers, highly foliated graphitic cherty argillites, graphitic schists and lesser cherty greenstone volcanic rocks. Hosted within this greenschist facies metamorphic assemblage, is a narrow (50-150m wide) lenticular structure comprised of semi-concordant, northwest trending, serpentinitized ultramafic sill-like intrusion, that is traceable for some 8 kilometres. The serpentine structure dips 60-70 degrees easterly and appears to either pinch out or is faulted off at both its northern and southern ends. Although this ultramafic body is highly metamorphosed, its' preserved crystalline texture is indicative of magmatic intrusive source and is not related to the Hozameen serpentinite belt mapped the northeast, this belt is interpreted as part of ocean floor derived ophiolite material. The sill is semi-concordant with the host rock and sections along strike contain remnant sill lenses of pseudo pyroxene-periodotite that display intrusive granular texture. The ultramafic sill appears have been emplaced into the Hozameen complex pre- regional metamorphic – orogenic event.

F. ALTERATION AND MINERALIZATION OF THE NORTH MASTER ACE STRUCTURE

The North Master Ace gold-bearing structure is traceable up slope (southeasterly) for at least 1000 meters along strike. Alteration and associated mineralization predominately occurs along the footwall side of the east dipping ultramafic sill, in fault-shear contact with graphitic-cherty argillites. The fault-shear contact characteristically displays a zone of alteration consisting of highly oxidized, iron carbonate-talcosic schist, sericitization and sheared, lenticular ankeritic-quartz veins. The zone appears to pinch and swell along strike and down-dip, in places, where exposed, it is at least 3-4 metres wide.

The North Master Ace zone comprises a series of structurally controlled, highly altered, mineral-bearing quartz veins. The sulphide assemblage consists of arsenopyrite-pyrite-chalcopyrite-molybdenite and minor argentite. Based on a number of open-cuts observed, alteration assemblage varies, adjacent to the ultramafic sill discussed above, it consists of listwanite and malachite-stained, ankeritic-quartz veins hosted in iron carbonate talcosic schist. Alteration associated with mineralized veins hosted in granodiorite consists of massive quartz veins associated minor albitization and kaolinization.

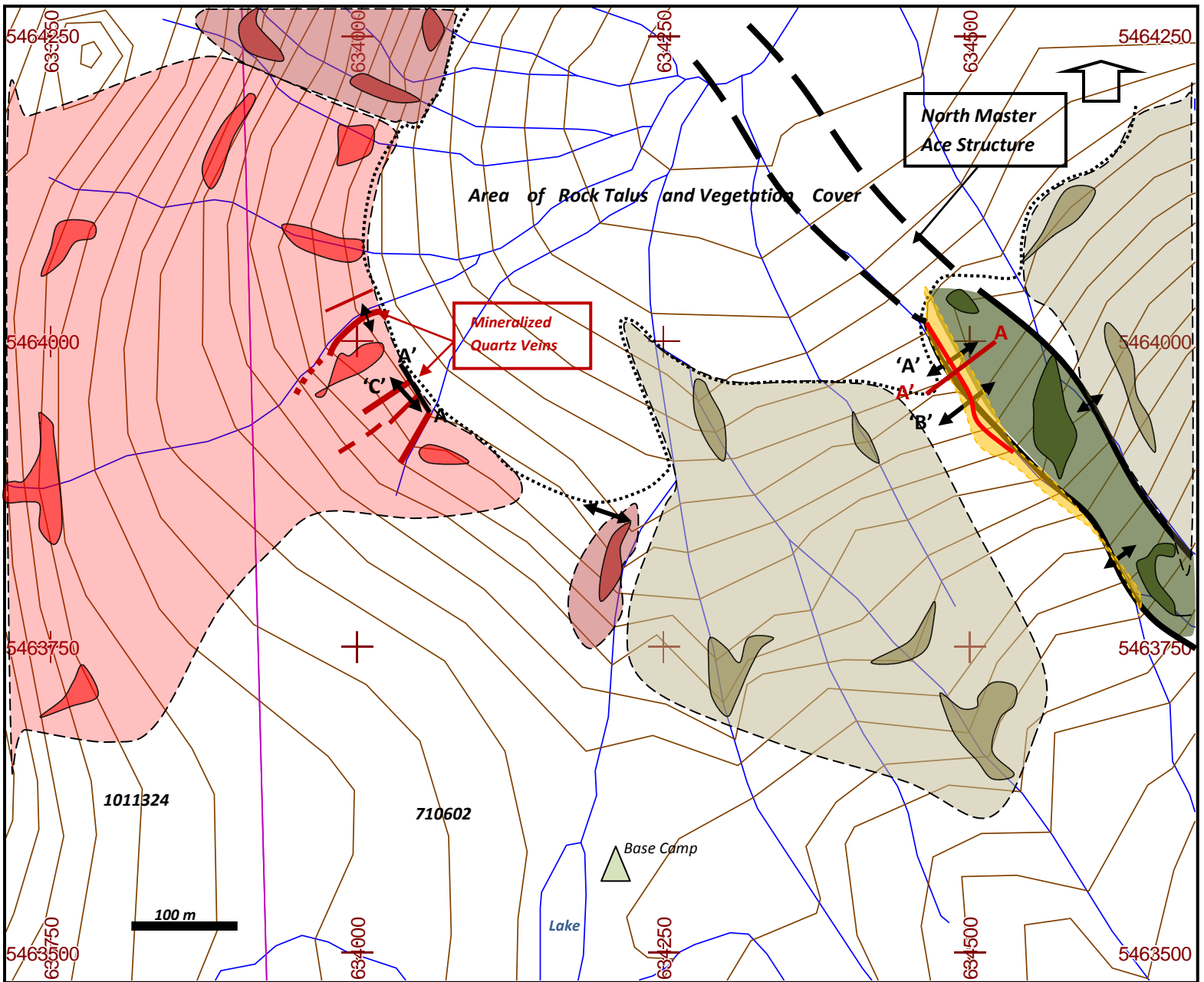
Historical (1985) samples collected from several paralleling, mineralized quartz veins hosted in granite report assay values of up to 3.6 gm/t Au, 13.0 gm/t Ag, 0.29% Cu and 0.157% Mo. Work conducted in August 2013, is a follow-up to this previous work and to subsequent reconnaissance work in 1012. Work in 2013 field season consisted mainly of re-locating the old trenches and open-cuts and re-exposing and re-sampling some of these old workings.

G. PROPERTY GEOLOGY AND TRENCHING SITES

Limited trenching, mapping and sampling were conducted on portions of mineral tenure 710602. A small 2-person fly camp was established at elevation 1475m near the mapping and trenching site. A total of 8 days were spent between August 15th and September 19th, 2013 mapping and sampling of old trenches.

This work was conducted utilizing a garmin hand-held GPS unit and a 1:4000 scale base map used for plotting any old trenches encountered as well as significant rock outcrops. The area surveyed ranges in elevation between 1450 to 1220 metres and exhibits good rock exposure. Rock outcrops encountered were identified according to rock type and approximate dimensions plotted onto a field base map. The main objective on the North Master Ace zone was to re-discover the old (1930s) workings so lucidly documented by Freeland, and hand trench some of the workings, map and collect samples (Figures 5 & 6).

The project site is underlain by 3 main rock types: (i) intensely foliated, cherty, graphitic argillite, (ii) fault-bounded, sheared serpentinite, and (iii) granodiorite intrusive (Figure 4.) The cherty argillite characteristically hosts contorted and boudinaged, milky white quartz veinlets associated with numerous graphitic shears. The foliation trends north-westerly and dips steeply to the southwest. The serpentinite is characterized by massive dark green lensoid bodies with shears hosting oxidized, iron carbonate talcosic schist. The serpentinite is hosted within the graphitic argillite and is semi-concordant with the foliation. Its' width ranges between 50 to 100 metres dips steeply to the southwest. This assemblage is intruded by equigranular biotite granodiorite, which near its' contact with the serpentinite, hosts several paralleling mineralized quartz veins hosting chalcopyrite, molybdenite and pyrite and silver-bearing sulphide identified as argentite.




NORTH MASTER ACE ZONE

GEOLOGY MAP – NORTH MASTER ACE ZONE – LOCATION OF OLD TRENCH SITES

Hozameen Group


 Highly foliated, steeply dipping cherty argillite/graphitic argillite


 Intensely foliated, sheared, massive, dark green serpentinite.

 Post accretionary granodiorite intrusive.

 Approximate dimensions of mapped bedrock.

 Sub-parallel quartz veins hosting chalcopyrite, molybdenite and pyrite.

 Intensely altered, iron-carbonate talcose schist, quartz & listwanite

 Fault - Assumed

A, B & C: Sampled Trenches

 Fault - Defined


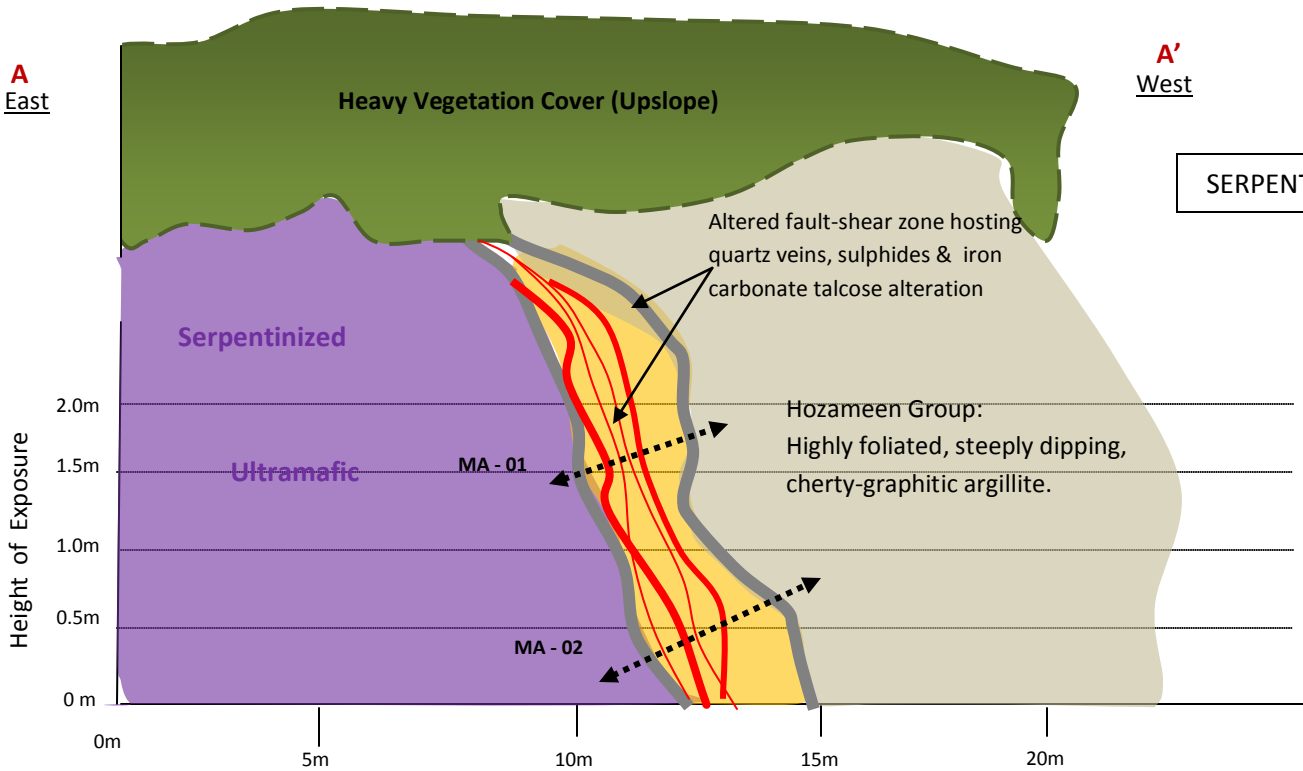
 Old open-cuts & pits

FIGURE 4

A
East

A'
West



North Master Ace Zone - Composite Section of old trenches 'A' & 'B'

Trenches expose approximately 20 meters of oxidized & decomposed bedrock.
(Scale as shown) Continuous chip sample locations: MA-01 & MA-02

Figure 5

Several of the historical (1930s) trenches were rediscovered in 2013 and plotted onto a geology base map (Figure 4). Three of the open-cuts were re-opened using hand shovel and back sack percussion drill. Two of the old open-cuts located about 50 meters apart, were found occurring along the footwall side of the serpentinized ultramafic sill mentioned in Freeland's report, just above the valley floor (Figure 4). The serpentine is fault-shear contact with black, graphitic, cherty argillites of the Hozmeen Group. Along the fault-shear contact are a series of sub-parallel quartz-carbonate veins associated with seams of fine disseminations of arsenopyrite, pyrite and lesser chalcopyrite. Veins and sulphides are hosted in malachite-stained iron carbonate talcose schist (see photo 1 below).

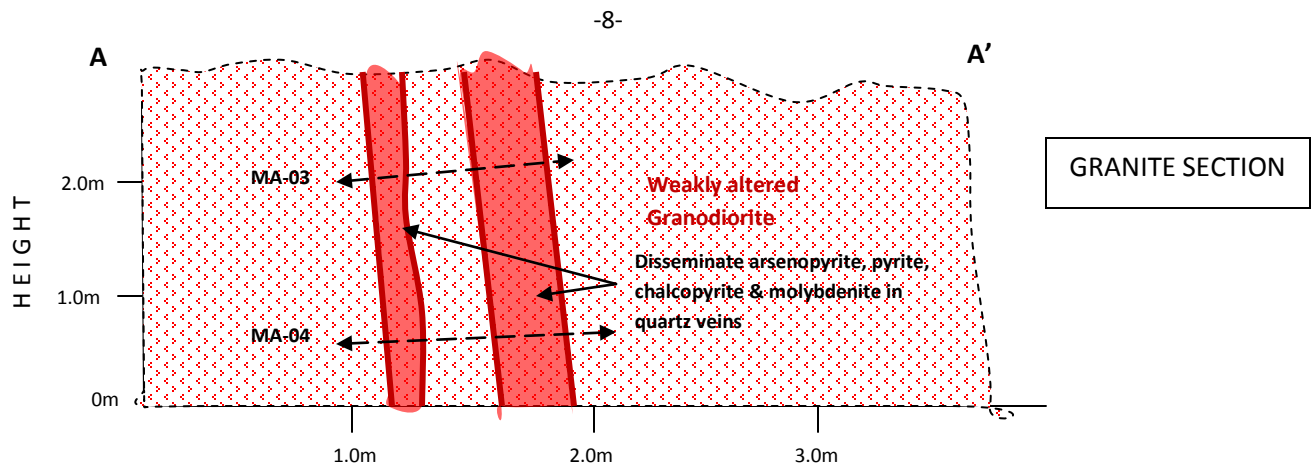
Trench 'A' was re-opened and 2 representative continuous chips were collected (MA-01 & MA-02) each about 4 meters across the altered-mineralized zone as shown on schematic cross-section above. Trench 'B' is very similar to 'A'. The section shows a composite view of the 2 old open-cuts.

Another old open-cut was exposed as Trench 'C'. The old workings tested a series of quartz sulphide-bearing veins hosted in granodiorite. The veins are structurally controlled and occur randomly across 200m steep face of the granite. They vary in width from <0.5m to >1.5m and host coarse grain, disseminated sulphides. The sulphide assemblage consists of arsenopyrite, pyrite, chalcopyrite lesser molybdenite and minor argentite. Some limited alteration was observed along the contact walls of the quartz veins mainly kaolinitic slivages and minor albitization. Two continuous chip samples across 1.5m were collected from Trench 'C'.

All samples were recently forwarded to ACME labs. in Vancouver for multi-geochemical analysis.



Photo 1 above shows process of re-opening old trench 'A' on the North Master Ace zone with exposed quartz-carbonate veins and malachite staining. Trench contains highly decomposed iron carbonate, talcose schist.



Trench 'C' re-opened old trench. Quartz veins hosting disseminated sulphides. Two continuous chip samples MA-03 & MA-04 were collected from 2 paralleling veins sampled across 1.5 meters.

Figure 6



Photo 2 shows one of the 3 old open-cuts rediscovered, showing parallel quartz veins hosted in granite.

H. CONCLUSION

The Master Ace property is underlain by a north-north westerly trending, gold-bearing, ultramafic structure hosted within Hozameen Goup meta- sedimentary rock. The semi-concordant ultramafic sill hosts 2 gold-bearing zones referred to as the 'North & South Master Ace' zones. Based on the regional tectonic framework, the gold mineralization can be classed as 'orogenic style'. The mineralization is also spatially related to post accretionary Mt. Outram pluton, which the author postulates played some genetic role in gold mineralization.

The sulphide-gold-bearing quartz veins hosted in the North Master Ace occur both along the sheared footwall-contact of the ultramafic sill and in fractured granodiorite. The sulphide assemblages of the quartz veins tend to be comprised of slightly different sulphide composition with the shears being more arsenopyrite dominate with no molybdenite and the fracture-filled veins chalcopyrite dominate. This suggests more than one hydrothermal phase with the pluton acting as a probable heat source and remobilizing meteoric fluids along structurally prepared channel ways.

The Master Ace ultramafic sill appears to represent a deep-seated second-third order structure hosted in the Hozameen Group sediments spatially related to granite intrusive. Mesothermal, gold-bearing quartz veins are hosted in the structure and the intrusive. The property merits sound exploration, combined with geologically modelling. Future exploration efforts need to be concentrated between the zone contact of the Mt. Outram intrusive and the ultramafic sill.

Freeland during his inspection of the North Master Ace zone in 1932, postulated that the fissure-filled quartz mineralization hosted in the granite and mineralized quartz structures associated with the ultramafic serpentine are part of the same quartz system(s) at lower elevation, masked by the talus material and, suggests that the veins extend for some distance along strike and down dip. Based on field observations, this is a theory the author concurs with.

I. BIBIOGRAPHY

Cardinal, D.G., 1985: Geological Assessment Report on the on the Timberline 3,4 and 5; AR Number 14,527.

Cardinal, D.G., 1986: Prospecting Assessment Report on the Master Ace Gold Group; AR Number 15086.

Bierlein, F.P., Groves, D.I., Goldfarb, R.J., Christie, A.B., 2005: Lithospheric footprints of giant orogenic gold systems; *Ore Geology Reviews*.

Freeland, P.B., 1932: Peers Creek Section – Master Ace; B.C. Minister of Mines Annual Report (Report of the Minister of Mines 1932, page A157).

Groves, D.I., Goldfarb, R.J., Gebre-Mariam, M., Hagermann, S.G., Robert, F., 1998: Orogenic gold deposits: A proposed classification in the context of their crustal distribution and relationship to other gold deposit types; *Ore Geology Reviews*.

Journeay, J.M. and Monger, J.W.H., 1994: Preliminary Map, Geology Of The Southern Coast And Intermontane Belts, British Columbia; Geological Survey of Canada, Scale 1:500,000.

Monger, J.W.H., 1989: Map 41-1989 Sheet I Geology, Hope, British Columbia; Geological Survey of Canada, Scale 1:250,000.

Ray, G.E., 1984: Coquihalla Gold Belt Project, B.C. Ministry of Energy, Mines & Petroleum Resources, Geological Fieldwork, 1983, Paper 1984-1.

Ray, G.E., 1990: The Geology and Mineralization Of The Coquihalla Gold Belt And Hozameen Fault System, Southwestern British Columbia; BC Ministry of Energy, Mines and Petroleum Resources, Mineral Resources Division, Geological Survey Branch; Bulletin 79.

Umhoefer, P.J., Schiarizza, P., Robinson, M., 2002: Relay Mountain Group, Tyaughton-Methow basin, southwest British Columbia: a major Middle Jurassic to Early Cretaceous terrane overlap assemblage; *Canadian Journal of Earth Sciences* 39; page 1143-1167.

Schiarizza, P., 2013: The Wineglass assemblage, lower Chilcotin River, south-central British Columbia: Late Permian volcanic and plutonic rocks that correlate with the Kutcho assemblage of northern British Columbia; *Geological Fieldwork 2012*, B.C. Ministry of Energy, Mines and Natural Gas, British Columbia Geological Survey Paper 2013-1; page 53-70.

J. STATEMENT OF EXPLORATION EXPENSES

Trenching, mapping & sampling were conducted for total of 8 days between August 15 to September 19, 2013 on mineral tenure 710602; field party of 2 consisted of geologist and field assistant.

Field Crew:	Cost
Geologist (author); 8 days @ \$600 per day	\$ 4,800.00
Field Assistant; 8 days, @ 250 per day	2,200.00
Field-Related Expenses:	
Helicopter support; 1.75 hour @ \$ 1,700.00	2,975.00
Camp supplies for party of 2; \$80 per day	640.00
Back-sack drill; 8 days @ \$100 per day	800.00
Camp Misc.	100.00
Four-wheel drive truck; 3 days @ \$125 per day (+gas)	375.00
Report:	
Data Compilation and documentation	2,700.00
Total Expenses Incurred:	<u>\$, 14,590.00</u>

Respectfully submitted;



D.G. Cardinal, P. Geo.



K. PROFESSIONAL CERTIFICATE

I, Daniel G. Cardinal, of the District of Kent, British Columbia, do hereby certify that:

- I am a Professional Geoscientist and reside at 1883 Agassiz Avenue, Agassiz, B.C. V0M 1A3.
- I am a graduate of the University of Alberta (1978) and received a 2 year technical diploma in Exploration-Geology from the Northern Alberta Institute of Technology (1972).
- I am member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (P.Geol.), membership #18455; a member in good standing with the Association of Professional Engineers, Geologists and Geophysicists of Alberta (P.Geol.), membership #M29405; Fellow of the Geological Association of Canada (FGAC); and professional member of Geological Society of America (GSA).
- I have practiced my profession continuously for the past 32 years.
- I am the registered owner of the **Master Ace** mineral claim group.
- I am author of this report herein submitted as **Event Number 5468702** and, that I have conducted the field work documented in this report.

Signed in Agassiz, British Columbia this 12th day of December, 2013.



The image shows a handwritten signature in black ink that reads "Dan Cardinal". To the right of the signature is a red octagonal professional seal. The seal contains the text: "PROFESSIONAL" at the top, "PROVINCE OF" in the middle, "D. G. CARDINAL" in the center, "BRITISH COLUMBIA" below the name, and "GEOSCIENTIST" at the bottom.

D.G. (Dan) Cardinal, P.Geol., F.G.A.C.