

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

**ASSESSMENT REPORT
TITLE PAGE AND SUMMARY**

TITLE OF REPORT [type of survey(s)] **TOTAL COST \$103,435.00**
Assessment report for a Satellite RADAR survey and analyses on the Georgia River Mine Gold Property

AUTHOR(S) Paul Metcalfe, P.Geo. and David J. McLelland SIGNATURE(S) _____

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S) _____ YEAR OF WORK 2015

STATEMENT OF WORK - CASH PAYMENT EVENT NUMBER(S)/DATE(S) 5572310

PROPERTY NAME Georgia River

CLAIM NAME(S) (on which work was done) _____

318194 318195 318196 331396 614843 614923 615123 615144 615163 615203 615223 615243 615263
615283 615303 758982 759002 525950 615183 939580 942409 1015772 1016214 1037833

COMMODITIES SOUGHT Au, Ag

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN 103O 013, 103P 184, 103P 248

MINING DIVISION Skeena NTS 436,000 m E, 6,182,800 m N UTM Zone 9 NAD 83

LATITUDE 55 ° 47 ' 10.8 " LONGITUDE 130 ° 1 ' 15.6 " (at centre of work)

OWNER(S)

1) Auramex Resource Corp. 2) _____

MAILING ADDRESS

750 Grand Boulevard, N. Vancouver, BC V7L 3W4

OPERATOR(S) [who paid for the work]

1) Auramex Resource Corp. 2) _____

MAILING ADDRESS

750 Grand Boulevard, N. Vancouver, BC V7L 3W4

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

Texas Creek Plutonic Suite, porphyry, Gold, Au, Golden Triangle, Georgia River Mine, NW BC, Hazelton, early Jurassic, mylonite, radar, NW structure, past producer, geophysics, Skeena, Stewart.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS 34692, 08547, 19049, 19049, 20653, 24100, 24704, 10300, 11082, 20347, 20806, 23217, 23689, 24914, 28376, 28377, 28961, 32000.

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping _____			
Photo interpretation _____			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic _____			
Electromagnetic _____			
Induced Polarization _____			
Radiometric _____			
Seismic _____			
Other _____ Radar	1563.73		\$103,435.00
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 _____			
Trench (metres) _____			
Underground dev. (metres) _____			
Other _____			
TOTAL COST			\$103,435



**Assessment Report for a Satellite RADAR survey
and analyses on the
Georgia River Mine Gold Property**

Skeena Mining Division,
British Columbia, Canada

Latitude: 55° 47' 10.8"W Longitude: 130° 1' 15.6"N

436,000 m E, 6,182,800 m N

Universal Transverse Mercator Zone 9; 1983 North American Datum

Prepared For

Auramex Resource Corp. (owner)

by

Dr. Paul Metcalfe P.Geol.

and

David J. McLelland

Auracle Geospatial Science Inc.

325 Dorset Road

Qualicum Beach B.C.

V9K 1H5

+1-800-617-2592

Date of Report: 29/02/2016

Table of Contents

1.	List of Tables	2
2.	List of Figures	2
3.	Introduction	3
3.1.	Disclaimer	3
4.	Property Location and Description	4
4.1.	Property Location.....	4
4.2.	Mineral Tenure.....	4
4.3.	Physiography, climate and vegetation	8
4.4.	Local resources, infrastructure and property access	9
5.	History of Exploration.....	9
5.1.	Georgia River Mine; MINFILE 103O 013	10
5.2.	Glory Extension (Cardozo, Wood 5); MINFILE 103P 184.....	14
5.3.	1100, Ridge, N and Dickie Zones; MINFILE 103P 248.....	15
5.4.	Gamebreaker showing.....	17
6.	Geological Setting and Mineralization.....	17
6.1.	Regional Geology	17
6.2.	Property Geology.....	20
6.3.	Significant Mineralized Zones.....	22
6.3.1.	N, 1100, Dickie and Ridge Zones and Gamebreaker showing.....	22
6.3.2.	Georgia River Mine	26
6.3.3.	Hume Creek Mylonite Zone.....	40
6.3.4.	Glory Extension.....	40
7.	Data Acquisition.....	41
8.	Data Description	42
8.1.	Radar Data	42
8.2.	Data Pre-Processing.....	43
8.2.1.	Radar Data (Figure 8)	43
9.	Data Processing	44
9.1.	Methodologies	44
9.2.	Radar Data Processing (Figure 9)	44
10.	Remote Sensing Software	45
11.	Results	45
12.	Conclusions	49
13.	Recommendations	52
14.	References.....	52
15.	Statement of Costs.....	62
16.	Statements of Qualifications	63

1. List of Tables

Table 1: Description of Crown Granted mineral claims	4
Table 2: Summary of Mineral Tenure.....	6
Table 3. Summary of exploration at the Georgia River Mine.	12
Table 4: Data Provided by the Client	41
Table 5: Archived Data Collected from Various Sources	42
Table 6: Newly Collected Data.....	42

2. List of Figures

Figure 1: Property Location.....	5
Figure 2. Property mineral tenure and physiography.	7
Figure 3: Generalised regional geology after Massey et al. (2005).....	18
Figure 4. Property geology, adapted from Evenchick et al. (1999).	21
Figure 5. Geological map of the area west of “N” Zone (after Weekes 1994).	23
Figure 6. Gamebreaker showing: sample thicknesses and values.	27
Figure 7. Surface traces of veins and adit locations at the Georgia River Mine.	28
Figure 8: Radar Data Pre-Processing Workflow	43
Figure 9: Radar Processing Flow Chart	44
Figure 10. Processed image of Sentinel Synthetic Aperture Radar data.	47
Figure 11. Processed image of Sentinel Synthetic Aperture Radar data.	48
Figure 12. Training area on the veins at the Georgia River Mine.....	50
Figure 13. Coincidence of radar image with Gamebreaker structure.....	51

3. Introduction

In August of 2015, Auracle Geospatial Science Inc. (Auracle) was asked by Wayne Crocker of Auramex Resource Corp. ("Auramex") to carry out processing of commercially available and public domain synthetic aperture radar (SAR) data for a designated area of interest (the AOI) covering the mineral tenures comprising the Client's Stewart project. The scope of these Services included analysing archival remote sensing data provided by the Client, and acquiring and analysing radar data from both public databases and as new acquisitions.

The objective of this project was to generate processed images from the acquired radar data for the purpose of detecting structural discontinuities and, where possible, lithological boundaries within the property as an exploration tool for structurally hosted, intrusion-related gold (Au) deposits.

3.1. Disclaimer

Auracle has assumed that all technical documents reviewed and listed in "References" are accurate and complete in all material aspects. Auracle reserves the right, but will not be obligated to, revise this report and conclusions if additional information becomes known subsequent to the date of this report.

The remote sensing work completed by Auracle on the Raglan Property was performed exclusively for the purposes of the Client. Should the data and/or report be made available in whole or part to any third party, and such party relies thereon, that party does so wholly at its own and sole risk and Auracle disclaims any liability to such party.

Where the remote sensing work has involved Auracle's use of any information provided by the Client or third parties, upon which Auracle was reasonably entitled to rely, then the remote sensing work is limited by the accuracy of such information. Auracle is not liable for any inaccuracies or incompleteness in said information, save as otherwise provided in the terms of the contract between Auramex and Auracle.

4. Property Location and Description

4.1. Property Location

The 10,828 ha Georgie River property is situated immediately east of the Portland Canal, 18 km south of Stewart in NW British Columbia (Figure 1), centred on latitude 55° 47' 5.8" N and longitude 130° 0' 17.5" W (437,000 m E 6,182,600 m N). The National Topographic System (NTS) map areas which include the mineral tenures are 103O/09, 103O/16, 103P/12 and 103P/13; similarly, the tenures lie at the junction of the British Columbia Terrain Resource Integrated Management (TRIM) map sheets 103O.080, 103O.090, 103P.071 and 103P.081.

4.2. Mineral Tenure

The Georgie River property comprises eight Crown Granted mineral claims (Table 1) and forty-two mineral tenures (Table 2). Five of the mineral tenures are legacy mineral tenures resulting from the conversion of previously Crown Granted land and five are legacy four-post tenures; the remaining thirty-two are “electronic” mineral tenures acquired online. The dispositions of the tenures are shown in Figure 2.

Table 1: Description of Crown Granted mineral claims

Cassiar District Lot No.	Name	Date of Issue	Owner
4437	GEORGIA	20/Sep/1920	Auramex Resource Corp. 100%
4438	GEORGIA NO. 1	20/Sep/1920	Auramex Resource Corp. 100%
4439	GEORGIA NO. 2	20/Sep/1920	Auramex Resource Corp. 100%
5150	GEM	01/Oct/1923	Auramex Resource Corp. 100%
5151	GEM NO. 1	01/Oct/1923	Auramex Resource Corp. 100%
5155	GOLDFIELDS NO. 3	03/Sep/1924	Auramex Resource Corp. 100%
5164	TOP FRACTION	21/Sep/1928	Auramex Resource Corp. 100%
5166	GOLD FRACTION	23/Sep/1928	Auramex Resource Corp. 100%

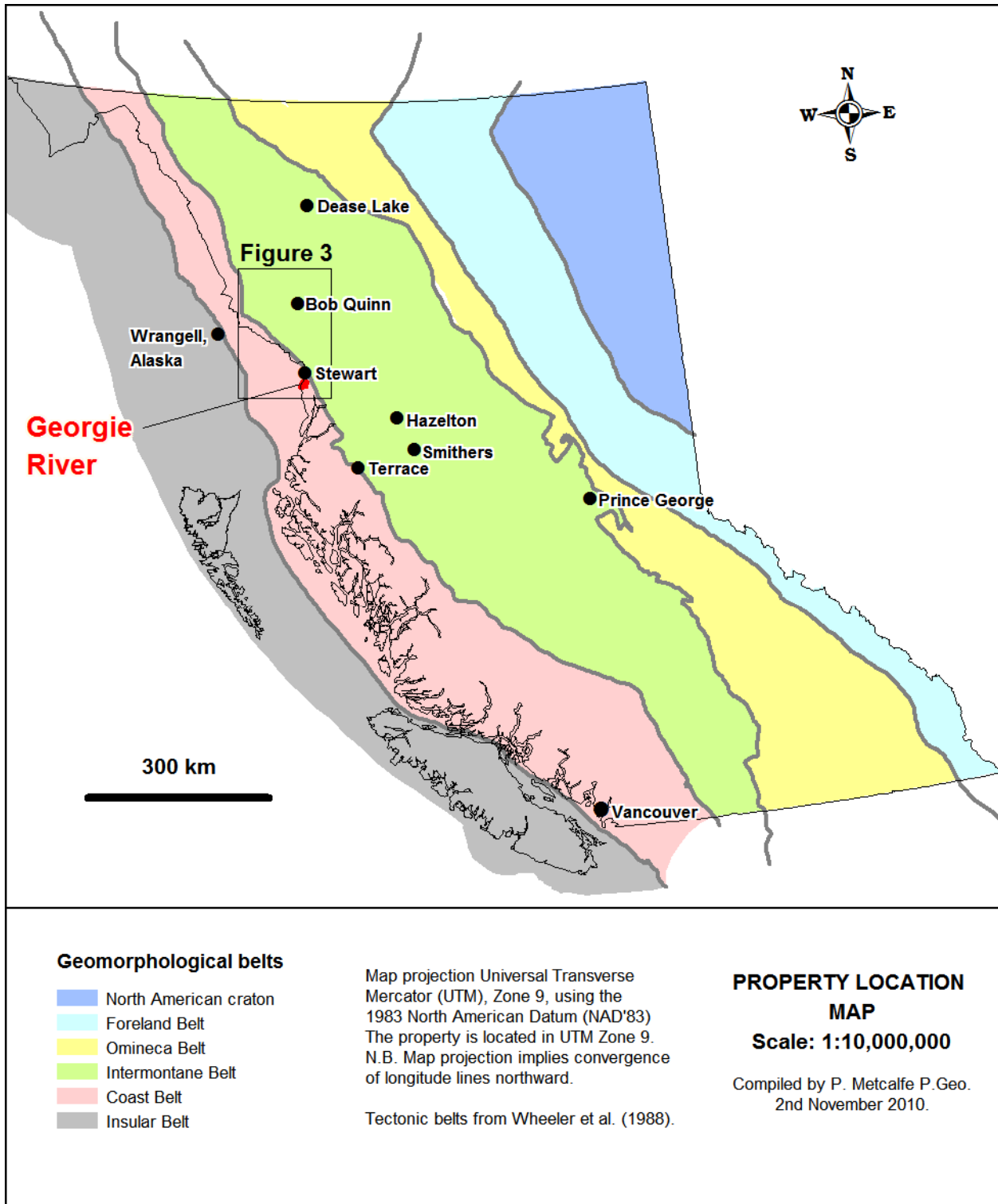


Figure 1: Property Location.

Table 2: Summary of Mineral Tenure

Tenure	Claim Name	Owner	Issue date	Expiry Date	Area (ha)
250721	Converted Crown Grant	Auramex Resource Corp. 100%	02-Aug-1979	15-dec-2020	25
250723	Converted Crown Grant	Auramex Resource Corp. 100%	02-Aug-1979	15-dec-2020	25
250725	Converted Crown Grant	Auramex Resource Corp. 100%	02-Aug-1979	15-dec-2020	25
250736	Converted Crown Grant	Auramex Resource Corp. 100%	02-Aug-1979	15-dec-2020	25
250737	Converted Crown Grant	Auramex Resource Corp. 100%	02-Aug-1979	15-dec-2020	25
525950	GEORGIE GIRL 3	Auramex Resource Corp. 100%	20-Jan-2006	31-Dec-2016	345.951
614843		Auramex Resource Corp. 100%	04-Aug-2009	31-Dec-2016	400.226
614923	GEORGIA RIVER 1	Auramex Resource Corp. 100%	04-Aug-2009	31-Dec-2016	254.612
615123	COL 1	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	454.957
615144	COL 2	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	454.468
615163	COL 3	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	454.564
615183	COL 4	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	454.607
615203	COL 5	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	454.915
615223	COL 6	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	218.407
615243	COL 7	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	454.731
615263	COL 8	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	454.593
615283	COL 9	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	236.427
615303	COL 10	Auramex Resource Corp. 100%	05-Aug-2009	31-Dec-2016	308.907
758982		Auramex Resource Corp. 50% ¹	27-Apr-2010	31-Dec-2016	18.1799
759002		Auramex Resource Corp. 50% ¹	27-Apr-2010	31-Dec-2016	145.439
939580	HELEN	Auramex Resource Corp. 100%	02-Jan-2012	31-Dec-2016	18.205
942409	FRACTION	Auramex Resource Corp. 100%	24-Jan-2012	31-Dec-2016	18.1875
1015772	AU NORTH	Auramex Resource Corp. 100%	07-Jan-2013	31-Dec-2016	36.3712
1016214	OVER GEORGIA	Auramex Resource Corp. 100%	21-Jan-2013	31-Dec-2016	54.5684
1037833	TAN	Auramex Resource Corp. 100%	10-Aug-2015	31-Dec-2016	127.3579
318194	BROWN #1	Auramex Resource Corp. 100%	08-Jun-1993	31/Dec/2016	500
318195	BROWN #2	Auramex Resource Corp. 100%	08-Jun-1993	31/Dec/2016	250
318196	BROWN #3	Auramex Resource Corp. 100%	08-Jun-1993	31/Dec/2016	500
331396	ARK	Auramex Resource Corp. 100%	23/Sep/1994	31/Dec/2016	250

¹ Two tenures are 50% owned by Auramex; the other 50% ownership is retained by Mr. K. Funk.

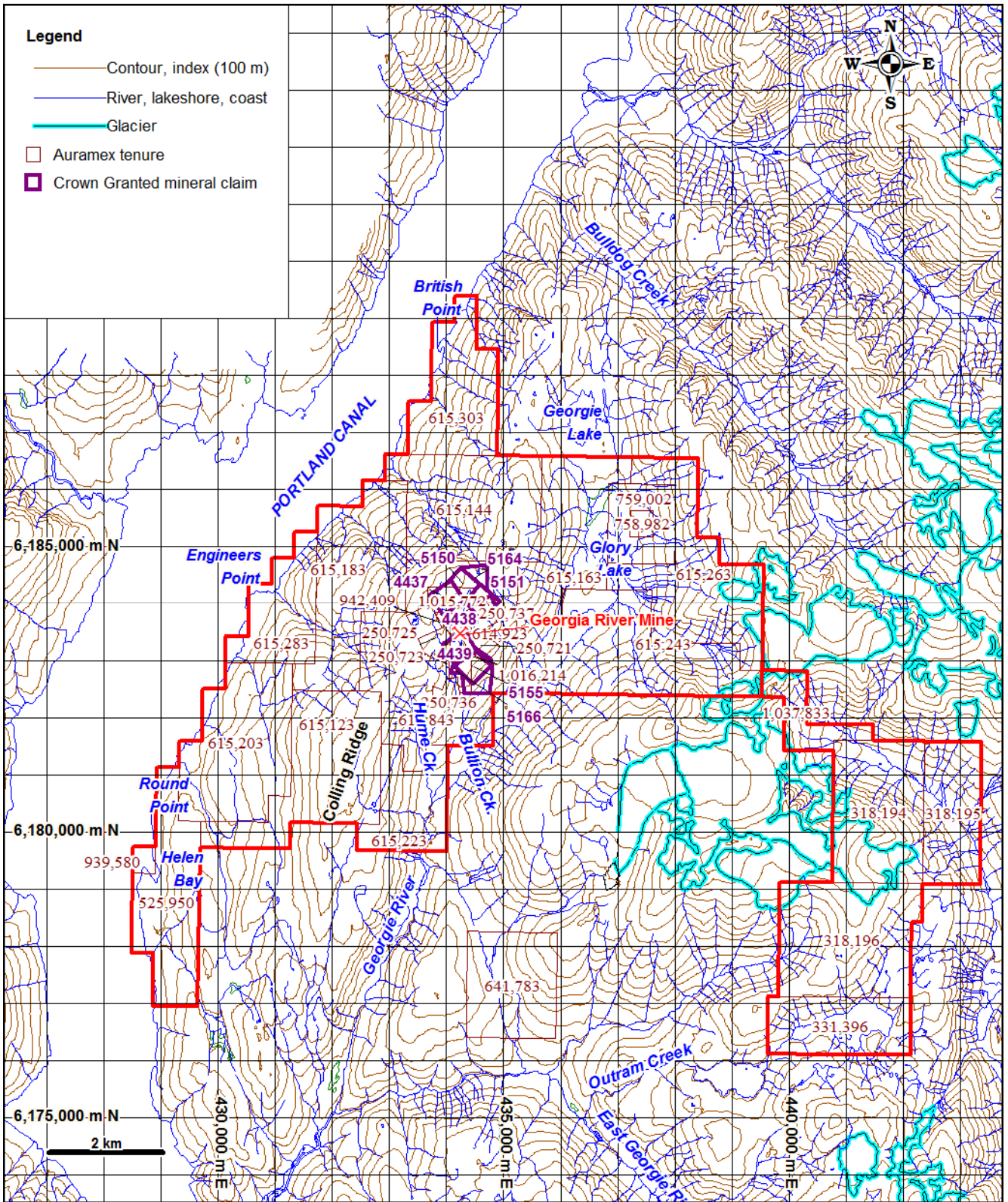


Figure 2. Property mineral tenure and physiography.

4.3. Physiography, climate and vegetation

The Georgie River Property covers an area in British Columbia's rugged Coast Mountains, an area characterised by steep slopes and high rainfall. The property extends from sea level at its western boundary to as high as 1,800 m above sea level (a.s.l.) on its eastern boundary (Figure 2). Glaciation has incised the topography deeply, creating characteristic U-shaped valleys, with one or more alps, or breaks in slope, at elevations between 1000 m and 1200 m elevation a.s.l. Uplift of the Coast Mountains during periods of isostatic rebound has enabled overdeepening of the existing glaciated valleys by rivers and streams. This overdeepening is well-illustrated by the valley of the main (north) fork of the Georgie River which drains to the south and west from Glory Lake, near the centre of the property. The river valley isolates the 1,360-m high north-south ridge called Colling Ridge (Colling Range in older reports) from the main massif to the east. Both glaciated stream valleys and their fluvial successors often occupy zones of lithological weakness; this may be the case with the North Fork of the Georgie River.

The area's climate is typical of the northern Coast Mountains. A Pacific maritime influence ensures relatively warm and consistently wet winters. Average temperatures at Stewart vary from -4°C in January to 15°C (exceptionally 30°C) in July. Annual rainfall in Stewart is 1,843 mm, at least two-thirds of which falls during the winter months from September to February; at higher elevations it falls as snow. Despite this, all major and many subsidiary drainages flow throughout the year, except at alpine elevations. Fieldwork at higher elevations is usually possible until October but snow is possible at any time of year at nearly any elevation and, in years of heavy winter precipitation, snow-pack from the previous year might hinder exploration at higher elevations until as late in the year as September.

Vegetation is typical of the Pacific coast rain forest. Tree line on the property varies between 1,000 and 1,200 m a.s.l.; included in the category of "trees" (i.e.: below tree line) are numerous landslide slopes hosting moderately thick landslide alder, interspersed with Devil's Club. Timber stands between the landslide and avalanche slopes comprise western hemlock, mountain hemlock, spruce, and cedar. Above tree line the vegetation follows the progression common to the alpine of northwestern British Columbia, passing upslope through a zone of perennial and annual alpine flowering plants, and through a zone of heather; the eastern edge of the property is in tundra.

4.4. Local resources, infrastructure and property access

Stewart and its counterpart of Hyder, Alaska in the United States of America are visible in clear weather from the top of Colling Ridge. Stewart has an enviable location at the head of the Portland Canal, first remarked by Robertson (1911) and has a history of mining and mineral exploration well in excess of a hundred years. The town is accessible from the sea through a bulk loading facility and via a paved highway 333 km south to Smithers, therefore food, fuel and other supplies are either on hand or can be transported with minimal delay from the south.

As noted above, the Georgie River Property extends to tidewater and parts of this shoreline are accessible by boat. During and shortly after the Great War, a trail was constructed from the mouth of the Georgie River to the then-active Georgia² River Mine. The construction of the trail was assisted, in part, by the British Columbia Government (Clothier 1919). Few traces of the trail remain and present-day access to the property is by helicopter, Stewart airport being the nearest helicopter base at the time of writing. Communications in this area are made possible by satellite telephone and are limited only by the steepness of valley sides; communications are excellent when above tree line. However, without a radio repeater, nearly all of the property is beyond the range of hand-held radio communication with Stewart.

5. History of Exploration

Mineral exploration in the Stewart-Anyox area began before Confederation and discovery of vein mineralization in the area was made at around the turn of the last century. Mining operations date back to the opening of the Anyox and Silbak Premier mines in 1914 and 1918, respectively. The earliest record of exploration in the area of the Georgie River property (Flewin 1906, Carmichael 1907, Conway 1911) refer to the discovery of mineralization (MINFILE 103O 016) near the southern end of the present Auramex property and the acquisition of the Black Knight and Black Knight No. 1 claims.

Mineralization discovered on and around the Georgie River property has been in three principal areas. These will be described by mineral occurrence or area. Notes on each mineral occurrence are based on the appropriate assessment reports and upon MINFILE (BC Geological Survey Branch 1991-2010).

² The reader will note the discrepancy between the spellings of the mine and the river from which the mine takes its name. All reports prior to 1953 refer to the river as the Georgia River, but the geographic name: "Georgie River", gazetted in that year, is now the formally assigned name of the river.

5.1. Georgia River Mine; MINFILE 103O 013

Mineralization on Colling Ridge was discovered at roughly the same time as that at the Lydden mineral occurrence; the earliest reference to the discovery is by Conway (1911), who stated that: “. . . according to the reports of prospectors, many valuable discoveries have been made, especially on the Marmot and Georgia rivers . . .”. The lateness of the season, following the establishment of the Portland Canal Mining Division (21st July 1910) precluded a property visit but the acquisition of the John D., Guggenheim, J.P. Morgan, Danny, Lookout, Summit, Charlotte, and Hillside (non-Crown Granted) mineral tenures by Danny Hume, Edward Fish and Clarence E. Jarvis of Stewart was reported the following year (Conway 1912). These tenures became known as the Guggenheim or John D. group.

Excellent summaries of the early development of the Georgia River Mine (Alldrick *et al.* 1996, Kruckowski 2004), from Conway (1912, 1915), Beaton (1916), Jack (1917) and Clothier (1918, 1919, 1921, 1923) are adapted in Table 3. In the penultimate of his reports, Clothier noted that a little work had been carried out, but with nothing to report; by 1922, all but two of the original claims had been dropped by the Georgia River Mining Company.

The first three Crown Granted mineral claims on Colling Ridge, Georgia, Georgia No.1 and Georgia No.2, were located on 20th September 1920; documents dating to 13th March 1924 show these claims registered in the names of the Georgia River Mining Company Limited (43.75% interest), Clarence E. Jarvis (25%), Edward Fish (25%) and Daniel Hume (6.25%). These preceded the acquisition of at least nineteen Crown Grants, acquired between 1923 and 1928 and registered in the name of Georgia River Gold Mines Limited; its successor company was Helena Gold Mines Limited. Little exploration activity was reported in the years immediately following these activities, other than upgrading and completion of the Georgia River trail to the mine site (Clothier 1926). Three years later, it was noted that: “Operations on the property have been at a standstill for a number of years, apparently because of a lack of funds” James (1929). However, operations recommenced in 1929, as described by Mandy (1929, 1930a, 1930b).

Documentation of subsequent development and mining activity at the Georgia River Mine are described by Mandy (1931, 1933a, 1933b, 1934a, 1934b, 1937); the latest of these accounts is recommended to the reader as an “snapshot” of the deposit’s geology, mineralization and development for the year-end of 1936. Mandy’s excellent account includes a map, mine plan and section, together with some interesting observations on the disposition and structure of the veins. Schatten (1995) reported that, in 1933, nine diamond drill holes totalling 929.6 m were completed with “no values of importance”.

Mandy (*op. ult. cit.*) also describes the 1935 incorporation of Gold Leasers Limited, a private company with an office adjacent to that of Helena Gold Mines. Gold Leasers leased the property of Georgia River Gold Mines Limited from Helena Gold Mines for the purpose of gold and silver production; construction of the mill occurred throughout 1936, with no mining. Graham (1938) describes that a Hadsel dry-grinding mill was installed during the spring months of 1937. During that year, a total of 454 t (500 T) was mined and milled, yielding 10,233 gm (329 oz.) Au, 12,752 gm (410 oz.) Ag and 3,312 kg (7,301 lb.) Pb at an average grade of 22.56 gm/t (0.658 oz./ton) Au, 28.11 gm/t (0.82 oz./ton) Ag and 0.73 % Pb (MINFILE³). Despite the renewed activity, Graham (1938) noted that there were no reserves of broken ore and subsequently that operations were suspended in 1937 and had not been resumed (Graham 1939). Anecdotal information alludes to an inability of the new mill to process the quartz-rich vein material.

Renewal of interest in the Georgia River Mine was probably triggered by the abrupt rise in gold prices in 1978. In 1979 and 1980, E & B Explorations carried out an extensive exploration program including claim staking, grid layout, geological mapping, prospecting, trenching, underground mapping and sampling and diamond drilling (Kruchkowski 1980, 1981). The results of this exploration indicated an excellent exploration potential for the Georgia River Mine. Diamond drilling at the mine was recommended and subsequently carried out in 1979, 1980 and 1981. Drill data were published for only the first two years (Kruchkowski 1981). Activity ceased during the 1980s recession in mineral exploration.

Exploration at the mine resumed in 1987, this time funded by Avatar Resources and comprised excavation of a trench along the Southwest Vein at its intersection with the Georgia Vein. A bulk sample was taken but never processed, owing to lack of funds. The trenching continued in 1988, together with diamond drilling (Kruchkowski and Konkin 1989) and in 1989 with further diamond drilling (Kruchkowski 1990), all of which targeted the Southwest Vein.

In 1990, a comprehensive program of sampling and ground based geophysical exploration was carried out by Bond Gold in the area of the mine, and to the west across the crest of Colling Ridge (Bray and Rainsford 1990). Eleven diamond drill holes thereafter tested geophysical anomalies and geological targets and another four holes tested known veins other than the Southwest Vein. The 1990 work is remarkable, inasmuch as it was the first and only exploration carried out beyond the immediate area of the Georgia River Mine prior to tenure by Auramex.

³ This history is reliant on MINFILE for the quantities mined because no statement of these numbers is made in contemporary accounts by Mandy and Graham.

Table 3. Summary of exploration at the Georgia River Mine.

(After Alldrick *et al.* 1996, Kruchkowski 2004)

Year	Activity
ca. 1910	Discovery
1911	Exploration pit to a depth of 2.44 m or 8' (feet) and a series of opencuts made on the vein; "good values" in gold and silver reported.
1912	Surface sampling and pit extended to a 5.18 m (17') deep test shaft.
1913	16.76 m drift along Bullion vein; surface samples returned erratic values of 6.9 to 127 gm/t Au.
1915	Bullion Vein drift advanced to 74.68 m; 10.67 m raise completed. Surface work on the Main Vein reported to be: 'very encouraging'.
1916	Bullion Vein drift advanced to 110 m (362'); 10.67 m (35') test winze on ore shoot.
1917	Bullion Vein drift advanced to 118.9 m (390'), raise breakthrough to surface. Bonanza ore assayed at 80.53 gm/t Au.
1918	Bullion Vein drift advanced to 125 m; cross-cut driven west for 10.67 m (35'); winze deepened to 12.8 m (42'), intersecting a quartz vein with "massive" pyrrhotite; returned values of 782 gm/t Au and 128.2 gm/t Ag.
1920	Location of Georgia, Georgia #1 and Georgia #2 Crown Granted mineral claims.
1922	Packhorse trail along Georgia River completed.
1923	Location of Gem and Gem #1 and Georgia #2 Crown Grants.
1924	Location of Goldfields, Goldfields #1, Goldfields #2, Goldfields #3, Sovereign, Sovereign #1 and Sovereign #2 Crown Grants.
1925	Georgia River Gold Mines incorporated; location of "June" group of Crown Grants.
1928	Wagon trail along Georgia River completed; camp construction; location of Sovereign Fraction, Danny Fraction and Gem Fraction Crown Granted mineral claims.
1929	Permanent camp completed; No.3 level advanced 158.50 m (520') towards SW Vein.
1931	Galloway (1932) described work to extend Bullion Adit (No.2 level towards Southwest Vein near its junction with the "main or Georgia vein" (<i>sic</i>); crosscut commenced in No. 3 Adit to explore possible extension of the " Georgia " vein east of workings.
1936	Construction of camp and mill site for a mill with 10 tonnes (11 short tons) per day capacity; no mining activity in this year.
1933	9 holes totalling 929.64 m; no grade encouragement. Erratic values from drifting to N and S of Southwest Vein.
1937	Installation of mill in spring; 454 t (500 short tons) of stockpiled material processed at grades of 22.56 gm/t Au, 28.11 gm/t Ag and 0.73%Pb.
1939-79	Hiatus
1979	6 BQ holes (342.91 m) test Southwest Vein near intersections with Main and Georgia veins.
1980	15 BQ holes (904.46 m) test Southwest and Georgia veins. 137 trenches completed. No. 2 Adit level sampled.
1981	14 BQ holes (1105.17 m) test Southwest. Main and Georgia veins. Inferred (non-43-101 compliant) reserves calculated from results.

Table 3 (continued)

Year	Activity
1987	Bulk sampling of Southwest Vein at intersection with Georgia Vein, over a length of 30 m and widths of 1.2 to 2.4 m; small geochemical survey at confluence of Hume Creek and Georgie River.
1988	15 BQ holes (2628.77 m) test Southwest, Main and Georgia veins. Inferred (non-43-101 compliant) reserves recalculated.
1989	8 BQ holes (1528.40 m) in Southwest and Georgia veins. Inferred (non-43-101 compliant) reserves calculated for two ore shoots within Southwest Vein.
1990	15 BQTH holes (1556.66 m) test 8 geophysical targets, 3 minor veins and mineralized shoots within Southwest Vein.
1995	19 NQ holes on 15 m centres totalling 1840 m defined drill-indicated blocks in the two high-grade shoots within Southwest Vein; geophysical and geochemical exploration to the west, along Colling Ridge.
1996	16 BTW holes testing a more southerly portion of the Southwest Vein referred to as Zone 2. In all, a strike length of 107 metres was drill tested with a total of 1,844 m.
2003	20 BTW holes, eight testing intersection of Summit and Main Veins and eleven testing intersection of Bullion and Southwest Veins with the Gem Vein.
2010	Detailed mapping of Colling Ridge and the Hume Creek Mylonite Zone; airborne magnetic and V-TEM survey.
2011	Minor fieldwork on the Hume Creek Mylonite Zone, southwest of the mine and discovery of the Gamebreaker showing on the eastern side of the property

Further exploration was recommended by Bray and Rainsford, but activity on the property ceased again, owing to the 1991 decline in mineral exploration funding.

Exploration continued in 1995 and 1996, this time under option to Aquaterre Mineral Development (Schatten 1995, Gruenwald 1996). The 1995 program completed coverage of the 1990 Bond Gold ground-based geophysical survey across the Southwest Vein and included geochemical surveys, and geological mapping. A total of thirty-five more holes were completed over the two seasons, all directed at the Southwest Vein. This drilling revealed the presence of several commonly large silica flooded and quartz stockwork zones lying outside the margins of the Southwest Vein (Gruenwald 1996). Recommendation was made to continue exploration, but the beginning of recession in 1997 effectively ended these plans.

In 2003, Mountain Boy Minerals Ltd. acquired an option on the Georgia River gold property from Exchequer Resource Corp. and drilled 20 holes for a total of 1010 m (Wojdak 2004, Kruchkowski 2004). Eight holes tested the projected intersection of the Summit and Main Veins; three of these holes returned values in excess of 2.5 gm/t over widths between 0.6 and 1.3 m. Twelve holes tested the north-northeast trending Southwest and Bullion veins, near their projected intersections with the northwest trending Gem Vein. These holes intersected altered and silica

flooded rocks, quartz veining and stockworks, but only one hole intersected a gram-plus value (5.45gm/t Au over 0.61 m). The twelve holes were drilled from a single pad, but their precise collar locations are not known at the time of writing.

On the basis of the work carried out to 1989, total combined (measured, indicated, inferred) reserves at Georgia River reported in 1989 were stated as 290,272 tonnes grading 28.7 grams per tonne gold (George Cross News Letter May 11, 1989). Drill indicated reserves reported in 1995 were 272,130 tonnes grading 27.7 grams per tonne gold (George Cross News Letter No.118 (June 20, 1995)). Neither of these estimates complies with National Instrument 43-101. Unpublished data from the 2003 work suggested an indicated tonnage of 130,000 tonnes grading 19.2 gm/t Au and an inferred tonnage, non-compliant with National Instrument 43-101, of 53,700 tonnes grading 16.9 gm/t Au. This information was never published. These non-compliant estimates are discussed in more detail by Metcalfe (2013) but, to summarise, it was recommended that none of these estimates could be relied upon without further work.

In 2010, 1:5,000 mapping was carried out along Colling Ridge (Metcalfe 2011), identifying the sequence as Upper Triassic Stuhini Group clinopyroxene-phyric mafic volcanogenic rocks, intruded by the Early Jurassic Colling Ridge Porphyry, part of the metallogenic Texas Creek Plutonic Suite. The area south and west of the Georgia River Mine is a zone of southwest-dipping mylonite, involving Colling Ridge Porphyry.

A helicopter-borne geophysical survey, comprising 705.1 line-km of magnetic and variable time domain electromagnetic (V-TEM) measurements was carried out over the western area of the property during the 2010 geological mapping. The data collected are the subject of the major part of this study. The Hume Creek Zone coincides with an interpreted conductivity anomaly identified by the survey. Subsequent inversion of these data (Pezzot and Metcalfe 2014) is consistent with a southwest-dipping conductive zone at the core of the Hume Creek Mylonite.

5.2. Glory Extension (Cardozo, Wood 5); MINFILE 103P 184

The Glory Extension mineral occurrence is one of a series including the Glory (103P 011), Glory Extension 2 (103O 006), B.C. Verde (103O 012) and Big Mike (103O 011), which compose a group of quartz sulphide vein occurrences peripheral to the Jurassic Bulldog Creek Pluton (see below). Discovery of the Glory showings was made in 1922 (Clothier 1923) and these occurrences were subsequently explored for low-grade, bulk tonnage potential (Clothier 1924, 1925), a radical concept at that time.

The first mention of the Glory Extension itself is by James (1928), who noted that an eponymous eight-claim group was owned by A. Linke. These tenures were subsequently transferred to the holder of the more northerly tenures, North Country Mining Company, of whom Linke was operations manager. Of the occurrences described by James, only the Glory Extension No. 8 lies explicitly on the present Auramex tenures although James notes that several minor showings lie near the base of slope. The mineralization is similar to that exposed to the north, with “appreciable” pyrite and rare sphalerite and galena.

James (*ibid.*) was not encouraged by the grades encountered in the Glory Group, remarking that more surface work was needed. In 1928, he noted a narrow quartz vein striking a little west of north and dipping steeply east, exposed 50 m above the valley floor (James 1929). A 30 cm (1 foot) interval across the vein returned 89.1 gm/t (2.6 oz./T) Au and 85.7 gm/t (2.5 oz./T) Ag. James further reported that Linke claimed good gold returns from wall rock. Samples from other showings further up the hill were not encouraging.

No other grades of significance were discovered in the remaining two years for which there are reports on the mineral occurrence and Mandy (1931) remarked: “Nothing of commercial importance is exposed in the twenty-four different showings and workings examined If exploration is continued, the operators are advised to prospect for showings that have some commercial potentialities If these are found they should be stripped, open-cut, and test-pitted before embarking on the expense of long deep-level crosscut tunnels (*sic*)”

No further work was carried out on these occurrences until, in 1981, mineral tenures were acquired covering the Glory Extension and showings peripheral to it. Some at least of the old adits were located and two programs of geochemical sampling were carried out on the ground (Cremonese 1982, 1983). No further work is recorded for this area. The junior author, in his 2010 property visit, did not find the adit despite welcome, detailed directions from Mr. Cremonese.

5.3. 1100, Ridge, N and Dickie Zones; MINFILE 103P 248

The ground covering the 103P 248 mineral occurrence was acquired by Auramex in 2010. Exploration of this area began in 1990, when prospecting located the 500 m x 50 m “N” showing (Visagie 1990a, 1990b). Two styles of mineralization are present at this showing. The first consists of massive sulphide lenses as large as 3 m x 5 m comprising pyrrhotite, pyrite, sphalerite and subordinate galena and chalcopyrite, apparently conformable with bedding and, in part, crudely banded. The second comprises quartz veins and weak stockworks as wide as 30 cm containing 1-10% disseminated pyrite and galena; the veins have strike lengths of as much as 30 m. The N occurrence is hosted by interbedded volcanic and sedimentary rocks of the undifferentiated Upper Triassic-Middle Jurassic Hazelton

and Stuhini groups, intruded by intermediate to felsic dykes. The volcanic rocks comprise feldspar phyrlic flows, tuff, lapilli tuff and agglomerate, locally with volcanic conglomerate and breccia. Sedimentary rocks comprise argillite and siliceous siltstone. A grab sample returned values of 0.17% Cu, 4.13% Zn, 0.29 gm/t Au and 6.2 gm/t Ag (Todoruk and Weekes 1993).

Work in 1993 and 1994 outlined the Dickie, 1100 and Ridge zones, 350 m west, 750 m west-southwest and 1250 m west-southwest of the "N" Zone, respectively. The Ridge Zone is a large, iron-stained area approximately 150 by 150 m, apparently hosted by intermediate tuffs, flows and flow breccia, intensely fractured to a shatter zone of randomly oriented fractures in an area of numerous 030 degree trending brittle faults. The faults tend to be very narrow (less than 2 m) but wider zones of closely-spaced fractures are associated with the faulting. Mineralization is concentrated along fractures and is composed of pyrite, pyrrhotite, arsenopyrite and minor sphalerite and galena. Massive sulphide 'lenses' within the fractures have been mapped and appear to have very limited strike length (less than 5 m) and are typically very narrow (less than 20 cm). Rock samples yielded as much as 1.87 gm/t Au and 104 gm/t Ag over narrow widths.

The 1100 Zone mineralization is noted in MINFILE as "possibly similar to that at the Ridge Zone". Drillholes intersected sections of strong alteration with pyrite and pyrrhotite, which returned as much as 0.4 gm/t Au over 1.52 m (Weekes 1994). The Dickie Zone is characterised by massive to semi-massive, bedding-parallel lenses and ribbons of pyrite within intermediate tuffs and tuff breccia. The sulphide lenses are typically very small (10 cm by 1 m) and can be traced for more than 200 m. Surface grab samples yielded as much as 0.22 gm/t Au.

Pezzot (1995) provided a comprehensive summary of exploration to that date. In 1994, a large field program was carried out, consisting of an airborne geophysical survey, soil and rock geochemical surveys, geological surveys and 7 diamond drill holes totalling 1,024 metres of BQ core (Weekes 1994). A total of 569 core samples, 71 soil samples and 102 rock chip samples were analysed.

The airborne survey covered an area of about 18 square kilometres and a total of 150 line kilometres. Strong conductive zones were detected northeast of the "N" and "Tat" zones (the latter southeast of the present property) in fine clastic sedimentary rocks interpreted to be the basal part of the Salmon River Formation.

Diamond drill hole Ash-4 tested one of these strong electromagnetic anomalies and intersected a thick section of graphitic argillite. A second hole tested the Dickie Zone, intersecting low-grade epithermal-style mineralization, which returned a value of 1.2 gm/t Au across 0.72 m. Five holes were directed to test the 1100 Zone gold-in-soil geochemical anomaly, but intersected no mineralization of economic significance.

In 1995, a 3.6 km grid was established over the 1100 Zone, with a single line extending southeast to the Hammer Lake area. A total of 126 soil samples were collected from the grid. Twenty-three lithochemical samples were collected from the 1100 Zone as well as the Hammer, Camp and Outram Lake areas. The work defined the 1100 Zone gold-in-soil anomaly in more detail and suggested that the anomaly may have been transported downslope from a source located southwest of the area tested by the 1994 drill program. An induced polarization survey comprising 1,425 metres was also completed (Pezzot 1996). The survey identified four northwest-trending combined chargeability and resistivity anomalies and a single chargeability-only anomaly. Further work was recommended, but no detailed work has been carried out since. Geochemical surveys and reconnaissance mapping (Lewis 2006a, 2006b, Lehtinen and Lewis 2007) were carried out in the area, but, although geochemical samples were collected, the focus of the exploration lay to the south of the N, 1100, Ridge and Dickie zones.

5.4. Gamebreaker showing

In 2011, Mr. S. Conley and the first author carried out mapping and geochemical sampling upslope from the 1100 Zone and discovered the Gamebreaker showing between the Ridge and 1100 zones (Metcalf 2012). No further exploration has been carried out in this area but is strongly recommended herein.

6. Geological Setting and Mineralization

6.1. Regional Geology

The property is located within the Intermontane Belt of the Canadian Cordillera on the western margin of the Stikine terrane (Stikinia). More specifically, it lies within an area extending north and northwest from a southern apex at the old mining camp of Anyox and which hosts more than 1000 mineral occurrences of dominantly precious metal vein type, with related skarn, porphyry and massive sulphide occurrences. Seventy-eight of these occurrences are past-producing mines, fifty-seven of which produced predominantly precious metals. The area encompasses metamorphic and plutonic rocks of the Coast Plutonic Complex on the west, is dominated by Stikinia and includes part of the western margin of the Bowser Basin (Evenchick 1991a, 1991b) to the east (Figure 3). Named the Stewart Complex (Grove 1986), the area has enjoyed decreasing complexity with time and research (e.g.: Anderson 1989, 1993, Alldrick 1993, Alldrick et al. 1996, Anderson et al. 2003) and is commonly referred to as British Columbia's Golden Triangle.

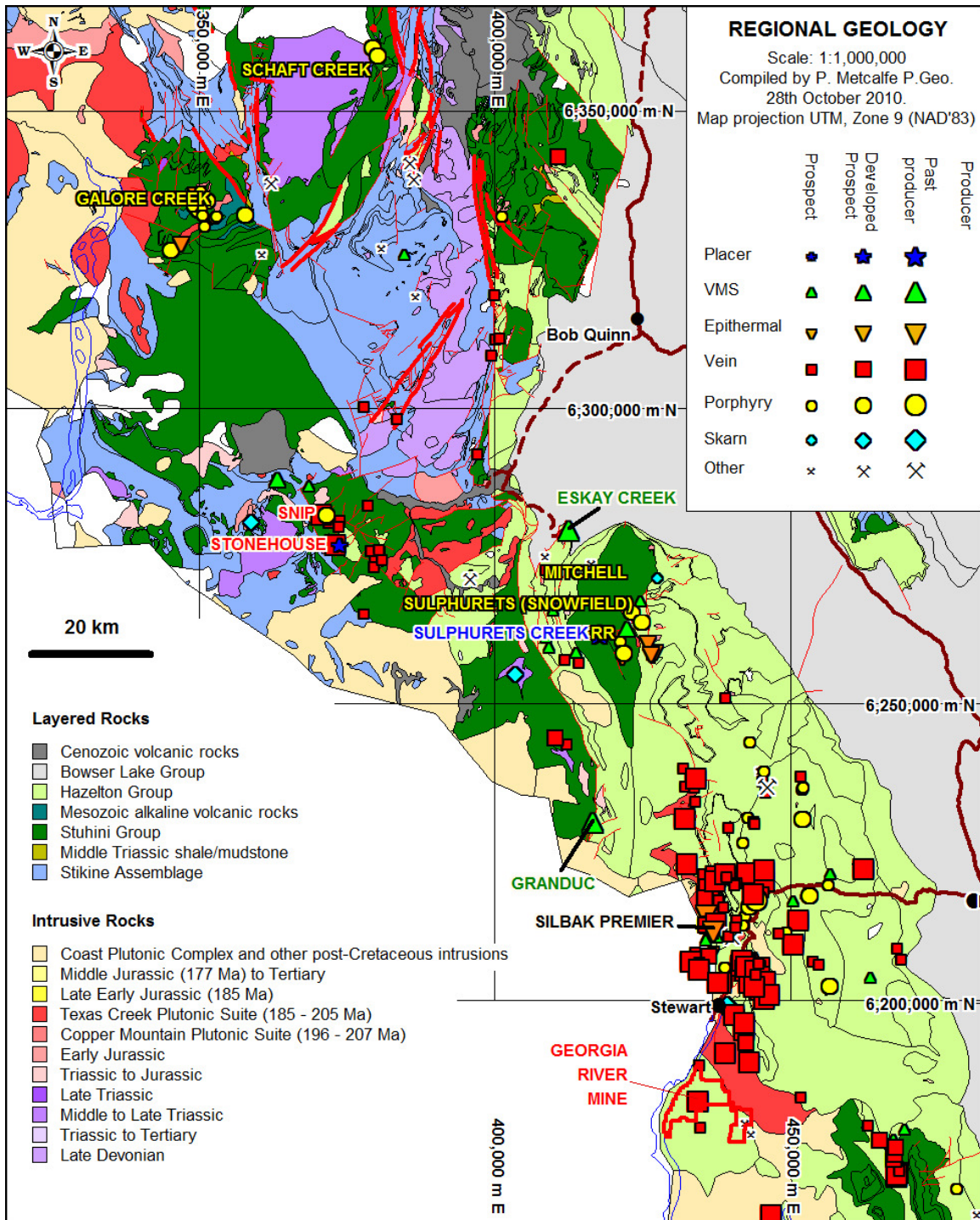


Figure 3: Generalised regional geology after Massey et al. (2005).

The red polygon near the south edge of the map is the Georgia River Mine property boundary. The Anyox mining camp (not shown) is 45 km south of the map's southern edge.

Northwestern Stikinia is underlain by rocks of at least five Palæozoic to Cenozoic tectonostratigraphic packages (Anderson et al. 2003). The three lower assemblages comprise multiple, overlapping Late Palæozoic and Early Mesozoic arc assemblages, of which the Late Triassic Stuhini Group is the latest product. These assemblages form a base for the Jurassic arc and basinal assemblages; the Jurassic and older rocks are intruded by the Palæogene post-kinematic granitoid intrusions of the Coast Plutonic Complex.

Metalliferous deposits discovered to date in northwestern Stikinia are associated mainly with Mesozoic arc assemblages and predominantly those of Jurassic age. Formation of the Jurassic island arcs and their associated mineralization occurred during four magmatic episodes, each from 5-10 Ma in duration and bracketed by Triassic-Jurassic, Early Jurassic, Middle Jurassic, and Cretaceous-Eocene deformations (Anderson et al. 2003).

The red polygon near the south edge of the map is the property boundary. The Anyox mining camp (not shown) is 45 km south of the map's southern edge.

The magmatic episodes, together with examples of their derivative mineral deposits, are:

1. Latest Triassic to earliest Jurassic (ca. 205-196 Ma) alkaline porphyry-related, deformed mesothermal Ag-Au veins (e.g.: Red Mountain); also Triassic Besshi-style volcanogenic massive sulphide (VMS; Granduc deposit);
2. Early Jurassic Texas Creek Plutonic Suite (ca. 196-187 Ma) alkaline porphyry and porphyry-related epithermal, transitional and mesothermal Ag-Au veins and base and precious metal deposits (e.g.: Premier, Bronson Creek, Kerr, Sulphurets, Mitchell and Snowfield deposits);
3. Latest Early Jurassic (ca. 185-183 Ma) small, poorly mineralized porphyry intrusions; and:
4. Middle Jurassic (ca. 175-172 Ma) calc-alkaline arc and tholeiitic back-arc magmatism and syn- and epigenetic, stratabound base and precious metal deposits (e.g.: Eskay Creek deposit) related to the back-arc basin formation.

Arc activity ended with deposition of the Middle and Upper Jurassic Bowser Lake Group sedimentary rocks. As noted above, the southwestern margin of Stikinia is bounded by the Palæogene post-kinematic Coast Plutonic Complex.

6.2. Property Geology

The area was initially mapped by McConnell (1913); subsequent work (Grove 1986) identified the Mesozoic rocks underlying the property as part of a pendant in the Coast Plutonic Complex. The latest work (Evenchick et al. 1999, 2004) determined that the Jurassic (Texas Creek) isotopic age of the Bulldog Creek Stock, at the northern edge of the Georgie River property indicates that the area is not a pendant, rather it lies on the eastern margin of Stikinia. A geological map of the property area, adapted from Evenchick et al. (1999.) is shown in Figure 4.

Pyroxene-phyrlic volcanic and volcanogenic rocks on Colling Ridge are interpreted as part of the Late Triassic Stuhini Group (Metcalf 2011). These supracrustal rocks are presented in northeast-vergent folds with steeply dipping to overturned northeast limbs. Layered rocks are penetratively foliated; foliation is defined by alignment of chlorite and is interpreted as an axial planar cleavage. Several structural domains mapped near the Georgia River Mine are separated by southwest dipping faults developed along this cleavage. Similar deformation in Lower Jurassic rocks is reported in the southeast of the property (Weekes 1994).

The supracrustal rocks are intruded by the Early Jurassic Bulldog Creek Stock and Colling Ridge Porphyry. Both contain textures distinctive of the Texas Creek Plutonic Suite, to which they were assigned by Evenchick *et al.* (2004) on the basis of their U-Pb isotopic ages. The 189.8 ± 0.3 Ma Colling Ridge Porphyry intrusions postdate folding and, at the north and south ends of Colling Ridge, have irregular chilled margins against the supracrustal rocks. Both supracrustal rocks and Early Jurassic intrusions are metamorphosed to lower greenschist facies, with abundant development of chlorite after mafic minerals. Biotite occurs only locally, in hornfelsed rocks near intrusive contacts, except near the Georgia River Mine where it is more abundant. The biotite is interpreted to be of hydrothermal origin.

The Colling Ridge Porphyry also carries a southwest-dipping shear fabric parallel to the axial planar cleavage of the first deformation. Post-intrusion high-strain zones, parallel to the axial planar cleavage and characterised by this shear fabric, increase in abundance and width from the north and south ends of Colling Ridge towards its central part. At the centre of the ridge, 70 to 150 m southwest of the main Georgia River Mine portals, is the 750 m-wide Hume Creek Mylonite Zone, bounded by southwest dipping faults (Metcalf 2011). The location of the zone is shown in Figure 7.

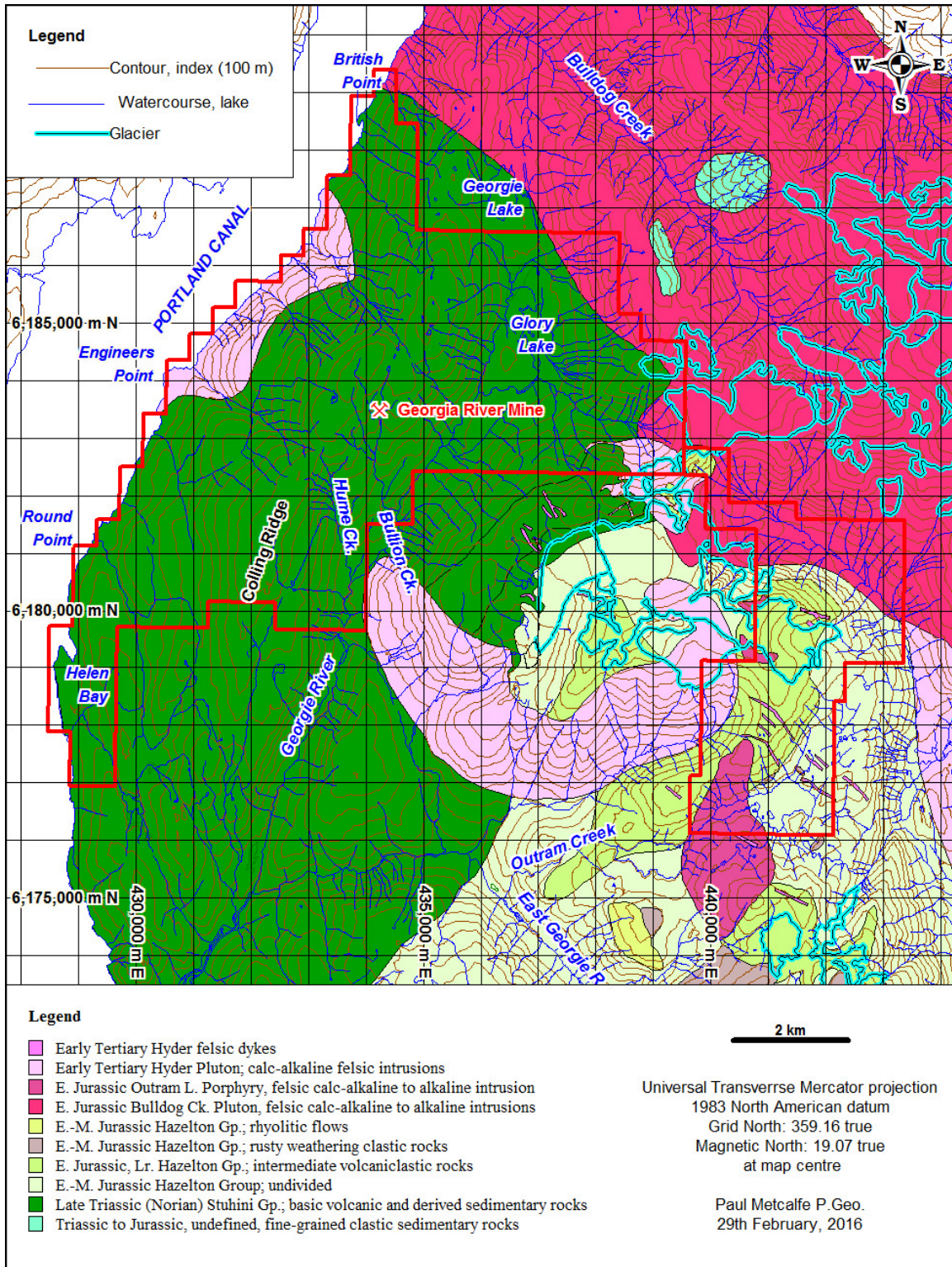


Figure 4. Property geology, adapted from Evenchick et al. (1999).

The assignment of rocks on Colling Ridge and Mt. Brown to the Stuhini Group is based on wholerock chemistry (Evenchick et al. 2004) and on phenocryst composition.

The Hume Creek Mylonite Zone contains chlorite blastomylonite after the supracrustal mafic volcanic and volcanosedimentary rocks; primary textures in these rocks are obliterated save for the coarsest clasts, which assume extreme aspect ratios. Bodies of Colling Ridge Porphyry are similarly deformed to felsic protomylonite (easily misidentified as coarse wacke on cursory inspection) and are elongated along the shear fabric. Protoclasts in the protomylonite are relic feldspar megacrysts, presented as winged inclusions indicating a dextral component of shear. The vertical component of shear, if any, is not known at the time of writing.

Hornblende+feldspar+quartz+biotite phyrlic dykes of the Eocene Hyder Plutonic Suite are locally abundant, unfoliated, largely unaltered and clearly post-kinematic. They generally strike northwest and dip steeply southwest, but also occur northeast-striking and subvertical. Weakly disseminated pyrite, hosted by a similar lithology 3.5 km east of the mine did not return significant values of Au.

6.3. Significant Mineralized Zones

Newly discovered mineralization on the property (i.e.: during the present tenure) comprises the Hume Creek Zone, discovered in 2010 (Metcalf 2011) and the Gamebreaker showing, discovered in 2011 (Metcalf 2012). Brief descriptions of all mineralized veins, much of them excerpted or paraphrased from previous reports, are presented here. For continuity, the mineral occurrences in the southeast of the property will be described first.

6.3.1. N, 1100, Dickie and Ridge Zones and Gamebreaker showing

A single MINFILE occurrence (103P 248) covers four separate showing areas in the southeast of the property. All are well documented by previous work (Visagie 1990a, 1990b, Todoruk and Weekes 1993, Weekes 1994, Lewis 2006a, 2006b, Lehtinen and Lewis 2007), all of which are excerpted or paraphrased herein. The published location most closely corresponds to that of the “N” Zone.

Kuran (2003) divided the mineral occurrences in the area into four main types, two of which are relevant to the immediate area. This author has varied Kuran’s classification in listing the Dickie with the “N” showing, pursuant to the description given by (Weekes 1994). The types are:

1. Volcanogenic massive sulphides (“N” and Dickie showings) and:
2. Structurally-controlled vein and disseminated gold+arsenic (1100 and Ridge showings).

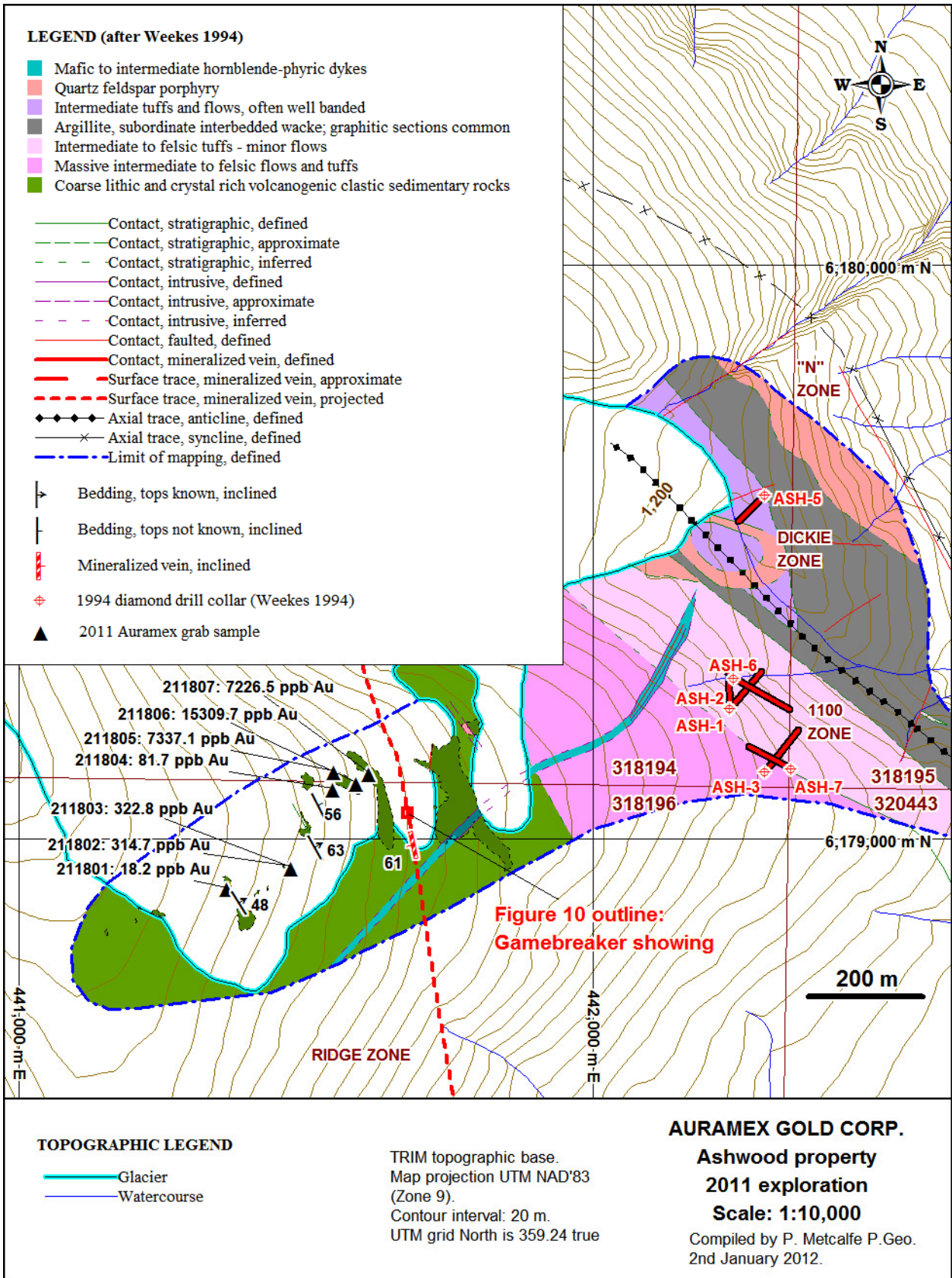


Figure 5. Geological map of the area west of "N" Zone (after Weekes 1994).

The outline of Figure 14 is shown in red.

6.3.1.1. "N" Zone

The "N" showing, discovered in 1990, is located at approximately 442,350 m E 6,179,750 m N, (the location given by MINFILE; Figure 8). The host lithologies are mapped as undifferentiated Lower Hazelton Group volcanic and sedimentary rocks, comprising feldspar phyrific flows, tuff, lapilli tuff and agglomerate, locally with volcanic conglomerate and breccia and intruded by intermediate to felsic dykes (Greig *et al.* 1994, Evenchick *et al.* 1999 Lewis 2006a 2006b). Sedimentary rocks comprise argillite and siliceous siltstone.

Visagie (1990b) described two styles of mineralization. The first comprises massive polymetallic sulphide lenses as large as 3 m x 5 m comprising pyrrhotite, pyrite and sphalerite and subordinate galena and chalcopyrite, crudely banded in part and stratabound, possibly stratiform in nature. The second comprises quartz veins and weak stockworks, as wide as 30 cm with strike lengths of as much as 30 m, containing 1-10% disseminated pyrite and galena.

Extensive sampling, some of it carried out by trained climbers (Todoruk and Weekes 1993), was unable to find the original stratabound showing, but confirmed that the predominant style of mineralization is bedding-parallel, in wacke/siltstone/argillite sediments. A grab sample returned values of 0.17% Cu, 4.13% Zn, 0.29 gm/t Au and 6.2 gm/t Ag.

6.3.1.2. 1100 Zone

The 1100 Zone is located at 442,000 m E 6,179,400 m N, roughly 500 m southwest of the "N" showing. The zone is a large, strong geochemical anomaly defined by Au and arsenic (As) in soil (Todoruk and Weekes 1993). In 1994, five diamond drill holes were directed to test this anomaly. These intersected sections of strong alteration with pyrite and pyrrhotite (Weekes 1994), but only weakly anomalous gold values were returned (the highest was 400 ppb Au and 5965 ppm arsenic (As) over 1.52 metres from ASH-7).

Weekes (*ibid.*) noted that results from the surface sampling and drilling did not fully explain the soil anomaly. He added that surface mapping had traced a series of subparallel 030-trending brittle faults from the Ridge Zone (described below) to within 100 m of the 1100 zone and suggested that the poorly exposed 1100 Zone was fracture controlled, poddy and as limited in extent as that at the Ridge Zone. A second possibility was that a structural direction existed that had not hitherto been recognised. This was confirmed by Pezzot (1996) who noted four high chargeability zones in the general area, interpreted as isolated pods of chargeable material, elongated in a NW-SE direction. A strong, deep chargeability anomaly was also discovered within the grid area and additional, anomalous IP responses were observed at its southwest end but were never fully delineated.

The third possibility considered was a source for the auriferous float between the Ridge and 1100 zones and directly uphill from the latter. In this area, a number of 030-trending structures had been mapped but not explored. A creek draining the area yielded greater than twenty counts of gold from one pan, compared with only one or two counts per pan from creeks draining the Ridge zone. Further work was recommended in the area between the 1100 and Ridge zones.

6.3.1.3. Dickie Zone

The Dickie zone was discovered in 1994 during mapping of the area between the 1100 Zone and “N” Zone (Weekes 1994). The zone is, atypically, hosted by volcanosedimentary rocks interpreted (*ibid.*) as the oldest exposed in the area; most showings of similar style occur within the basal 70 m of the overlying sedimentary unit. The lenses are typically small (10 cm x 1.0 m) but can be traced for over 200 m and appear to represent a specific stratigraphic interval. Surface grab samples returned values as high as 225 ppb Au. A single 95 m diamond drill hole beneath the Dickie Zone intersected only minor sulphide over narrow widths.

6.3.1.4. Ridge Zone

The Ridge Zone is located at 441,450 m E, 6,178,700 m N, 1.4 km southwest of the published location of the MINFILE occurrence. Several anomalous gold soil values were obtained in the area during the July 1993 program. Further exploration located an area of intensely fractured, brecciated and hydrothermally altered volcanic and volcanosedimentary rocks mineralized with pyrite and/or arsenopyrite and, locally, with chalcopyrite (Todoruk and Weekes 1993). The 150 by 150 m area is extensively iron-stained.

The Ridge Zone lies in an area of numerous 030-trending brittle faults, each generally less than 2 m wide, associated with wider zones of closely-spaced, randomly oriented fractures composing a “shatter zone” (Weekes 1994). Mineralization, comprising pyrite, pyrrhotite and arsenopyrite with minor sphalerite and galena, is concentrated along these fractures. Massive sulphide lenses mapped within the fractures have strike lengths of less than 5 m and are typically less than 0.2 m wide. Sampling returned as much as 1.87 gm/t Au and 104 gm/t Ag over narrow widths.

6.3.1.5. Gamebreaker showing

The Gamebreaker showing was discovered in 2011, midway between the Ridge Zone and the 1100 Zone float occurrence, the latter roughly 250 m directly downhill from the new discovery (Figure 9). The showing (Figure 10) comprises a 10 m strike length of a west-southwest dipping quartz sulphide vein with abundant pyrite and arsenopyrite. Samples taken from both the vein and its K-feldspar alteration halo were analysed and returned subeconomic but consistently anomalous gram-plus values of Au in all chip samples across the vein and in all but one of the chip samples across wallrock (Metcalf 2012).

Weekes (1994) had noted:

Potentially one of the most important discoveries of the 1994 field season came from gold panning. Numerous creeks draining into Camp Lake were panned for gold, these creeks drain the area of the Ridge zone and the area between the Ridge zone and 1100 zone. . . . Only one or two gold sightings per pan could be obtained from creeks that directly drain the Ridge zone while greater than twenty counts per pan could be obtained from a creek draining the area between the Ridge zone and 1100 zone Very little work has been done on this area

It is possible that the Gamebreaker showing is the source of the float and geochemical anomaly at the 1100 Zone and probable that it is the source of the high colour count. The reader should note that this oldest of regional exploration methods remains one of the most effective in the Golden Triangle, if followed up properly and if the mineralization is exposed.

6.3.2. Georgia River Mine

The 90 year-old adits at the Georgia River Mine were, to the best of the author's knowledge, last visited in 1996 and are presently inaccessible. Consequently, description of the mine herein is heavily dependent upon previous accounts, most notably that of Kruchkowski (1981-2004).

Kruchkowski, from previous records and through several years of detailed exploration in the field, identified eighteen veins in or near the Georgia River Mine, although one, the Camp Vein, was never identified in the field. The approximate locations of the remaining veins are shown on Figure 11.

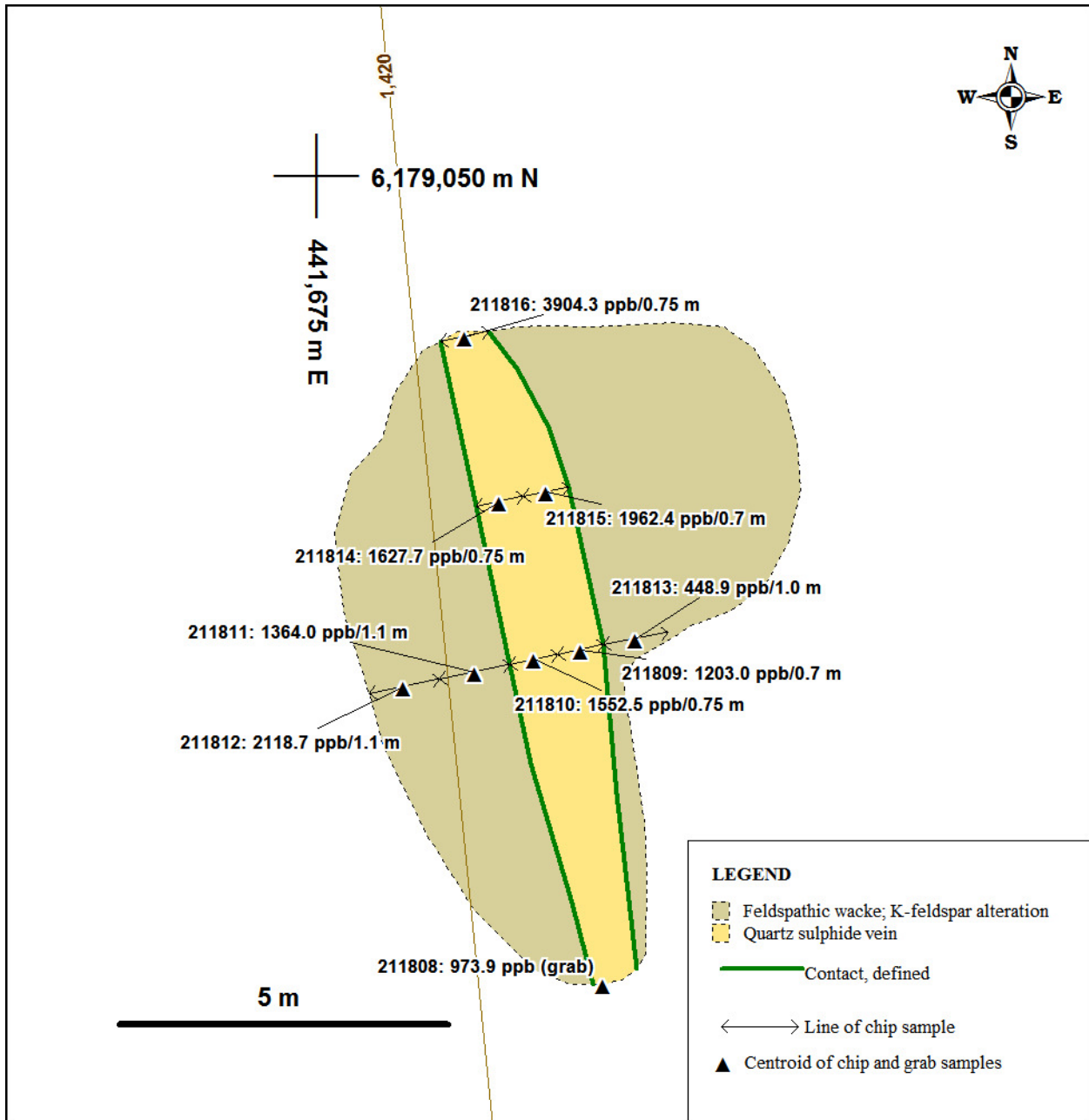


Figure 6. Gamebreaker showing: sample thicknesses and values.

Data from Metcalfe (2012). Scale 1:100.

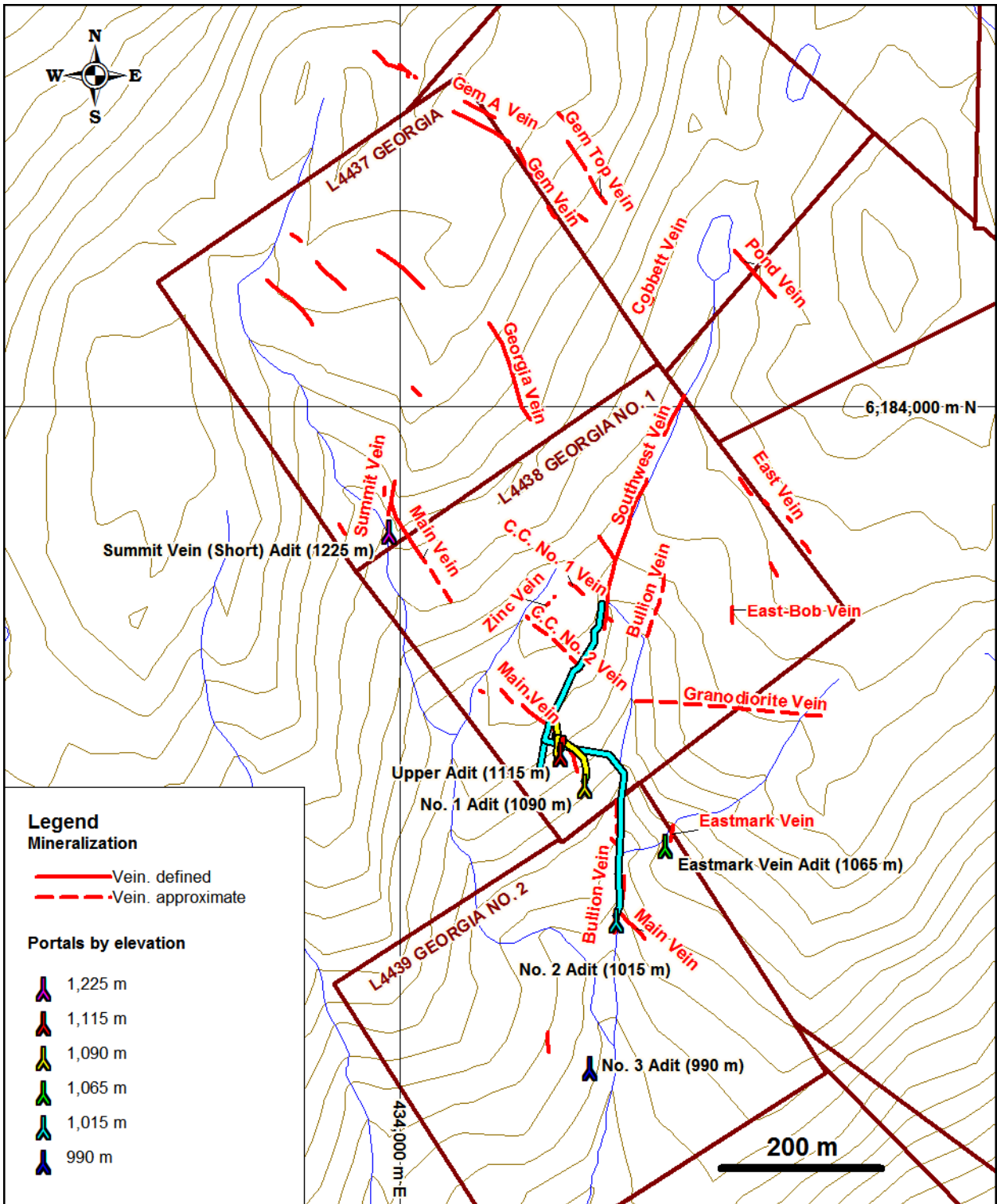


Figure 7. Surface traces of veins and adit locations at the Georgia River Mine.

N.B.: Locations of the surface traces and underground workings, digitised from archived reports (mainly Kruckowski 1981), are approximate. In particular, the depicted trace of the Cobbett Vein is shorter than the 90 m strike length described in the text. Adit traces are colour-coded to the elevation of their portals. The exact trace of the No.3 Adit is not known.

The veins fall into three types:

1. Shear zones striking roughly 140 and inclined to the southwest at roughly 60°; mineralization consists of white quartz (Schatten 1995) and siliceous breccia, typically with less than 5% disseminated, blebs and stringers of pyrite and pyrrhotite, with or without sphalerite and galena (Main, C.C. No.2, C.C. No.1, Georgia, Gem, Gem Top, Gem A and Pond veins);
2. Generally north-northeasterly striking quartz-filled fault fissures (herein interpreted as dilational fractures), mineralised with roughly 10% disseminated, blebby and stringer pyrite, pyrrhotite, sphalerite and galena, with or without minor chalcopyrite and arsenopyrite (Summit, Cobbett, Southwest, Bullion, East, Eastmark, East Bob and Camp veins) and:
3. Northeasterly to easterly striking, shallowly southeasterly or southerly dipping veins associated with granodiorite dykes and mineralized either with massive sphalerite and pyrite or with quartz-carbonate stringers and veins containing blebs and disseminations of pyrite and pyrrhotite, with or without sphalerite (Zinc and Granodiorite veins).

Kruchkowski (1981) described the first phase of mineralization as early northwest faulting followed by later faulting in a northerly direction. Chlorite schists formed along these fault zones with subsequent introduction of quartz sulphide mineralization. The reader should note here that the chlorite associated with the faults cannot have formed during folding and regional greenschist metamorphism, because the faulting postdates intrusion of the Colling Ridge Porphyry. More probably, it is a retrograde alteration of the biotite schists described in Schatten (1995) and of the metasomatic biotite observed by this author peripheral to the Colling Ridge Porphyry intrusions.

The quartz in the southwest dipping, shear-hosted veins is sparsely mineralized with pyrite, pyrrhotite, galena and sphalerite and with minor arsenopyrite. This is consistent with this author's observations of axial planar cleavage on Colling Ridge southwest of the Georgia River Mine, save that kinematic indicators in intermediate to felsic dykes of the Colling Ridge Porphyry carry a dextral shear fabric from a reactivation of this cleavage.

Kruchkowski identified the second stage (or main mineralization stage) as beginning with the intrusion of granodiorite dykes and the formation of fractures, brecciation of the early quartz veins and stringers and deposition of polymetallic minerals. It is inferred herein that, by "granodiorite", Kruchkowski refers to the earlier, Colling Ridge Porphyry.

Kruchkowski inferred two separate mineralising events related to the second stage, the first of these emplacing quartz-poor, sphalerite-pyrite rich veins and stringers in sericite altered fracture zones near the intrusive(s), producing precious metal-poor veins. The second part of the event comprised brecciation, particularly near the intersection of north-trending and southwest dipping structures (again consistent with this author's observations at surface) and mineralization with quartz containing "seams" of massive pyrite, pyrrhotite, sphalerite and galena with minor chalcopyrite, rare arsenopyrite and very rare electrum. High-grade gold intersections generally contain 5-30% sulphides. Pyrite, and pyrrhotite compose as much as 50% of massive sulphide sections and sphalerite and galena generally compose equal parts of the remaining sulphides. Kruchkowski records the presence of mariposite and/or fuchsite in the chlorite schists, but there is no record of chemical analysis; vivid green chlorite, retrograde after hydrothermal biotite, has been observed elsewhere in the Golden Triangle.

The final stage comprised post-mineralising fault movement along the vein system and deposition of quartz-calcite veinlets. This stage produced narrow drusy quartz-filled fractures within observed intrusive rocks. Calcite was the last gangue mineral to be deposited and is commonly found filling fractures in wall rock.

The following descriptions of individual veins are adapted largely from Kruchkowski (1981). The shear-hosted veins are described in order, from hanging wall to footwall of the zone. The dilational veins will be described from west to east.

6.3.2.1. Shear-hosted veins

6.3.2.1.1. Main Vein

The Main Vein is the most southwesterly (*i.e.*: in the hanging wall) of those southwesterly dipping shear-hosted veins discovered to date and is also the thickest, being in excess of 10 m Schatten (1995). It strikes along 135 and dips 55° to 65° to the southwest. The vein has, to date, been traced along a strike length of 650 m and exhibits an apparent dextral offset of 6 m along the structure of the Southwest Vein and of 65 m along the structure of the Bullion Vein.

The vein is a siliceous replacement zone composed of layers of siliceous material and white quartz separated by bands of schist. The intensity of the silica flooding decreases gradationally away from the structure into the country rocks. Sulphide mineralization is generally sparse, comprising pyrite, pyrrhotite, and minor arsenopyrite. Sampling underground, 1979 drilling and 2 trenches returned a low average value of roughly 0.1 gm/T (0.003 oz./T) Au along the vein.

Dearin (in Kruckowski 1981) describes the underground exposures of the Main Vein thus:

The Main Vein was intersected in both Adit One and Two. The average true width underground is about 1.5 m (5.0 feet) with an average dip of 60° SW. The vein is characteristically a silicified alteration zone containing narrow 0.3 m (one foot) quartz stringers. Disseminated sulphides, usually pyrite, is (sic) present in the alteration with pyrrhotite, galena and pyrite in the quartz. As mentioned above, when this vein intersects the Southwest Vein a noted increase in sulphides occurs in the Southwest Vein.

6.3.2.1.2.C.C. No.2 Vein

The C.C. No.2 vein lies roughly 80 m northeast of the Main Vein (*i.e.*: in its footwall) with roughly the same strike. Studies of the vein and consequent descriptions are brief; Kruckowski (1981) describes the vein as comprising “stringers and lenses of massive pyrite, sphalerite and galena”, further noting that: “Low gold values were obtained”. The strike length over which the vein has been traced, or is inferred, is roughly 90 m. It appears to be constrained to the southeast by a projected intersection with the Southwest Vein’s structure. The vein’s thickness is as much as 1.5 m.

6.3.2.1.3.C.C. No.1 Vein

The C.C. No.1 Vein lies in the footwall of the C.C. No.2 vein, roughly 70 m to the northeast. Kruckowski (1981) notes that its strike length is also roughly 100 m. The vein is as thick as 1.5 m, contains very sparse mineralization and consists of quartz veins, stringers and boxworks.

6.3.2.1.4.Georgia Vein

The Georgia Vein reportedly lies 60 m northeast and in the footwall of the C.C. No.1 Vein and 210-220 m northeast of the Main Vein, with parallel strike to both structures. The vein is exposed over a strike length of 450 m, is approximately 1 m in thickness and appears to pinch out to the northwest into a series of quartz veinlets (Kruckowski 1981). The vein’s southeastern extent remains unconstrained at the time of writing; mapping to date does not show the vein’s persistence across the structure of the Bullion Vein, although this would be a reasonable assumption, given the vein’s apparent dextral offset of approximately 27 m across the structure hosting the Southwest Vein. The surface trace of the vein’s northwestern exposure has been mapped, confirming its extent and general thickness.

Kruchkowski (*ibid.*) describes the Georgia Vein as consisting of “siliceous volcanic inclusions” within quartz; the silica is almost certainly hydrothermal replacement. The vein generally carries as much as 5% pyrite and pyrrhotite with local concentrations of sphalerite and minor galena. Assays for both trenching and drilling (*ibid.*) indicate low gold values of 0.1 to 0.17 gm/t (0.003 to 0.005 oz./T Au) along the explored vein. However, Kruchkowski further notes that: “Several short and narrow stringers paralleling the Georgia vein near Trench 72 show interesting values in gold”.

6.3.2.1.5. Gem Vein

The southeastern end of the mapped extent of the Gem Vein is 150 m northeast of the Georgia Vein. Its strike is parallel to that of the Georgia Vein, its mapped strike length (Figure 11) is 340 m and its reported thickness is between 1 and 3 m. The author, during 2010 exploration, measured a strike of 145 and a southwest dip of 70° at the vein’s southeastern limit.

At the location examined, the Gem Vein comprises brecciated quartz, healed by clay minerals and/or sericite, rather than quartz. A later phase of quartz mineralization appears barren but exhibits banding subparallel to the margins of the quartz leader. Kruchkowski (1981) reported that mineralization along the Gem Vein is “generally sparse with local concentrations of pyrite (and) pyrrhotite with minor sphalerite and, rarely, galena”. However, Kruchkowski further noted that, at a flexure in the vein from its normal southeasterly strike to a more south-southeasterly direction, abundant sulphide mineralization is present: “Trench 111 had massive pyrite and sphalerite stringers and averaged 8.2 gm/t (0.24 oz./T) Au over a 2 m interval. This zone also appears to be on strike with the significant intersections in DDH GM-16, 17, 18 (1.1 gm/t Au over 0.68 m, 7.2 gm/t over 1.52 m and 0.064 over 2.07 m respectively)”. The reader should note that the geometry of this enriched zone is entirely consistent with mineralization in the dextral stress field inferred by the author, above. Massive pyrite-sphalerite float on strike with the Gem Vein suggests its possible continuation to the south (*ibid.*). Drilling in 1990 returned a value of 7.18 gm/t Au over 0.83 m from the projected southeastward extension of the Gem Vein (Bray and Rainsford 1990).

6.3.2.1.6. Gem “A” Vein

The Gem “A” Vein is one of two veins in the footwall of the Gem Vein, in this case less than 20 m horizontal distance from the latter. The vein is of considerably shorter strike length (40 m) than the Gem but is as thick as 2 m. Kruchkowski (*op.cit.*) described the vein as containing only sparse sulphides and returning low gold values ranging from 0.7 to 2.4 gm/t Au.

6.3.2.1.7. Gem Top Vein

The Gem Top Vein has a mapped strike length of roughly 130 m and lies approximately 60 m northeast of the southeast part of the Gem Vein, in the latter's footwall. Kruchkowski (*op.cit.*) described the vein as being of similar thickness and mineralogy to the Gem "A" Vein, similarly returning low gold values, from 0.7 to 2.4 gm/t Au.

6.3.2.1.8. Pond Vein

The Pond Vein consists of a wide zone similar to the Main Vein in composition. The vein strikes 140 and has been traced over a distance of 100 m. The vein consists of zones of siliceous material separated by sericite schists. The vein appears to be terminated by a fault to the northwest and pinches into small quartz stringers to the southeast. Low gold values were obtained in one trench.

6.3.2.2. North-northeast-striking (dilatational) veins

North-northeast-striking, subvertical to steeply westerly-dipping fractures are locally abundant in the mine area. The two largest and most persistent along strike are those hosting the Bullion and Southwest veins. The reader should note that at least two of the shear-hosted veins are offset with dextral sense across these two structures. Again, this is consistent with the author's observations of dextral kinematic indicators in larger-scale shearing involving Colling Ridge Porphyry intrusions on Colling Ridge.

6.3.2.2.1. Summit Vein

The Summit Vein is located at the extreme westerly edge of the presently defined area of the Georgia River deposit (Figure 11). The vein itself consists of parallel narrow quartz lenses exposed over short strike lengths and over an east-west distance of 11 m, with individual quartz lenses varying from 0.07 m to 0.33 m in width (Kruchkowski 2004). A large area was outlined by historical stripping of overburden and both grab sampling of the dump and chip sampling of the veins returned locally high gold values. Kruchkowski (*ibid.*) noted that select grab sampling in 1980 had returned values as high as 312 gm/t Au from a mineral dump in the area of the vein, further noting that best results from the partially stripped area gave 103 gm/t gold over 0.33 m and 47.9 grams/tonne gold over 0.07 m; these last values are corroborated by Kruchkowski (1981). Other stringers returned values of 3 gm/t for this area.

6.3.2.2.2. Cobbett Vein

The Cobbett Vein has been traced for a strike length of 90 m parallel to the Summit and Southwest veins. It is the next most northerly of the dilatational veins, but its trace does not lie along structural strike from the Summit Vein; rather it lies roughly 90 m west of the projected northward trace of the Southwest Vein (Figure 11). Sections of the vein are as wide as 3 m.

Kruchkowski (2004) noted that: "(The vein) is a wide zone of quartz and calcite with generally low sulphide content where observed. However, stringers of massive pyrite, galena and sphalerite striking into and contiguous to the Cobbett vein show appreciable silver values and occasional gold values. A 1980 trench on the Cobbett Vein (exposed) massive pyrite sphalerite stringers that averaged 8.22 gm/t over a 2 m interval. (The presence of) massive pyrite and sphalerite float on strike with this zone suggests a continuation to the south. The zone may be (contiguous with) the zone intersected in drill holes GM-16, 17 and 18 (1.09 gm/t over 0.68 m, 7.2 gm/t over 1.52 m and 2.2 gm/t over 2.07 m, respectively) Drill holes 88-02 and 88-03 may have encountered this zone (8.1 gm/t over 0.91 m and 1.2 gm/t over 0.49 m, respectively)".

6.3.2.2.3. Southwest Vein

The Southwest Vein lies 300 m east of the Summit Vein. Much of its surface trace has been exploited by a tributary of Bullion Creek, creating a small stream gully immediately west of the Bullion Creek gully. The tributary's confluence with Bullion Creek is trellised, owing to the intersection of the C.C. No.1 Vein with the Southwest and Bullion Veins in that immediate area.

Kruchkowski (1981, 2004) describes the Southwest Vein as consisting of "short discontinuous and overlapping quartz lenses within a continuous zone of green chlorite schist". This schistose zone varies between 1 and 4 m in width and shows evidence of repeated movement along fault zones. Within the schist, the quartz lenses pinch and swell, individual lenses are generally 8 to 30 m in length, may have as much as 20 m depth extension and average 0.3 m in width.

Kruchkowski (2004) notes that the vein has a 75° westerly dip near its intersection with the Main vein, changing to a near-vertical dip to the north, near its intersection with the Georgia Vein. The Southwest Vein becomes narrower to the north of the latter intersection, between its intersections with the Georgia and Gem veins. There is no drill or surface information on the Southwest Vein at its intersection with the Gem Vein, owing to the presence of a small tarn along the structure at that point.

South of the Main Vein, exposures west of and above the No 3 Adit indicate that the vein is present in mica schists as short quartz stringers pinching and swelling along fault gouge and sheared, faulted volcanic rock. Kruchkowski does not specify the species of mica. Schatten (1995), during detailed mapping and diamond drilling of Zone 1 of the Southwest Vein, noted a contact aureole extending some 25-50 m from the periphery of a granodiorite plug. Within the aureole, supracrustal rocks have been metamorphosed to a plagioclase-biotite schist characterised by the common occurrence of silica-replaced plagioclase phenocrysts, moderate to strong silica flooding, quartz lenses and patchy chlorite+epidote; biotite occurs as fine masses along the plane of foliation.

The Southwest Vein has been the target of what is, by far, the greatest amount of exploration work on the property to date, dwarfing the amount of exploration directed at similar structures. It has been defined by geophysics for a strike length of at least 700 metres, exposed by trenching over a strike length of nearly 600 m and tested by more than 100 drill holes over a vertical extent of as much as 260 m in places. In addition, the vein has been developed underground on two levels, prior to 1937. The uppermost No. 1 level drift extends for 46.9 m along the vein while the No. 2 level drift extended for 228 m along the vein. The historic production of 454 tonnes came from several small stopes on this No. 2 level. A crosscut towards the Southwest Vein on the lowermost No 3 level did not extend far enough west to intersect the Southwest Vein.

Gold mineralization of economic interest has been identified in two zones; the first, more northerly zone is at the Southwest Vein's intersections with the Georgia, CC #1 and CC #2 veins. In this area, the Southwest Vein consists of 1 to 3 overlapping, gold-bearing quartz lenses composing a zone 80 m long and 0.94 m wide averaging 33.3 gm/t (0.97 oz./T) Au and 38.4 gm/t (1.12 oz./T) Ag. The mineralization in this first zone terminates to the south against a wide granodiorite dyke, herein inferred to be post-kinematic. The second zone is at the Southwest Vein's intersection with the Main Vein.

The following description of the Southwest Vein underground, by C. Dearin, is reproduced from Kruchkowski (1981):

The Southwest Vein was intersected in a crosscut from Adit Two about 110 m (350 feet) west of the Bullion Vein. The structure was drifted on for 40 m (131 feet) to the south and 188 m (618 feet) to the north. In the south drift the vein averages about 0.2 m (0.8 feet) in width and pinches and swells and changes strike quite dramatically. Sulphides are present throughout most of the vein length. About 13 m (42 feet) north of the face it intersects and displaces the Main Vein with about 5.5 m (18 feet) of right-handed movement. At this point of intersection there is a noted sulphide increase. The Southwest Vein turns abruptly into the east wall of the drift 1.8 m (six feet) from the face. Several small branching low-grade quartz stringers, which strike into the face, must have been mistaken for the Southwest Vein. It was probably on this basis that drifting was stopped due to the unobserved fact that the mineralized Southwest Vein turned into the wall.

In the north drift the fault structure is very consistent over a length of 188 m (618 feet) but only about 100 m (327 feet) of quartz vein is well developed, averaging about 0.4 m (1.3 feet) in width in five sections. All of this quartz material is mineralized. The vein changes attitude from a northerly direction to a 040 (N40°E) direction near the face and should

intersect the Bullion Vein from 90 to 180 m (300 to 600 feet) ahead of the face. The total production of 454 t (500 tons) of ore grading 22.6 gm/t (0.658 oz./T) Au and 28.1 gm/t (0.82 oz./T) Ag was mined from three stopes in this area. The average stope width appears to be about 1.5 m (five feet) but the quartz vein is only about 0.55 m (1.8 feet) wide. This would give an estimated ore grade of 62.7 gm/t (1.83 oz./T) Au over 0.55 m (1.8 feet) of quartz vein.

At the face of the drift the vein branches into two mineralized but narrow veins. Directly ahead of the face this year's surface diamond drilling has proven the continuity of the vein with good sulphides from 15.2-121.9 m (50 to 400 feet) north of the face.

The Southwest Vein was intersected in Adit One about 85 m (280 feet) above Adit Two. The vein was drifted on for a length of 46.9 m (154 feet). In the south drift the vein averaged a width of 0.3 m (1.0 feet). Old assays indicate a grade of 44.6 gm/t (1.3 oz./T) Au along the vein. This would not be surprising as some of the best mineralization in the mine workings was noted here. The Main Vein was intersected here with about 5.8 m (19 feet) of relative right handed movement. The face of the drift contains good sulphides and should grade fairly well.

The north drift followed the vein for a length of 25.9 m (85 feet). The vein averaged a width of 0.1 m (0.4 feet) with some sulphides but is not expected to grade a significant gold content. Interestingly the vein swells from 0.1 m (0.3 feet) wide to over 1.2 m (4.0 feet) at the face. The sulphide content appears to increase as well.

An interesting addendum to the above is from an observation made by Mandy (1937):

Detailed examination . . . indicates that the widely separated exposures of the so-called "South-west" vein represent, most probably, a series of veins transverse to the "Bullion" fault and striking at acute angles to each other. This is especially evident in the underground workings. These veins show the best mineralization at intersections with each other and especially with the "Bullion" fault.

Mandy's observations, made at first-hand, should not be dismissed without some consideration. These observations could explain some of the perceived misalignment of high-grade drill intersections along the Southwest Vein, which might be addressed by more comprehensive sampling of existing and future drill core.

6.3.2.2.4. Bullion Vein

The Bullion vein is located along Bullion Creek (Kruckowski 1981) and has been traced along a strike of 400 m. Above the No.2 level the vein consists of mineralized quartz lenses along a fault zone. Exposure in trenches to the north indicate post-quartz faulting with coarse barren quartz fragments from 1 to 50 cm in a matrix of green chloritic gouge. The fault zone also contains as much as 50% green altered volcanic fragments generally as large as 5 cm.

Trenching and underground sampling indicates that the quartz vein material varies in width from 0.1 to 0.35 m with erratic gold values in discontinuous lenses. The vein has been defined by drifting on two levels and exposure in the creek bed.

As above, C. Dearin's description of the Bullion Vein underground is reproduced from Kruckowski (1981):

The Bullion structure was drifted on in Adit Two for a length of 166 m (545 feet). Here it is a very prominent shear zone but only has a total of 40.2 m (132 feet) of well-developed quartz vein in three separate sections averaging about 0.3 m (0.9 feet) in width. The shear zone itself is about 1.5 m (5 feet) in width. The best mineralization occurs at the raise and winze where the vein widens from an average width of 0.2 m (0.8 feet) to about 1.8 m (5.8 feet) for a length of about 1.8 m (six feet). At this point assays (as high as) 96 gm/t over 1.5 m (2.8 oz. Au/5.0 feet) were obtained in the past. On the average this section of the vein is about 18 m (60 feet) long with a width of 0.2 m (0.8 feet) containing visible sulphides for the entire length. Two other quartz zones are developed further to the north and average about 10.7 m (35 feet) long by 0.3 m (1.0 feet) wide containing sulphides. The Bullion Vein appears to be much better developed on surface with a higher sulphide content. Interestingly, the Main Vein intersects the Bullion Vein about 12 m (40 feet) south of the raise in the adit but here the Bullion Vein is about 0.6 m (two feet) inside of the east wall of the drift.

6.3.2.2.5. Eastmark Vein

Seventy metres east of the Bullion Vein and immediately east of the No.2 portal, a zone of quartz stringers was outlined by Kruckowski (1981). The zone was traced over a length of 50 m; Kruckowski noted that the vein may be as wide as 2 m, individual quartz lenses in the zone carry "appreciable" gold and silver values and that the vein is deserving of further exploration, owing to its proximity to the Bullion vein and the underground workings. However, the vein is not mentioned in Kruckowski (2004)

6.3.2.2.6. East and East-Bob Vein

East of the Bullion vein, a number of short discontinuous quartz lenses with appreciable gold values were outlined. One of these is the East Vein, located 150 m northeast of the northernmost exposures of the Bullion Vein. The East Vein consists of 3, possibly 4, short discontinuous veins, generally less than 20 m in length, some of which carry gold values as high as 102.8 gm/t (3 oz./T; Kruckowski 1981, 2004). Individual lenses vary from 0.09 m to 0.6 m in width.

The relative locations of the lenses composing the East Vein indicates that their general trend and, presumably, the strike of the zone are southeasterly, at variance with the north-northeasterly strike observed in the other dilational veins. Bond Gold drilled one hole to intersect the East Vein in 1990 (Bray and Rainsford 1990). Kruckowski (2004) noted that: "From the co-ordinates for the drill collar, it appears that the hole was drilled too far east to intersect the East Vein".

6.3.2.2.7. East-Bob Vein

The East-Bob Vein is a quartz vein or stringer noted over a distance of 10 m containing gold values "over 34.28 gm/t" (1 oz./T; Kruckowski 2004). The vein is reported to be 0.1-0.2 m wide.

6.3.2.2.8. Camp Vein

Kruckowski (2004) noted anecdotal evidence of a vein 0.25 to 0.5 m wide, exposed for 10 m along the old trail at an elevation of 853 meters. The vein has been described as comprising quartz locally mineralized with pyrite, sphalerite and galena. According to this information, the vein should intersect the Bullion Vein below the old mill site. Kruckowski further reported that Hemsworth (1972) described the Camp vein as a northerly trending vein that should intersect the Main Vein just north of the old campsite.

6.3.2.2.9. Unnamed Vein

In 1990, Bond Gold located a 0.2 m wide massive sulphide vein on surface between the Southwest and Summit veins. A sample from the vein returned 34.75 gm/t Au. The vein was tested with DDH 90-15, which intersected a semi-massive sulphide zone bordered by brecciated granodiorite healed with white quartz; a 1.07 m interval yielded 8.85 gm/t gold, as indicated by the drill log in Bray and Rainsford (1990).

6.3.2.3. Northeast and east-trending veins

6.3.2.3.1. Zinc and Granodiorite Veins

Two veins in the mine area depart in presentation from the couplet of southwest-dipping dextral shear and north-northeast striking subvertical dilational veins. These are the Zinc and Granodiorite veins. Although widely separated, the two veins exhibit similarities in mineralogy and mode of occurrence. Kruckowski (1981, 2004) described both as sphalerite-rich zones within sericite schist alteration zones, each near to or contiguous with a granodiorite dyke, but does not state whether the dykes are of Colling Ridge Porphyry or Hyder Pluton. Galena is scarce in both veins and pyrite composes as much as 50% of the sulphide minerals.

The Zinc Vein, lying between the C.C. No.1 and C.C. No.2 veins, is a zone 0.12 to 1.10 meters in width outlined over a length of 25 m. The strike, from Kruckowski's (1981) map is 050, with shallow southeast dip (Kruckowski 1990).

The Granodiorite Vein is a zone 250 m in length and generally 0.25 to 0.40 m in width. It parallels a granodiorite dyke and shows spotty gold values except in Bullion Creek where several samples returned appreciable values (9.25 and 22.4 gm/t) in Au (Kruckowski 2004). The strike of the vein is slightly south of east, with shallow southerly dip (Kruckowski 1990).

6.3.2.4. Summary of Georgia River Mine mineralization

The above section has been presented in some detail, with the present geophysical work in mind. The mine area presents the highest concentration of quartz, sulphide and precious metal mineralization discovered to date on the property. The mineralization is structurally controlled, related to the schistose fabric in both the country rocks and the Colling Ridge intrusions and appears, in most cases, to be controlled by the intersection of southwest-dipping shear zones with northerly-trending, subvertical, dilational fissures. The structural grain of the area suggests that both types of structural feature may be more common than hitherto observed and that the prioritisation of drilling the Southwest Vein may have occluded other targets in the immediate vicinity. The area therefore presents the best of all possible training areas for the bare rock model contemplated by the radar survey.

6.3.3. Hume Creek Mylonite Zone

2010 mapping and interpretation inferred a southwest-dipping fault between 70 and 150 m southwest of all the main Georgia River Mine portals (Metcalf 2011). To the northeast of this fault are mafic volcanic, volcanoclastic and volcanogenic sedimentary rocks with localised high strain zones such as that hosting the Main Vein. Southwest of this fault is a high-strain zone extending across structural strike for roughly 800 m; even assuming a foliation-parallel dip of 50°, the zone exceeds 500 m in true thickness. All lithologies except the Tertiary dykes exhibit a sharp increase in strength and pervasiveness of deformation within the zone.

Partially mylonitised intrusions of Colling Ridge Porphyry hosted by the southwesterly-dipping Hume Creek Mylonite Zone are weakly mineralized with pyrite. These mineralized dykes are strongly anomalous in gold and arsenic (see “Exploration”, below). The auriferous Colling Ridge Porphyry is therefore a strong candidate for the source of the gold in the Georgia River Mine.

The Georgia River deposit lies in the footwall of the 500 m thick Hume Creek Mylonite Zone. The closest structure to the Hume Creek Zone is the 10 m-thick Main Vein; shear zones further away from the Hume Creek Zone (e.g.: the Georgia Vein to the northeast) are no more than 1 m thick. The shear zones are therefore present on a macroscopic to mesoscopic scale; it is reasonable to infer the presence of similarly mineralized microshears. It is therefore possible, probable even, that the paucity of sampling of drill holes to date has omitted small but significant intersections which might otherwise contribute to the economic viability of the deposit. This must be considered in any future exploration.

6.3.4. Glory Extension

The Glory Extension mineral occurrence, first described by James (1928) lies at an elevation of about 1,250 m (4,100 feet), nearly opposite the north end of (Glory) Lake (Figures 2 and 4), exposed by an open-cut. The mineralization is similar to that described in other mineral occurrences to the north of the property, comprising a sheeted, “silicified” zone in the diorite, cut by numerous quartz stringers and, in places, with “appreciable” pyrite and rare sphalerite and galena. The occurrence strikes 150, dips 35° to 60° southwest and allegedly carries minor silver and “fair values” of gold (*ibid.*). At one point, the mineralized zone widens to 0.6 m (2 feet).

A narrow quartz vein was noted by James (1929), striking a little west of north and dipping steeply east, exposed 50 m above the valley floor. A 30 cm (1 foot) interval across the vein returned 89.1 gm/t (2.6 oz./T) Au and 85.7 gm/t (2.5 oz./T) Ag. James further reported that Linke claimed “good gold returns” from wall rock. Samples from other showings further up the hill were not encouraging.

7. Data Acquisition

Table 4: Data Provided by the Client

Data Type	Data Source	Date Received
Underground plan and map	Mandy 1937	17 th August, 2015
Geological/geochemical maps, raster	Kruchkowski 1980, 1981	17 th August, 2015
Geochemical, raster	Cremonese 1982	17 th August, 2015
Geochemical, raster	Cremonese 1983	17 th August, 2015
Diamond drilling, raster	Kruchkowski and Konkin 1989	17 th August, 2015
Diamond drilling, raster	Kruchkowski 1990	17 th August, 2015
Geophysical/geochemical, raster	Bray and Rainsford 1990	17 th August, 2015
Geochemical, raster	Visagie 1990a, b	17 th August, 2015
Geological/geochemical, raster	Todoruk and Weekes 1994	17 th August, 2015
Geological/geochemical/drilling, raster	Weekes 1994	17 th August, 2015
IP survey	Pezzot 1996	17 th August, 2015
Diamond drilling, raster	Schatten 1995	17 th August, 2015
Diamond drilling, raster	Gruenwald 1996	17 th August, 2015
Geological map	Evenchick <i>et al.</i> 1999	17 th August, 2015
Geochemical	Lewis 2006a, b	17 th August, 2015
Geochemical	Dunn 2006	17 th August, 2015
Geochemical	Dunn and Davis 2007	17 th August, 2015
MINFILE	http://minfile.gov.bc.ca	17 th August, 2015
BC mineral tenure	https://www.mtonline.gov.bc.ca	17 th August, 2015
Vector topography	Canadian National Topographic Database	17 th August, 2015
Terrain Resource Integrated Management (TRIM) topography	British Columbia Government	17 th August, 2015
Digital orthophotos	British Columbia Government	17 th August, 2015
Airborne geophysical	Prikhodko <i>et al.</i> 2010	17 th August, 2015
Geological mapping	Metcalfe 2011	17 th August, 2015

Table 5: Archived Data Collected from Various Sources

Data Type	Data Source	Date Downloaded
BC mineral tenure	https://www.mtonline.gov.bc.ca/	5th October, 2015

Table 6: Newly Collected Data

Data Type	Data Source	Date Collected
RadarSat 1 Synthetic Aperture Radar (descending)	MacDonald Dettwiler and Associates (MDA)	17 th August, 2015
RadarSat 1 Synthetic Aperture Radar (descending) MDA	MDA	17 th August, 2015
Sentinel 1 Synthetic Aperture Radar (3 tiles)	European Space Agency	17 th August, 2015

8. Data Description

8.1. Radar Data

Two RadarSat-1 Fine 6.25m Synthetic Aperture c-band microwave Radar data sets were purchased from MDA Corporation Richmond, BC. These were used to form an Epipolar pair.

Following data processing, it was discovered that the existing areal coverage of RadarSat data did not extend far enough to the south to cover the AOI. The radar data was replaced with data from three SAR images from the EuropeanSpace Agency’s Sentinel

Historic archived data for the AOI that had spatial reference were ingested in raster, vector, tabular and grid formats. Conversions to a common datum (WGS 84) and common projection (UTM 09N) were carried out.

Raster data, in the form of scanned maps, were resampled (Warped) to fit using coordinates or identifiable geographic features. In some cases the raster data was then converted into vector data using ‘heads-up’ digitizing or raster feature extraction. Grid data was ingested using interoperability software to preserve the original content.

8.2. Data Pre-Processing

8.2.1. Radar Data (Figure 8)

RadarSat-1 Fine CEOS data were converted to .tif format and corrected for:

- Antenna pattern
- Slant Range
- Radiometry
- Topographic distortion (Layover and Foreshortening)
- Masking
- Histogrammic matching
- Concatenation and 3D image development

The ortho-corrected 6.25 m data were then filtered for speckle reduction with a Robert's asymmetric box type filter. This pre-processed radar data was checked for alignment against the higher resolution optical data and fine position corrected.

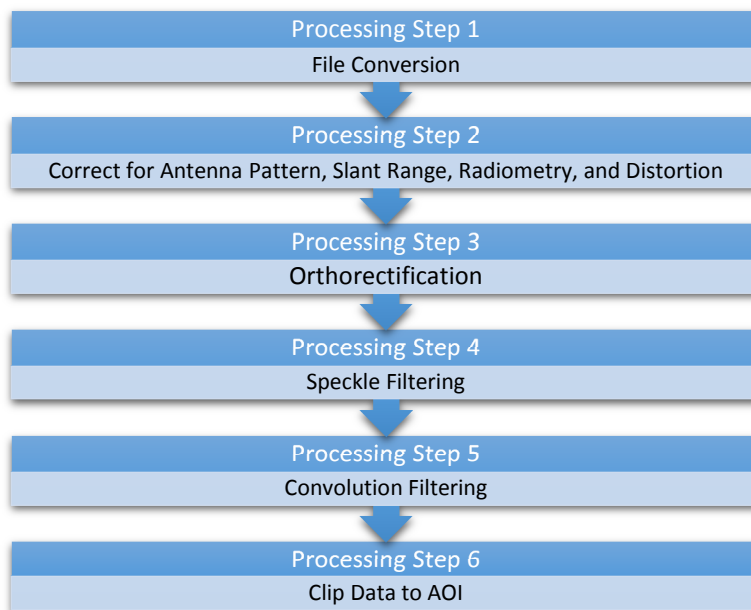


Figure 8: Radar Data Pre-Processing Workflow

9. Data Processing

9.1. Methodologies

The methodologies used in this work are consistent with scientific standards conventionally used in these types of individual processes and analyses (Jensen 1996, Harris *et al.* 2010).

9.2. Radar Data Processing (Figure 9)

The noise-reduced and pre-processed Radar data were re-processed using a series of protocols including: Directional filters: 120° and 90°; Laplace Transforms; and several mathematic convolutions including co-occurrence and occurrence sets. Results from these Mathematical Convolution images included Co-Occurrence: Mean; Variance; Homogeneity; Contrast; Dissimilarity; Entropy; Second Moment; and Correlation image sets. In addition, Occurrence: Data Range; Mean; Variance; Entropy; and Skewness image sets.

These several data were projected using both nearest neighbour and cubic convolution resampling to improve and discriminate their varied linearity, density, texture or arcuate pattern. Results were projected using custom histogram displays for improved visual discrimination.

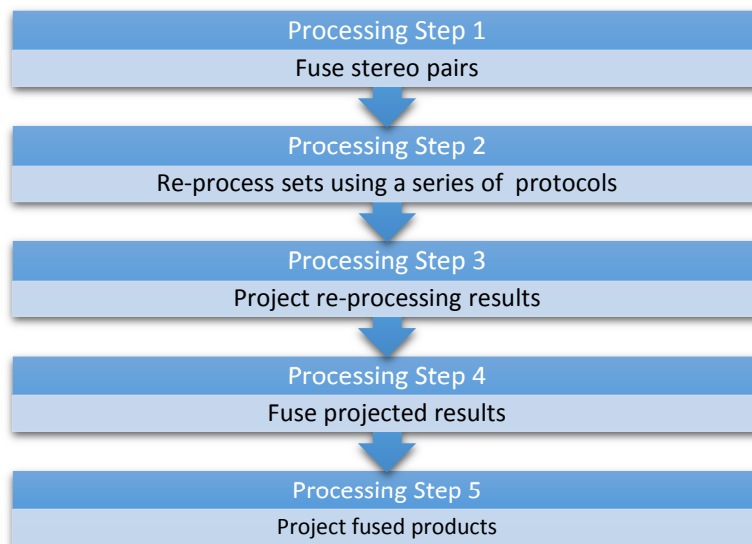


Figure 9: Radar Processing Flow Chart

10. Remote Sensing Software

Software used in this work included:

- ITT VIS ENVI 5.0 plus IDL with atmospheric and DEM extraction modules.
- ESRI ArcGIS10.1 with spatial analyst, and image analyst extensions
- ESRI ArcGIS 9.3
- Mapinfo Professional v.8.0
- Global Mapper v.11.02
- X-Tools Pro
- PCI Geomatica Ortho Suite and Radar Orthoengine

ASF

11. Results

The acquired SAR data from RADARSAT covers only the northern edge of the Auramex tenures in the Georgie River watershed. Further acquisition of RADARSAT data was precluded by availability of the satellite during the time available, as noted in the section on acquisition. Accordingly, three images were acquired and processed from the Sentinel satellite system. These data have the advantage of being freely available and the disadvantage of coarser resolution (*ca.* 10 m). The two images from processed Sentinel data which cover the property are shown in Figures 10 and 11.

RADARSAT data acquired in a previous study of a similarly mountainous area (McLelland and Metcalfe 2015) enabled differentiation of lithologies on steep terrain. This was not the case on the Georgia River Mine property. This may owe to any or all of the following:

1. The lithological units in the Stewart area are close in physical properties;
2. The coarser resolution of the Sentinel data precludes lithological discrimination;
3. Steep and variable slopes contribute more to radar reflectance than do lithological differences.

Nevertheless, the processed images from the Sentinel satellite data exhibit linear irregularities (Figures 10 and 11) trending east-northeast and northeast across the property and onto the adjacent ground; one such structure can be traced under the Cambria Icefield as far as Entrance Peak. The persistence of structures with these orientations suggests that these are younger in age. The set trending east-northeast appears to be the youngest set of all those examined.

Less apparent are structures of linear presentation with azimuths from northwest to north-northeast. Their linearity suggests steep inclination, but they are, apparently, disrupted by the northeasterly and east-northeasterly striking discontinuities and are interpreted as being older.

Least apparent but still commonly observed are curvilinear structures with apparent northwesterly strike and southwest dip. These are particularly noticeable between Hume and Bullion creeks, in the Hume Creek Mylonite Zone. A similar structure crosses the valley from Colling Ridge and passes through the Glory Extension mineral occurrence (Figure **)

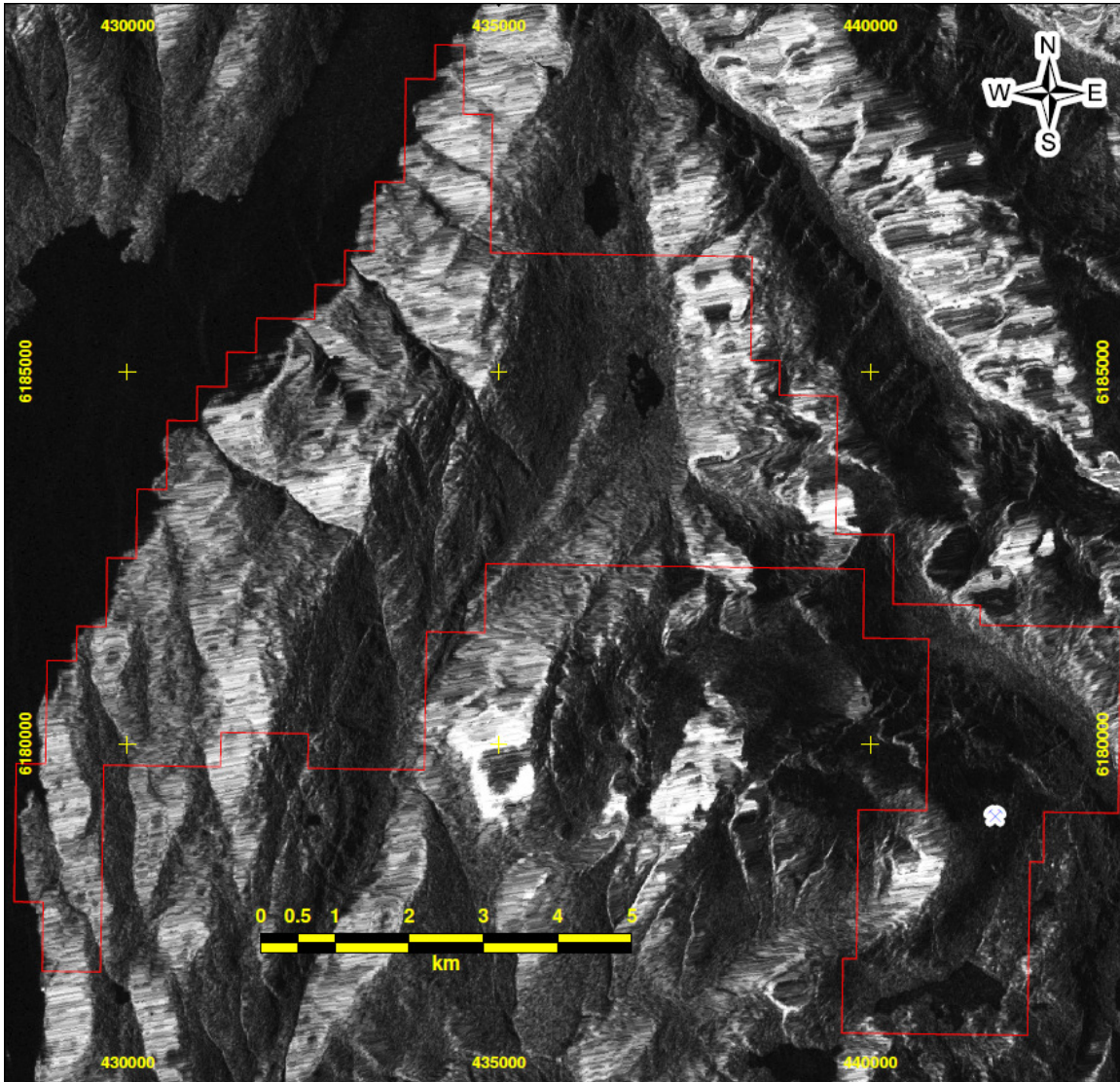
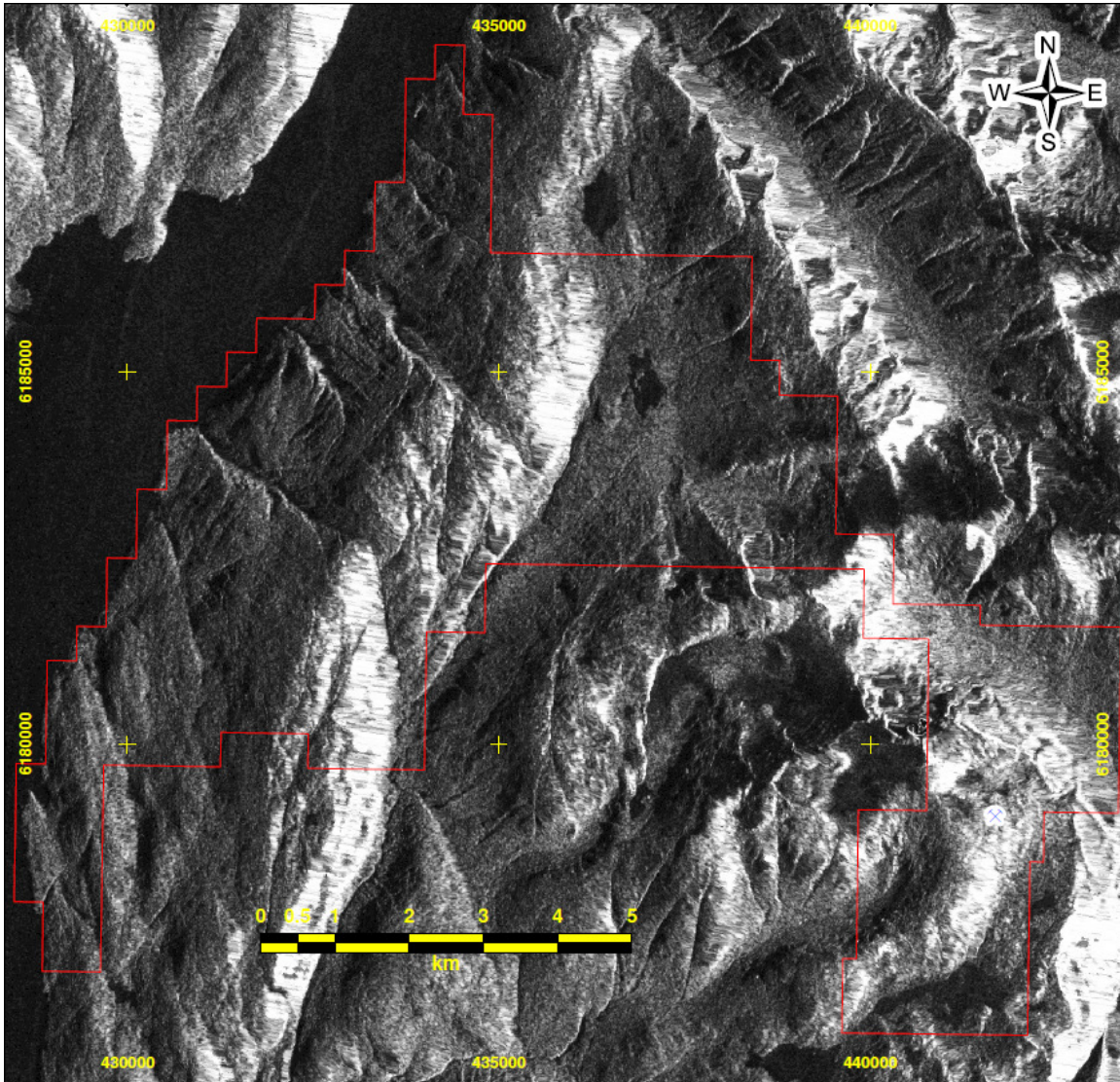


Figure 10. Processed image of Sentinel Synthetic Aperture Radar data.

Scale approximately 1:100,000. Note coincidence of features with lithological boundaries in Figure 4. Four



**Figure 11. Processed image of Sentinel Synthetic Aperture Radar data.
Scale and notes as for Figure 10.**

Figures 12 and 13 show training areas at the Georgia River Mine and in the vicinity of the Gamebreaker showing. In Figure 12, the positions of the Mine veins are not well known (Metcalf 2013), but their orientation is well documented. The reader will note the close agreement between the radar image and the vein overlay.

Figure 13 shows the 168-striking Gamebreaker structure well-correlated with a discontinuity in the radar image. Synthesis of previous geochemical surveys in this work identified gram-plus values of Au in stream sediments draining this slope. It should be noted that the projected strike of the Gamebreaker structure was beneath a “permanent” snowfield at the time of discovery.

12. Conclusions

The preliminary test of the applicability of Synthetic Aperture Radar to analysis of the mountainous terrain south of Stewart was a qualified success. Discontinuities in the images coincide with structures observed during fieldwork in the training area along Colling Ridge. Moreover, these discontinuities are visible both downslope under heavy vegetative cover and at higher elevations beneath snow and limited thicknesses of glacial ice, permitting a preliminary structural analysis of the property.

A minor shortcoming of the Sentinel data returned from the mountainous terrain is that the interaction of the radar with the lithological substrate is quite heavily occluded by even minute variations in slope, such that textural variations accompanying a change in lithology are not apparent. This might be accomplished by the higher resolution of RADARSAT data, hence one of the recommendations made below.

The Sentinel images present a clear pattern of structural features transecting the property, a pattern consistent with regionally observed major structures. The latest-formed set are interpreted as near-vertical with east-northeast strike. This set apparently disrupts a subvertical, northeasterly striking set. A third, less easily identified set is steeply dipping with southeasterly to south-southwesterly strikes. A fourth set of discontinuities is that with apparent southeast strike and generally southwesterly dip. It is also, apparently, disrupted by the latest two sets but its relationship with the third set is unclear. These observations are consistent with those made on the ground (Metcalf 2011) and with previous geophysical studies (Prikhodko *et al.* 2010).

Fusion of existing geochemical data with present and prior geophysical studies has established exploration targets in at least three areas of the property which will require follow-up ground truthing. These are: the area peripheral to the Georgia River Mine, the Gamebreaker area and the Glory Extension mineral occurrence.

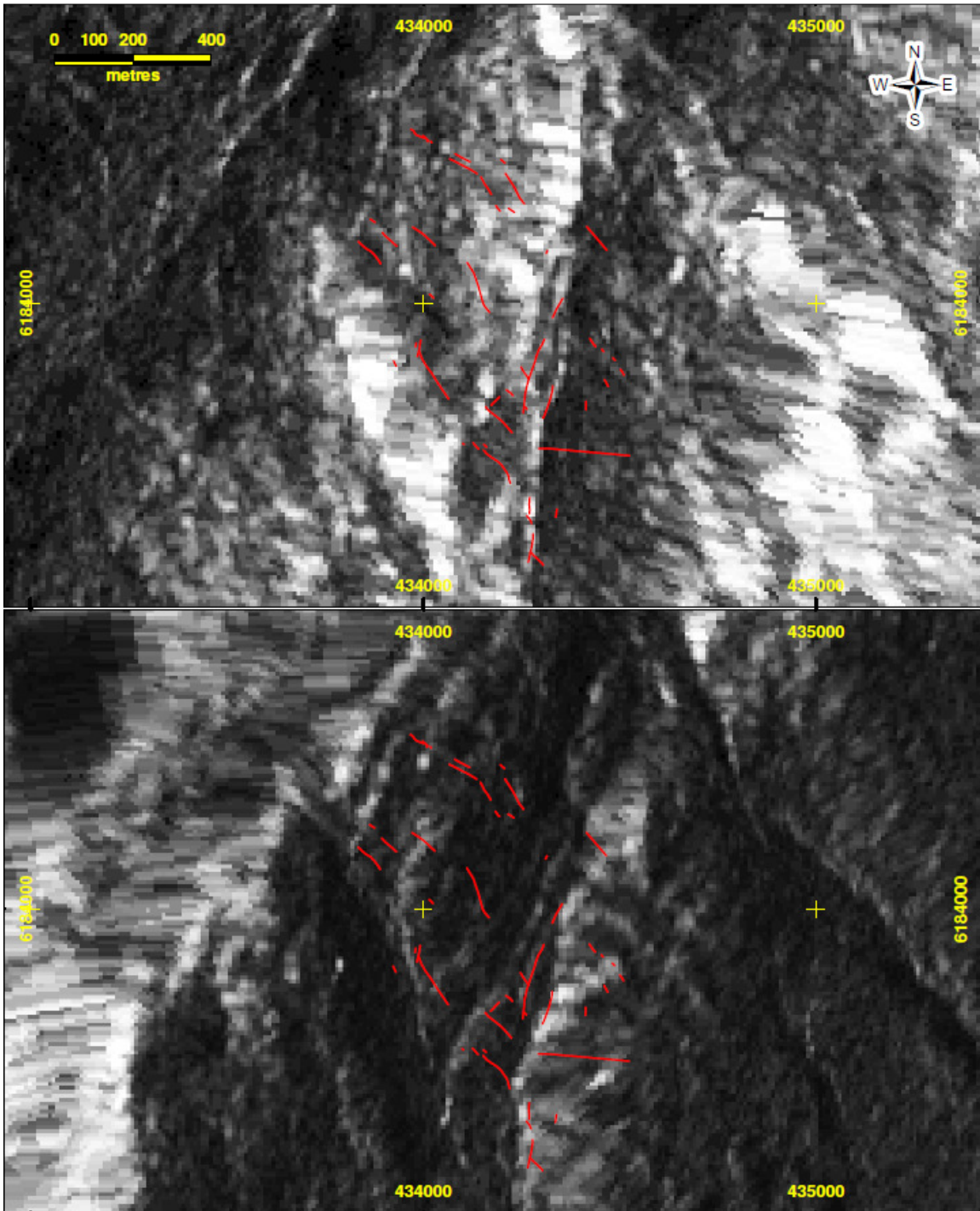


Figure 12. Training area on the veins at the Georgia River Mine.

Discontinuities in the radar image mirror the bedrock structures hosting the mine veins.

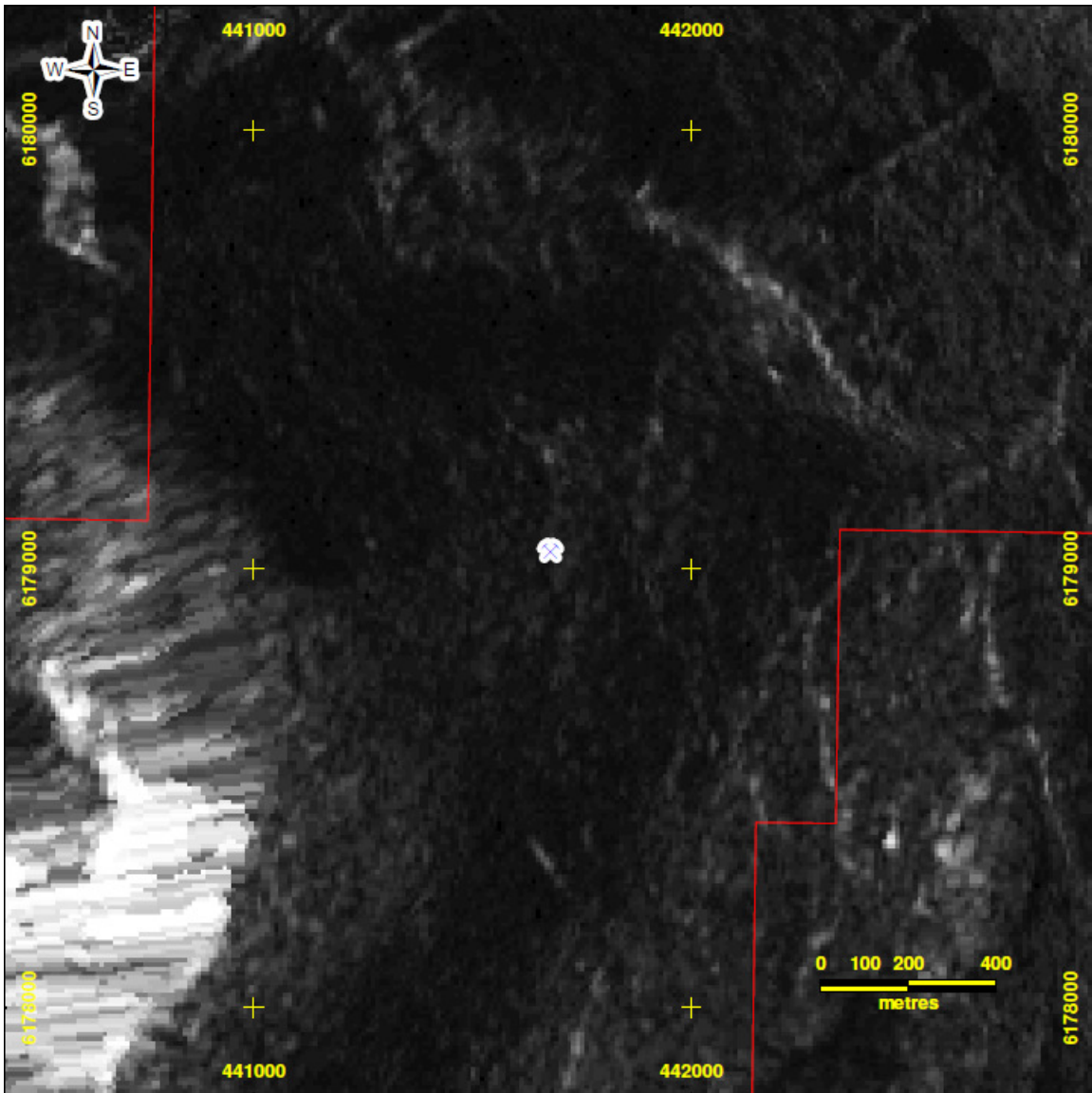


Figure 13. Coincidence of radar image with Gamebreaker structure.

Note that the projected strike of the Gamebreaker structure (azimuth 168) lies beneath a “permanent” snowfield yet is clearly visible in the radar image.

13. Recommendations

The following are recommended for the Georgia River Mine property:

Acquisition of the remaining RADARSAT data and fusion with the existing geochemical and geophysical database, with the goal of identifying areas underlain by Texas Creek intrusive rock, particularly in the high-strain zones on Colling Ridge;

Petrological work on samples from the Colling Ridge area to identify zones of prospective alteration;

Ground truthing of the Gamebreaker and Glory Extension areas;

Comprehensive property-wide geochemical and geological mapping program, beginning with comprehensive stream sediment sampling and:

Prospecting to accompany geological mapping.

14. References

Anderson, R.G., 1993: A Mesozoic stratigraphic and plutonic framework for northwestern Stikinia (Iskut River area), northwestern British Columbia, Canada; in: Dunne, G. and McDougall, K. (eds.): Mesozoic palæogeography of the Western United States-II; Society of Economic Palæontologists and Mineralogists, Pacific Section, vol. 71, pp. 477-494.

Anderson, R.G., Simpson, K., Alldrick, D., Nelson, J. and Stewart, M., 2003: Evolving ideas on the Jurassic tectonic history of northwestern Stikinia, Canadian Cordillera; Geological Society of America Abstracts with Programs, Vol. 35, No. 6, September 2003, p.89.

Beaton, W., 1916: Georgia River Property (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1915, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1916), p.K71.

Bray, A.D. and Rainsford, D., 1990: Geology, Geochemistry, Geophysical and Diamond Drilling Program at the Georgia River Property; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 20653, 165p., 9 maps, 21 sects.

British Columbia Geological Survey Branch, 1991-2010: MINFILE;
<http://minfile.gov.bc.ca>

British Columbia Geological Survey Branch, 1999-2010: The Map Place;
<http://www.em.gov.bc.ca/Mining/Geolsurv/MapPlace>

Carmichael, H., 1907: Black Knight claim, Portland Canal District, Skeena Mining Division; in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1906, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1907), p.H67.

Clothier, G.A., 1918: Georgia River Mining Co. (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1917, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1918), p.F66.

Clothier, G.A., 1919: Guggenheim Group (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1918, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1919), pp.K-75-76.

Clothier, G.A., 1921: Guggenheim Group (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1920, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1921), p.N53.

Clothier, G.A., 1923: Portland Canal (proper) Section (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1922, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1923), pp. N65-N66.

Clothier, G.A., 1924: Portland Canal (proper) Section (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1923, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1924), pp. A67-A68.

Clothier, G.A., 1925: Portland Canal (proper) Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1924, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1925), p.B58.

- Clothier, G. A., 1926: Portland Canal Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1925, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1926), p. A79.
- Clothier, G.A., 1927: Big Mike and M.J. (respectively Portland Canal and Georgia River Sections, Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1926, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1927), pp.A85-A86.
- Conway, J., 1911: Maple Bay (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1910, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1911), p.K61.
- Conway, J., 1912: Georgia River (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1911, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1912), p.K72.
- Conway, J., 1915: Georgia River (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1914, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1915), pp.K153-K154.
- Cremonese, D. 1982: Geochemical report on the CARDOZO 1 - 3 and FRANKFURTER 1 - 2 mineral claims, Portland Canal area, Skeena Mining Division; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 10300, 22p., 4 maps.
- Cremonese, D. 1983: Geochemical report on the CARDOZO 2 AND FRANKFURTER 1 – 2 mineral claims, Portland Canal area Skeena Mining Division; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 11082, 14p. 1 map.
- Dunn, D.St.C., 2006: Report on geology and geochemistry of the Georgie River Property (Georgie Girl 1,2,3), Skeena Mining Division, British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 28662, 10p. plus appendices; 1 map.

- Dunn, D.St.C. and Davis, C.F., 2007: Report on geology and geochemistry, Georgie River Property (Georgie Girl 1,2, 3), Skeena Mining Division, British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 29656, 12p. plus appendices; 6 maps.
- Evenchick, C.A., 1991a: Geometry, evolution, and tectonic framework of the Skeena Fold Belt, north-central British Columbia; *Tectonics*, v. 10, no. 3, pp. 527-546.
- Evenchick, C.A., 1991b: Structural relationships of the Skeena Fold Belt west of the Bowser Basin, northwest British Columbia; *Canadian Journal of Earth Sciences*, v. 28, p. 973-983.
- Evenchick, C.A., McNicoll, V.J. and Snyder, L.D., 2004: Stratigraphy, geochronology, and geochemistry of the Georgie River area, northwest British Columbia, and implications for mineral exploration; *Canadian Journal of Earth Sciences*, v. 41, pp. 199-216.
- Evenchick, C.A., Snyder, L.D., and McNicoll, V.J., 1999: Geology of Hastings Arm West half (103P/12W) and parts of 103P/13,1030/9 and 1030/16, British Columbia; Geological Survey of Canada, Open File 2996, 1:50,000 scale.
- Flewin, J., 1906: Portland Canal District, Skeena Mining Division; in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1905, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1906), pp.J79-J80.
- Galloway, J.D., 1932: Lode-gold deposits of British Columbia; British Columbia Department of Mines Bulletin No. 1932-1, 144p.
- Government of British Columbia, 2012: A Guide to Surface and Subsurface Rights and Responsibilities in British Columbia; British Columbia Ministry of Energy and Mines, Mineral Titles Information Update No. 7, 12p.
- Graham, C., 1938: Georgia River Area; in: Mandy, J.T.: Annual Report of the Minister of Mines of British Columbia for the year ended 31st December, 1937, being an account of mining operations in the Province. (British Columbia Bureau of Mines, 1938), Part B: North-Western Mineral Survey District (No. 1), p.B42.
- Graham, C., 1939: Georgia River Area; in: Mandy, J.T.: Annual Report of the Minister of Mines of British Columbia for the year ended 31st December, 1938, being an account of mining operations in the Province. (British Columbia Bureau of Mines, 1939), Part B: North-Western Mineral Survey District (No. 1), p.B26.

- Greig, C. J., and Hendrickson, G.A 2001: Geological and Geochemical Report on the Praxis Property (Praxis 1-17 Claims), August 2000, Georgie River Area (NTS. 103P/12, 103O/9, 103P/13), Skeena Mining Division, Northwestern British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 26552, 32p. plus appendices; 4 maps.
- Grove, E.W., 1986: Geology and mineral deposits of the Unuk River-Salmon River-Anyox area; British Columbia Ministry of Energy, Mines and Petroleum Resources Bulletin 63, 434 p.
- Gruenwald, W., 1996: Assessment report on the Georgia River Project - 1996 diamond drilling program, Stewart, B.C.; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 24704, 20p. plus appendices; 9 sects.
- Harris, J. R., McGregor, R., & Budkweitsch, P. (2010). Geological analysis of hyperspectral data over southwest Baffin Island: methods for producing spectral maps that relate to variations in surface lithologies. *Canadian Journal of Remote Sensing*, 36, 412-435.
- Hemsworth, F.J., 1972: Report on Georgia River Gold Mine, Stewart, B. C.; unpublished report.
- Höy, T., 1991: Volcanogenic Massive Sulphide Deposits in British Columbia; in: McMillan, W.J. (Co-ordinator): Ore Deposits, Tectonics and Metallogeny in the Canadian Cordillera; British Columbia Ministry of Energy, Mines and Petroleum Resources Paper 1991-4, pp. 89-123.
- Jack, P. S., 1917: Georgia River (Portland Canal Mining Division); in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1916, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1917), p.K85.
- James, H.T., 1928: Georgia River Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1927, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1928), pp. C80-C82.
- James, H.T., 1929: Georgia River Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1928, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1929), pp. C90-C92.

- Jensen, J. R. (1996). *Introductory Digital Image Processing: A Remote Sensing Perspective* (3rd ed.). Upper Saddle River: Pearson Prentice Hall.
- Kikauka, A., 1990: Geological and geochemical report on the VG 1,2,3 claim group, Georgie R. in the Skeena Mining Division; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 20697, 31p.
- Knutson, R.A., 1963: A report on the geophysical and geochemical surveys on the JO group of mineral claims, Stewart, B.C. ; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 00522, 7p. plus appendices; 3 maps.
- Kruchkowski, E.R., 1980: Drill Report Georgia #1 Crown Granted Claim, Stewart Area, Skeena Mining Division, B.C.; appended to British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 08547, 47p. plus appendices.
- Kruchkowski, E.R., 1981: Report on 1981 Diamond Drilling, Georgia River Project, Stewart Area, Skeena Mining Division, B.C.; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 08547, 59p. plus appendices; 19 maps, 15 sects.
- Kruchkowski, E.R., 1985: Report on Bonus 1-5 claims Stewart, British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 13350, 18p. plus appendices; 2 maps
- Kruchkowski, E.R., 1986: Report on BONUS 1-5 claims Stewart, British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 15107, 20p. plus appendices; 3 maps.
- Kruchkowski, E.R., 1987: Geochemical report of the BONUS 6 and 7 claims, Stewart British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 17644, 32p.
- Kruchkowski, E.R., 1990: Drill report, Georgia River Project, Stewart, British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 19983, 40p. plus appendices; 1 map, 7 sects.
- Kruchkowski, E.R., 2004: Report on Georgia River property, Stewart, British Columbia; unpublished report, MountainBoy Minerals Ltd., 137p.
- Kruchkowski, E.R. and Cremonese, D.M., 1983: Assessment Report; geological work on the following claims: LUXOR 1 #3832(3), LUXOR 2 #3B33(3), located 17 air kilometres south of Stewart, B.C.; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 12630, 16p. plus appendices.

- Kruchkowski, E.R. and Konkin, K.J., 1989: Drilling Report on the Georgia River Group; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 19049, 37p. plus appendices; 1 map, 7 sects.
- Kuran, D.L. 2003: Diamond drilling report on the Praxis property, northwestern British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 27092, 20p. plus appendices.
- Lehtinen, J. and Lewis, P.D., 2007: 2006 geological and geochemical report on the Praxis Property, British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 28961, 28p. plus appendices; 22 maps.
- Lewis, P.D., 2006a: 2005 Field Program Report: Geochemical Survey on the Praxis Property (Praxis 1-21 Claims, PGI 1-9 Claims, STW 1-17 Claims) Georgie River Area, Skeena Mining Division, Northwestern British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 28376, 20p. plus appendices; 14 maps.
- Lewis, P.D., 2006b: 2005 Field Program Report: Geochemical Survey on the Ashwood Property (Brown #1-4 and Ark Claims) Georgie River Area, Skeena Mining Division, Northwestern British Columbia; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 28377, 12p. plus appendices; 14 maps.
- Macdonald, A.J., Lewis, P.D., Ettlinger, A.D., Bartsch, R.D., Miller, B.D. and Logan, J.M., 1993: Basaltic rocks of the Middle Jurassic Salmon River Formation, northwestern British Columbia (104A, B, G); in: Geological Fieldwork 1992; British Columbia Ministry Of Energy, Mines and Petroleum Resources Paper 1993-1, pp.307-314.
- McConnell, R.G., 1913: Portions of Portland Canal and Skeena Mining Divisions, Skeena District, British Columbia; Geological Survey of Canada, Memoir no. 32, 101p.
- McGuigan, P.J., 2005: Granduc property; Technical report for Bell Resources Corporation 46p., 2 maps.
- McLeod, I. and McNeil, H., 2004: Prospectors, Promoters and Hard Rock Miners, Tales from the Stewart, BC and Hyder, Alaska Camps; Publ. SH Co. Ltd., Kelowna B.C., 186p.
- Mandy J.T., 1929: North-western mineral survey district (No. 1); preliminary report for the year 1929; in: Galloway, J.D. (comp.): Preliminary review and summary of mining operations for 1929 in the Province of British Columbia; British Columbia Department of Mines Bulletin No. 1929-2, pp.13-30.

- Mandy, J.T., 1930a: Georgia River Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1929, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1930), pp.C91-C92.
- Mandy J.T., 1930b: North-western mineral survey district (No. 1); preliminary report for the year 1930 (Portland Canal Mining Division); in: Galloway, J.D. (comp.): Preliminary review and summary of mining operations for the year 1930 in the Province of British Columbia; British Columbia Department of Mines Bulletin No. 1930-3, pp.22-25.
- Mandy, J.T., 1931: Georgia River Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1930, being an account of mining operations in the Province (British Columbia Bureau of Mines, 1931), pp.A101- A102.
- Mandy, J.T., 1932: Georgia River Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1931, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1932), p.A41.
- Mandy, J.T., 1933a: Georgia River Section (Portland Canal Mining Division); in: Galloway, J.D.; Annual Report of the Minister of Mines of British Columbia for the year ended 31st December, 1932, being an account of mining operations in the Province. (British Columbia Bureau of Mines, 1933), p.A57.
- Mandy J.T., 1933b: North-western mineral survey district (No. 1); preliminary report for the year 1933 (Portland Canal Mining Division); in: Galloway, J.D. (comp.): Preliminary report on the mineral industry of British Columbia for the year 1933; British Columbia Department of Mines Bulletin No. 1933-3, pp.12-14.
- Mandy J.T., 1934a: North-western mineral survey district (No. 1); Portland Canal Mining Division; in: Richmond, A.M. (comp.): Summary and review of the mineral industry of British Columbia for the six months ended June 30th 1934; British Columbia Department of Mines Bulletin 1934-1, p.11.
- Mandy J.T., 1934b: North-western mineral survey district (No. 1); in: Walker, J.F. (comp.): Preliminary report on the mineral industry of British Columbia for the year 1934; British Columbia Department of Mines Bulletin 1934-2, pp.5-6.

- Mandy, J.T., 1937: Helena Gold Mines, Ltd. (Portland Canal Mining Area); in: Mandy, J.T.: Annual Report of the Minister of Mines of British Columbia for the year ended 31st December, 1936, being an account of mining operations in the Province. (British Columbia Bureau of Mines, 1937), Part B: North-Western Mineral Survey District (No. 1), pp.B4-B10, 2 maps, 1 sect.
- Massey, N.W.D., MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T., 2005: Digital Geology Map of British Columbia: Whole Province, B.C.; Ministry of Energy and Mines, Geofile 2005-1.
- Metcalf, P., 2011: Geological map of part of the Georgie River property, Skeena Mining Division, B.C.; British Columbia Ministry of Energy and Mines Assessment Report 32000, 19p. plus appendices; 2 maps.
- Metcalf, P., 2012: Geological assessment on parts of the Georgie River property, Skeena Mining Division, B.C.; British Columbia Ministry of Energy and Mines Assessment Report 32623, 40p. plus appendices.
- Petrie, G., 2010: GeoMag Version 3.0; freeware program.
- Pezzot, E.T., 1996: Assessment report on an induced polarization survey on the Ashwood property; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 24914, 19p., 4 maps, 11sects.
- Postle, J., Haystead, B., Clow G., Hora, D., Vallée M. and Jensen M., 2000: CIM standards on mineral resources and reserves: definitions and guidelines; Canadian Institute Of Mining, Metallurgy And Petroleum Standing Committee on Reserve Definitions, 25p.
- Prikhodko, A., Orta, M. and Kumar, H., 2010: Report on a helicopter-borne versatile time domain electromagnetic (VTEM) and aeromagnetic geophysical survey, Georgia Blocks (1-4), Stewart, British Columbia. Geotech Ltd. report for Auramex Resource Corp., 72p., 14 maps.
- Robertson, W.F., 1911: Portland Canal Mining Division; in: Robertson, W.F.; Annual Report of the Minister of Mines of British Columbia for the year ending 31st December, 1910, being an account of mining operations for gold, coal, etc., in the Province (British Columbia Bureau of Mines, 1911), p.K67.
- Roth, T., Thompson, J.F.H. and Barrett, T.J., 1999: The precious metal-rich Eskay Creek deposit, northwestern British Columbia; in: C.T. Barrie and M.D. Hannington, (eds.): Volcanic-Associated Massive Sulfide Systems: Processes and Examples in Modern and Ancient Settings; Reviews in Economic Geology 8, pp.357-373.
- Schatten, M., 1995: Assessment Report on the Georgia River Property - 1995 Drill Program Skeena Mining Division, B.C. ; British Columbia Ministry of Energy,

- Mines and Petroleum Resources Assessment Report 24100, 29p. plus appendices; 4 maps, 14 sects.
- Sullivan, J., 1962: A geological and geophysical report on the JO group of mineral claims, Stewart, B.C.; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 00489, 9p. plus appendices; 3 maps.
- Todoruk, S.L. and Weekes, S., 1994: 1993 Geological, geochemical, and prospecting report on the Ashwood Project (Skeena Mining Division, B.C.) British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 23217, 31p. plus appendices; 6 maps.
- Tully, D.W., 1973: Report on the J C #1-24 and JJ #1-2 claims, Georgie River - Portland Canal area, Stewart, British Columbia, Skeena Mining Division; British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 04820, 18p.
- Visagie, D., 1990a: Geochemical report on Horsemeat One & Two (Ashwood property); British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 20024, 19p.
- Visagie, D., 1990b: Geochemical report on Wood #1 group (Ashwood property); British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 20347, 20p., 1 map.
- Weekes, S., 1994: 1994 Geological, geochemical, geophysical and diamond drilling report on the Ashwood Project (Skeena Mining Division, B.C.); British Columbia Ministry of Energy, Mines and Petroleum Resources Assessment Report 23689, 41p. plus appendices; 8 maps.
- Wojdak, P., 2004: Northwest region; in: Wojdak, P. (ed.); Exploration and mining in British Columbia 2003; British Columbia Ministry of Energy and Mines (Mining and Minerals Division), p.12. Jensen, J. R. (1996). *Introductory Digital Image Processing: A Remote Sensing Perspective* (3rd ed.). Upper Saddle River: Pearson Prentice Hall.

15. Statement of Costs

Auramex	Project Area:	Georgia River Mine					
			RS Area	Cost /km			
2015	Budget	Area	2901	\$100			\$290,100.00
		Tenures	191.8				
	Mineral Exploration		Remote Sensing				
Personnel		Type	Units	Rate	#	Qty	extended
	Project Manager	Est Plan/acqu	\$/Day(8hr.)	\$600.00	1	4	\$2,400.00
	QP		\$/Day(8hr.)	\$1,050.00	1	30	\$31,500.00
	Field Assistants		\$/Day(8hr.)	\$500.00			\$0.00
	GIStech		\$/Day(8hr.)	\$640.00	2	7	\$8,960.00
	Geospatial Analyst		\$/Day(8hr.)	\$600.00			\$0.00
	Remote Sensing Analyst		\$/Day(8hr.)	\$850.00	2	7	\$11,900.00
Data Acquisition							
	ASTER	DEM					\$240.00
	TRIM						
	WV2Stereo	100km					
	3.8m Multi					2	
	1 Pan	1m					
	SAR	Rsat 1F					\$7,960.00
	preprocessing	Rsat					\$3,200.00
	Rsat Mask						\$24,500.00
	Processing	RS		\$500.00		1	
	3DBRM Fusion						\$12,000.00
	Scanning Digital	36"	per inch	line	\$0.50	0	\$0.00
	Digitization	processing					\$0.00
Mapping and Reporting	Mapping						\$400.00
	Reporting	ppt					
	Printning and copying						\$125.00
	LS Printing						\$250.00
Total							\$103,435.00

16. Statements of Qualifications

Statement of Qualifications

I, **Paul Metcalfe**, do hereby certify that:

1. I am a resident of British Columbia and the Principal of Palatine Geological Ltd., with a business address at P.O. Box 289, Gabriola, B.C. V0R 1X0;
2. I am a graduate of the University of Durham (B.Sc. Hons. *Dunelm.* 1977), a graduate of the University of Manitoba (M.Sc. 1981) and a graduate of the University of Alberta (Ph.D. 1987);
3. I am a member, in good standing, of the Association of Professional Engineers and Geoscientists of the Province of British Columbia;
4. I have worked as a geologist for a total of 39 years since my graduation from the University of Durham, including employment as a postdoctoral research fellow by the Mineral Deposits Research Unit at the University of British Columbia and at the Geological Survey of Canada;
5. My experience since graduation from Durham has been mainly within the western cordillera of North, Central and South America and has given me considerable knowledge of Cordilleran geology, and of geological and geochemical exploration techniques;
6. I have several years' experience working in northwestern Stikinia;
7. This report was prepared on behalf of Auracle Geospatial Science Inc. who has been engaged by Auramex Resource Corp., to complete a remote sensing program on this property and:
8. The work in this report has been carried out in accordance with generally accepted scientific principles and is based upon the best information available at the time of preparation.

DATED at Gabriola Island, British Columbia this 29th day of February, 2016.

"P. Metcalfe"

Dr. Paul Metcalfe P.Geo.

Statement of Qualifications

I, **David J. McLelland**, do hereby certify that:

1. I am a Principal in:

Auracle Remote Sensing Inc.,
325 Dorset Road Qualicum Beach,
British Columbia, Canada V9K 1H5

2. I have received a Master of Science with Distinction in Remote Sensing and Geospatial Science from Manchester Metropolitan University's faculty of Earth and Environmental Science, and have received a postgraduate diploma in applied and theoretical GI Science from Simon Fraser University.
3. I have completed the B.C.I.T. B.C.Y.C.M. Mineral Exploration program, and completed the B.C.I.T. B.C.Y.C.M. Advanced field School.
4. I have 12 years of experience in Remote Sensing, and I am the Remote Sensing Project Manager and responsible for the acquisition and management of data and execution of analyses.
5. This report was prepared on behalf of Auracle Geospatial Science Inc. who has been engaged by Auramex Resource Corp. to complete a remote sensing program, on this property.
6. I have no material or financial interest in the subject properties or the companies that own them.
7. This report has been prepared in accordance with generally accepted Scientific Principles and is based upon the best information available at the time of preparation.
8. I am not aware of any material fact or material change with respect to the subject matter of the report that is not reflected in the report and therefore the omission of fact.

David J McLelland MSc, PGdip, (FRGS, MCRSS)

(David J. McLelland)

Dated in Qualicum Beach, British Columbia, Canada this 29th day of February, 2016