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Ministry of Energy, Mines & Petroleum Resources
Mining & Minerals Division
BC Geological Survey

BC Geological Survey
Assessment Report
37369

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Technical, geophysical

TOTAL COST: 69,000.00

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

SIGNATURE(S):

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

YEAR OF WORK: 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5679185

PROPERTY NAME: Georgie River, Gamebreaker

CLAIM NAME(S) (on which the work was done): 250723, 250725, 525950, 614843, 614923, 615123, 615144, 615163, 615183, 615203, 615223, 615243, 615263, 615283, 615303, 758982, 759002, 939580, 942409, 1015772, 1016214, 1037833, 318194, 318195, 318196, 331396

COMMODITIES SOUGHT: Au

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 103P 248, 103P 272

MINING DIVISION: Skeena

NTS/BCGS: 103O/09, 103O/16, 103P/12 and 103P/13

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

OWNER(S):
1) Auramex Resource Corp.
2)

MAILING ADDRESS:
20th floor, 250 Howe Street
Vancouver, BC V6C 3R8

OPERATOR(S) [who paid for the work]:
1) Auramex Resource Corp.
2)

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20th floor, 250 Howe Street
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PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):
Stuhini, Hazelton, Jurassic, Texas Creek, boudin, southeast, northeast vergent, Bulldog Creek, Stikinia, Hume Creek Mylonite, mylonite, volcaniclastic, Colling Ridge, Georgia River mine.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 00522, 08547, 10300, 11082, 12630,13350, 15107, 17644, 19049, 19983, 20653, 20697, 24704, 24914, 26552, 28662, 29656, 27092, 28376, 28377, 28961, 32000, 32623,

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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	Synthetic Aperture Radar 10,828 ha	250723, 250725, 525950, 614843, 61[illegible]	$69,000.00
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:	$69,000.00

TECHNICAL REPORT

SYNTHETIC APERTURE RADAR SURVEY AND ANALYSES

GEORGIE RIVER AND GAMEBREAKER GOLD PROPERTIES

Tenures 250723, 250725, 525950, 614843, 614923, 615123, 615144, 615163, 615183, 615203, 615223, 615243, 615263, 615283, 615303, 758982, 759002, 939580, 942409, 1015772, 1016214, 1037833, 318194, 318195, 318196, 331396

Skeena Mining Division, British Columbia, Canada

Latitude: 55° 47' 10.8” N, Longitude: 130° 1' 15.6” W (436,000 m E, 6,182,800 m N)

Universal Transverse Mercator Zone 9; 1984 World Geodetic Datum

Prepared for: Auramex Resource Corp. (owner and operator)

By: Dr. Paul Metcalfe P.Geo. and David. J. McLelland

14th June 2018

AURACLE GEOSPATIAL

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INTRODUCTION

In December of 2017, Auracle Geospatial Science Inc. ("Auracle") was asked by Auramex Resource Corp. ("Auramex") to carry out acquisition and processing of commercially available synthetic aperture radar (SAR) data for a designated area of interest (the AOI) covering the mineral tenures comprising the Auramex' Georgie River and adjacent Gamebreaker properties.

Radar data were acquired and used in this project because is not affected by most atmospheric conditions and because it can penetrate land cover (vegetation) and some ground cover (tills and overburden). Radar is useful in detecting textural changes and structure. Specialized software and processes are required to convert raw signals into ortho-correct and derivative radar data.

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. The exploration targets include, without limitation, structurally hosted, intrusion-related gold (Au) deposits.

The analytical process used to produce geologically relevant signal pattern and lineament maps is labour and computer intensive as different standards are selected, fused and applied to the analyses. The signal responses inherent in the data are geographically specific, responding differently to different geo-structural, physiographic, and rock surface conditions, as well as varied incidence angles. Correlations, co-variances, patterns, textural classifications and lineaments were mapped and spatially analyzed.

The results of these analyses produce new information as a basis for further phenomenological analyses. They constitute geophysical findings and are designed to be used as tools for geological interpretation and ground-truthing. The results of this work include the new project GIS and a series of maps and models.

LOCATION

The Georgie River and adjacent Gamebreaker properties cover 10,828 ha. They are situated immediately east of the Portland Canal, 18 km south of Stewart in northwestern British Columbia (Figure 1), centred on latitude 55° 47' 10.8" N and longitude 130° 1' 15.6" W (436,000 m E 6,182,800 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.

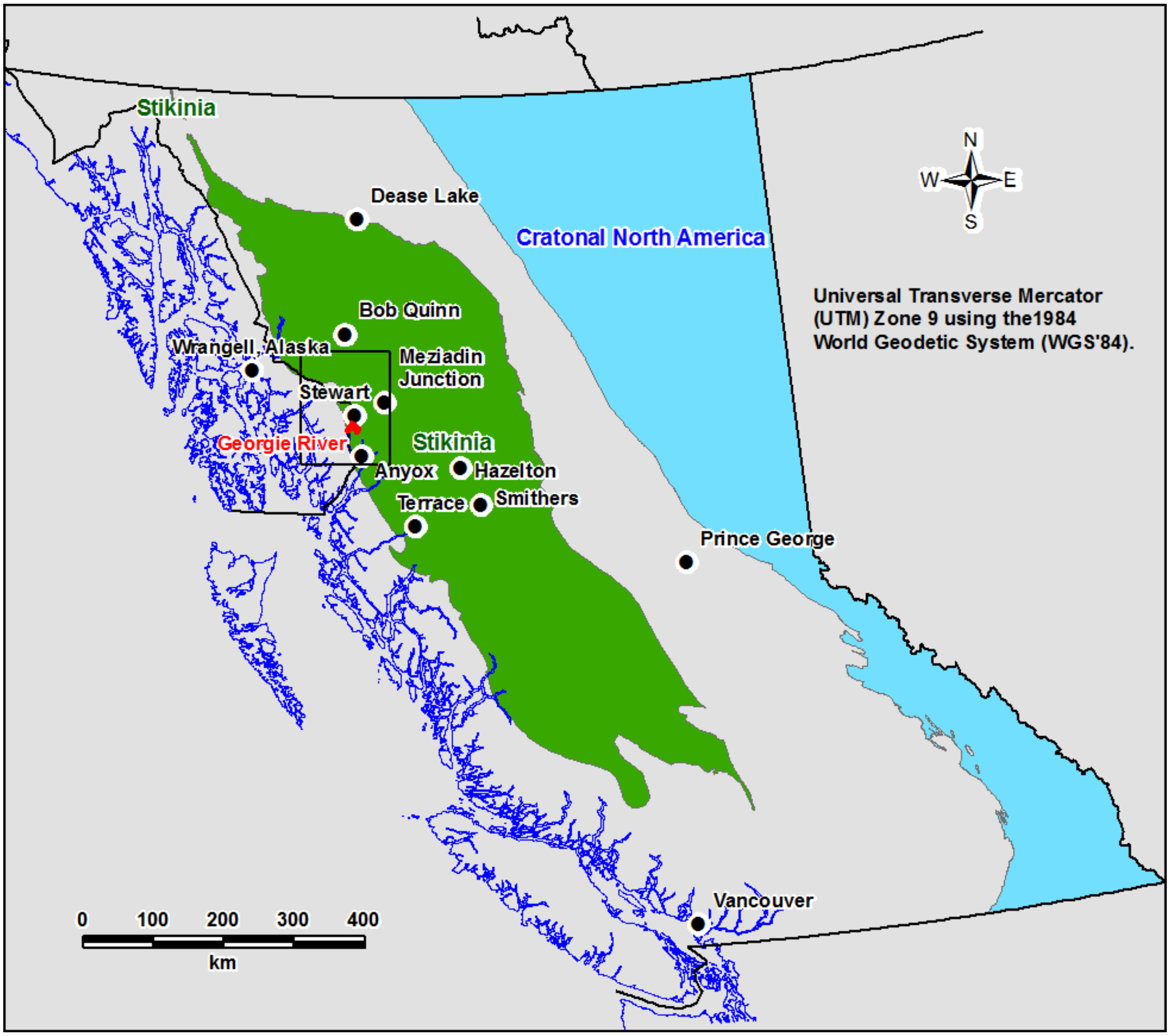

Figure 1. Project location.

MINERAL TENURE

The Georgie River property presently comprises three Crown Granted mineral claims (Table 1) and twenty-six mineral tenures (Table 2), shown in Figure 2. Two of the mineral tenures are legacy mineral tenures resulting from the conversion of previously Crown Granted land and four are legacy four-post tenures; the remainder are "electronic" mineral tenures acquired online.

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%
5150	GEM	01/Oct/1923	Auramex Resource Corp. 100%
5164	TOP FRACTION	21/Sep/1928	Auramex Resource Corp. 100%

Table 2: Summary of Mineral Tenure

Tenure	Claim Name	Owner	Issue date	Expiry Date	Area
250723	Converted Crown Grant	Auramex Resource Corp.	02-Aug-1979	15-dec-2020	25
250725	Converted Crown Grant	Auramex Resource Corp.	02-Aug-1979	15-dec-2020	25
525950	GEORGIE GIRL 3	Auramex Resource Corp.	20-Jan-2006	31-Jan-2019	345.951
614843		Auramex Resource Corp.	04-Aug-2009	31-Jan-2019	400.226
614923	GEORGIA RIVER 1	Auramex Resource Corp.	04-Aug-2009	31-Jan-2019	254.612
615123	COL 1	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	454.957
615144	COL 2	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	454.468
615163	COL 3	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	454.564
615183	COL 4	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	454.607
615203	COL 5	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	454.915
615223	COL 6	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	218.407
615243	COL 7	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	454.731
615263	COL 8	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	454.593
615283	COL 9	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	236.427
615303	COL 10	Auramex Resource Corp.	05-Aug-2009	31-Jan-2019	308.907
758982		Auramex Resource Corp.	27-Apr-2010	31-Jan-2019	18.1799
759002		Auramex Resource Corp.	27-Apr-2010	31-Jan-2019	145.439
939580	HELEN	Auramex Resource Corp.	02-Jan-2012	31-Jan-2019	18.205
942409	FRACTION	Auramex Resource Corp.	24-Jan-2012	31-Jan-2019	18.1875
1015772	AU NORTH	Auramex Resource Corp.	07-Jan-2013	31-Jan-2019	36.3712
1016214	OVER GEORGIA	Auramex Resource Corp.	21-Jan-2013	31-Jan-2019	54.5684
1037833	TAN	Auramex Resource Corp.	10-Aug-2015	31-Jan-2019	127.3579
318194	BROWN #1	Auramex Resource Corp.	08-Jun-1993	31-Jan-2019	500
318195	BROWN #2	Auramex Resource Corp.	08-Jun-1993	31-Jan-2019	250
318196	BROWN #3	Auramex Resource Corp.	08-Jun-1993	31-Jan-2019	500
331396	ARK	Auramex Resource Corp.	23-Sep-1994	31-Jan-2019	250

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

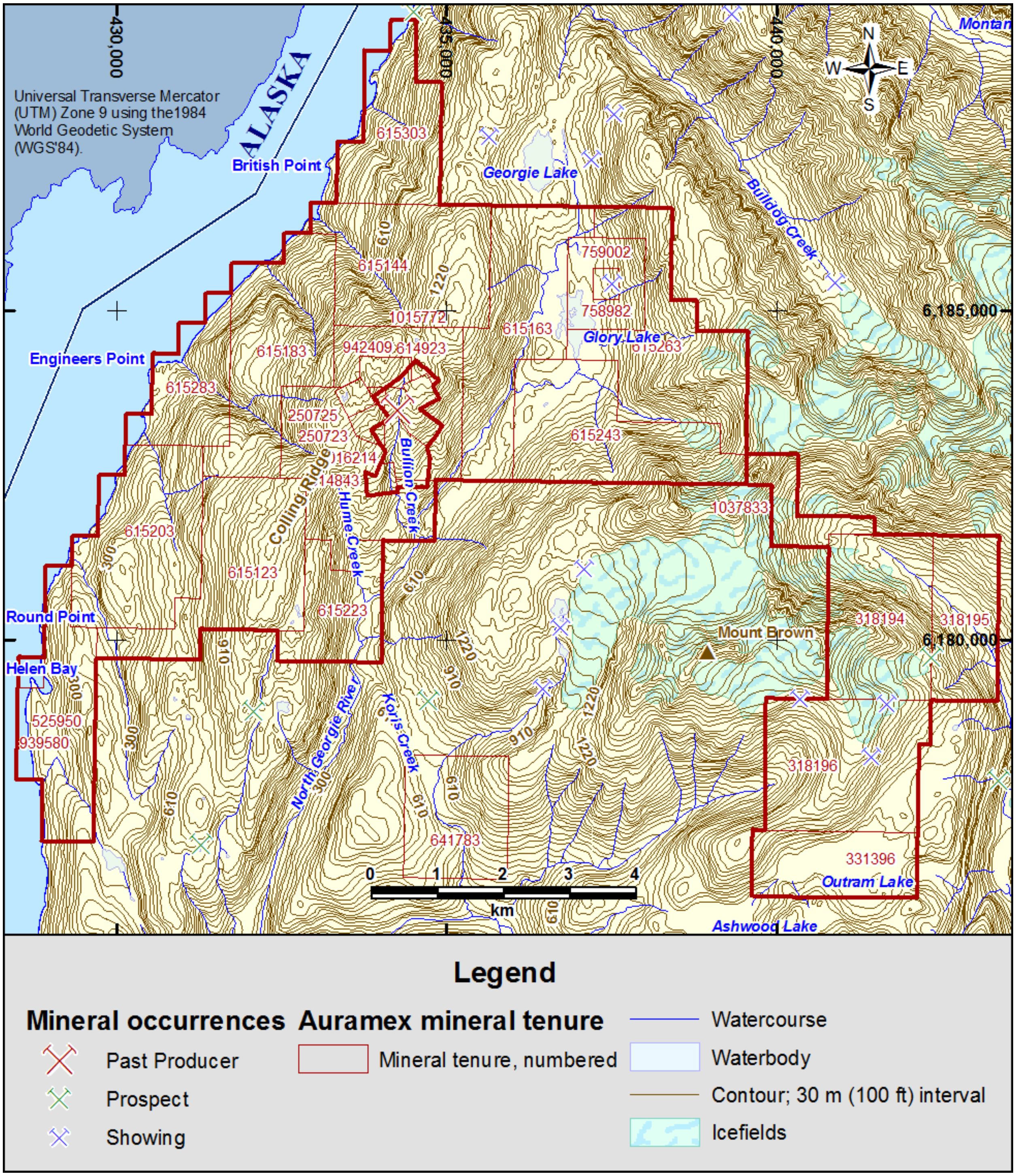

Figure 2. Property mineral tenure and physiography.

PHYSIOGRAPHY, CLIMATE AND VEGETATION

The 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.) near 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. The 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 and August. 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.

LOCAL INFRASTRUCTURE AND PROPERTY ACCESS

The logistical benefits and hindrances of the Stewart Camp have been known for well over a hundred years (e.g.: Robertson 1911). The town of Stewart has an enviable location at the head of the Portland Canal. Stewart has a 120-year history of mineral exploration and mining and has celebrated both lean and "boom" years. Presently, despite the lingering effects of the 2008 financial collapse, the town is enjoying renewed, albeit limited prosperity directly related to the increase in mineral exploration. The town has an airport for light aircraft, permanent helicopter bases and is accessible both from the sea (through a bulk loading facility) and via a paved highway 333 km south to Smithers. 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 Georgia 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.

HISTORY OF EXPLORATION

Mineral exploration in the Stewart-Anyox area began before Confederation and prospectors began detailed exploration of the Stewart area in 1898, during the Klondike gold rush. Mineralized float led to the discovery of gold in quartz veins. In 1902, mineralization was discovered at American Creek. Continued prospecting led to the discovery of the Premier mineral occurrence in 1910. 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.

Historic exploration on the Gamebreaker and Georgie River properties has been in three principal areas:

1100, RIDGE, N, DICKIE ZONES; MINFILES 103P 248, 103P 272

Exploration of the ground covering the 103P 248 and 103P 272 mineral occurrences began in 1990, when prospecting located the 500 m x 50 m "N" showing (Visagie 1990a, 1990b), on ground now enclosed by the Gamebreaker group of legacy tenures. These tenures were initially staked in 1993 (Table 2). Following their acquisition, the tenures were included in a geochemical sampling program (Todoruk and Weekes 1993).

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 significant mineralization. Nevertheless, these exploration programs identified the Dickie, 1100 and Ridge zones, 350 m west, 750 m west-southwest and 1250 m west-southwest of the ”N” Zone, respectively.

Work continued in 1995 (Schatten 1995, unpubl.) but the only published record of this work is by Pezzot (1996). The 1995 induced polarization survey described therein used a 3.6 km grid 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 lithogeochemical 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. The induced polarization survey comprised 1,425 metres (*ibid.*). The survey identified four northwest-trending combined chargeability and resistivity anomalies and a single chargeability-only anomaly. Further work was recommended but not implemented.

Geochemical surveys and reconnaissance mapping (Greig and Hendrickson 2001, Greig 2002, 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.

In 2011, Messrs. S. Conley and P. Metcalfe carried out mapping and geochemical sampling upslope from the 1100 Zone and discovered the Gamebreaker showing between the Ridge and 1100 zones (Metcalfe 2012). This work was the last recorded on the Gamebreaker group.

GLORY EXTENSION; 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 bold 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 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. Metcalfe, in his 2010 property visit, did not find the adit despite welcome, detailed directions from Mr. Cremonese.

COLLING RIDGE (HUME CREEK MYLONITE ZONE)

Published accounts of exploration of the Colling Ridge area since the Second World War are concentrated almost exclusively on the Georgia River Mine. The single exception to this was a program carried out by Bond Gold (Bray and Rainsford 1990), comprising geochemical sampling, geological mapping and a ground geophysical survey, the last comprising magnetic and horizontal loop electromagnetic surveys.

In 2006, a total of 13 geochemical samples were taken on ground enclosed by the present Georgie River property (Dunn 2006). No further ground exploration was undertaken until 2010.

In 2010, the first property-scale geological mapping on the Georgie River part of the property (Metcalfe 2011) located the southwest-dipping Hume Creek Mylonite Zone, of which the 10 m – wide Main Vein in the Georgia River Mine is a subordinate footwall structure. The mylonite zone is coincident with a 1 km^2 electromagnetic anomaly detected by an airborne survey carried out at the same time as the mapping (*ibid.*). Unconstrained inversion of these geophysical data indicated the presence of a blind conductive target, whose top edge is at a depth of 100 m beneath the surface of the ridge. The target is as yet untested by drilling. The ridge surface above the geophysical target exposes deformed Jurassic intrusions with strongly anomalous Au values (Metcalfe 2012).

GEOLOGICAL SETTING AND MINERALIZATION

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 1,000 mineral occurrences of dominantly precious metal vein type, with related skarn, porphyry and massive sulphide occurrences. 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 by Grove (1986), this area has enjoyed decreasing complexity with time and research (e.g.: Alldrick 1993, Alldrick *et al.* 1996, Anderson *et al.* 2003).

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 island arc assemblages 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 magmatic episodes, together with examples of their derivative mineral deposits, are as follows:

1. Latest Triassic to earliest Jurassic (ca. 205-196 Ma) alkaline porphyry-related, deformed mesothermal Ag-Au veins (e.g.: Red Mountain);
2. Early Jurassic Texas Creek Plutonic Suite (ca. 196-187 Ma) alkaline porphyry-related epithermal, transitional and mesothermal Ag-Au veins and base and precious metal deposits (e.g.: Premier, Scottie Gold, East Gold, Georgia River, Kerr, Sulphurets, Mitchell, Iron Cap, Valley of Kings, SNIP, Stonehouse, Bronson Slope;
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.

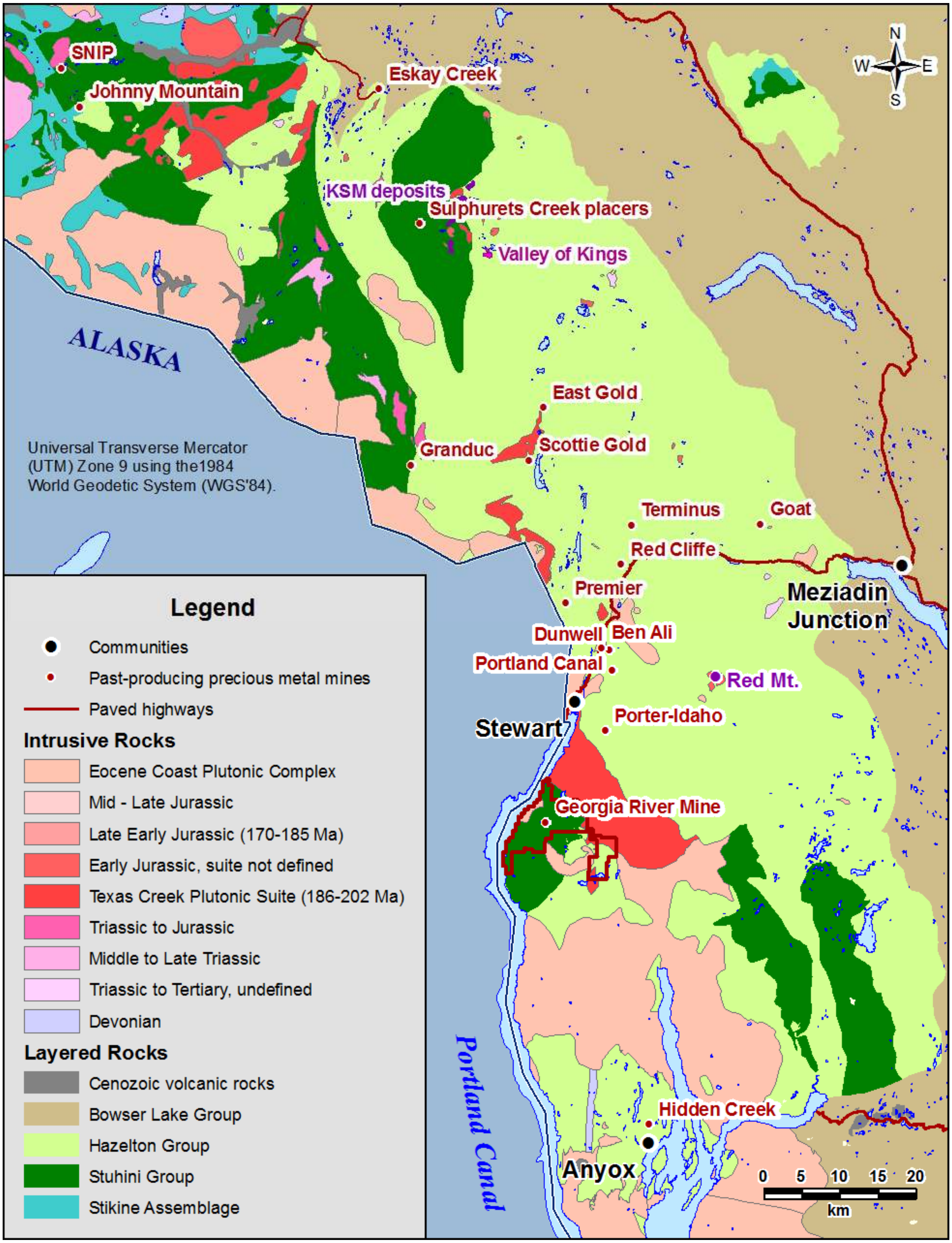

Figure 3. Generalised regional geology after Massey et al. (2005).

The burgundy polygon near the Georgia River Mine is the property.

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 Eocene Coast Plutonic Complex. The latest work (Evenchick *et al.* 1999, 2004) determined that the Early 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-phyric volcanic and volcanogenic rocks on Colling Ridge are interpreted as part of the Late Triassic Stuhini Group (Metcalfe 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 (193.0 ± 0.3 Ma and 189.8 ± 0.3 Ma respectively). The 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 (Metcalfe *op. cit.*).

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 (*ibid.*). The location of the zone is shown in Figure 4.

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 phyric dykes of the Eocene Hyder Plutonic Suite are locally abundant, unfoliated, largely unaltered and clearly post-kinematic. They generally strike southeast and dip steeply southwest, but also occur northeast-striking and subvertical.

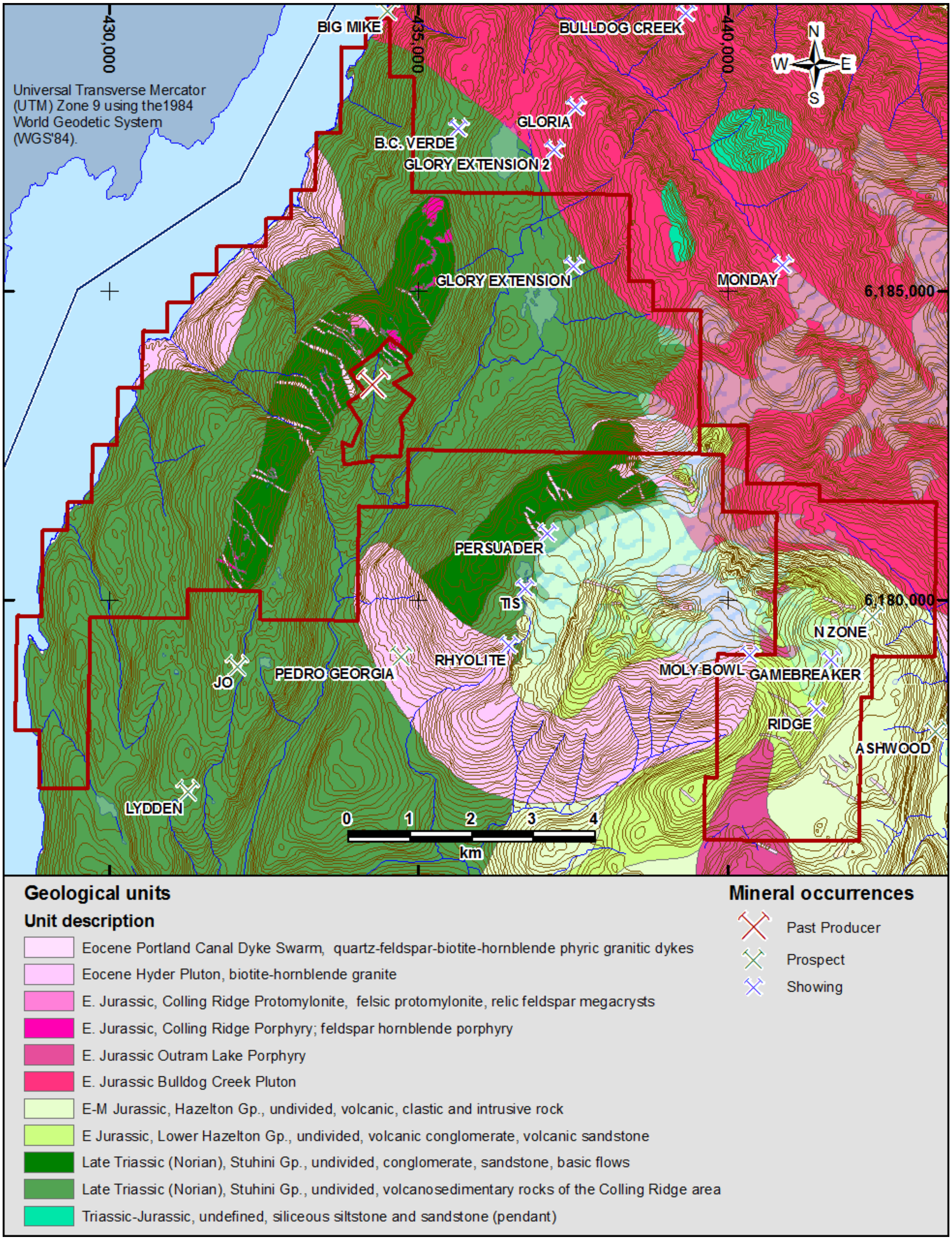

Figure 4. Property geology, modified from Evenchick et al. (1999) and Metcalfe (2011).

SIGNIFICANT MINERALIZED ZONES

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

N, 1100, DICKIE AND RIDGE ZONES AND GAMEBREAKER SHOWING

Two MINFILE occurrences (103P 248, 103P 272) cover 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).

"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 5).

The host lithologies are mapped as undifferentiated interbedded volcanic and sedimentary rocks of the Upper Triassic-Middle Jurassic Lower Hazelton Group. These comprise feldspar phyric 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 sedimentary rocks. A grab sample returned values of 0.17% Cu, 4.13% Zn, 0.29 gm/t Au and 6.2 gm/t Ag.

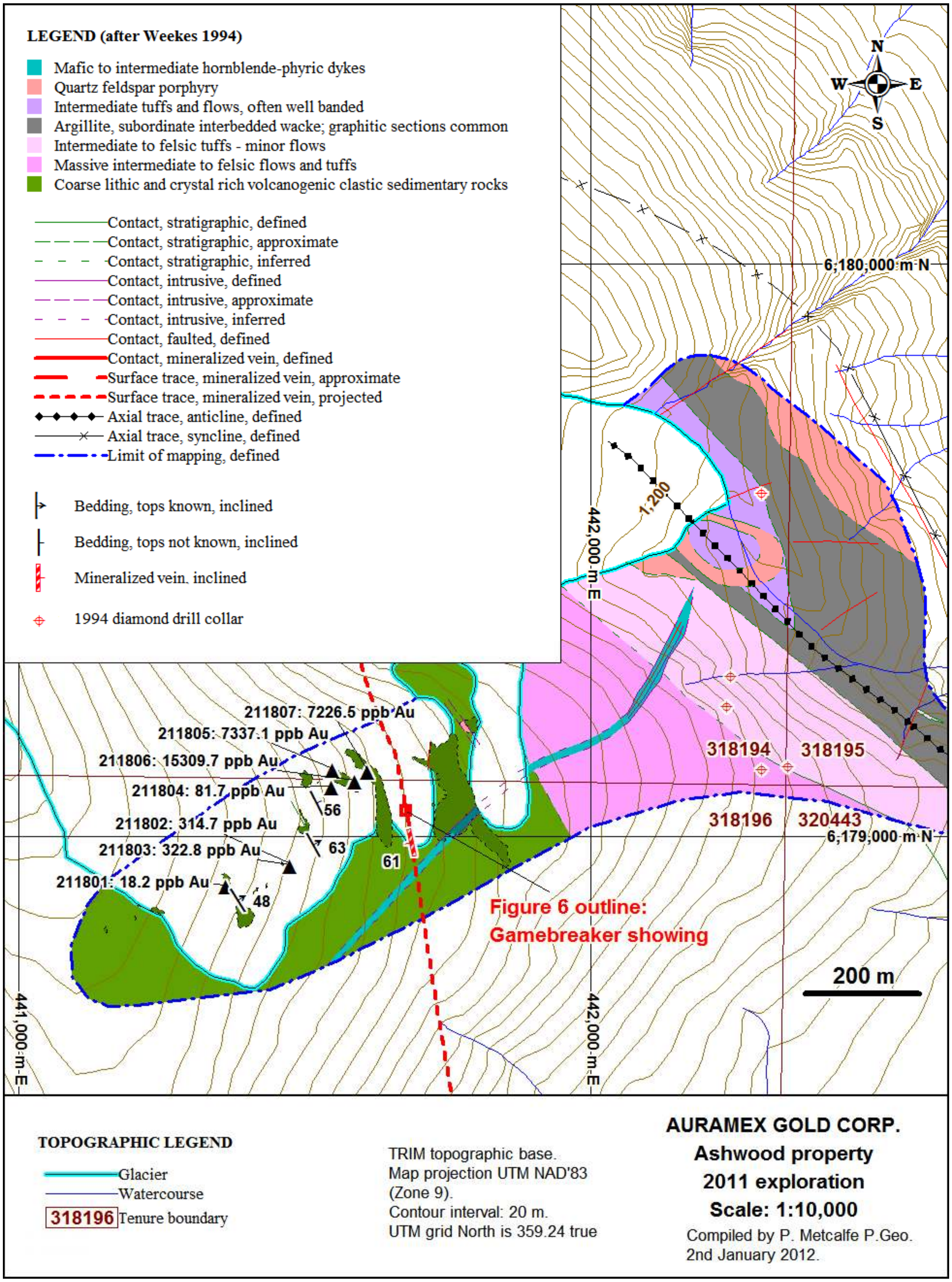

Figure 5. Geological map of the area west of "N" Zone (after Weekes 1994, Metcalfe 2012).

The outline of the map of the Gamebreaker showing is shown in red.

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 5,965 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.

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 zone is characterised by massive to semi-massive, bedding-parallel lenses and ribbons of pyrite within intermediate tuffs and tuff breccia. 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.

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. Its surface expression is that of a large, iron-stained area approximately 150 by 150 m. 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 comprising intermediate tuffs, flows and flow breccias, mineralized with pyrite and/or arsenopyrite and, locally, with chalcopyrite (Todoruk and Weekes 1993).

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). The faults tend to be very narrow (less than 2 m) but wider zones of closely-spaced fractures are associated with the faulting. 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.

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 5). The showing (Figure 6) 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 (Metcalfe 2012).

Weekes (*op. cit.*) 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.

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.

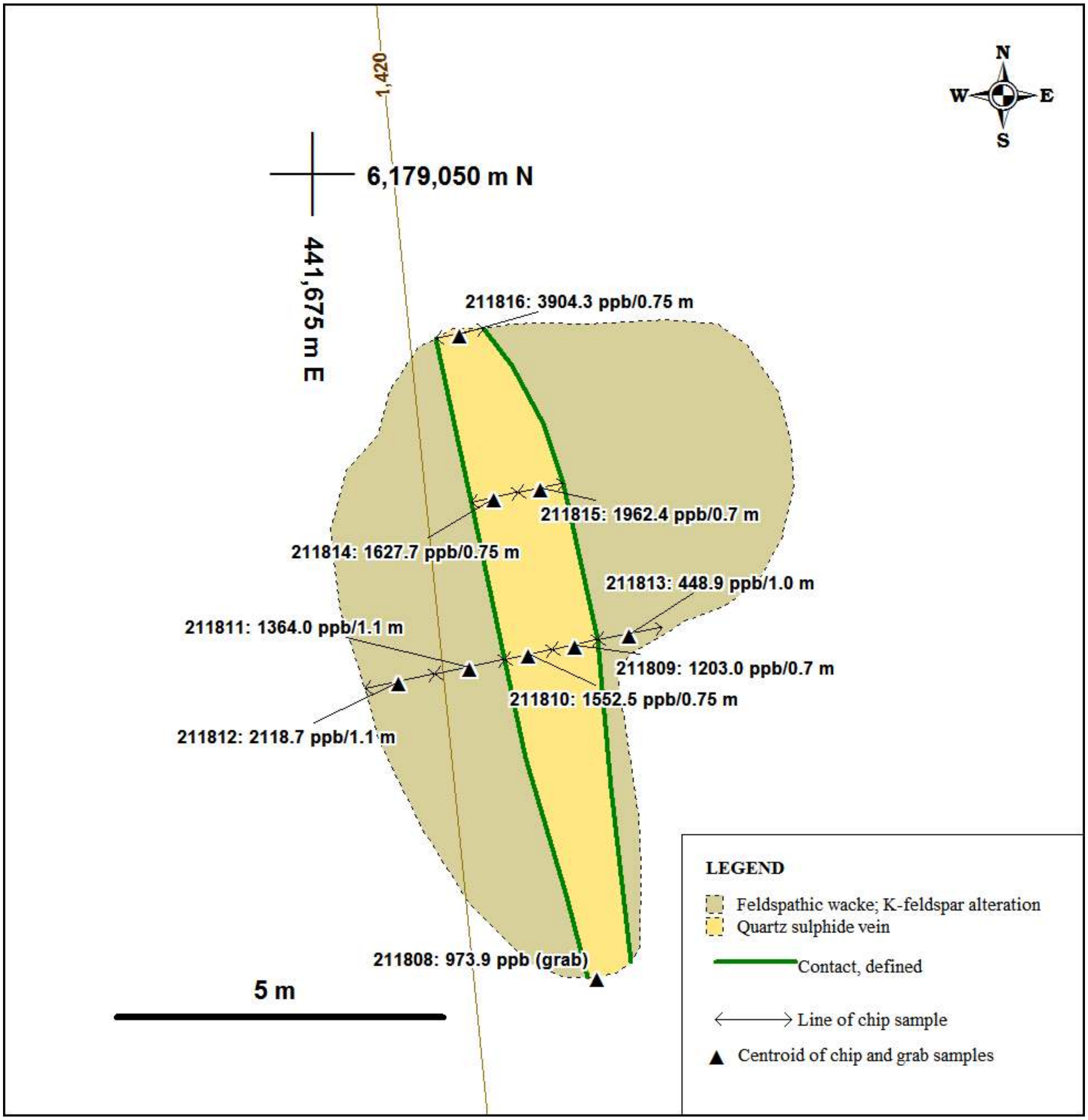

Figure 6. Gamebreaker showing: sample thicknesses and values.

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

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 (Metcalfe 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. Restricted sampling (Metcalfe 2012) indicates that these mineralized, sheared intrusions are, in places, strongly anomalous in gold and arsenic. 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. This must be considered in any future exploration. Inversion of a 2010 airborne geophysical survey indicates the presence of a blind, conductive, southwest dipping target at a depth of 100 m. This is beneath the level tested by 1990 drilling.

SYNTHETIC APERTURE RADAR STUDY

An active geophysical technique is herein defined as a technique which effects an anthropogenic change to the target volume. By contrast, a passive geophysical technique measures without effecting such change. For illustration (and adoption of terminology), a "ping" emitted from an active sonar array reflects from a target to a sonar receiver, which measures and analyses the reflected signal (the sonar echo). This may be contrasted with the operation of a passive sonar array, which listens without broadcasting. Widely used examples of the latter are multispectral and hyperspectral surveys, magnetic field surveys and radiometric gamma ray surveys. Examples of the former, active techniques are seismic reflection and refraction surveys, induced polarisation surveys and airborne electromagnetic surveys. Synthetic aperture radar (SAR), by these definitions, is an active geophysical technique using the systems mounted on Canada's RadarSat constellation.

Auracle Remote Sensing was the first company to fuse multi-angular radar into a single 3D data. The resulting extremely low-noise data is an integral part of the advanced derivatives used in the Auracle 3-D Bare Rock Model©. This proprietary data fusion minimises the effects of steep terrain (Figure 7).

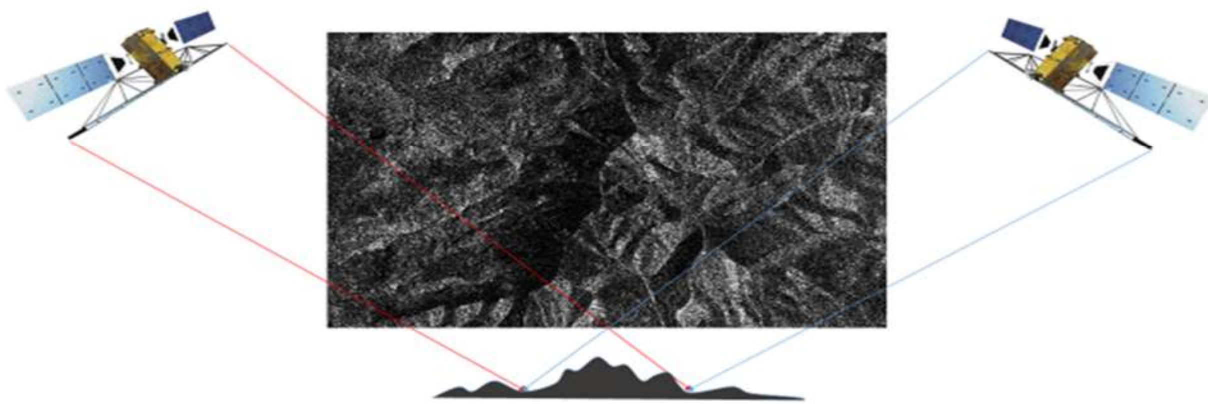

Figure 7. The advantage of fusing multi-angular radar into a single 3D dataset.

The resulting extremely low-noise data minimises blur caused by grazing angles of an incident radar beam. This fusion is an integral part of the advanced derivatives used in Auracle Remote Sensing's 3-D Bare Rock Model©.

DATA ACQUISITION

Satellite Remote Sensing data selection was based on suitability to the fusion process and availability as a continuum of like coverage. Suitable data, acquired from MacDonald Dettwiler and Associates (MDA), consisted of 2 x RadarSat-1 Dual Polarization HH/HV Fine 6.25 m Synthetic Aperture c-band microwave Radar (SAR) datasets.

DATA DESCRIPTION

RADAR

A stereo pair of RadarSat Extra Fine, 3.0 metre spatial resolution C-Band microwave-type Synthetic Aperture (SAR) data was used in this work. The RadarSat data were supplier geocoded, high density format data. These were ingested, georeferenced and projected to the state datum of WGS 84 UTM zone 9N. This datum provides an increase in spatial accuracy, is universal and can be easily converted to project projections.

DATA PRE-PROCESSING

Two RadarSat2 Extra Fine data were tasked at specific geometries, acquired and converted from CEOS file format to standard PIX format. The georeferenced raw data were ortho-corrected using a proprietary script. Radar data does not directly correspond to established visually recognizable geographic features because it is not projecting the apparent surface. In order to correct for foreshortening and antenna patterns, particularly in regions of extreme topographic variation, very specialized knowledge and software is required.

The ortho-corrected 3.0 m data were then filtered for speckle using a Sobel edge detection algorithm. The pre-processed radar data were then aligned against high spatial accuracy optical data and resampled. The two aligned radar data sets were layered into a single data set and used to generate an epipolar base.

DATA PROCESSING

RADAR

The noise reduced and sympathetically masked pre-processed stereo Radar data were fused into single non-layover, non- foreshortened image data pair. The fused radar stereo sets were re-processed using a series of protocols including:

- Directional filters at 120º and 90º;
- Laplace Transforms and:
- Mathematical convolutions.

Results from the Mathematical Convolution images included Co-occurrence, Dissimilarity, Homogeneity, Entropy, and Means. These were projected using both nearest neighbour and cubic convolution resampling to improve and discriminate their varied linearity, texture or arcuate pattern. Results were projected using custom histogram display to improve visual discrimination. Final derivative results were fused into a 3-D Red/Blue Bare Rock Stereo Radar Model designed for viewing and verification using red/blue stereo glasses.

LINEAR MODELLING

Following a series of proprietary order of standard mathematic convolutions and morphology operators including directional filters, radar stereo derivative layers were analyzed for co-linearity. Standard edge detection software coupled with delineation tools rendered a construct termed a lineament or fracture model. This model contained lineaments that were both probable and improbable so editing was conducted to render a linear probability model. This linear probability model was tested for 3D co-planarity with final edits being used to generate a Strike-Dip model. The Strike-Dip model was derived from the combination of the edited linear model and the DSM using an Auracle strike dip analysis tool. These products are included as Appendices.

REMOTE SENSING SOFTWARE

The following computing and analyses programs were used for the analyses in this study:

- Arc GIS with Spatial Modeller, Spatial Analyst,3D Analyst and proprietary Auracle extensions;
- ENVI 5.0 with IDL 6.3 plus atmospheric correction model Mod Tran 4; and DEM extraction Module
- IDL Coyote Routines
- PCI Geomatica plus Radar Suite and Ortho Engine with Elevation extraction suite
- X Tools Pro
- Auracle Technologies tools

INTERPRETATION OF RESULTS

Radar stereo pair imagery is presented in Figure 8 and in Figure 9, the latter with interpretation overlain. A histogram of interpreted structural directions is presented in Figure 8. The processed image, presented as a 3-D Red/Blue Bare Rock Stereo Radar Model, is shown in Plates 1-3, the latter with interpretation overlaid.

Lineaments extracted from the image were interpreted as geological discontinuities. Only where clear offset of one feature across another was visible was an interpretation made of a potential fault. An attempt was made to classify radar texture, density and fabric domains for their correlation to previously mapped lithological domains.

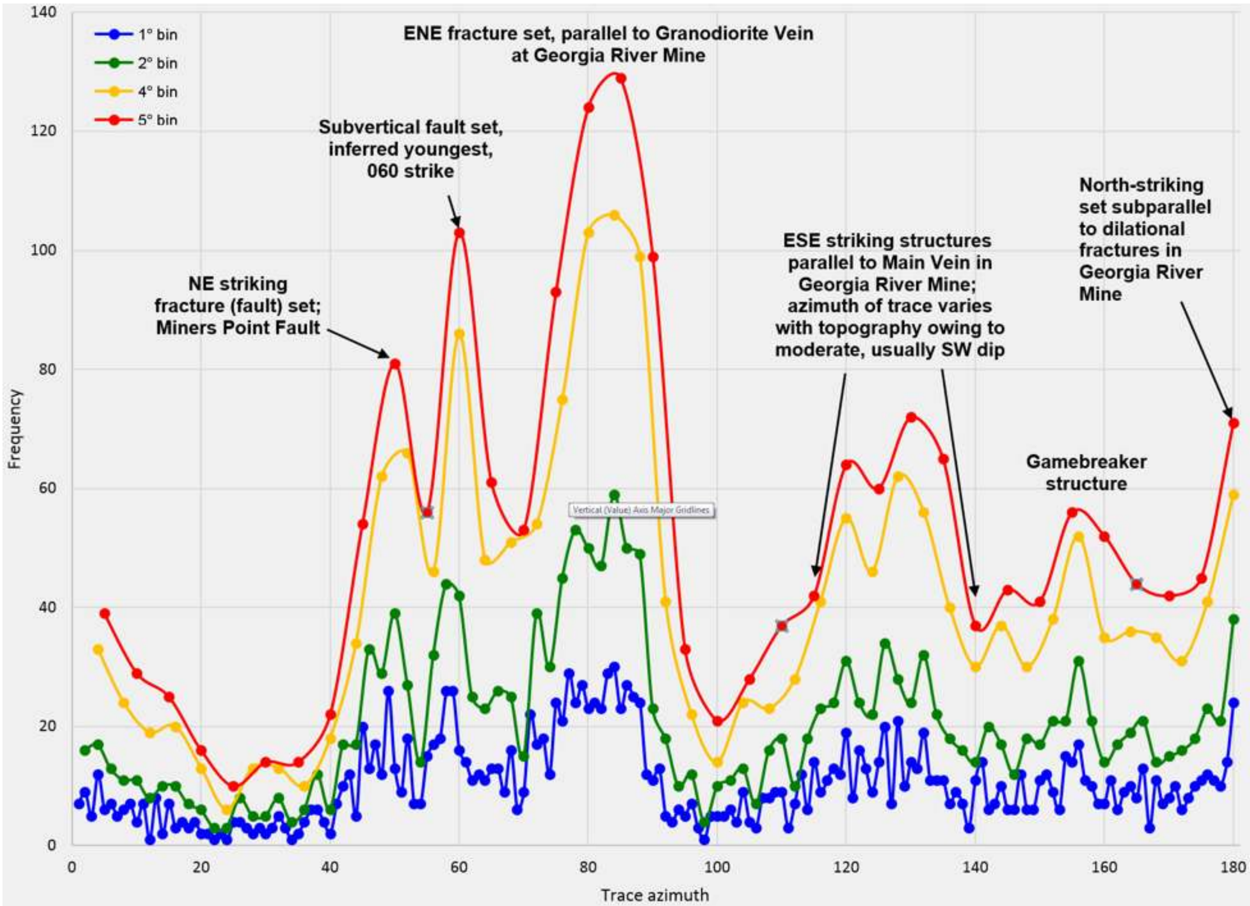

Figure 8. Frequency of apparent azimuths in linear radar discontinuities.

The processed image is of clarity remarkable even to one familiar with such and is clearly superior to those obtained previously (*op. cit.*). Blurring induced by terrain grazing of the radar signal has been effectively eliminated and small areas where pixellation has occurred detract minimally from the overall clarity.

GEOLOGICAL DOMAINS

The first clearly visible feature is an extensive, 250 m – wide set of *en échelon* discontinuities with a mean azimuth of roughly 045. This set is largely unaffected by topography and there are visible offsets of other discontinuities across the set's trace, albeit with ambiguous sense. A single set of arcuate features immediately east of the mine area are interpreted, tentatively, as symmetric boudins.

The feature extends from tidewater just south of the boundary of tenure 525950 and just north of a promontory called Miners Point, passing through the southeast corner of the same tenure, over the south end of Colling Ridge and up the north fork of Georgie River as far as Glory Lake, where it defines the southern edge of the lake. Northeast from this area, the fault zone is less prominent, particularly within the area mapped (Evenchick *et al.* 1999) as underlain by the Bulldog Creek Pluton.

The feature is coincident with several lineaments remarked by Evenchick *et al.* (1999). On the basis of observed displacements across the trace, the structural set is herein designated as the Miners Point Fault.

The prominence and persistence of the Miners Point Fault is less pronounced in the northeast, where it transects the mapped contact of the Bulldog Creek Pluton. Here, there is a slight deviation to north of northeast, as the fault traverses the south-facing slope of the ridge overlooking Bulldog Creek, possibly indicative of a moderate to steep south easterly dip of the fault plane. It is possible that the original structure predates the early Jurassic intrusion and that the present trace was reactivated post--Early Jurassic. If that were the case, the majority of Colling Ridge and the northwestern part of the Bulldog Creek pluton are isolated, as a discrete structural block, from the Mount Brown *massif*.

The second geological domain evident is that of the Gamebreaker property, which exhibits far fewer evident discontinuities than the terrain enclosed by the Georgie River property. It has been suggested (Metcalfe 2012) that the former is underlain by a predominantly Jurassic sequence, whereas the Georgie River property is underlain by late Triassic pyroxene phyric volcanic and related rocks. If so, this would explain the disparity in frequency of linear discontinuities. Such a circumstance, however, would not explain the southwest dip of the Gamebreaker showing, parallel to the early Jurassic structures on Colling Ridge.

Orbicular discontinuities occur in several areas of the Georgie River property. One is coincident with an intrusion of Colling Ridge Porphyry mapped by the first author. (Metcalfe 2011). The other features remain to be identified.

LITHOLOGICAL DIFFERENCES

In general, lithological boundaries are not easily visible. Some coincidence with mapped geology along the crest of Colling Ridge (*ibid.*) is observed, but this is most probably a reflection (pun intended) of the prominence of certain subsurface features, owing largely to the unaltered (and thereby resistant) nature of the Hyder Dyke Suite. This is evident insofar as the larger Hyder dykes are prominent against Colling Ridge Porphyry and pyroxene phyric country rock alike, though the discrepancy in composition between the two intrusive suites is less than that between either of these and a predominantly andesitic to basaltic host. The tentative identification of a possible contact with the Bulldog Creek Pluton at the northeastern edge of the property owes more to the cessation of crenulation features in inferred country rock across the inferred contact than it does to any observed textural difference. It is possible that the lower greenschist facies metamorphism imposed on early Jurassic intrusions and country rock alike and the consequent ubiquity of chlorite, epidote and relatively sodic plagioclase has conflated the reflective characteristics of both units, thereby obscuring contacts.

A single, remarkable feature is visible near the northern edge of the tenure block, at 436,000 m E. The feature, roughly 3 km in north-south length and 1 km east to west, resembles a large, asymmetric *boudin*. The textural grain within this feature is more pronounced than in the surrounding area and may be the result of brecciation. Given its location, adjacent to the contact with a large intrusion of Texas Creek

Plutonic Suite, the tenure immediately north of that property boundary was acquired on the basis of this observation and is recommended as a priority target for future exploration.

LINEAR DISCONTINUITIES

Linear discontinuities are abundant, particularly in the western, Georgie River property (Plates 1 and 2). Preliminary analysis of their patterns is shown in Figure 8 and permits identification of six main sets. These will be described, beginning with the set exhibiting least apparent dislocation. For clarity, only the relative ages of the most recent movements on these discontinuities sets can be inferred from the processed RadarSat data and these inferences are contingent on ground-truthing.

Set 1: 054-069 azimuth

This set has the least apparent dislocation and, owing to its tight distribution of azimuths, is interpreted as sub-vertical and youngest-formed. The set is penetrative on a scale of 1 to 2 km and occurs on both the Georgie River and Gamebreaker properties. The most prominent example of the set is visible beneath the water of the Portland Canal and crosses the property line just north of Round Point. The trace ascends to the crest of Colling Ridge, crossing it just north of the present Crown Granted area and bisects the area between the Georgie Lake and Glory Lake. Immediately to the west of the Crown Grants, the set forms a headwall to an apparent slide area.

In the interlake area, subordinate discontinuities are visible between strands of Set 1. These have generally north easterly azimuth, are grouped with Set 6 and in this location are interpreted as extension structures on the set. If so, this indicates a sinistral sense of movement. There are no offsets evident to support this observation. The azimuth of this fault set is parallel to that of the Cullen Creek Fault in the Bear Pass area north of Stewart (Metcalfe, in review).

Set 2: 069-098 azimuth

Set 2 has a range of azimuths nearly twice that of Set 1. In part this may owe to non-vertical inclination of the discontinuities. The set is penetrative on the scale of 300-500 m and is present in both Georgie River and Gamebreaker areas, albeit less common in the latter.

The set appears less coherent than Set 1, possibly owing to this jointing by the latter. Evidence of offsets is minimal, but a sinistral offset can be inferred for a structure crossing Colling Ridge just north of the Crown Grants (Metcalfe 2011). This set of discontinuities includes the structure reportedly hosting the Granodiorite Vein at the Georgia River Mine.

Set 3: 022-054 azimuth

To this set belongs the domain boundary noted as the Miners Point Fault in a previous section (“Geological Domains”). The set is remarkably consistent in trace azimuth and is present in both the Georgie River and Gamebreaker areas. A slight deflection to the north along the trace of the Miners Point Fault suggests, as noted above, a steep southeasterly dip. Other discontinuities of this set are not as well-defined. In addition, despite its linear nature, the structural set is relatively disjointed when compared with Set 1.

Displacement across the Miners Point Fault appears to be sinistral, based on observed deflections of crosscutting discontinuities. A less subjective evaluation can be found in a set of nested, arcuate discontinuities along the trace of the fault immediately east of the Georgia River Mine. These discontinuities resemble the margins of rotated boudins in a shear zone. If this were the case, it is confirmation of sinistral movement. Such movement would be consistent either with an early Jurassic or a Tertiary stress field.

Set 4: 098-139 azimuth

Set 4 includes both steeply dipping brittle faults and moderately and southwesterly dipping brittle or ductile structures. Both of these were mapped during the course of 2010 fieldwork (Metcalfe 2011). The variation of apparent trace azimuth for line segments in this set is at least in part owing to topography. The impression of a bimodal distribution within this set, visible in the 4 and 5° bin sets in Figure 8 are not apparent in the smaller bin sets and may be an artifact.

There are no apparent offsets across the structural set, partly as a function of its disjointed nature. Kinematic indicators measured during fieldwork (*ibid.*) and airborne geophysical data indicate a dextral sense of movement on the southwest-dipping structures. The more steeply dipping, brittle structures are of unknown movement, although subordinate discontinuities, interpreted as extension fractures, are visible along the discontinuity extending from tidewater at Engineers Point and can be interpreted as evidence of dextral strike-slip movement.

Set 5: 139-167 azimuth

Set 5, with azimuths between 139 and 167 could be interpreted as an extension of Set 4. However, the Gamebreaker showing, discovered in 2011 (Metcalfe 2012), clearly falls within this set of discontinuities. Whether this set represents a rotation of Set 4 in a different geological domain or whether it is a discrete entity is not known at the time of writing.

Set 6: 167-202 azimuth

Set 6, as little constrained in azimuth as Set 4, is the least coherent set of discontinuities observed in the data. In part, this is because much of the set can be interpreted as extension or ladder veining along structures belonging to other sets. Lateral persistence occurs in a few places, most notably the Southwest Vein in the Georgia River Mine (not shown). Disjointed structures of this set occur in the (interpreted) asymmetric *boudin* north of Glory Lake. Structures belonging to this set will obviously active during the period of gold mineralization in the set is thereby an important exploration feature.

CONCLUSIONS

These authors submit that the Synthetic Aperture Radar study described above represents an unqualified proof of concept for use of this technique to locate prospective areas on a mineral property. The reader is reminded that these discontinuities can only be validated by a boots-on-the-ground approach as recommended by Harris *et al.* (2010). The study has identified six structural sets, three of which are explicitly associated with gold-bearing mineralization in the property area. Moreover, this study has located an area of interest peripheral to the property which was acquired as a consequence of these findings.

RECOMMENDATIONS

The following are recommended:

1. Acquisition of ground covering the projected contact of the Early Jurassic Bulldog Creek Pluton (in progress at the time of writing);
2. Integration of all pre-existing government and industry data (in progress at the time of writing);
3. Ground-truthing of information returned from the study, with particular reference to the area around Glory and Georgie Lakes; such a geological survey should include prospecting and generous sampling for alteration surveys;
4. Reappraisal of all airborne geophysical programs with respect to terrain clearance and signal to noise ratio;
5. Acquisition/reacquisition of geophysical data for all areas not properly covered by pre-existing surveys; it is recommended that such a survey include radiometric measurements;
6. Constrained inversion of viable geophysical data using discontinuities interpreted from the present study and:
7. A program of alteration mineral detection using the new WorldView 3 Superspectral satellite data is also recommended for the near future, contingent only on seasonal reduction of the snowpack.

These addenda to the radar analyses should provide important new information regarding zones of exploration potential, and a greater geological understanding of the area as a whole. Ground truthing is required to investigate the results delineated in this work and to verify and map these correlations. Actual phenomena such as potential lithology and their contacts must be located where they are exposed and present in outcrop. The correlation of pixel domains, boundaries and line features shown on resulting maps to geological and structural attributes present on the ground still need to be validated by a "boots to the ground" programs, as stated by Harris *et al.* (2010).

It is anticipated that these strategic advances will make it possible to isolate those areas hosting potential mineral showings, to more quickly map them on the ground and to begin the process of evaluating their economic potential by undertaking detailed exogenic geochemical, geophysical (IP) and drilling programs.

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STATEMENT OF COSTS

Table 3: Georgie River 2017 cost statement

Auracle Geospatial Science Inc.:	
RadarSat tasking, development of 3-D Radar model with geological and structural interpretation, reporting	$69,000
Total	**$69,000**

STATEMENTS OF QUALIFICATIONS

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

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;

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);

I am a member, in good standing, of the Association of Professional Engineers and Geoscientists of the Province of British Columbia;

I have worked as a geologist for a total of 40 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;

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;

I have several years' experience working in northwestern Stikinia;

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:

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 14th day of June, 2018.

"P. Metcalfe"

Dr. Paul Metcalfe P.Geo.

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

I am a Principal in Auracle Geospatial Science Inc., *325* Dorset Road Qualicum Beach, British Columbia, Canada V9K 1H5

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. I have received a postgraduate diploma in Applied and Theoretical Geographic Information Science from Simon Fraser University.

I have completed the B.C.Y.C.M. Mineral Exploration program and completed B.C.Y.C.M. Advanced field School at BCIT.

I have 15 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.

This report was prepared on behalf of Auracle Geospatial Science Inc. who has been engaged by Auramex to complete a remote sensing program on this property.

I have no material or financial interest in the subject properties or the companies that own them.

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.

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 could therefore constitute the omission of fact(s).

Date: 14th June, 2018

Qualicum Beach, British Columbia, Canada

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

APPENDICES

Plates 1 and 2: 3D Radar Model

Plate 3: 3D Radar Model with interpreted linear discontinuities

Plate 1. Processed, fused Bare Rock Stereo Radar Model

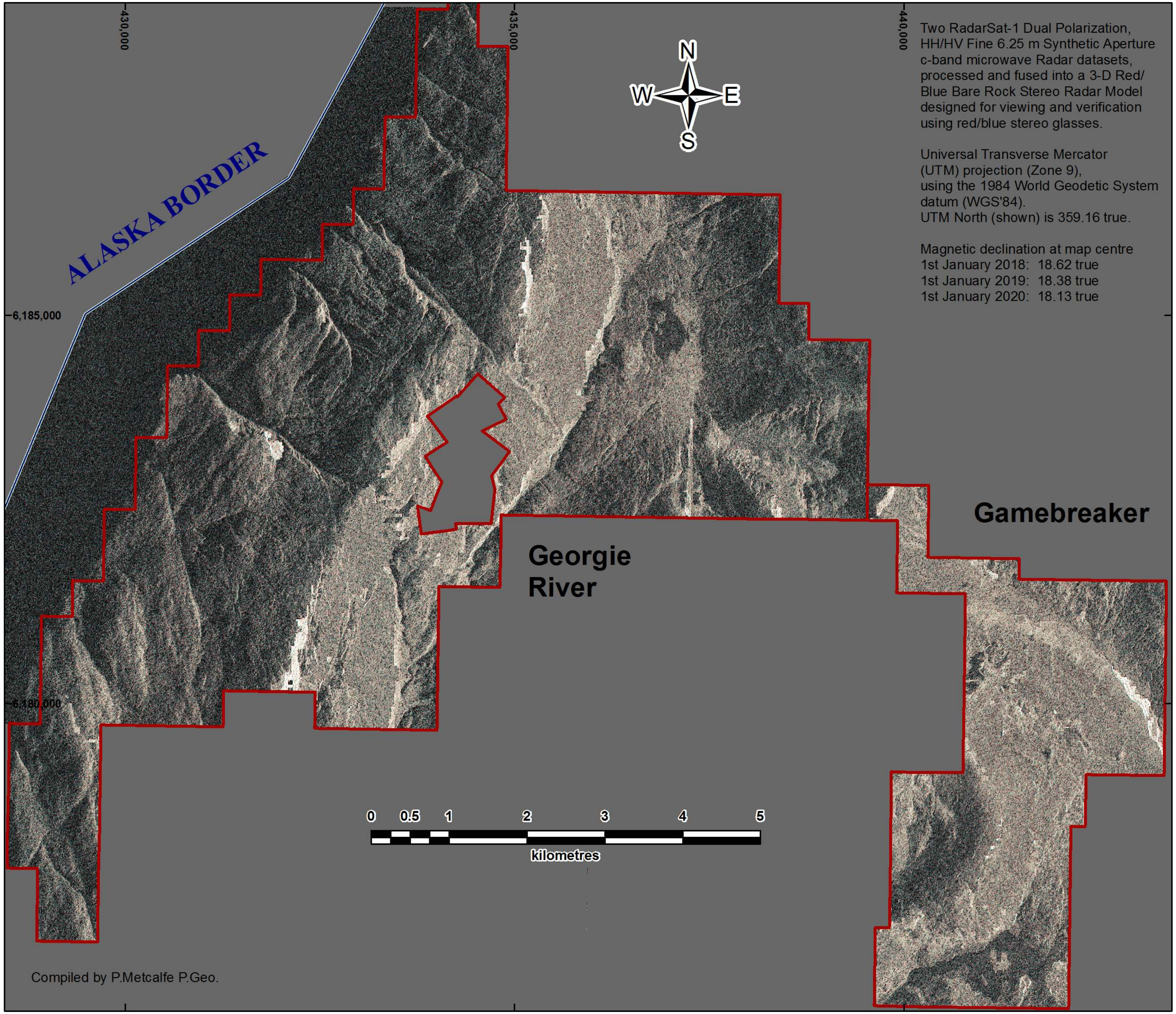
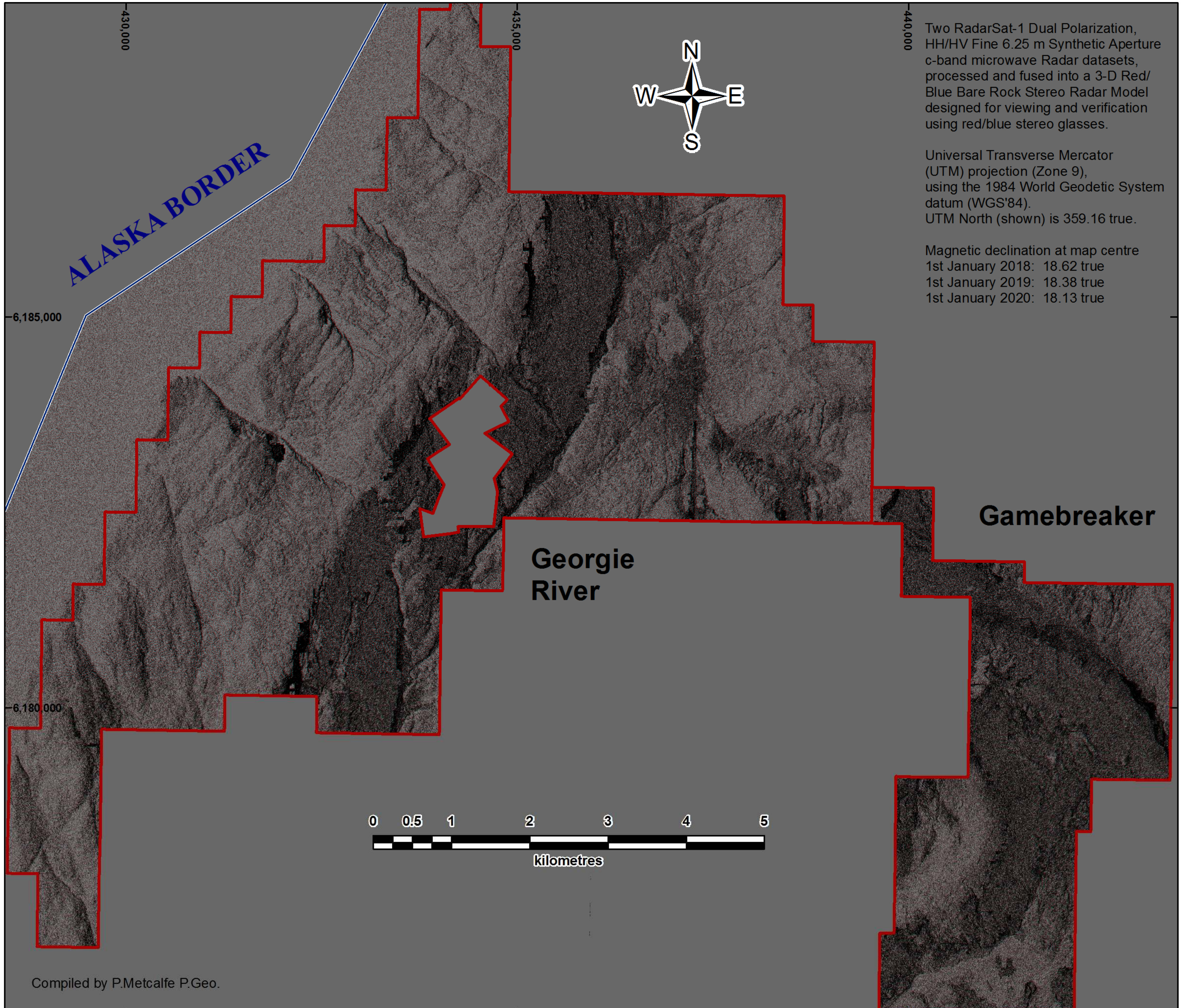


Plate 2. Processed, fused
Bare Rock Stereo Radar Model
Histograms inverted



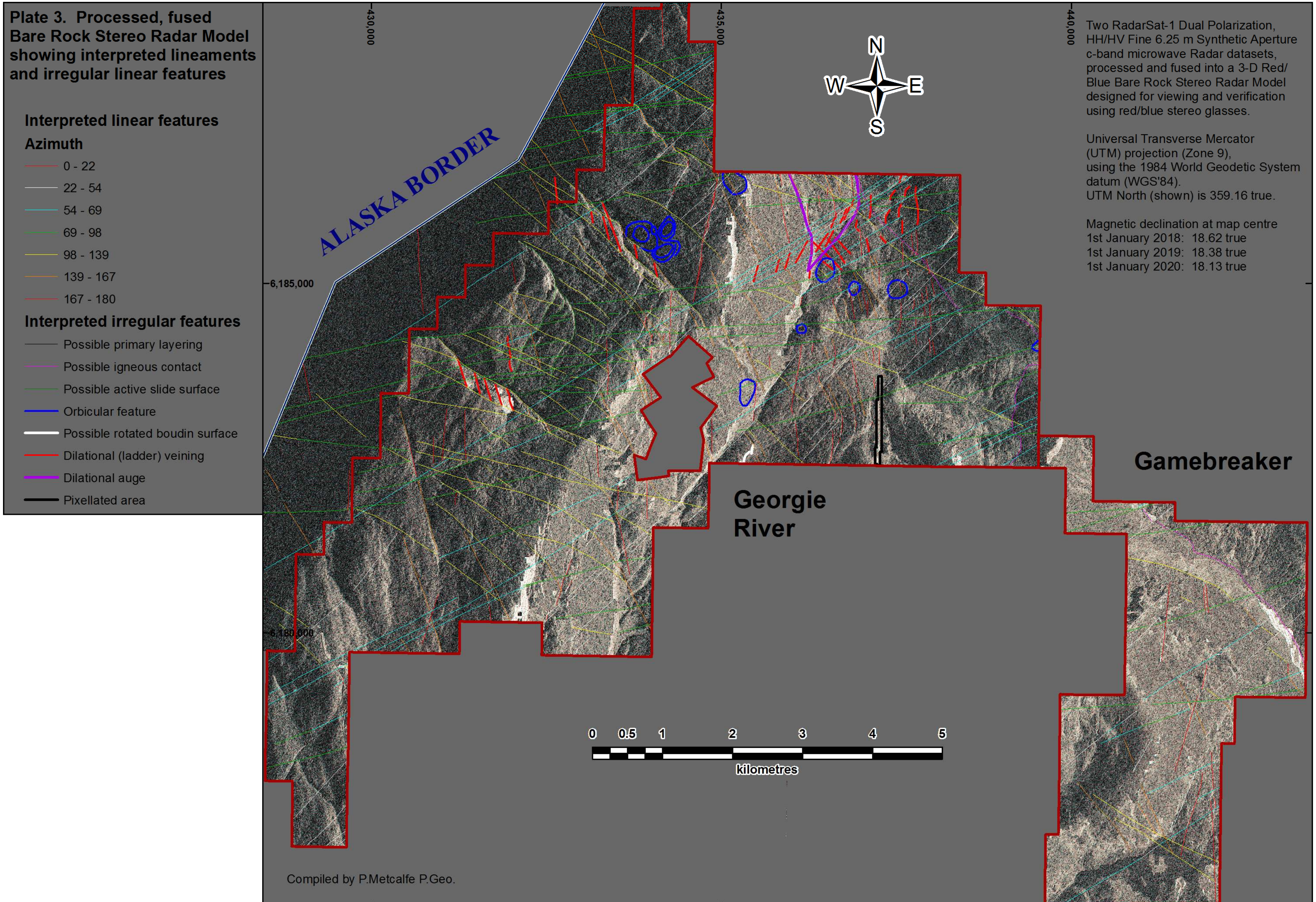


Plate 3. Processed, fused Bare Rock Stereo Radar Model showing interpreted lineaments and irregular linear features