

**NI 43-101 Technical Report**  
**on the**  
**Pichette-Clist Property**  
**Jellicoe Area, Northwestern Ontario**

Latitude 49°39'00" N      Longitude 87°39'36" W

NTS sheet 42E12  
5499365.3 N    452230.5 E  
Datum UTM NAD83, Zone 16U

Prepared for  
**BLUE JAY GOLD CORP.**  
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Permit to Practice # 1001672

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# 1 SUMMARY

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The Pichette-Clist Project is an orogenic gold project with features similar to the past mining operations located 25 km east of the mining town of Beardmore, in Northwestern Ontario. The Pichette group of the claims consists of 66 cells in 9 claims for 1313 hectares. The Clist group consists of 48 cells in 33 claims for 955 hectares. The totals for the Pichette-Clist project are: 114 cells, 42 claims and 2268 hectares. The claims are centered at the approximate Latitude 49°63'99.5" N and Longitude 87°39'36" W, and approximate UTM coordinates of 5499365.3 N and 452230.5 E. Other than the logging roads there is no infrastructure onsite. Highway 11, one kilometer to the north of the project parallels the TransCanada gas pipeline. Geraldton 60 km to the east hosts a municipal airport capable of accommodating large aircraft and is situated north of the constructed Greenstone Gold Mine, a producing mine owned by Equinox Gold Corp. Greenstone hosts reserves of around 5.57 million oz Au is the 4<sup>th</sup> largest open pit gold mine operation in Canada based on projected annual gold production of ~330 thousand oz Au over a 15-year mine life. Because the author has not verified the statements concerning the Greenstone mine, the information should not be relied upon. The targets at the Pichette project are similar to some of the gold deposits exploited in the Greenstone Gold Mine and surrounding Archean greenstone gold systems.

Blue Jay Gold acquired nine of the cell mining claims making up the Pichette-Clist Project (the "Pichette Claims") on November 1, 2023 pursuant to the terms of a mining claim transfer agreement with Riverside Resources Inc. ("Riverside"), the prior owner of the Pichette Claims. As part of the purchase price for the Pichette Claims, Blue Jay Gold granted Riverside a 2% NSR royalty on the Pichette Claims. Blue Jay Gold holds an option to acquire the 33 additional mining claims making up the Pichette-Clist Project pursuant to an agreement.

The project area comprises boreal forest of low-lying undulating to rolling-ridged terrain. The project is bounded to the north and south by the Blackwater River at around 300m elevation. Rock ridges generally trend east-west provide and create minor local relief of about 20 to 50 m. This topography provides easy road access and potential drilling year-round.

Prospectors were attracted to the area following the discovery of gold in the Beardmore and Geraldton areas in the 1930s. In 1952 Tombill Mines Ltd. outlined 4 mineralized zones around the Blue Jay Gold claims. Drilling was conducted and documented gold mineralization associated with two persistent subparallel chert-magnetite-carbonate ironstones. The ironstones are 40 m apart and strike 75 and dip 85 north. Surface prospecting and historical diamond drilling have traced the banded iron formation 600 m along strike, and they average 2.0-2.5 m wide. Up to 20% magnetite has been noted in the ironstones and can contain up to 2% arsenopyrite. In total 26 short holes were drilled on the Pichette-Clist Project as part of a larger drilling campaign in 1952. The original certificates for the assays are not available. The values here are extracted from third party sources and assessment work. The work was conducted prior to the implementation of National Instrument 43-101 – Standards of Disclosure for Mineral Properties, and as such should not be relied upon. Two smaller campaigns were conducted in attempts to trace

these ironstones east and west with limited success. On the northern portion of the property other operators drilled similarly oriented ironstones with small intercepts of gold being recorded.

The project is underlain predominantly by east-west trending and steeply south to vertically dipping metavolcanic and metasedimentary rocks. Metavolcanic rocks consist of massive and pillowed, locally amygdaloidal, flows of basaltic composition along with related tuffaceous rocks. They are locally intercalated with coarser-grained rocks. Mafic metavolcanic rocks are fault-bounded against domains of metasedimentary rocks closer to the northern boundary of the project. The southern metasedimentary panel consists of a polymictic conglomerate and greywackes. Metasedimentary units also contain feldspathic and quartzose sandstone and wacke, siltstone, carbonaceous argillite and haematitic iron formation. Intermediate to mafic intrusions cut the metavolcanic rocks on the southern part of the property and consist of quartz diorite, diorite and gabbro.

Recent work by Blue Jay Gold includes surface bedrock sampling as well as drone magnetics and LiDAR surveys. Data from the magnetics survey has helped to map the interpreted distribution of geological and structural boundaries and to highlight banded iron formations more accurately. These formations are generally associated with gold mineralization. Similarly, the LiDAR data helps to map structure, uncover historic land disturbances (e.g., old prospecting), and interpret structural geology. The best surface results to date recorded by Blue Jay Gold were in the southern portion of the Pichette project in the area of the 1950s drilling where north-south channel samples collected in 2024 returned: 70.9 g/t Au, 54.4 g/t Au, 51.0 g/t Au and 49.2 g/t Au (see figure 35) within discrete intervals over 0.5 metres each. On Clist, the high-grade surface channel samples (see figures 28 to 36) were found in a number of areas where recent work focused on examining old trenches and pits exposed by Noranda in the 1980s.

A budget of \$533,500 is estimated for phase 1. Contingent upon the results of phase 1, a budget of \$2,112,000 is estimated for phase 2.

## **2 INTRODUCTION**

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### ***2.1 Terms of Reference***

This technical report was commissioned by the private company Blue Jay Gold Corp. (Blue Jay Gold, or the Company), of Vancouver, B.C. The report is titled NI 43-101 Technical Report on the Pichette-Clist Property, Jellicoe Area, Northwestern Ontario, is prepared by Locke B. Goldsmith, P. Eng., P. Geo., an independent professional engineer and geologist. The author visited the Property on November 20, 2023. The type of the Property is early-stage exploration.

The author was retained to complete this report in accordance with National Instrument 43-101 of the Canadian Securities Administrators ("NI 43-101") and the Form 43-101F1. The author is a "qualified person" within the meaning of National Instrument 43-101. This report is intended to be filed with the securities commissions in all the provinces of Canada except for Quebec.

In the preparation of this report the author utilized information provided by the Company as well as technical reports that have been previously published in journals or on [www.sedar.com](http://www.sedar.com). Results from the historic exploration on the Property are contained in detail in Section 6 of this report. The author has relied upon description of geology and mineralization on the Property from assessment reports and government publications. A list of references being reports, maps, and other information examined by the author is provided in Section 27 of this report.

This report also utilizes company assessment reports filed with the provincial government as part of the credit system for mineral claims. The regional geological context of the belt is derived from published reports by government, research, academic and industry geologists. It is the author's opinion that the content of government-produced reports is accurate. There is no reason to believe that all or part of this information is incorrect, and discussion is included where discrepancies are found. Collectively, this information includes previous geological reports, location of mineral occurrences in the property area, government-produced maps and documents, assays certificates and drill logs, which are employed by the author to generate this technical report on the geology and character of gold mineralization on the project.

The author reserves the right but will not be obliged to revise the report and conclusions if additional information becomes known subsequent to the effective date of this report.

Information, opinions, and conclusions contained herein are based on:

- Information available to the author at the time of preparation of this report.
- Assumptions, conditions, and qualifications as set forth in this report.
- Discussions with Blue Jay Resources Inc. geologists.

The author has seen Blue Jay assessment reports that contain cost statements for work done on the Pichette-Clist property during 2023-2024. The total cost of assessment work that has been filed is \$ 247,509.70 to the date of this report.

As of the date of this report, the author is not aware of any material fact or material change with respect to the subject matter of this technical report that is not presented herein, or which the omission to disclose could make this report misleading.

Maps in this report are created by Blue Jay Resources Inc., unless otherwise stated.

Locke Goldsmith, the author of the Technical Report on the Pichette-Clist Property, does not hold any shares or securities of Blue Jay Gold. The author will submit an invoice for a cash payment for the preparation of the Technical Report.

The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved based on i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions, and qualifications set forth in this report.

## 2.2 Scope of Inspection

The report's scope covers a compilation and review of previous work carried out on the property with associated results and includes information from other parties. Also, the project setting, historical exploration and geology are presented, with interpretations, conclusions and recommendations for future work on the property. The Author visited the site in November 2023 and walked to important rock outcrops to note detailed descriptions of the geology and mineralization styles which included check sampling. The project is grass-roots in nature. The company has conducted sporadic surface work and airborne surveys. Following the Company's site visit in 2024 the Company did conduct a LiDAR survey and some surface outcrop sampling. Subsequent to the site inspection, the Author independently checked the Company's assessment reports on the project, and together with reviewing the contents of the Company's financial statements, Management Information Circular and press releases arrived to the conclusion that there has been no material work completed. As such, the Author considers that there has been no material change to the scientific and technical information about the property since the aforementioned personal inspection was undertaken in November 2023.

## 2.3 Units

The Metric System is the primary measurement system used in this Report and is generally expressed in kilometres, metres and centimetres; volume is expressed as cubic metres, mass expressed as metric tonnes, area as hectares, and silver gold grades are reported as either ounce per ton ("oz/ton") or grams per metric tonne ("g/t"). Historic gold values are presented as originally reported and converted to g/t if required. A conversion factor of 34.28 is used to convert ounces per short ton ("oz/ton") to g/t. Universal Transverse Mercator (UTM) coordinates are provided using the North American Datum 83 (NAD83) grid.

### Table 1. List of Abbreviations

Conversion factors utilized in this report include:

- 1 troy ounce/ton = 34.285714 grams/tonne
- 1 gram/tonne = 0.029167 troy ounces/ton
- 1 troy ounce = 31.103477 grams
- 1 gram = 0.032151 troy ounces

Grams gold (silver) per metric tonne	Au (Ag) g/t
Canadian National Instrument 43-101	NI 43-101
Degrees Celsius	°C
Certified Standard Reference Materials	CSRM
Centimetre(s)	cm
Metre(s)	m
Millimetre(s)	mm
Kilometre(s)	km
Kilometre(s) squared	km <sup>2</sup>
Parts per billion	ppb
Parts per million	ppm



Grams per metric tonne	g/t
Metres cubed	m <sup>3</sup>
Hectare(s)	ha
Kilogram(s)	kg
Greater than	>
Less than	<
Million years ago,	Ma
Quality Assurance/Quality Control	QA-QC
Canadian Institute of Mining	(CIM)
National Mining Registry	MME
Environmental Management Plan	EIA
Qualified Persons	(QP)
kilo-volt-ampere	kVA
Tonnes per day	tpd
Universal Transverse Mercator coordinate system	UTM
Professional Geologist	P.Geo.



**Figure 1. Location Map of the Pichette-Clist Project within Northwestern Ontario along the Trans-Canada Highway 11 between Beardmore and Geraldton,**

*approximately 2.5-hour drive east of Thunder Bay*

### **3 RELIANCE ON OTHER EXPERTS**

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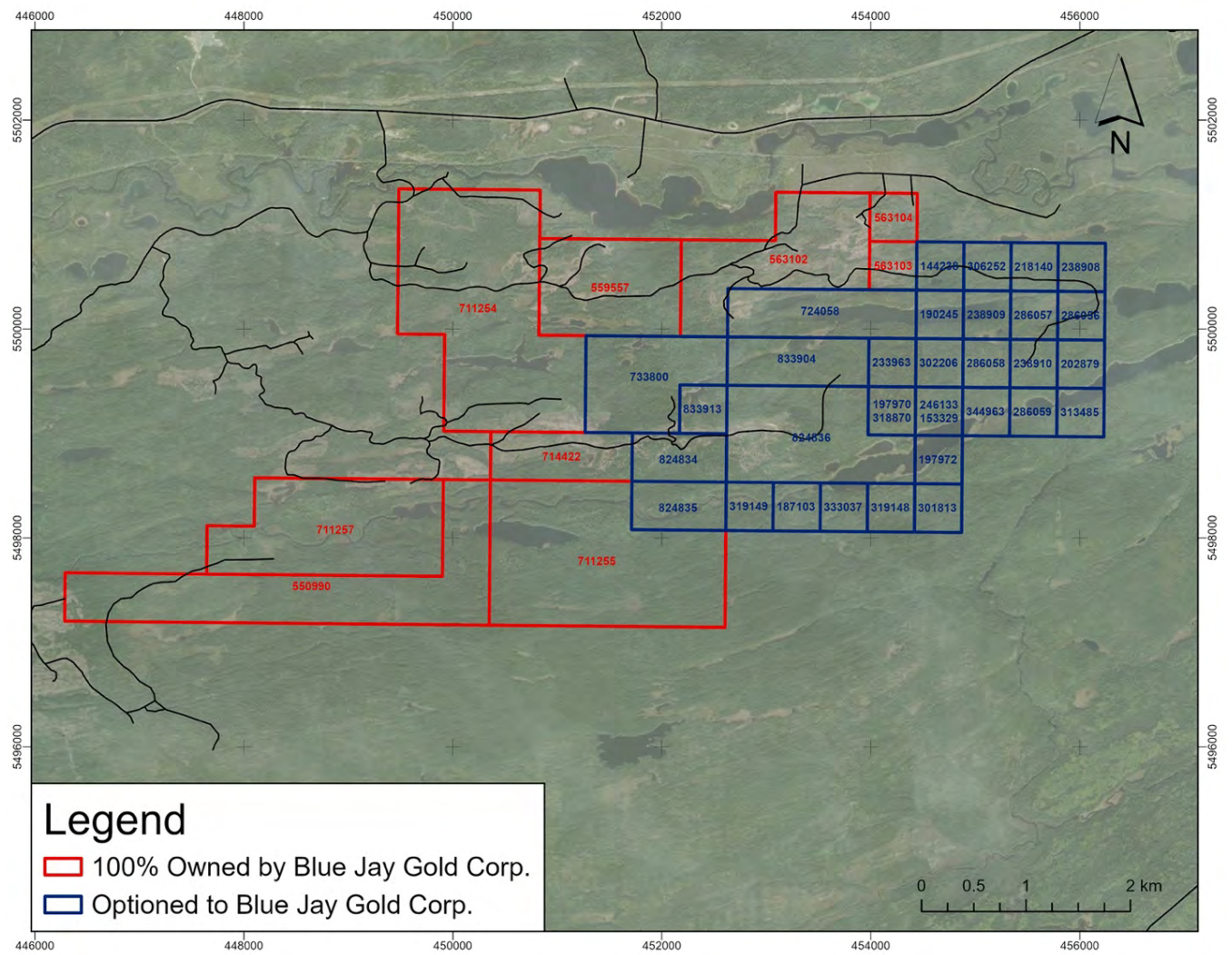
The qualified person has relied on the VP of Exploration of Blue Jay to confirm the claim status, permitting and filing with the Ontario government. The qualified person has also relied on the CEO of Blue Jay Gold to provide shareholder information, licensing, exploitation, taxation, liability, environmental concerns and all relevant legal documents.

### **4 PROPERTY DESCRIPTION AND LOCATION**

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#### ***4.1 Claims***

The Pichette-Clist Project is located 25 km east of the town of Beardmore in the Northwestern Ontario Region (see Figures 1 & 2). The Pichette group of the claims consists of 66 cells in 9 claims for 1313 hectares. The Clist group consists of 48 cells in 33 claims for 955 hectares. The totals for the Pichette – Clist project are: 114 cells, 42 claims and 2268 hectares as shown in Table 2 and Figure 2. The property is centered at the approximate coordinates of 5499365.3 N, 452230.5 E. Datum UTM NAD83, Zone 16U. The property is located on National Topographic System (NTS) sheet 42E12. The Pichette-Clist project has an annual work assessment requirement of \$45,600/year. No environmental liabilities or other agreements and encumbrances are known on the project area with the exception of the reliance on MLAS acceptance of annual assessment work to extend claim due dates: all previous assessment reports to MLAS on the project area have been accepted.



**Figure 2. Claim map of the Pichette-Clist project near Jellicoe Ontario**

**Table 2. List of the Pichette-Clist Claim Group (January 2025)**

Claim #	# of Cells	Due Date*	Registered Owner(s)
144238	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAELJAMES GOODMAN
153329	0.5	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAELJAMES GOODMAN
187103	1	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAELJAMES GOODMAN
190245	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
197970	0.5	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAELJAMES GOODMAN
197972	1	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAELJAMES GOODMAN
202879	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
218140	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
233963	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
238908	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
238909	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
238910	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
246133	0.5	7-Feb-25	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
286056	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
286057	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
286058	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
286059	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
301813	1	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAELJAMES GOODMAN
302206	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA NELSON, (25) MICHAEL JAMES GOODMAN
306252	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA NELSON, (25) MICHAEL JAMES GOODMAN
313485	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA NELSON, (25) MICHAEL JAMES GOODMAN
318870	0.5	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
319148	1	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
319149	1	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
333037	1	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
344963	1	7-Feb-26	(25) HERB GARRY GOODMAN, (50) THERESA APRIL NELSON, (25) MICHAEL JAMES GOODMAN
550990	11	3-Jun-27	Blue Jay Gold
559557	6	23-Sep-29	Blue Jay Gold
563102	7	1-Nov-27	Blue Jay Gold
563103	1	1-Nov-27	Blue Jay Gold
563104	1	1-Nov-27	Blue Jay Gold
711254	15	24-Jun-27	Blue Jay Gold
711255	13	24-Jun-27	Blue Jay Gold
711257	9	16-Apr-29	Blue Jay Gold
714422	3	24-Jun-28	Blue Jay Gold
724058	4	10-May-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
733800	5	10-May-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
824834	2	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
824835	2	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
824836	7	30-Mar-26	(50) HERB GARRY GOODMAN, (50) MICHAEL JAMES GOODMAN
833904	3	1-Jun-26	(100) MICHAEL JAMES GOODMAN
833913	1	1-Jun-26	(100) MICHAEL JAMES GOODMAN

\* Assessment report for Pichette-Clist Claims were filed on 7<sup>th</sup> January 2025 with MLAS and are awaiting final approval the work report, and until point claim expiry remains static. This represents the 4<sup>th</sup> annual

filing by the Company on this project. All the previously submitted reports to MLAS were accepted and claim expiry dates extended thereafter.

## **4.2 Mineral Title**

Mineral title belongs to the provincial Crown. Mining in general is regulated by the Provinces. Section 92A (1) of the Constitution Act gives provinces constitutional jurisdiction over mineral exploration, development, conservation, and management. A mine can be defined as "a place where mechanical disturbance of the ground or any excavation is made to explore for or to produce coal, mineral-bearing substances, plaster and minerals, rock, limestone, earth, clay, sand or minerals" and "all activities including exploratory drilling, excavating and site reclamation".

The provincial ministry responsible for the environment, natural resources and/or energy is usually in charge of regulating mining activities pursuant to provincial legislation. Most provincial mining legislation requires a permit or other authorization before exploration, or a mine is allowed to be developed or operated. Different procedures apply according to the type of activity involved, e.g., surface exploration, bulk samples, test shipments, new mines, and expansion of producing mines.

In most of Canada and in Ontario, the free entry system prevails. Any person may stake a mineral claim. The holder of the claim is required to pay an annual fee or to perform certain amounts of exploration and development on the site. The claim holder is entitled to apply to the provincial government for a mining lease, which is a prerequisite for developing a mine. Most land is available for mineral exploration; land in protected areas, in the agricultural reserve, Indian lands, and populated areas are not open for mineral exploration.

In Ontario the title holder must submit a permit application for all mechanized surface exploration. The application includes information about the mineral title, the operator, the program of work, and the proposed reclamation plan.

The Federal Government administers the Federal Metal Mining Liquid Effluent Regulations, made pursuant to the Fisheries Act, set limits for five metals as well as radium, suspended solids, and pH in metal/mine effluent (fish and water fall under federal jurisdiction).

Provincial legislation governs mining rights on public lands. Different forms of title can be acquired under provincial legislation. For example, there are mineral claims and mining leases. Provincial legislation sets out the requirements for staking and recording claims and usually states that the recorded holder of a claim is entitled to those minerals that are situated vertically downward from and inside the boundaries of the claim.

During September 2024, the Company signed an option earn-in agreement for a parcel covering 955 hectares called named the Clist Lake Property. The option agreement includes a total of CAD \$500,000 in payments over a period of 5 years where up to 50% of the final \$425,000 of installment payments can be comprised in shares. In addition, a 1% NSR is will be granted to the optionee by Blue Jay Gold on completion of the 100% option earn-in. The NSR can be repurchased within 10 years of the transfer date for

\$150,000 by the Company with a capped value of \$1,500,000 with up to 50% payable in shares. In addition, the Company is required to complete \$400,000 in exploration over the first four years of the option agreement. Further, Blue Jay Gold holds the Pichette property (1315 hectares), which was transferred to the Company from Riverside Resources on formation of this subsidiary corporation in November 1, 2023. This subsidiary corporation may be spun out of Riverside Resources on receipt of a successful vote by shareholders of the parent corporation.

There are no known significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

### ***4.3 Surface and Subsurface Rights***

Patented parcels of land are the most secure form of land tenure and are subject to an annual mining tax payable to the Crown. The patented lands are described by the legal survey of individual mining claims and surveyed mining locations. No patented lands are held by Blue Jay Gold. There are other patented lands that do overlap on the Pichette-Clist Project area.

Upon registering (map staking) mining claims (cells) in Ontario, the owner must perform and file exploration assessment work and apply on those cells assessment work credits to maintain them in good standing. The first unit of assessment work of \$400 per 20 ha, or 1 cell, is required by the second anniversary date of the recording of the cell and an additional unit is required to be performed and filed for each year thereafter. A claim provides the stakeholder with a two-year right to explore within the claim holdings for any mineral substance with exceptions. After the initial two-year period claims can be renewed for an additional two-year term on certain conditions including that sufficient assessment work is performed on the claims or payment is made in lieu of work. The Pichette-Clist project has an annual work assessment requirement of \$45,600/year.

The Qualified Person is not aware, nor has been advised of any agreements and encumbrances to the property other than the 2% net smelter return royalty on the Pichette Claims governed by a net smelter return royalty agreement dated November 1, 2023. The property is located on Crown Land and has not been subject to any form of development and there are no environmental liabilities to which the property is subject.

### ***4.4 Permitting***

Exploration Permits include terms and conditions that may be used to mitigate potential impacts identified through the consultation process within the Provincial government and First Nations. Some prescribed early exploration activities will require an Early Exploration Permit. Those activities will only be allowed to take place once the permit has been approved by the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF). Surface rights owners must be notified when applying for a permit. Aboriginal communities potentially affected by the exploration permit activities will be consulted and have an opportunity to provide comments and feedback before a decision is made on the permit. Permit proposals will be posted for comment on the Ontario Ministry of the Environment Environmental Registry for 30 days.



Clist has a valid Early Exploration Permit. The Pichette property has an application filed for an Early Exploration Permit. The application number is PR-24-000143.

Activities that require an Early Exploration Permit include:

- line-cutting that is a width greater than 1.5 metres.
- mechanized stripping of a total surface area of greater than 100 square metres within a 200-metre radius and below advanced exploration thresholds.
- excavation of bedrock that removes more than three cubic metres of material within a 200-metre radius.
- use of a drill that weighs more than 150 kilograms.

For development work such as clearing land for mine openings, tailing ponds, buildings, an application made be made for an Advanced Exploration Permit.

Exploration permit applications should be submitted directly to NDMNRF at least 55 days prior to the expected commencement of activities via online Mining Lands Administrative System (MLAS).

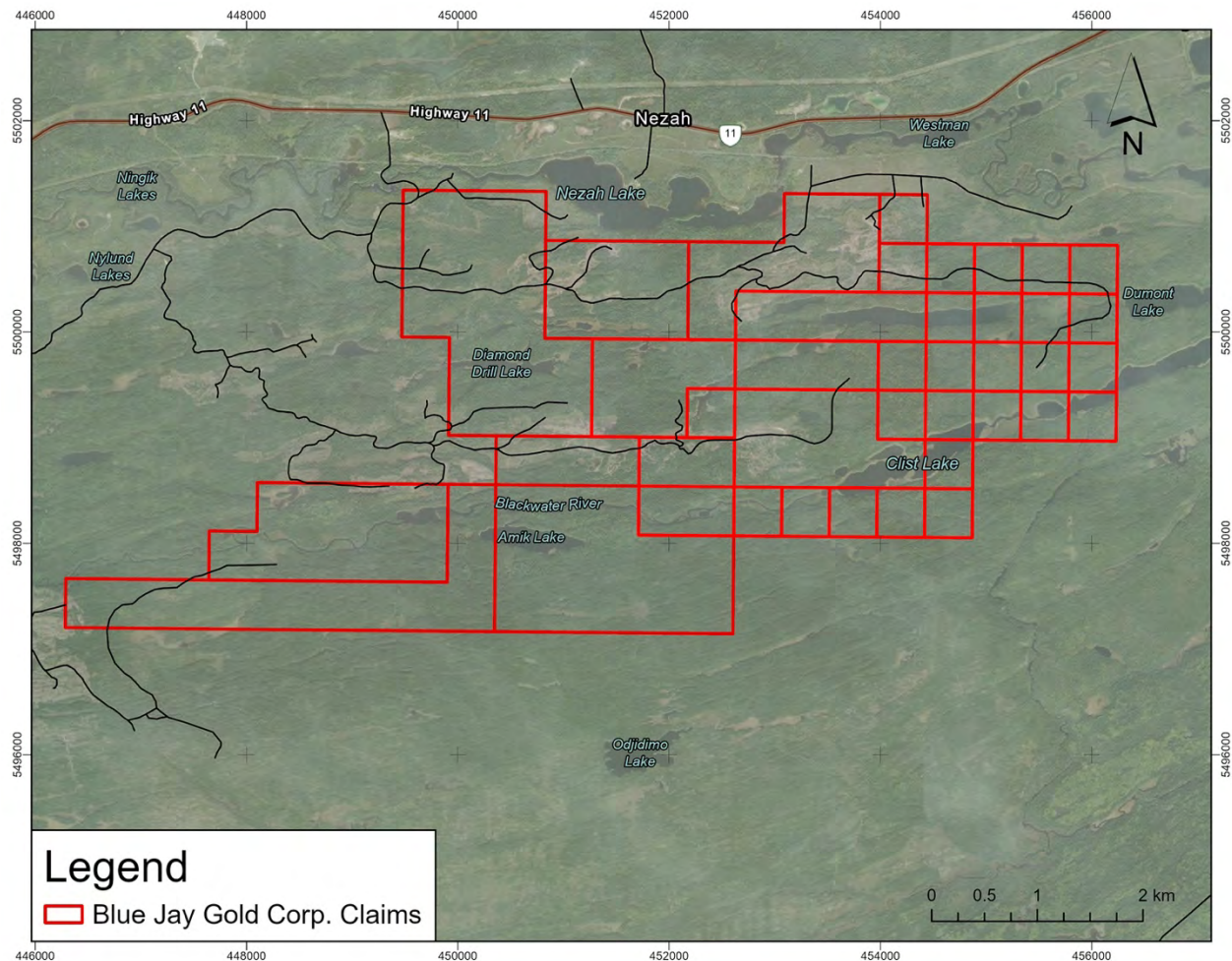
The permitting approval process also requires acknowledgement of First Nations rights in the area and prior consultation before beginning any exploration work. First Nation consultation and approval of exploration permit is mandatory across much of Canada. The First Nations that claim territorial rights in the Pichette-Clist area include: Biinijitiwaabik Zaaging Anishinaabek (Rocky Bay First Nation); Bingwi Neyaashi Anishinaabek (Sand Pt. First Nation); Animbiigoo Zaagi'igan Anishinaabek (Lake Nipigon Ojibway First Nation); and Long Lac 58 First Nation. There are also several Metis Groups that require consultation prior to an Early Exploration Permit being issued.

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

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### ***5.1 Accessibility***

The Pichette-Clist project has long been an isolated area located between two arms of the Blackwater River and difficult to access. Starting in the 2000's logging began first by upgrading a bridge across the Blackwater River and then harvesting which slowly moved southward. As of 2021 access to much of the property has been provided by a network of logging roads that do not require four-wheel drive. The project is located south of TransCanada Highway 11, a 20-minute drive from Beardmore or a 40-minute drive from Geraldton. Once on the property a truck is recommended but a car can gain access (see figure 3).



**Figure 3. Access map showing logging roads from Highway 11 to the Pichette-Clist Project, Ontario**

## 5.2 Climate

The Project is in northern Ontario, which has a continental climate typical for temperate regions in the mid-latitudes that are influenced by both polar and tropical air masses. In this climate, seasonal temperature variations are represented by short summers and cold winters. The nearest permanent weather monitoring station is located at Greenstone Regional Airport, which services Geraldton, and the surrounding area. Weather statistics for the period from 1971 to 2000 indicate a mean daily temperature of 3.9°C. Temperature ranges between a maximum of 37°C and a minimum of -50°C with a mean annual rainfall of 546.4 mm and the mean annual snowfall of 244.5 cm. On average, precipitations were recorded for 167 days during the course of a year. The annual average relative humidity in the morning is about 83.6%. The annual average wind speed for the area is about 11.2 km/h and the most frequent wind direction, on an annual basis, is from the west. In the summer, winds blow most frequently from the west and south, while in the fall to winter, the most frequent direction is from the west. Weather conditions do not seriously hinder exploration and mining activities on the property, but adjustments on the type of work



performed are subject to seasonal variations, such as geological mapping in the summer months and drilling in the winter months on frozen lakes.

### **5.3     *Local Resources***

The area has long been a hub of mining activity, however the announcement by Equinox Gold (NR December 20, 2023) to develop the Hardrock Deposit has brought new life to the area and has greatly benefited the local human resources and services in the town of Geraldton and surrounding areas. Geraldton has a population of approximately 1,900 people and is part of the Municipality of Greenstone, which also includes Longlac, Nakina, Beardmore, and an extensive area of unincorporated territory. Greenstone itself has an approximate population of 4,700 people. The region also hosts several Indigenous communities primarily in the areas around Beardmore and Longlac. Although there has been no mining activity in the immediate area since 1970, the area has a workforce to support the future mining activities. Geraldton hosts a hospital, emergency services, school, sports centre, food, lodging, wireless, and wireline telecommunications.

### **5.4     *Infrastructure***

Outside of the logging roads there is no infrastructure on the Pichette-Clist claims. TransCanada Highway 11 is located one kilometer to the north of the project. Blue Jay Gold personnel do not have a field camp but stay in Longlac or Geraldton. Core logging/cutting has been conducted from an “Atco” style prefab office space and core cutting room with space for 1 diamond saw. Blue Jay Gold stores its core in long-term storage in Thunder Bay. Blue Jay Gold delivers and/or ships its samples to the Activation Labs facility in Thunder Bay to ensure a timely turn-around.

Adjacent to the Trans-Canada Highway and close to the project are a Hydro One electrical substation and a TransCanada Pipelines Limited gas pipeline. Geraldton hosts a municipal airport, which has a 1,500 m runway capable of accommodating large aircraft.

Given the total surface area of the project and its proximity to the Trans-Canada Highway that affords ready access to nearby workforce, and utilities the Pichette-Clist project is deemed to be sufficiently large to host a mining operation. Several sources of water either reside on or are proximal to the project that could supply water for a future potential conventional process circuit and or heap leach processing facility. The gentle sloping terrain of the region affords many potential locations for future tailings facilities should they be required.

### **5.5     *Physiography***

The project area comprises boreal forest of low-lying undulating to rolling-ridged terrain. The project is bounded to the north and south by the Blackwater River at around 300 m elevation. Rock ridges trending generally east-west provide minor local relief of about 20 to 30 m. the terrain between the rock ridges typically comprises glacial deposits of till and can be several meters thick. Small swamps are common, as is wet terrain, which needs to be considered when mobilizing machinery. Land is used primarily for timber harvesting and is large enough to sustain a mining operation. The terrain at the northern boundary near the Blackwater River comprises thick glaciofluvial and fluvial sediments whereas

most of the claims are covered by a discontinuous layer of glacial till. The surface area near the southern boundary is comprised of fluvial and organic sediments (swamps).

## **6 HISTORY**

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Prospectors were attracted to the area following the discovery of gold in the Beardmore and Geraldton areas in the 1930s. By 1931, T.W. Johnson discovered a high-grade auriferous vein North of Atigogama Lake that later became the Dik-Dik (orphan) Mine. Dik-Dik mine produced 2,460 ounces of gold and 1,558 ounces of silver during 1934-1935 operations when 3,525 tons of ore were milled. During 1934, Rene Maloney made the discovery of spectacular gold mineralization 3 km north of Twin Falls on what became the Maloney Sturgeon property. Barnum and Green staked adjoining claims that became the Sturgeon River Gold Mine. Most of the exploration activity was conducted during 1934 and contributed to a rush that resulted in the entire Beardmore-Jellicoe area being staked. Several prospector reports for the area have been filed reporting high grade gold on and near the project area.

**In 1952** Tombill Mines Ltd. outlined 4 mineralized zones around the Blue Jay Gold claims. Documented gold mineralization is associated with two persistent subparallel chert-magnetite-carbonate ironstones. P.A.T. Mines completed thirty-two core drill holes. The P.A.T. drilling returned intercepts at shallow depths, leaving the system open at depth. The ironstones are 40 m apart and strike azimuth 75° and dip 85° North. Surface prospecting and historical diamond drilling have traced the banded iron formation 600 m along strike, and they average 2.0-2.5 m wide. Up to 20% magnetite has been noted in the ironstones and can contain up to 2% arsenopyrite. In total P.A.T. Mines drilled 26 holes on the Pichette-Clist Project area as part of a larger drilling campaign in 1952. The original certificates for the assays are not available. The values here are extracted from drilling logs that were filed as part of assessment work. The work was conducted prior to the implementation of National Instrument 43-101 and as such should not be relied upon. Subsequent drilling in this area may not duplicate these results.

Historic drill logs indicate gold is commonly enriched in intensely altered rocks adjacent to or within quartz-carbonate veins and veinlets. The bulk of the historical information described above was recovered from the Ontario Geological Survey (OGS) databases and the provincial government's Mineral Deposit Inventory (MDI) records. These site locations have been verified by government geologists and reviewed in the field by Blue Jay Gold geologists and are believed to be reliable in their geological detail. However, the assay certificates from the historical drilling are no longer available and therefore the values cannot be verified.

**In 1969**, Canadian Nickel Co. Limited drilled two short Winkie holes (167 and 176 feet) northward under Diamond Drill Lake presumably looking for nickel. Drill logs state interception of mafic volcanics, diabase dikes and areas of narrow quartz-carbonate veining, and diorite with breccia zones showing graphite. Talc is also mentioned in the logs. No Assays are provided.

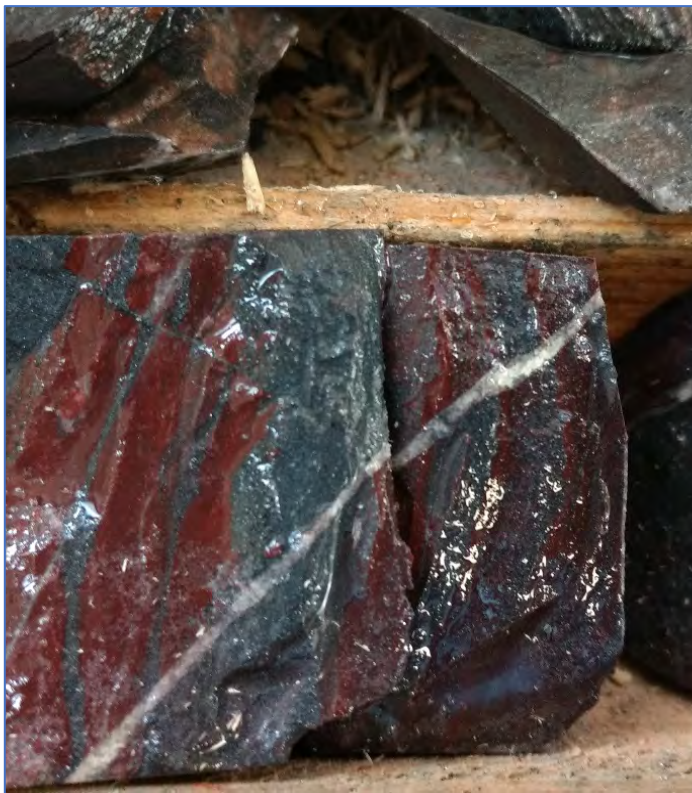
**In 1983**, Canamax held the property and carried out ground geophysical surveys and some diamond drilling. The 1983 drilling (NQ) was conducted northeast of the Pichette-

Clist showing. Eight drill holes, five of which are on Blue Jay Gold's Pichette-Clist Project, were completed targeting geophysical anomalies. Blue Jay Gold reviewed the stored core at the Ministry of Mines Thunder Bay core library. From their internal memo reports it appears some of the geophysical targets were graphitic zones within argillitic rock; however, gold was encountered in several of these historic holes.

Alteration mineralogy comprises chlorite with sericite and carbonate being found within the mineralized shears/veins. Gold was also recorded in drill logs being associated with pyrrhotite stringer veins and in one hole with arsenopyrite and tourmaline quartz-carbonate veins.

**Figure 4: Banded iron formation within 1983 drill core (Canamax Project), Ontario Geological Survey drill core library, Thunder Bay**

Core reviewed by Blue Jay Gold comprised strongly foliated interbedded metasedimentary and metavolcanic rocks showing strong silicification associated with sericite, and pyrite and pyrrhotite. Narrow asbestos veins are noted in hole P5-83 core and may indicate the presence of a mafic intrusion at depth. Drill logs state the holes were collared in metasedimentary rocks and drilled south into metavolcanic and porphyry intrusive rocks. Intrusive rocks were noted in the field within the southwest quadrant of the project area. Historical assays from the 1980s in surface sampling and drill core indicate that gold mineralization is associated with arsenic, which is a similar geochemical characteristic to mineralization styles at the Greenstone Gold Mine.



From **1992 to 1997**, some trenching was carried out by the Pichette family. In assessment work from 1992 by the Pichette family, reports state several areas of gold in bedrock were noted on the project area with the highest value of 0.3 oz/t gold in a sheared iron formation. Subsequent work in 1997 - around the Pichette showing - included trenching and sampling with values reported up to 16.5 g/t gold.

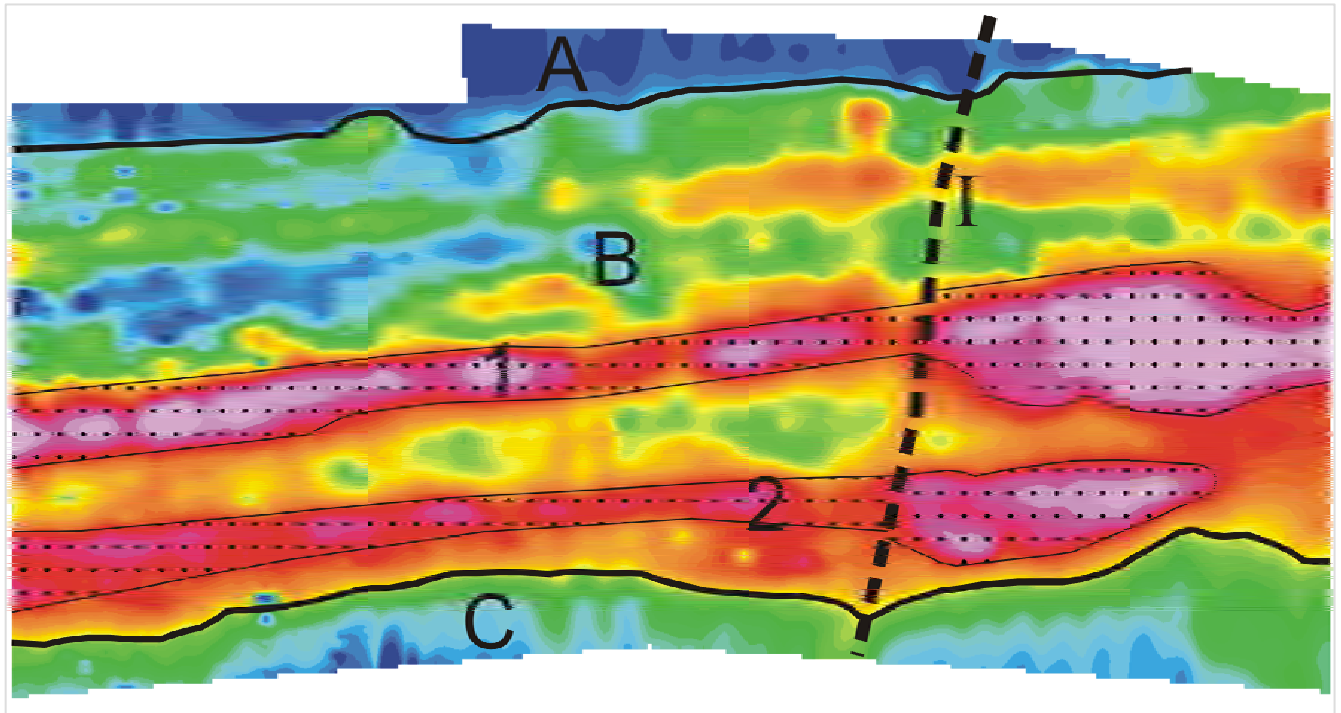
The Pichette showing occurs in an outcrop of friable, sheared mafic volcanic rocks that contain minor pyrite and pyrrhotite and traces of chalcopyrite. The shear strikes at about 080° and dips at 70° to 75° to the south. Gold is associated with iron carbonate, calcite, pyrrhotite, pyrite and minor chalcopyrite. Highly carotidal, saccharoidal, quartz veins occur mainly discordant to shearing within the zone. The rock can be easily crushed, and

fine free gold can be panned. In the 1980s, Gordon Pichette installed a sluice box and attempted to recover gold with limited success.

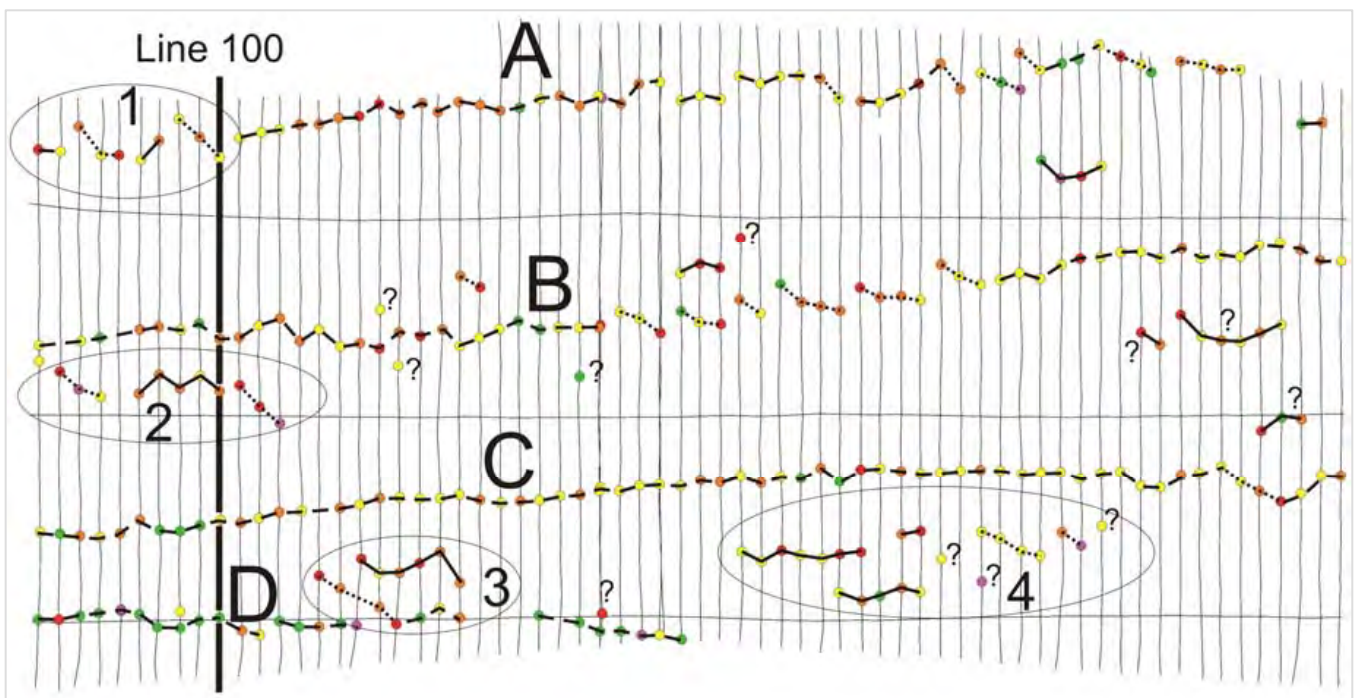
In **2008** PROSPECTAIR conducted a heliborne magnetic and electromagnetic survey for the mining exploration company TLC Explorations (TLC) over the project area. One block was flown for a total of 220 line-km. A total of 2 production flights were performed using a Robinson R-44 helicopter, registration C-GATM. Survey operations were conducted from the town of Beardmore. The traverse lines were flown at 100 m spacing and oriented 0° and the control lines at 1,000 m spacing and oriented at 90°. The survey was flown at an altitude of 90 m above ground surface measured by digitally recorded radar. See Figures 5 and 6.

A Time-Domain Electromagnetic system built by THEM Geophysics of Gatineau (Québec) was employed for the survey. In this work, the magnetometer is taped to a horizontal boom that supports the receiving coils teardrop shape vessel at its end. A proprietary suspension system protects the orthogonal coils assembly and limits the total field excursions. The teardrop vessel acts as a vane and maintains the mast in the line of flight. The towing bridle is constructed from a Kevlar rope and multi-paired shielded cables, and is attached to the helicopter by a weak link assembly.

Figures 5 and 6 show the electromagnetic interpretation map of the EM anomalies and interpreted axis. Anomalies are illustrated by colored dot where the green, yellow, orange, red and pink represent an increasing conductivity (pink dot are the best conductors). EM anomalies create 4 major EW extended anomalous axis (A, B, C and D) usually associated with sub-vertical stratigraphic horizons. Inside the general E-W axis A to D, two different family of structural features are identified. The predominant family (dashed lines) is mainly oriented SSW-NNE in major axis A, B and C while tending to be E-W in axis D.



**Figure 5. Total Magnetic Intensity interpretation map as shown in the assessment report filed by TLC Explorations (2008)**



**Figure 6. Electromagnetic interpretation map as shown in the assessment report filed by TLC Explorations (2008)**



A second important orientation NW-SE is interpreted (dotted lines). This second orientation commonly breaks the continuity of the E-W trends and shows an association with very good conductors. Shorter EM axis generally comprised of very good conductors can be observed outside of the major E-W axis (solid lines). The four zones outlined on Figure 6 show very good conductors that are not interpreted as typical EM axis and the correlation between successive survey lines is less obvious. Isolated anomalies that do not show continuity or correlation between adjacent survey lines are represented by question marks on Figure 6.

In **2012** Advandtel Minerals Ltd. drilled three short holes (totaling 154 m) on the Pichette showing using a skid mounted, Hydracore recovering ATW core. Drill core returned a broad zone of modest chloritic alteration, shearing, weak sulphide mineralization and quartz  $\pm$  calcite fracture-filling, which also contains erratically distributed anomalous but low gold values. The drill holes intersected several white quartz veins where only one vein types from P12-02 returned detectable gold of 0.32 g/t Au over 0.5 metres between 38.5 and 39.0 metres. Hole P12-02 also intersected a narrow chert-magnetite iron formation from 42.2 to 42.5 metres. It did not contain any gold. Two of these three holes intersected gold-bearing quartz veins with minor disseminated arsenopyrite near the top of the holes; returning 3 and 5 g/t gold.

The three drill holes only intersected mafic metavolcanic host rocks. The upper 30 metres or so in each hole was marked by a modest amount (not more than 2% of the rock volume) of fractures and conformable (to the foliation) seams, 1 or 2 mm thick, filled with quartz and occasionally calcite. This veined section also contained minor amounts (1% or less) of disseminated pyrite and pyrrhotite. The quartz and calcite veining and sulphide mineralization disappeared below about 31 metres in P11-01, 30.8 metres in P12- 02 and 33 metres in P12-03. In P12-03, the deepest of the three holes and the one that was drilled at the most orthogonal direction to the strike, the metavolcanic rocks are found to be distinctly more massive and greener after 48 metres. Minor gold values were encountered in the sheared/altered/veined/mineralized sections, as shown in the following table, which lists assays over 0.1 g/t Au (Bowdidge, 2012).

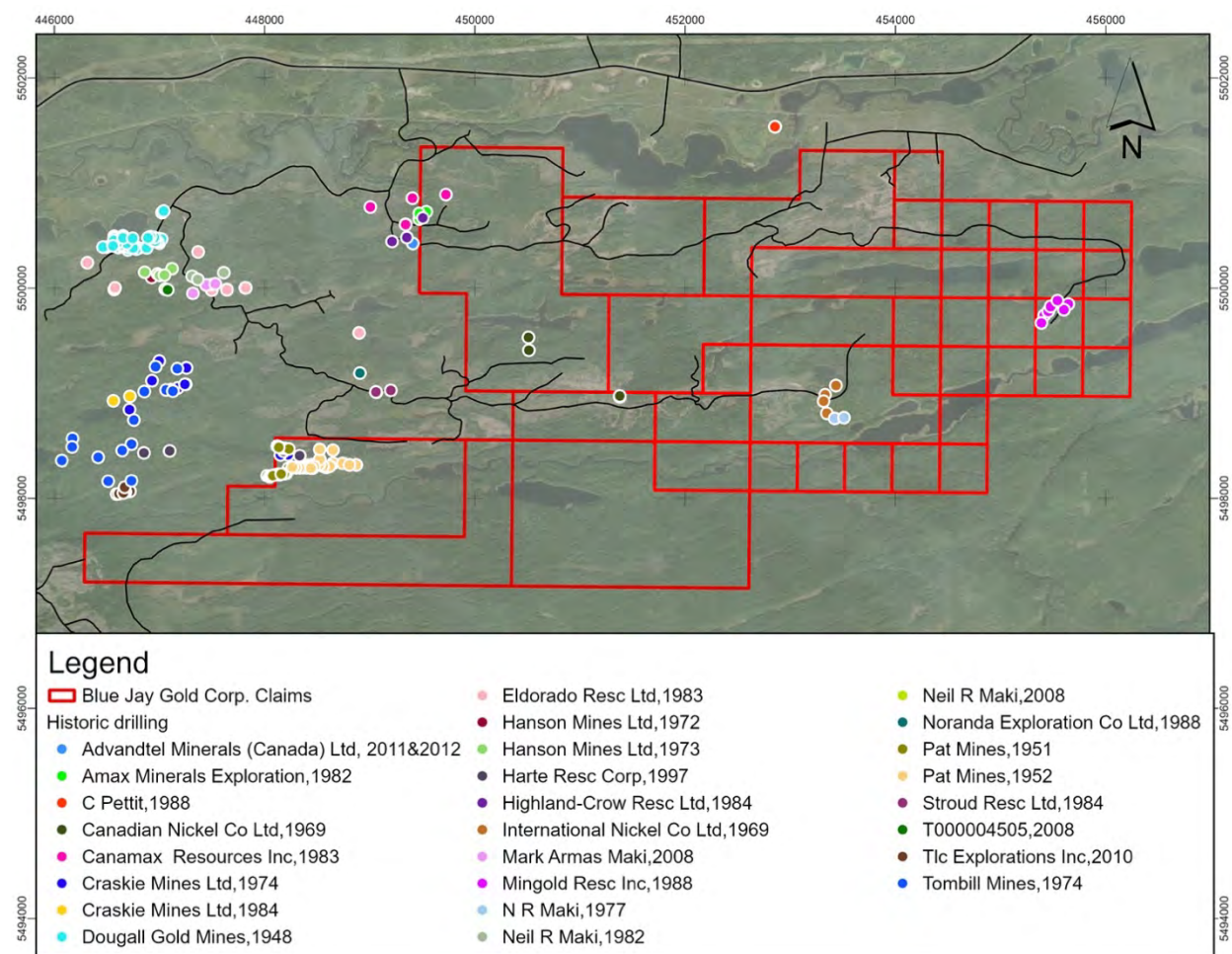
The Pichette showing and drilling is immediately (50m) west of Blue Jay Gold 's western claim boundary. The drill holes did not intercept iron formation but rather were collared in mafic metavolcanic rocks. Mineralization was found to be associated with quartz veining. No subsequent follow-up work was conducted at the Pichette showing or along with the BIF unit found at the showing.

In 2019 Riverside conducted a prospecting program looking at the old showing, traversing the northernmost BIF located parallel to the Blackwater River Road. The prospecting did not discover new showings or areas of gold mineralization. During covid 2019-2022 extensive forestry logging took place south of Blackwater Road.

**Table 3. Select Gold Assays from the Pichette-Clist Showing Drilling 2012  
Advantel Minerals Ltd**

From	Sample	From	To	Length	Au g/T
P11-01	880956	14.00	15.00	1.00	0.425
P11-01	880957	15.00	16.00	1.00	0.150
P11-01	880959	17.00	18.00	1.00	0.203
P11-01	880960	18.00	19.00	1.00	0.185
P12-02	1084208	15.50	17.00	1.50	0.151
P12-02	1084209	17.00	18.50	1.50	0.402
P12-02	1084218	30.00	31.00	1.00	0.486
P12-03	1084237	12.00	13.50	1.50	0.140
P12-03	1084241	18.00	19.50	1.50	0.254

Several drilling campaigns have taken place on the Pichette-Clist Project area. The most successful and well documented drilling campaign took place in the southwest corner of the claim block in the 1950s and is discussed in History Section 6. For the P.A.T. Mines drilling Riverside has taken all the historical logs and assays and typed into Microsoft Excel for the purpose of loading into Leapfrog software for review.



**Figure 7: Historical drilling Campaigns in the area of the Pichette-Clist project.**

The most northern drill holes were drilled by Canamax in 1983. Two Winkie drill holes in the middle of the claim group were drilled near Diamond Drill Lake when Canadian Nickel Co. Limited in 1969 was assumingly exploring for nickel. The most southern drill holes on Figure 7 were drilled by PAT mines in 1952. The drilling conducted by P.A.T. Mines on the Pichette-Clist property recorded gold mineralization associated with two persistent subparallel chert-magnetite-carbonate ironstones (see figures 12 & 35). The ironstones are 40 m apart and strike Az 75° and dip 85° North. In total P.A.T. Mines drilled 26 holes on the Pichette-Clist Project as part of a larger drilling campaign in 1952. The original certificates for the assays are not available. The values here are extracted from drilling logs that were filed as part of assessment work. The work was conducted prior to the implementation of National Instrument 43-101 and as such should not be relied upon. Subsequent drilling in this area may not duplicate these results.

## **7 GEOLOGY SETTING AND MINERALIZATION**

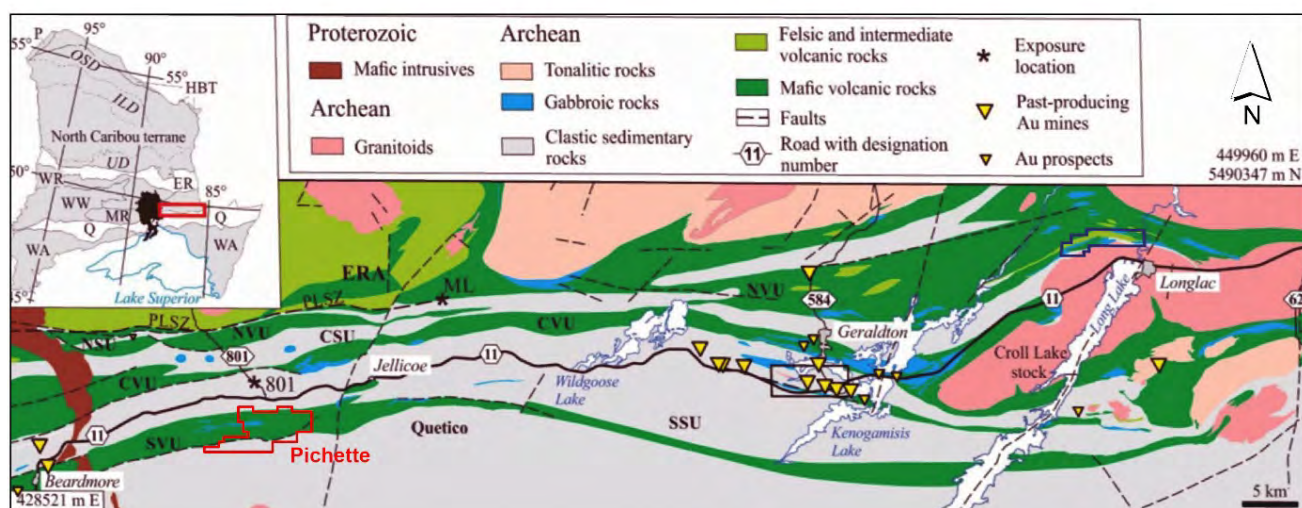
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### **7.1 *Regional Geology***

The Pichette-Clist property is in the southern portion of the Beardmore-Geraldton Greenstone Belt (BGB) along the southern margin of the Wabigoon subprovince part of the Archean Superior Province, which is a 900-km-long and 150-km-wide amalgamation of greenstone belts and platformal carbonate sequences pierced or underlain by granite-gneiss suites. The Wabigoon subprovince is bounded on the south by the metasedimentary Quetico subprovince, on the northwest by the plutonic Winnipeg River subprovince, and on the northeast by the metasedimentary English River subprovince. The Wabigoon-Quetico subprovince boundary is a structurally complex, largely faulted interface. The Wabigoon subprovince can be subdivided into western greenstone-rich domains in the Woods-Savant Lake and Rainy Lake Areas, a central dominantly plutonic domain, and an eastern greenstone-rich domain in the Beardmore-Geraldton Area (Blackburn et al., 1991). Deformation and syn- to post-tectonic plutonism occurred between 2711 to 2685 Ma. Based on limited geochronological data, the diverse arc-type volcanic sequences in the eastern Wabigoon subprovince are thought to be mainly Neoproterozoic, some as old as 2769 Ma (Anglin et al., 1988).

The BGB comprises three panels of metasedimentary rocks, representing a southward transition from fluvial to deltaic to deep oceanic basin plain environments, overlying three panels of older, ca. 2725 Ma, metavolcanic rocks, representing back arc, island arc, and oceanic crust. Detrital zircon geochronology of the BGB and adjacent northern Quetico metasedimentary rocks indicates that these rocks formed from sediments derived by the erosion of ca. 2700 Ma to 2900 Ma rocks and other older >3200 Ma Mesoproterozoic cratonic rocks of the eastern Wabigoon subprovince.



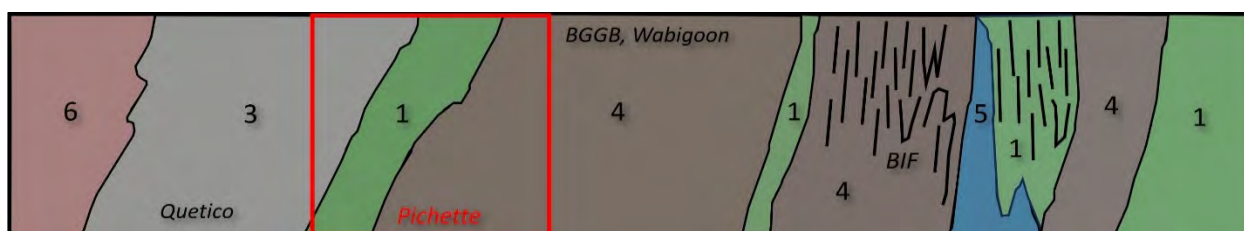


**Figure 8. Regional geology of the Beardmore Geraldton Greenstone Belt showing the series of metasedimentary and metavolcanics panels (from Toth, 2019 modified after Lavigne, 2009)**

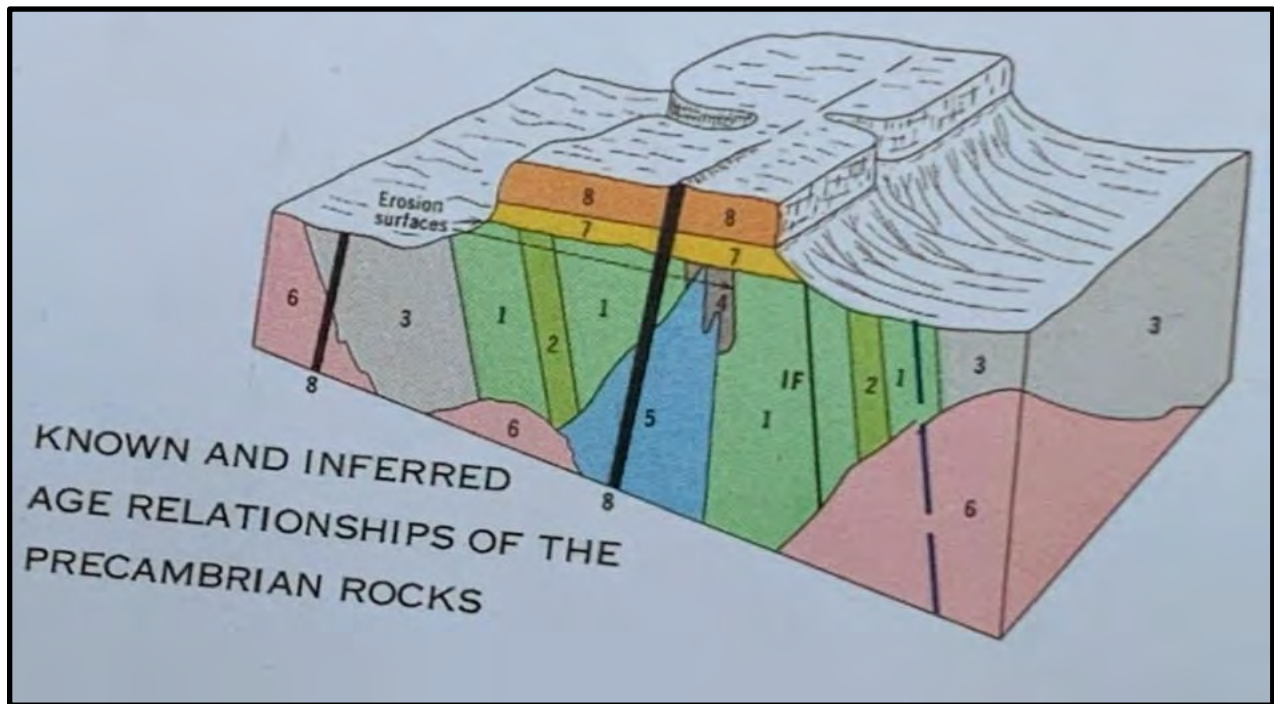
The sedimentary rocks are comprised of Precambrian turbidite assemblages with interbeds of banded iron formation and lesser mafic volcanoclastic (Kresz & Zayachivsky, 1991). Semi-conformable sills of diorite/ gabbro, including quartz and quartz-feldspar porphyry intrude these formations.

The emplacement of crosscutting  $2694 \pm 1$  Ma feldspar-quartz porphyry (FQP) dykes at Geraldton marks the end of sedimentation in the belt. The panels were subsequently imbricated during an early thrusting event (D1) which ended with the emplacement of the stitching of the Croll Lake stock.

The composition of the FQP dykes and Croll Lake stock indicate a shift from tonalite-trondhjemite-granodiorite (TTG) suite to sanukitoid suite magmatism. The formation of the sanukitoid melts, which involves the addition of a mantle melt component, is consistent with their generation during delamination or slab break-off as the BGBB metavolcanic and metasedimentary panels were thrust imbricated and accreted to the Wabigoon subprovince during closure of the Quetico basin. These boundaries are commonly major fault breaks, which can host large gold resources as is found further to the east in the Abitibi Greenstone Belt (partial extraction from Toth, PhD thesis, 2019).



**Figure 9. Regional South-North cross section through the Pichette-Clist area. The project is located along the southern boundary of the Beardmore-Geraldton Greenstone Belt and the Quetico subprovince**



**Figure 10. Block model diagram showing the age relationships of the Precambrian rocks of the BGGB. The oldest mafic rocks (1-2) and its weathered sediments (3) are intruded by gabbroic sills (5) and by large granitic stocks (6), which are all intruded much later by diabase sills and dykes (8). See Figure 8 for the stratigraphic sequence legend.**

## 7.2 Project Geology

The project is underlain predominantly by east-west trending and steeply south to vertically dipping metavolcanic and metasedimentary rocks. Metavolcanic rocks consist of massive and pillowed, locally amygdaloidal, flows of basaltic composition along with related tuffaceous rocks. These extrusive igneous rocks are locally intercalated with coarser-grained rocks. Mafic metavolcanic rocks are fault-bounded against domains of metasedimentary rocks closer to the northern boundary of the project. The southern metasedimentary panel consists of a polymictic conglomerate and greywackes indicating an affinity with Timiskaming Formation conglomerates in the Timmins (Porcupine) Mining District. Metasedimentary units also contain feldspathic and quartzose sandstone and wacke, siltstone, carbonaceous argillite and haematitic iron formation. Intermediate to mafic intrusions cut the metavolcanic rocks on the southern part of the property and consist of quartz diorite, diorite and gabbro. The magnetics survey data has helped to map these boundaries and to highlight the distribution of banded iron formations more accurately such that the boundaries can be walked in the field.

The Beardmore-Geraldton Greenstone Belt is defined by the Bankfield-Tombill deformation zone to the south that forms as the Quetico-Wabigoon subprovince boundary and by the Paint Lake Deformation Zone to the north. The southern unit has a number of conformable banded iron formations that strike roughly east-west and can be traced across the property. These ductile units commonly host shear zones and can be good traps for sulphide mineralization. Late, post-mineral, north-south striking extension faults and diabase dikes transect the project and region; these features are pronounced on the aerial magnetic survey and block diagram as shown in Figure 10.



The Pichette-Clist project is transected by an east-west trending brittle and ductile shear zone (Blackwater Shear). Deformation can be traced across the project area from the Pichette showing to near the eastern boundary (see Photo page 25). The previously cleared and trenched areas worked by others show banded recrystallized chert-magnetite iron formation striking east-west. Gold mineralization is associated with strongly sheared mafic metavolcanic rocks striking 080 degrees with iron carbonate, magnetite, pyrite, and more rarely pyrrhotite or arsenopyrite. Commonly, quartz veins occur along the contact between metavolcanic rocks and iron formation. Minor quartz-stringer can be found cutting the banded iron formation. Iron Formation, while not the host rock for gold in this location appears to be a weaker unit that tends to be subject to deformation and shows best the folding and shearing within the bedrock. The metavolcanic and metasedimentary rocks show isoclinal folding with limbs dipping steeply to the south and plunging gently to the west. Deformation producing the penetrative fabric occurred coincident with greenschist facies metamorphism producing a strong east-west foliation fabric.

Iron formations trend east-west across the project and can be seen in road cuts throughout the project. These units manifest as magnetic highs on the magnetic maps, and can be traced on the surface for over 1 km. By reason of comparison with the Tombill and Dalton properties, iron-rich sediments consist of relatively thin (0.5 to 5.0 meter) interflow units of limited strike length, varying from poorly bedded to thinly bedded, sugary textured fine-grained silica (crumbly weathering) with interbeds of magnetite, chlorite, sulphides or amphiboles (tremolite) at different locations. Commonly more than one iron-bearing mineral was found at a given outcrop. Grab samples taken from iron-rich sedimentary rocks at the Pichette showing did not return significant gold values.

### ***7.3 Local Structural Geology***

Most of the geology and structural elements are aligned to the overall greenstone belt orientation roughly east-west. Faulting and folding typically aligns east west. Mineralization at Pichette-Clist conforms to this overall structural fabric. These structures are typically compressional and have varied morphologies with jogs and steps that show inflections and dilation



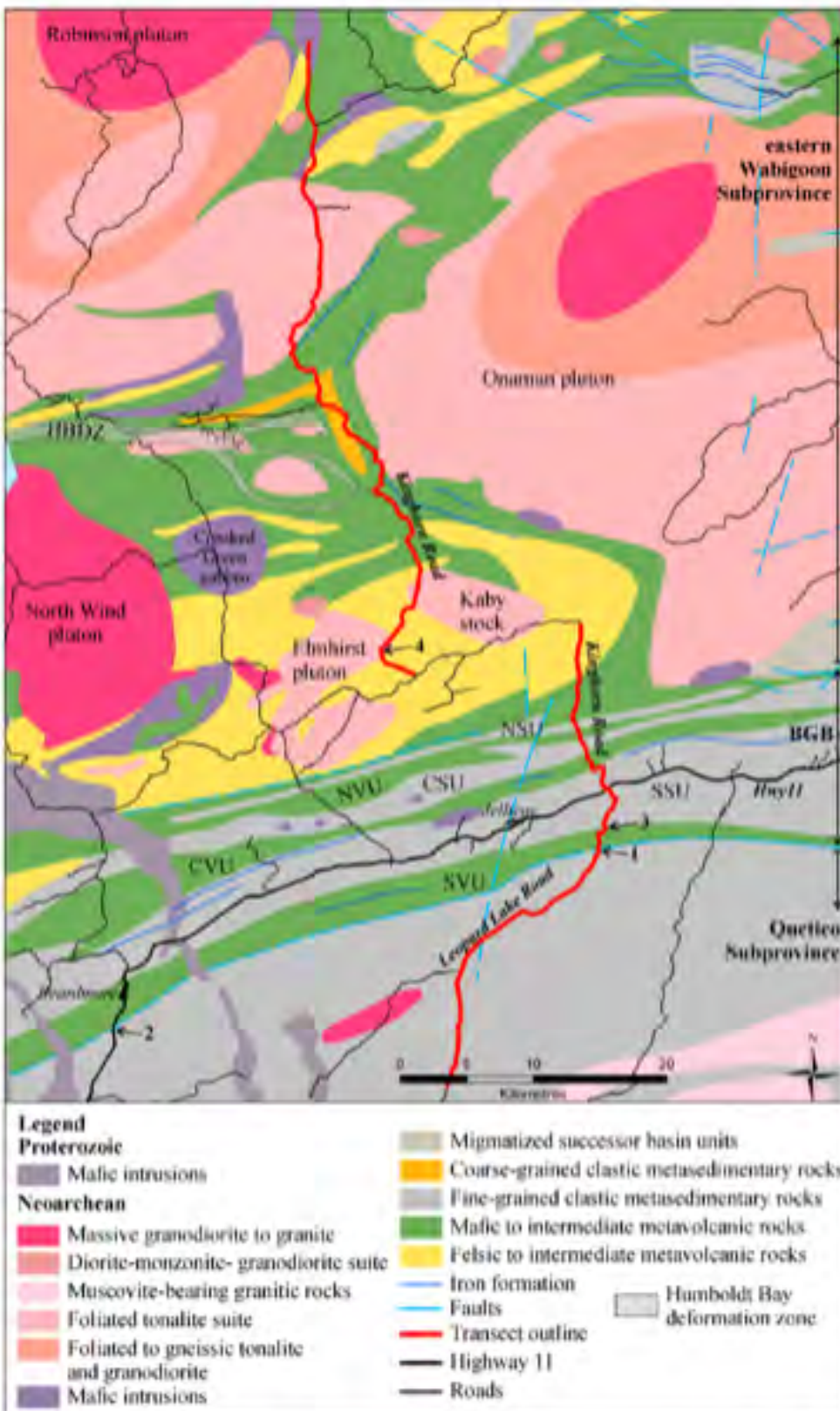
complexes, largely controlled by two major deformation zones; the Lake Painer Fault to the north and the Bankfield-Tombill Fault to the south.

The east-west trending Bankfield-Tombill Fault or Barton Bay Deformation Zone is projected to possibly be located along the southern boundary of the Project Area. This deformation zone hosted the past-producing Hardrock, MacLeod-Cockshutt, and Mosher Long Lac gold mines. The fault is a variably deformed, largely ductile, high-strain zone characterized by strong heterogeneous penetrative strain, narrow shear zones and breccia zones cutting a variety of protoliths (Pye, 1951). The portion of highest deformation contains minor amounts of gold and has been intensely silicified and carbonatized (Pye, 1951; Anglin and Franklin, 1985).



***Figure 11. This exposure is from the Hardrock Deposit in Geraldton, elsewhere at this exposure bedrock units show isoclinal folding, faulting and sulphide mineralization. Mineralization typically shows rusty shears with quartz veining. The picture shown is about 1.0 m by 0.6 m***





**Figure 12. Geological map of the Geraldton–Onaman transect, OGS Open File 6350. Abbreviations: BGB: Beardmore–Geraldton belt; HBDZ: Humboldt Bay deformation zone; NSU: northern sedimentary unit; CSU: central sedimentary unit; SSU: southern sedimentary unit; NVU: northern volcanic unit; CVU: central volcanic unit; SVU: southern volcanic unit.**

The Paint Lake Deformation Zone (PLDZ) denotes a major structural and lithological break between the Onaman-Tashota Terrain to the north and the Beardmore-Geraldton Belt to the south. The PLDZ is an east-west trending lineament, approximately 50 km in length and up to 1 km in width, comprised of an early ductile component termed the Paint Lake Shear Zone and a late brittle component known as the Paint Lake Fault. Although the locus of the PLDZ may in part be lithologically controlled, mylonitization, which accompanied shear zone development, is not dependent on the lithological type. Conglomerate, intermediate and mafic metavolcanic units exhibit similar mesoscopic and microscopic structures where transected by the PLDZ. Field mapping, supported by thin section analysis, defines five strain domains increasing in intensity of deformation from shear zone boundary to centre.

Regionally metamorphosed lithologies of lower greenschist facies outside the PLDZ were subjected to retrograde metamorphism during deformation within the PLDZ. Under the Metal Earth Program, MERC - Laurentian University, a transect was undertaken to the east of the Pichette-Clist Property (red line on Figure 12). The intent of this work was to allow for an advanced understanding of Earth's evolution and the fundamental processes that govern metal enrichment through time. The transect along Leopard Lake Road (location 1), the subprovince boundary is located within approximately 100 m of the southernmost exposure of dark green chlorite- and biotite-rich massive mafic volcanic rocks of the Beardmore-Geraldton belt. A spaced chloritic foliation strikes easterly, dips steeply to the south, and contains a shallowly east-plunging mineral lineation.

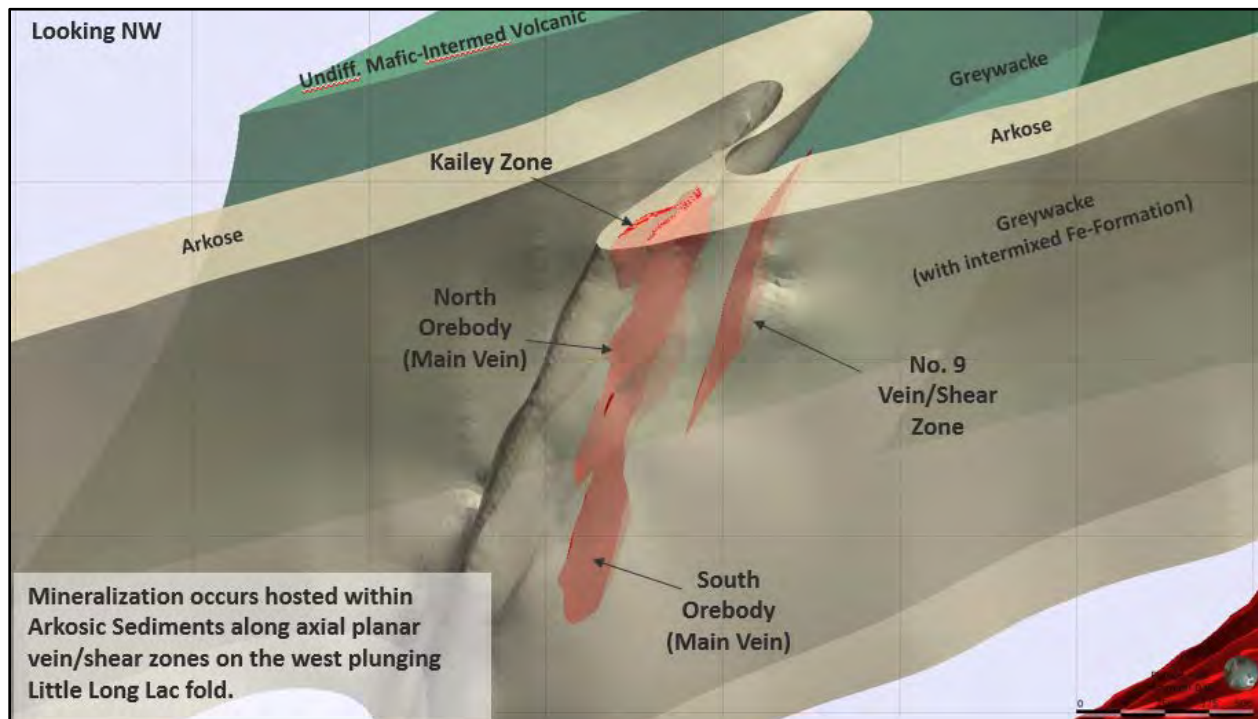
This foliation is overgrown by biotite porphyroblasts. Outcrops show turbiditic sandstone of the Quetico Subprovince consists of east-northeast-striking, south-dipping and south-younging subvertical beds. Whereas the contact between the southern volcanic and southern sedimentary units of the BGB is exposed in an aggregate pit along Leopard Lake Road (Figure 12, location 3), where massive mafic metavolcanic rocks of the southern volcanic unit are in sheared and folded contact with oxide-facies banded iron formation of the southern sedimentary unit. The mafic metavolcanic rocks consist of chlorite and feldspar ( $\pm$  amphibole). The banded iron formation comprises interlayered magnetite-rich and cherty laminae and beds varying in thickness from a few millimetres to 5 cm. The contact is parallel to a penetrative, continuous, chloritic, west-southwest-striking S2 cleavage, which is axial planar to an open, east-plunging, S-shaped F2 fold. Banded iron formation laminae are transposed parallel to S2 foliation and are folded by open, steeply east-plunging Z-shaped F3 folds with amplitudes of several centimeters. This work is outlined in several government publications which promise more details soon. Descriptions of how the tectonic evolution is being evaluated with assist with developing targeting models.

### **7.3.1 NE Faults (N20E)**

A system of late extensional northeast faulting is observed across the BGB and at Pichette-Clist project area. These widely-spaced faults show extensive continuity, and have been interpreted by researchers to be normal faults with down-dropping displacement to the east. One of these structures is noted on the project. No mineralizing events appear to be associated with these late faults.

## 7.4 Structural Considerations

There is a direct relationship between structures and mineralization in the Pichette-Clist Project. Faults commonly function as corridors or plumbing system for fluid flow. Mineralization in the BGB is generally believed to be related to extensional faults that are more favourable for sulphide and gold deposition as they provide the best physico-chemical environments for silica-based mineralization. Some of the structures on site indicate both sinistral and dextral components, which is to be expected, and indicate the structures have been active for a long time and had numerous opportunities for mineral precipitation and deposition. Polar diagrams of structural vein data by Blue Jay Gold show a marked trend at N85W indicating a close relationship between the main structural patterns and mineralization.



**Figure 13.** this figure is taken from Premier Gold's NI43-101 (2012) report on the Hardrock Deposit (now Greenstone Gold Mine) in Geraldton. The figure demonstrates the importance of understanding the structural geology and the impact of folding on mineralization and related drilling programs patterns

## 7.5 Mineralization and Alteration

### 7.5.1 Structural Control of the Gold Mineralization at the Hardrock Deposit by Susanna Toth, 2022

Toth's PhD thesis is particularly relevant to the Pichette-Clist Project as it is located on the projection of the Bankfield-Tombill deformation zone. The structure has the most overwhelming effect on gold mineralization in the area near Pichette-Clist and Geraldton. The overall conclusion of the studies was that gold was introduced late during the structural evolution of the belt. The presence of mineralized veins within sheared rock units, along sheared lithological contacts, and parallel to an earlier folded S1 and a later

S2 cleavage suggested that gold mineralization was introduced both prior to and after the formation of S2 cleavage and postdated the emplacement of the porphyry dikes by 130 m.y. (Anglin, 1987).

The Bankfield-Tombill fault is located along the southern margin of the Bankfield-Tombill deformation zone near the BGGB and Quetico terrane boundary. Mechanical stripping of an outcrop exposed the fault as a late brittle-ductile structure hosting mineralization. Dextral shear bands and asymmetric strain shadows around volcanic rock fragments indicate that the fault formed during the D3 deformation event. Sulfide minerals occupy Riedel shear fractures along the brittle-ductile fault, which is consistent with previous interpretations about the late deposition of at least some of the gold along brittle fractures and within dextral ductile shear zones during the D3 deformation event (Anglin, 1987; Macdonald, 1988; Devaney and Williams, 1989; Lafrance et al., 2004).

The Brookbank gold deposit 15 km north of Pichette-Clist Project is another example of syn-D3 mineralization (see figure 14). The deposit lies along a splay of the Paint Lake deformation zone at the northern margin of the BGB. Gold is associated with quartz-carbonate veins, ankerite-sericite-chlorite-epidote-pyrite alteration zones, and quartz-orthoclase-pyrite alteration patches within dextrally sheared metabasalts (DeWolfe et al., 2007).

In the Geraldton area, stripped outcrops investigated as part of Toth's thesis show structural controls on mineralization. Her observations suggest that the bulk of gold mineralization was introduced before the D3 deformation event. Early Fe-carbonate altered beds and veins are folded by F1 and F2 folds, and where deformation has been more intense, the beds have been completely transposed parallel to the S2 cleavage. As deformation facilitates fluid flow, fluid-rock interaction and alteration, the Fe-carbonate alteration likely occurred early during the D1 event as strain became localized along the Bankfield-Tombill deformation zone during early thrust imbrication of the belt. Auriferous V1 quartz-carbonate veins are also folded by F1 and F2 folds, and some veins were boudinaged prior to F2 folding, suggesting that they were also emplaced early during D1 thrusting.

Auriferous V2 tourmaline-quartz and V3 quartz-carbonate veins cut the axial plane of F2 folds as arrays of extensional veins oriented anticlockwise to bedding and to F2 fold axial planes. Their orientation suggests that the veins were emplaced during NE-SW shortening, which is consistent with sinistral shearing along the ESE-striking Bankfield-Tombill deformation zone. As the veins cut the S-shaped F2 folds, but are themselves also S-folded, it is concluded that the veins were emplaced during sinistral shear along the Bankfield-Tombill deformation zone as the shear component of regional D2 transpression became localized along the deformation zone. The older V2 veins, which are oriented at a higher angle to bedding and to S2 than the V3 veins, it is deemed that they were emplaced first and underwent anticlockwise rotation during sinistral shear, and were then overprinted by the V3 veins that were emplaced later during the same shearing event. Subsequent dextral shear during the D3 event reversed the rotation of the veins and produced flanking structures adjacent to the veins. F3 flanking structures adjacent to arrays of V3 extensional veins are also present at Missing Link along the Paint Lake fault



and in shear zones at the 801 stripping near Jellicoe 8km north of the Pichette-Clist Project.

The ore zones at Brookbank and elsewhere in the BGB have shallow westerly plunges similar to those of other linear structural elements in the Bankfield-Tombill deformation zone. These structures and the ore zones formed before or during the dextral D3 event and were rotated towards the shear direction during D3 shearing. Thus, although the main ore zones formed early during the D1 and D2 events, their geometry reflects the total strain history of the Bankfield-Tombill deformation zone.

### **7.5.2 Hydrothermal Alteration and Geochemical Footprint at the Hardrock Gold Deposit**

Similar sericite-carbonate-pyrite alteration halos are associated with quartz-carbonate V1 and V3 veins, although they were emplaced during separate deformation events and in different rock types, i.e., sandstone and quartz-feldspar porphyry. The presence of pyrite in the vein alteration halos explains the mass gains in S and Se, which substitutes for S in sulfide minerals. Mass gains in CO<sub>2</sub> and CaO in sandstone are represented by the presence of carbonates and mass gains in K<sub>2</sub>O is due to sericitic alteration adjacent to the veins.

In quartz-feldspar porphyry, the inconsistent enrichment in both CO<sub>2</sub> and K<sub>2</sub>O in the alteration halos of the veins, the pervasive sericite and carbonate alteration across the porphyry, and the poor correlation between Au and alteration indices, reflect the emplacement of the gold-bearing veins within a much broader sericite-carbonate alteration envelope that extends for as much as 250 metres beyond the mineralized zones. This extensive sericite-carbonate alteration may explain the lack of unaltered protoliths near the gold deposit. Pathfinder metals with high Au Spearman correlation coefficients (S, W, Te, Mo, Bi, Se, As in sandstone; W, As, Te, S in porphyry) generally correspond with major mass gains of those elements in isocon diagrams and mass change histograms of V1 and V3 veins. Enrichments in Au, Ag, As, Bi, Co, Ni, Pb, Sb, Te are also present in inclusion-rich pyrites on trace element maps. Point concentrations of Au, Bi, Cr, Pb, Te, Sb, Ti, As within zones of more uniform enrichments of those elements suggest that they represent inclusions in pyrites, which also incorporated those metals either as submicroscopic particles or as elements within their crystal lattice during their growth. Inclusion-poor pyrite with primary crystallographic Ni-Co-As zoning contains no or negligible gold concentrations, which is consistent with the lack of correlation between Au and Ni-Co in wholerock samples. Elevated Au, Ag, Bi, Pb, Sb, Te concentrations along late fractures intersecting both pyrite types indicate that Au was remobilized during an event that postdates both the early-D1 and the syn-D2 gold episodes. The strong Au-W correlation in whole rock samples and the low concentrations of W in both inclusion-rich and inclusion-poor pyrite suggest that W was included in other minerals (scheelite?) that formed during gold deposition.

In BIF (Banded Iron Formation), sulfide-rich alteration halos surrounding quartz-carbonate veins yielded gold grades as high as 89.9 g/t (Tóth et al., 2018). The alteration halos formed by replacement of magnetite-rich laminae by pyrite and arsenopyrite ( $\pm$  chalcopyrite, pyrrhotite). Sulfidation reactions between magnetite/ilmenite and the hydrothermal fluids destabilized Au-bisulfide complexes in the fluids, precipitating gold

(Groves et al., 1998, 2003) and rutile as a by-product of the sulfidation reactions (Clark and Williams-Jones, 2004). In quartz-feldspar porphyry and sandstone, the replacement of ilmenite and/or titanomagnetite by pyrite and rutile, and the presence of rutile inclusions in pyrite, further suggest that host rock sulfidation was one of the processes by which gold precipitated. The alternation of auriferous inclusion-rich pyrites and barren inclusion-poor pyrites indicates that they grew from pulses of metal-rich and metal-poor fluids. Gold was subsequently redistributed as suggested by the infilling of fractures in pyrite and quartz-carbonate veins by native gold, Au-Ag-tellurides and galena, and by the presence of Ag-Bi±Pb-telluride and native gold in rutile inclusions in pyrite. The late gold remobilization is further supported by Au-rich fractures that crosscut barren inclusion-poor pyrite.

In summary, the similarity in mineralogy and mass changes in alteration halos of V1 and V3 quartz-carbonate veins suggest that they were deposited from hydrothermal fluids similar in composition. The deposition of tourmaline-rich V2 veins indicates a transient influx of more boron-rich hydrothermal fluids. Textural relationships reveal complex hydrothermal alteration histories involving early stages of sulphides, and possibly gold deposition, during sulphidation reactions between iron-rich oxide minerals and hydrothermal fluids that infiltrated the wall rocks of the veins. Metal-rich and metal-poor pyrites reflect the metal content of the reacting hydrothermal fluids. This was followed by the redistribution and/or introduction of gold and other metals by metal-rich late fluids which percolated along fractures in earlier-formed pyrite and precipitated gold and other metal-rich mineral phases along these fractures. Hydrothermal alteration produced a broad sericite-carbonate footprint, which extends as far as 250 meters from the deposits, in which S, Te, As, W, and Bi are the best indicators of the presence of Au.

### **7.5.3 Chronology of gold mineralization events**

The  $2579 \pm 25$  Ma Re-Os arsenopyrite model age for gold mineralization at the Hardrock deposit (now Greenstone Gold Mine) is significantly younger than that of other mineralization events in gold camps across the Superior Province. In the Red Lake gold camp in the Uchi domain, the main stage of gold mineralization occurred synchronously with D2 regional deformation at ca. 2723-2712 Ma (Dubé et al., 2004). In the Timmins camp in the Abitibi subprovince, gold mineralization occurred later and is coeval with  $<2672 \pm 7$  Ma to ca. 2660 Ma D3 and D4 deformation events (Bateman et al., 2008). Circa 100 km to the southeast in the Kirkland Lake - Larder Lake camp area, gold was deposited between  $2672 \pm 2$  Ma and  $2665 \pm 4$  Ma during D2 regional folding and shearing but was later remobilized during the Paleoproterozoic in hematite-quartz-carbonate veins ( $1730 \pm 5$  Ma, U-Pb monazite), which overprint the main mineralized veins at the Young-Davidson deposit. Closer to the BGB, gold at the Hemlo deposit in the Wawa subprovince was deposited and/or remobilized during a short, contracted, regional D2 deformation, magmatic and mineralization event, which is bracketed between  $2680 \pm 1$  and  $2677 \pm 1$  Ma (Davis and Lin, 2003).

In the Geraldton camp, the maximum age of gold mineralization is  $2694 \pm 1$  Ma, which is the crystallization age of the pre-or early-D1, altered porphyry at the Hardrock deposit. The gold mineralization is deposited in second-order structures adjacent to the crustal-scale Bankfield-Tombill fault that was initiated and reactivated during deformation events related to the ca. 2690 Ma Shebandovian orogeny, a major tectonic process

responsible for the assembly of the Superior craton. The  $2579 \pm 25$  Ma Re-Os model age is broadly similar to Pb model ages (2474-2563 Ma) obtained from galena collected at the Bankfield mine (Anglin, 1987).

#### **7.5.4 Comparison with Other Major Orogenic Gold Camps**

The superimposition and recurrence of mineralization events associated with major faults or shear zones occur in other Archean orogenic gold camps. In the Timmins camp, ca.  $2672 \pm 7$  Ma (Bateman Ayer & Dube, 2008) Cu-Au-Ag-Mo stockwork mineralization is spatially associated with the  $2691 \pm 3$  Ma Millerton and  $2689 \pm 1$  Ma Pearl Lake porphyries, which are located within ca. 5 km north of the Porcupine-Destor deformation zone (Dubé and Mercier-Langevin, 2020). This early style of mineralization is overprinted by gold-bearing quartz-carbonate veins that were emplaced during D3 sinistral and D4 dextral transpression along the Hollinger shear zone, a second-order structure parallel to the Porcupine – Destor deformation zone. In the Kirkland Lake – Larder Lake camp, orogenic gold mineralization was emplaced during D2 south-side-up shearing along the Larder Lake-Cadillac deformation zone (and during D4 reverse-dextral displacement along the Kirkland Lake fault, which is one of several narrow brittle-ductile faults located 2 – 3 km north of the Larder Lake - Cadillac deformation zone. The tectonic evolution of both the Porcupine – Destor and the Larder Lake-Cadillac deformation zones and the gold events in the Timmins and Kirkland Lake camps are associated with a craton scale contraction caused by the amalgamation of the Wawa-Abitibi and Minnesota River Valley terranes and the closure of the Pontiac basin.

In summary, as for other major orogenic gold camps in Archean cratons, gold deposits in the Geraldton camp formed during multiple mineralization events along a reactivated major deformation zone or fault associated with contractional deformation during the assembly of the Superior craton. Gold was deposited from several syntectonic gold-bearing fluid pulses which contributed to and culminated in the formation of the Geraldton gold camp (Toth, 2019).

#### **7.5.5 Conclusions**

Previous interpretations invoked orogen-parallel dextral transcurrent faulting as the main structural control on the emplacement of gold mineralization in the BGB. Gold mineralization was thought to be coeval with the formation of structures and dilation zones during regional dextral transcurrent faulting, such as the hinge of Z-shaped folds, dextral shear zones at the contact between rock units, and reactivated thrust faults at the contact between panels of metasedimentary and metavolcanic rocks. It is proposed that gold was emplaced earlier during the structural history of the belt and involved two stages of gold mineralization. The hydrothermal mineralization history of the Geraldton camp began with the formation of quartz-carbonate veins and early bedding-parallel Fe-carbonate alteration during D1 faulting and thrust imbrication of the belt. These veins and early Fe-carbonate alteration were folded and transposed along the Bankfield-Tombill deformation zone as panels in the belt were regionally folded and shear became localized along higher strain deformation zone during regional D2 sinistral transpression. Hydrothermal fluids flowed into the Bankfield-Tombill deformation zone which acted as a conduit for the migration of hydrothermal fluids, and auriferous quartz-tourmaline and quartz-carbonate veins were deposited across S-shaped folds that formed during sinistral shearing along

the deformation zone. Reactivation of the deformation zone during regional D3 dextral transpression rotated and boudinaged these veins and redistributed or introduced new gold and other metals into localized dextral faults and shear zones.

The complex hydrothermal fluid history of the Geraldton camp is recorded by the textures of pyrite grains and their chemical composition. Inclusion-poor pyrites and metal-rich, inclusion rich pyrites are associated with both syn-D1 and syn-D2 vein generations. They formed during fluid-rock sulfidation reactions with their metal content reflecting that of the hydrothermal fluids. Gold was then redistributed, or new gold and other metals were introduced, during the infiltration of late fluids along microfractures cutting across sulfide minerals and other alteration minerals. As this process occurred at different times during the formation of the Geraldton gold deposits, our study exemplifies how the juxtaposition of multiple mineralization events and the redistribution of metals during the prolonged structural history of a major deformation zone can result in the formation of complex ore deposits (Toth, 2019).

## **8 DEPOSIT TYPES**

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The Geraldton region has a long and rich mining history and has produced 4.1 million ounces of gold over the past 100 years including the combined MacLeod-Cockshutt Mine, which produced 1.5 million ounces of gold up to 1970. The MacLeod-Cockshutt Mine at Geraldton, and the Central Patricia and Pickle Crow mines in Pickle Lake outside the BGB are non-stratiform deposits.

Non-stratiform deposits contain sulfide-rich alteration zones immediately adjacent to late structures and are like mesothermal vein-type gold deposits. Late quartz veins and/or shear zones are present in most known BIF-hosted gold deposits. The distributions of gold-bearing veins and sulfide-rich zones are commonly controlled by fold structures. Major faults of regional scale have been recognized near many non-stratiform deposits. Irregular, massive lenses of sulfides and quartz occur in a folded series of greywacke and iron formation in the Hardrock (now Greenstone Gold Mine) and MacLeod-Cockshutt mines. These massive replacement lenses (up to 65%, sulfides) cut the folded iron formation and are related to quartz-carbonate veins up to 0.6 m wide. Veins are usually barren of gold mineralization except where they contain sulfides; primarily pyrite, arsenopyrite and pyrrhotite. In other areas mineralization in veins and shears is found in metavolcanic rocks commonly in association with contact zones between mafic and felsic rocks.

**Table 4. Past production in the Beardmore Geraldton Greenstone Belt\*\*.**

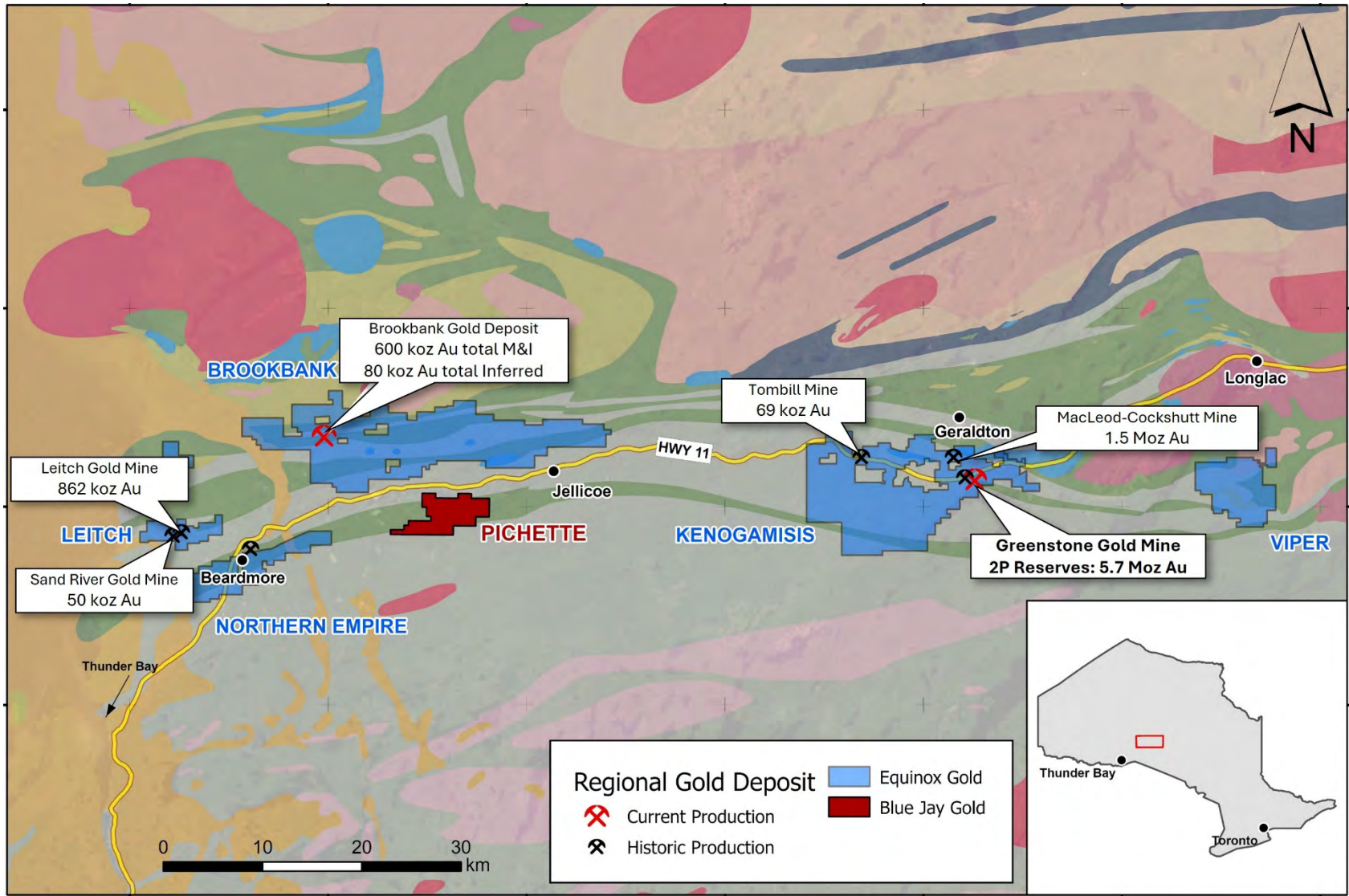
MINE	Ounces Gold	Ounces Silver	Tons of Ore Milled	Grade Gold (oz/t)	Grade Silver (oz/t)
Bankfeild	66,417	7,590	231,009	0.29	0.03
Northern Empire	149,493	19,803	425,866	0.35	0.05
Hard Rock	269,081	9,009	1,458,375	0.18	0.01
Jellicoe	4,238	145	10,620	0.40	0.01
Leitch	847,690	31,802	920,745	0.92	0.03
Little Long Lac	605,499	52,750	1,780,516	0.34	0.03
McLeod-Cockshutt	1,475,728	101,388	10,337,229	0.14	0.09
Maget Consl.	152,089	16,879	359,912	0.42	0.05
Mosher Long Lac	330,265	34,604	2,710,657	0.12	0.01
Orphan	2,460	1,558	3,525	0.70	0.44
Sand River	50,065	3,628	157,870	0.32	0.02
Sturgeon	73,438	15,922	145,123	0.51	0.11
Talmora Long Lac	1,417	36	6,634	0.21	0.01
Tashota Nipigon	12,356	14,527	51,200	0.24	0.28
Thersa	4,785	202	26,120	0.18	0.01
Tombill	69,120	8,595	190,622	0.36	0.05

\*\* (Source: Ontario Geological Survey Open File Report, 5538). The qualified person has been unable to verify these data and notes that the information is not necessarily indicative of the gold mineralization on the Pichette-Clist property

More recently, the Greenstone Gold Mine (\*\*\*) has commenced production as an open-pit mining operation servicing a conventional comminution and processing plant to produce gold: commercial production was declared in December, 2024. The gold deposit is centered on a complex of refolded folds where the axes of the main folds plunge at low angles to the west. The fold complex has undergone high strain brittle-ductile deformation and hydrothermal fluid flow appears to have been partly channeled. The Greenstone mine hosts 5.7 Moz gold in 2P reserves (\*\*\*). Gold mineralization is hosted in several rock types but primarily occurs in tightly, folded metasedimentary metavolcanic and porphyritic rocks. The Greenstone Gold Mine resides ~60 km to the east of the Pichette-Clist project and has been subject to several phases of folding with mineralization being deposited in fractured and brecciated rocks that developed in megascopic fold closures (see Figure 15).

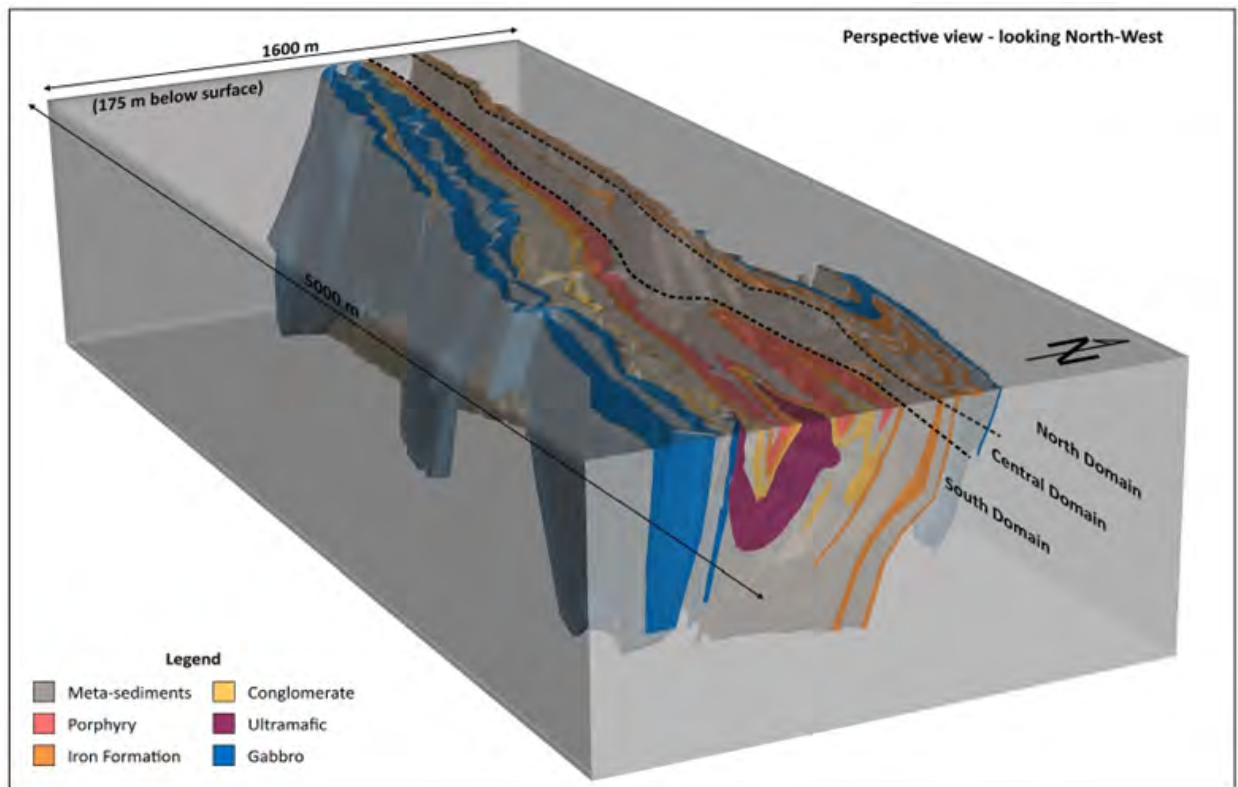
\*\*\* Equinox Gold Corp., Technical Report on Greenstone Gold Mine, Geraldton, 2024.

The qualified person has been unable to verify the individual data and notes that the information is not necessarily indicative of the gold mineralization on the Pichette-Clist property.



**Figure 14. Deposits and historical mines near the Pichette-Clist Project.**





**Figure 15. Greenstone Gold Mine block model diagram as shown on their website of the Hardrock deposit at Geraldton, showing the folded nature of the generally westward plunging synclinal unit at the mine site.**

To understand the timing of mineralization at Pichette-Clist Blue Jay Gold conducted a structural analysis of the available outcrops on the property what follows is the preliminary interpretation of the structural evolution of the Pichette-Clist.

Deformation 1 (D1): The first veins V1 either formed at the beginning of Stage 1 or at the end of Stage 2 during the D1 event ( $> ca. 2691$  Ma). The occurrence of gold-bearing quartz veins that exhibit deformation were formed post (So) but pre-D1. D1 resulted in folding of the Banded Iron Formations and possibly north-south shortening of the Pichette intrusion.

Deformation 2 (D2): The second Veining Event (V2) possibly formed between Stage 3 and Stage 4 around (2691-2680 Ma). Most of the vein-related mineralization might have occurred during this sinistral shearing event. Structural elements identified on the Pichette-Clist Project include east-west oriented gold-bearing veins with minimal deformation.

Deformation 3 (D3): Third Veining Event (V3) initially formed as northwest-trending quartz-sulfide veins during the dextral shearing. Examples found elsewhere in the BGB indicate that these veins might also carry gold. However, some authors suggest that these occurrences are remobilization of (V1-V2) mineralization. The current vein orientation is attributed to the progression of dextral deformation.

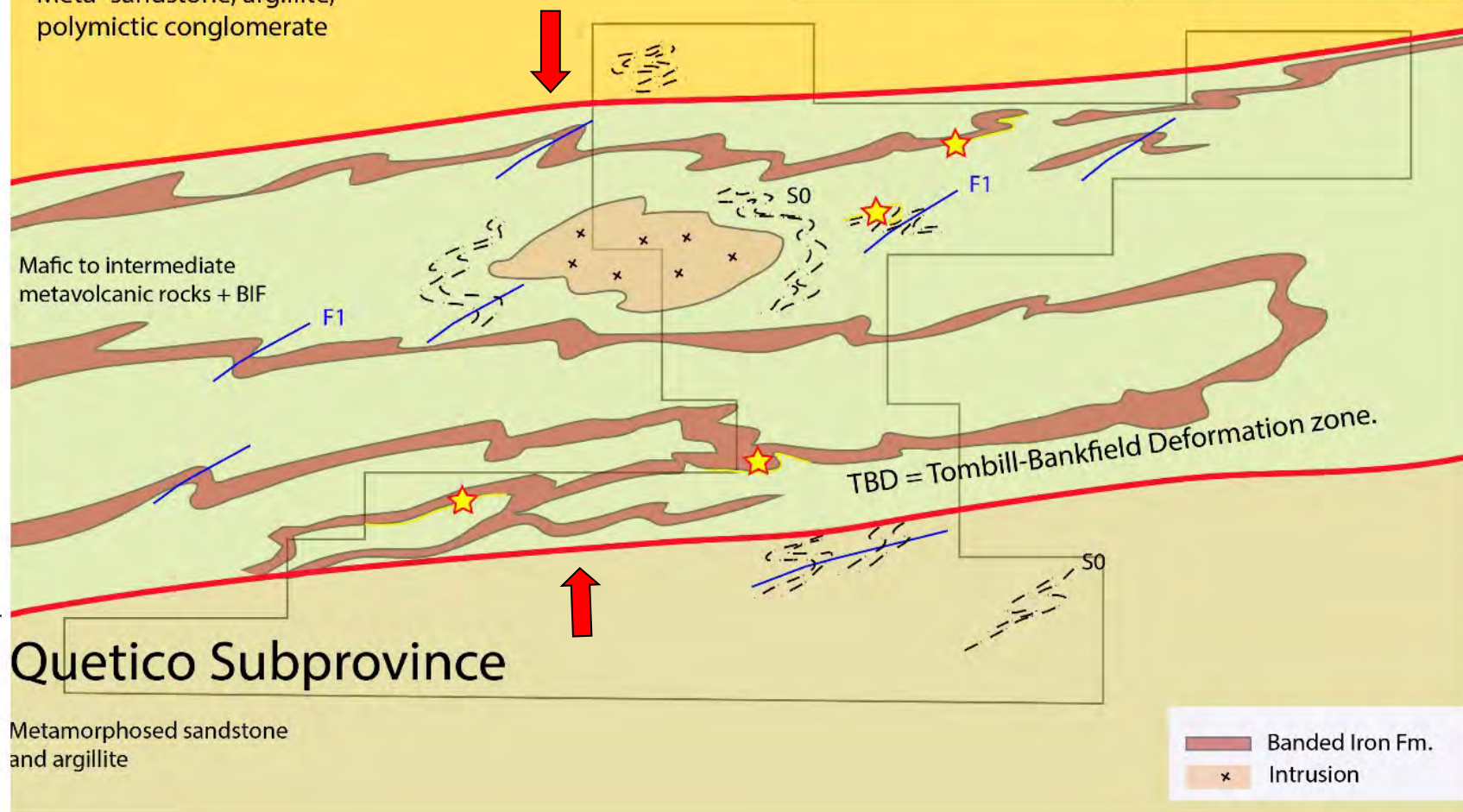
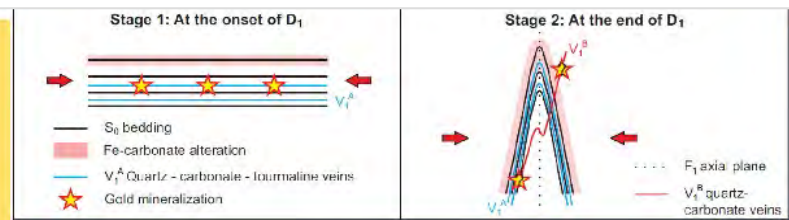
# End of Stage 2 >2691 Ma

Meta- sandstone, argillite,  
polymictic conglomerate

Mafic to intermediate  
metavolcanic rocks + BIF

## Quetico Subprovince

Metamorphosed sandstone  
and argillite

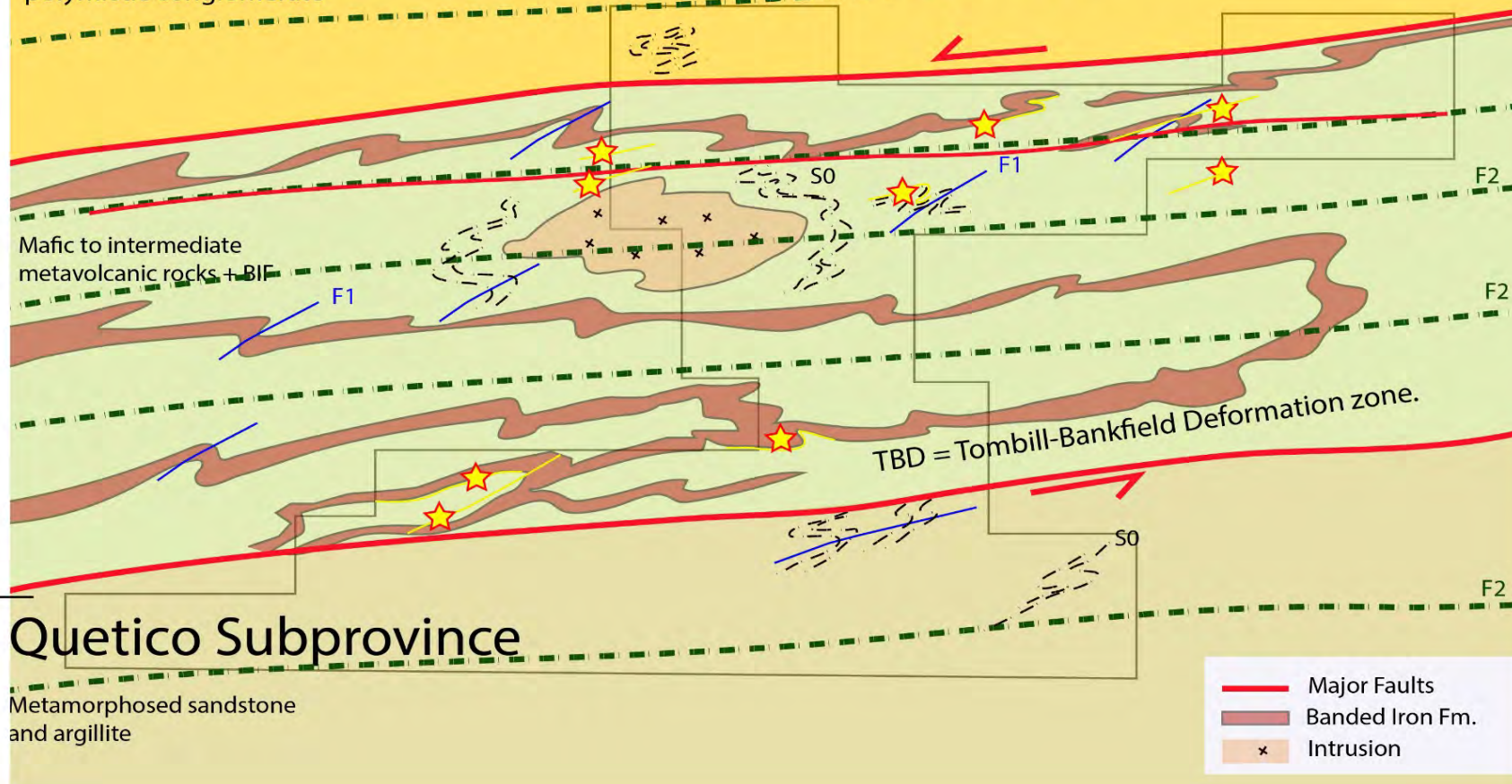


**Figure 16: Interpreted structural evolution for the Pichette-Clist Project at the end of the Stage 2 (>2691 Ma). The stars indicate the locations within the project area that are identified as preserving  $D_1$  folds.**



## End of Stage 4 2691- 2680 Ma

Meta- sandstone, argillite,  
polymictic conglomerate



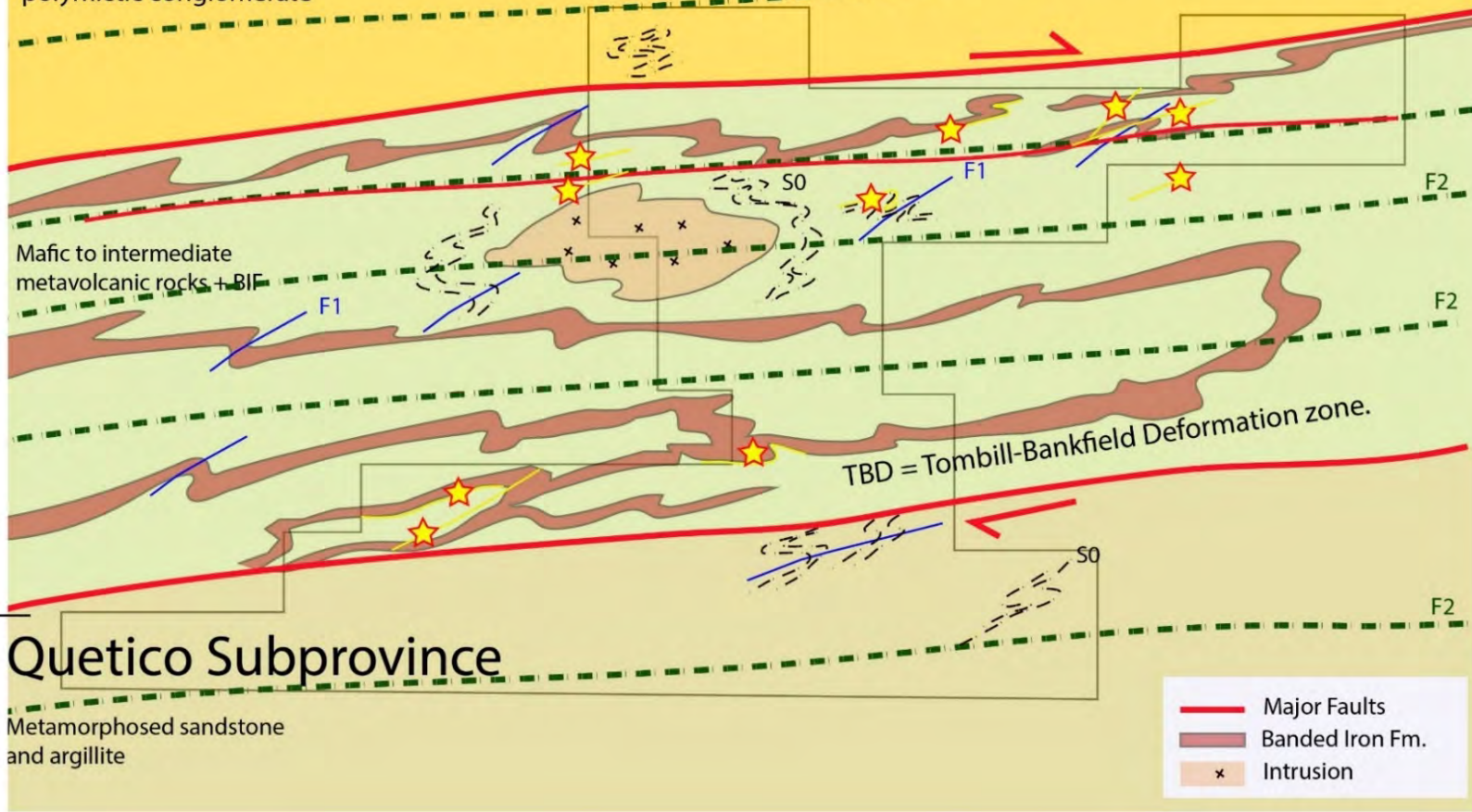
## Quetico Subprovince

Metamorphosed sandstone  
and argillite

**Figure 17: Interpreted structural evolution for the Pichette-Clist Project at the end of the Stage 4 (2691-2680 Ma). The stars show locations preserving evidence D<sub>2</sub> fabrics and tectonic features (V<sub>3</sub>) generated under a sinistral tectonic setting (close to E-W oriented veins)**

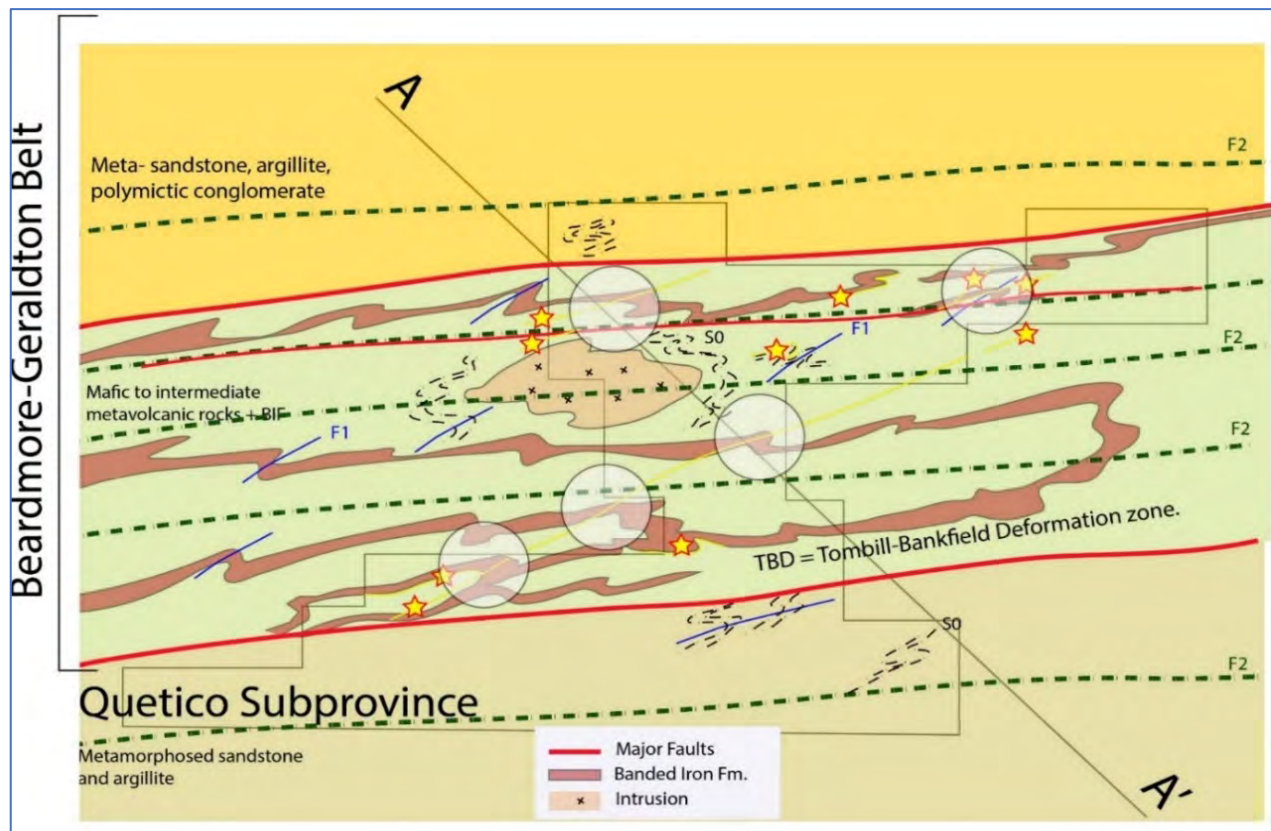
## End of Stage 5 Approx 2650 Ma

Meta- sandstone, argillite,  
polymictic conglomerate

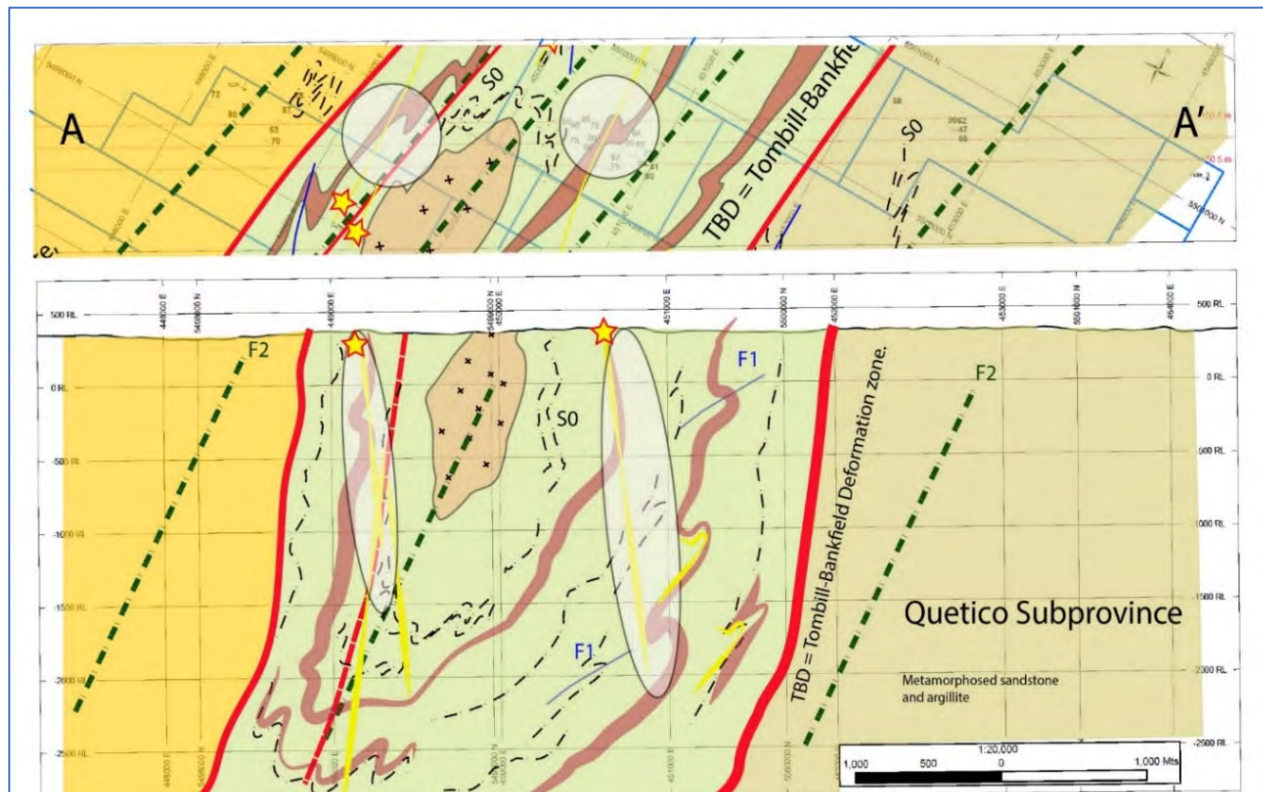


**Figure 18: Interpreted structural evolution for the Pichette-Clist Project at the end of Stage 5 (~2650 Ma). The stars indicate areas preserving evidence of D3 (V4) tectonic fabrics and related structures formed during a dextral stress setting (NE-oriented veins)**





**Figure 19: Interpreted Geology over the Pichette-Clist Project area highlight areas of interest for potential targeting (see Figure 20 for A-A' cross section)**



**Figure 20: Interpreted Geology of the sub-set of the Pichette-Clist Project area, show structural targets of interest, and related A-A' geological cross-section**

## 9 EXPLORATION

### 9.1 Rock Geochemistry

Riverside's first exploration program included prospecting and sampling. This first phase of sampling was restricted to the Blackwater Road area in the northern portion of the project area where a Banded Iron Formation unit - highlighted in magnetics data - had been identified and previously drilled by others. The sampling across the Banded Iron Formation comprised mainly rock chip sampling and localized channel sampling. Rock chip sampling systematically collected fresh rock by hammering material orthogonal to the strike of the Banded Iron Formation to examine the chemistry without sampling bias. Each bagged sample represents a material collected over a 1 metre interval. Channel samples were approximately 50 cm lengths of sawed and chipped rock across the strike of the Banded Iron Formation. Further in the old, stripped areas immediately south of Blackwater Road the geology was reviewed and sampled by rock chipping methods only

**Table 5. Sample sites and descriptions**

Sample#	Au ppb	UTM_E	UTM_N	Rock	Comment
887132	< 5	451964	5500364	MSED	QBS, Po
887133	< 5	451938	5500349	MSED	schist, 1% po, 070/80S
887134	< 5	451933	5500337	MSED	foliated metaseds, 090/80N
887135	< 5	451854	5500329	QV	sugary quartz, 090/85S
887136	< 5	451143	5500307	QV	qtz vein, sugary 1% po, 070/90
887138	< 5	452706	5500649	QV	sugary qtz in BIF, 105/58S
887139	< 5	450708	5500658	QV	
887140	< 5	452555	5500589	QV	qtz in BIF
887141	< 5	452708	5500536	QV	qtz in BIF
887142	< 5	453135	5500469	QV	qtz vein, sugary 1% po, 080/76S
887143	< 5	453135	5500469	QV	qtz vein, sugary 1% po, 080/76S
887144	< 5	452698	5500610	QV	qtz vein, 090/75S
887145	< 5	452722	5500603	BIF	bif 090/75S
887147	< 5	449539	5500422	BIF	bif Py 096/60S
887148	< 5	449920	5500567	MSED	vuggy QV in MSED, weather calcite, no sulphides
887149	< 5	449903	5500625	BIF	with sugary quartz extremely fractured, with K-spar
1192253	< 5	452312	5500558	QV	quartz vein on contact of seds, trace Py
1192254	< 5	451554	5500315	MSED	minor diss <1% pyrite
1192255	45	451500	5500326	MVOL	very silicious, amphibolite?? Wk. foliation, diss. pyrite
1192256	70	451519	5500327	MSED	str. Sheared biotite schist, med. grained, 2% pyrite throughout associated to qtz fracture fills
1192258	7	451524	5500322	MSED	QV parallel to foliation of MSED, trace pyrite
1192259	5	450884	5500461	MSED	shear zone with qv, no sulphides
1192260	< 5	450285	5500395	MSED	py in str. sheared biotite schist, rusty with hematite and 10cm QV smokey
1192262	10	449638	5500519	MSED	Grab from East side of stripped area. Narrow gossan shear
1192263	< 5	449672	5500426	QV	Qtz grab from 5m long old E/W trench, Rubble pile

1192264	< 5	449672	5500426	MVOL	Silicified wall rock beside qtz vein from rubble pile tr pyrite
1192265	< 5	449838	5500602	QV	glassy fractured qtz vein 3cm wide, tr chalcopyrite
1192266	< 5	449934	5500650	QV	5cm wide qtz veins, red staining, 080/40 S
1192267	< 5	449999	5500593	QV	Glassy brown qtz vein, 5m west of 0.6m wide bull qtz
1192268	16	450061	5500593	MSED	Stripping Target, wall mineralized rotten gossan shear
1192270	7	450082	5500504	BIF	Orange BIF
1192271	19	450086	5500498	BIF	Orange BIF, fresher, not rusted
1192272	7	453703	5500651	MSED	South wall rock of Iron Formation
1192273	8	453703	5500651	BIF	Vincent - Iron Formation
1192274	8	453703	5500651	BIF	Vincent - Iron Formation
1192275	< 5	453703	5500651	BIF	Vincent - Iron Formation
1192276	< 5	453703	5500651	MSED	North wall rock of Iron Formation
1192277	< 5	453700	5500645	MSED	Vincent - Iron Formation
1192278	21	453700	5500645	BIF	Vincent - Iron Formation
1192279	14	453700	5500645	BIF	Vincent - Iron Formation
1192280	< 5	453640	5500646	BIF	strongly folded lean iron formation
1192281	90	452695	5500640	BIF	lean iron formation, with orange quartz with sulphides, potential Cpy specs
1192286	11	452695	5500640	BIF	magnetic
1192287	19	451143	5500314	QV	orange qtz vein, w <1% pyrite in fractures

\*Rock types: BIF, Banded Iron Formation; QV, quartz vein; MSED, metasedimentary; MVOL, metavolcanic

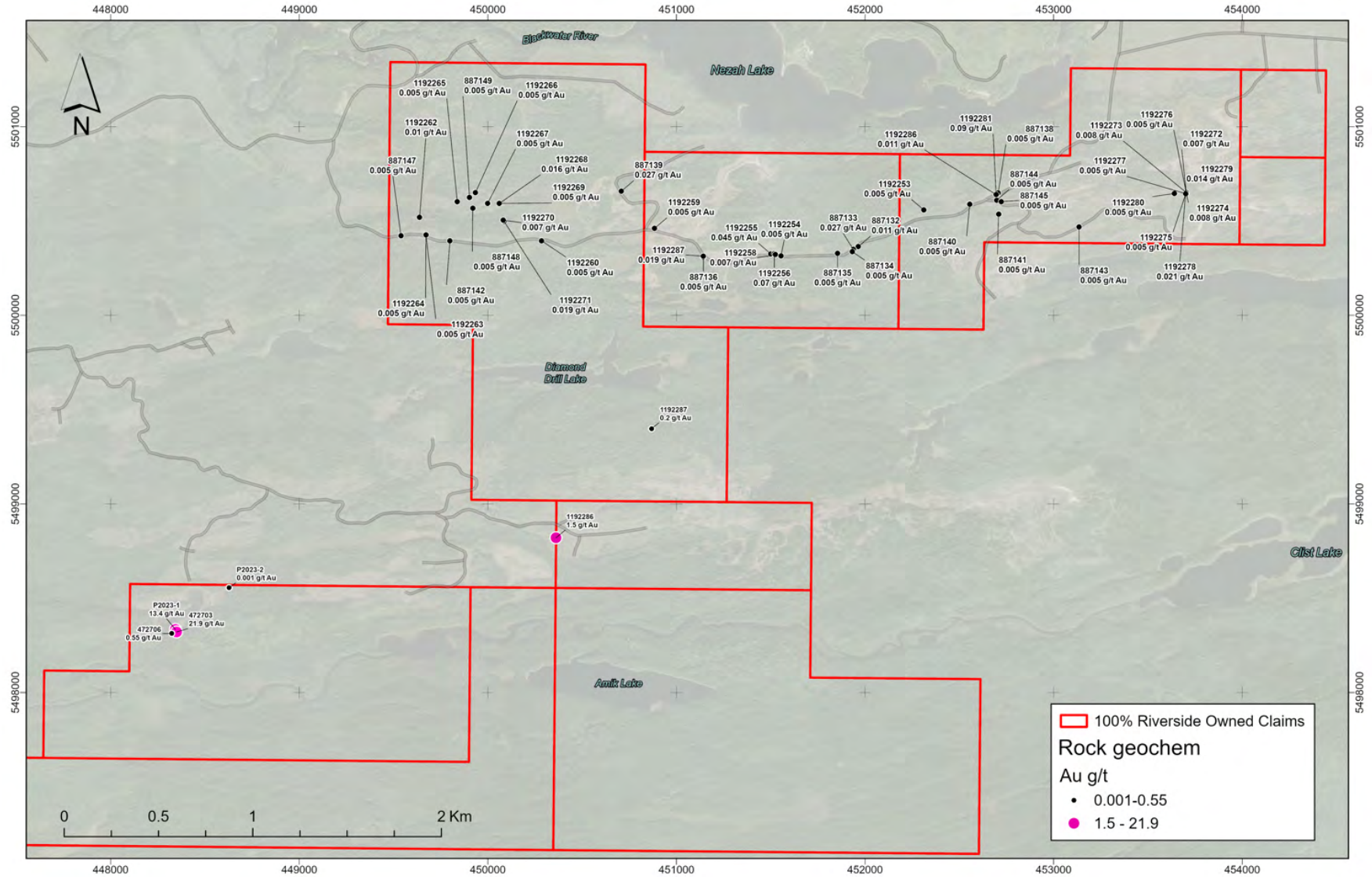
The 2019 surface sampling primarily focused on the banded Iron formation and spatially associated quartz veins in the northern portion of the project.

No fieldwork was conducted in 2020 or 2021 because of COVID restrictions.

Limited prospecting traverses were conducted in 2023 following a review of the 2022 geophysical magnetic survey. These traverses focused on the BIF units identified by the drone magnetic survey. All of these samples are plotted in Figure 21. In 2024, surface prospecting was progressed with the collection of rock and channel samples, and follow-up geological mapping. A drone LiDAR survey was also completed late in 2024.

The author has seen Blue Jay assessment reports that contain cost statements for work done on the Pichette-Clist property during 2023-2024. The total cost of assessment work that has been filed is \$ 247,509.70 to the date of this report.





**Figure 21: Surface Sampling conducted by Riverside 2019, 2022 & 2023.**

## 9.2 Geophysics

A drone magnetics survey was conducted in 2022 by Riverside. The magnetometer used for the UAV (unmanned aerial vehicle) aeromagnetic survey was a GEM Systems potassium type, model GSMP-35U that has the following specifications:

**Table 6. Parameters set for the Magnetics Geophysical Survey instrument**

Sensitivity: 0.0002 nT @ 1 Hz	Base Station Magnetometer
Resolution: 0.0001 nT	Overhauser instrument, model GSM-19
Absolute: Accuracy: +/- 0.05 nT	Reading interval: 10s
Dynamic: Range: 15,000 to 120,000 nT	Resolution: 0.01 nT
Gradient Tolerance: 50,000 nT/m	Absolute accuracy 0.2nT
Sampling Rate: 1, 2, 5, 10, or 20 readings/second	Instrument sensitivity of 0.022 nT

Mounted with the magnetometer was a laser altimeter for measuring terrain clearance and a GPS unit for measuring the UTM location to an accuracy of 0.7 meters. The magnetometer used for the base station, which monitors the diurnal variation in the magnetic field, was a GEM Systems Overhauser model GSM-19, with a GPS (global positioning system) attachment. It is a memory system capable of storing up to 5.3 million readings and reads the earth's total magnetic field directly in nanoteslas (nT) to an accuracy of  $\pm 0.1$  nT (with an instrument sensitivity of 0.022 nT and a resolution of 0.01 nT), over a range of 20,000 - 120,000 nT. The GPS attachment enables the base station to set its time to Greenwich Mean Time, which is the time setting of the UAV magnetometer. This enables the base station magnetometer to have the exact same time as the UAV magnetometer so that the UAV magnetic readings can be accurately corrected for diurnal variation.

The survey line was chosen to be east west. However, geology, for the most part, strikes easterly and thus the ideal survey line direction would have been northerly. But if this direction was chosen, then the survey could only be flown in one direction since the signal was very strong in one direction and very weak in the return direction. The survey parameters were as follows: number of kilometres flown: 400 flight line direction: east-west flight line separation: 50 meters terrain clearance: 35 meters AV speed: 10 m/reading frequency: 20 readings/second reading interval: 0.5 meters (Mark, 2022).

The diurnal variation of the magnetic field was monitored by a base station using a GEM Systems Overhauser magnetometer located just to the north of the property. It was set to take a magnetic reading every half-second. The data from both the UAV and base station magnetometers were downloaded at the end of each day and the UAV magnetic data was then corrected for diurnal variation.

The first vertical derivative (1VD) is the mathematical equivalent of physically measuring the magnetic field simultaneously at two points, with one point located vertically above the other. By subtracting one measurement from the other and dividing the result by the vertical separation of the two measurements, a vertical gradient is derived. The 1VD enhances short-wavelength anomalies, often separating overlapping adjacent anomalies and eliminating long-wavelength regional anomalies. The vertical derivative is commonly applied to total magnetic field data to enhance the shallowest geological sources in the data and is commonly used in conjunction with total field grids to enhance and highlight structural trends.

The first order vertical derivative quantifies the variation of the magnetic field as a function of height. It is equivalent to measuring the magnetic field with separate magnetometers vertically spaced apart and then dividing the measurement difference by the distance between the two sensors. The purpose of this type of filter is to eliminate the long wavelength signatures to allow for the discrimination of close or superimposed anomalies. This filter also increases the noise level, which limits the use of higher order derivatives ( $n=2$  for example). The vertical derivative is used to delineate the contacts between large-scale magnetic domains because its value is zero over a vertical contact.

The analytic signal is the square root of the sum of the squares of the derivatives in the x, y, and z directions. This type of processing is useful in locating the edges of magnetic source bodies, particularly where remanence and/or low magnetic latitude complicates the interpretation.

Discrete acquisition and repeat measurements at each point ensured high quality data representing the magnetic conditions in the study area. No data was removed from the acquired set after the statistical selection of the discrete point during field acquisition. The First Vertical Derivative Map highlights magnetic dipoles presented in the geology of the study area. The Analytic Signal Map represents the edges of the magnetic sources in the study area. The Reduction to Pole Map properly removed the effect of the induced magnetization and highlighted the strike on the shape of the magnetic anomalies presented in the area.

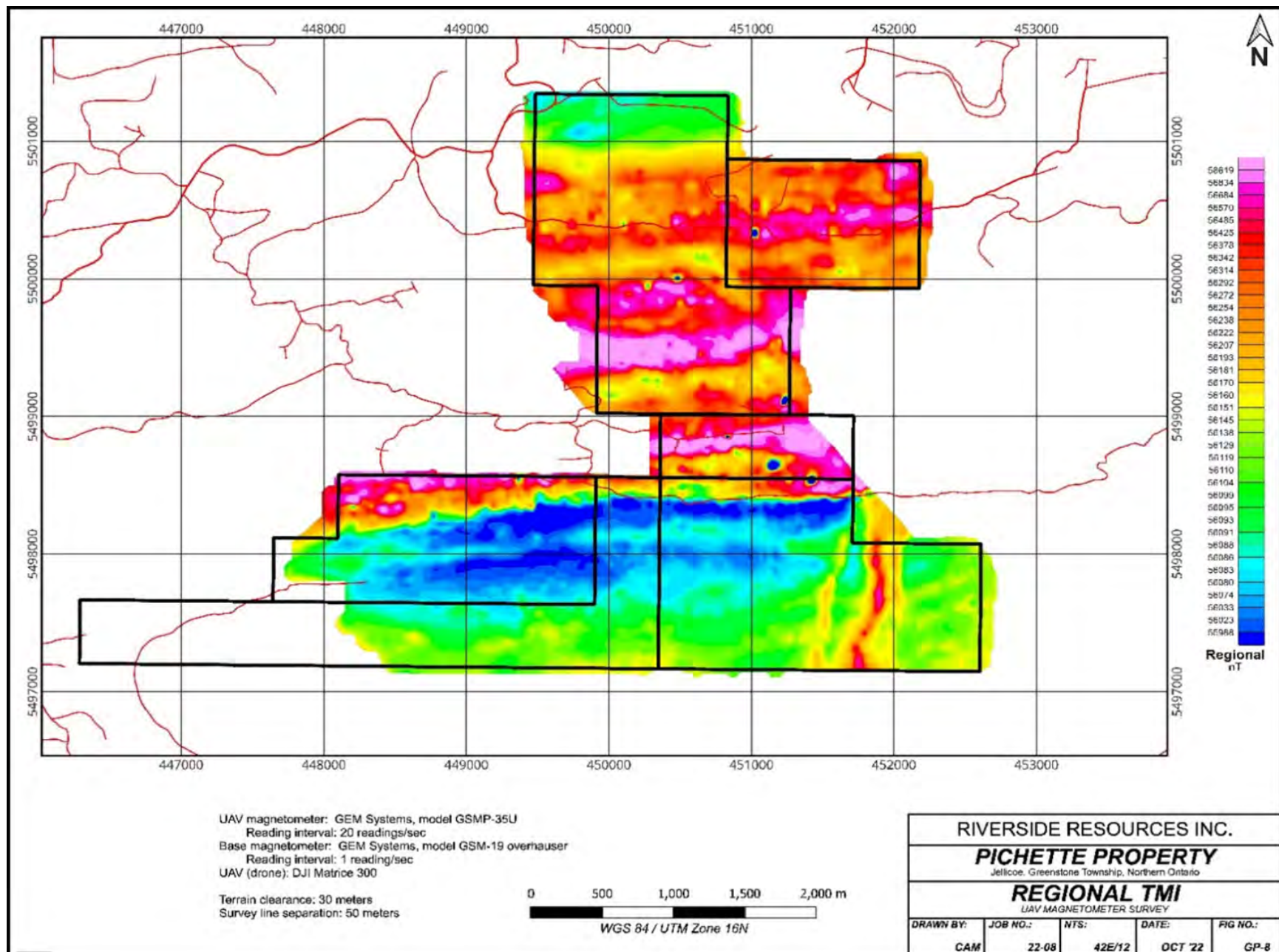


Figure 22. Pichette-Clist area Pseudocolour image of Regional Total Magnetic Intensity (TMI) survey data.



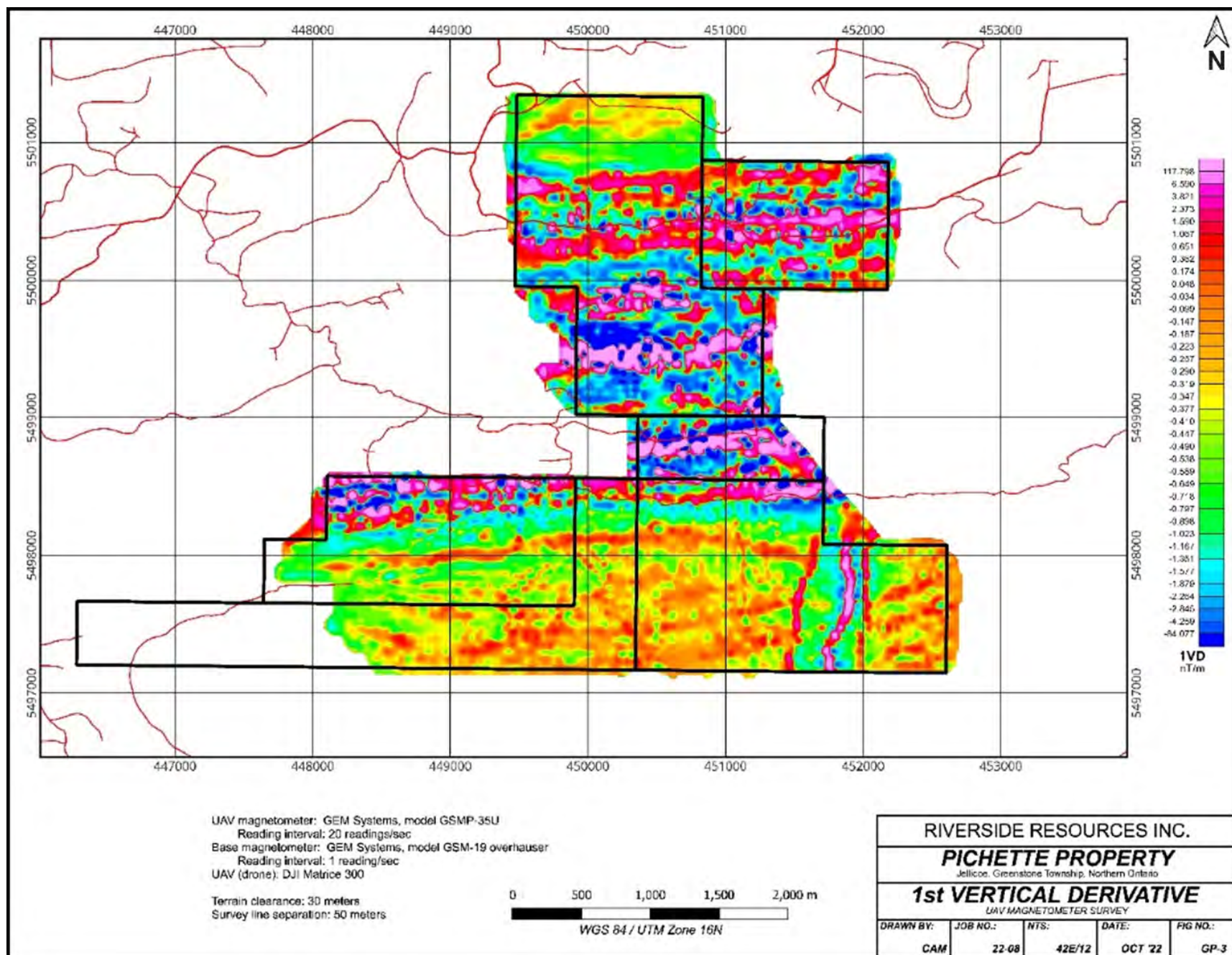
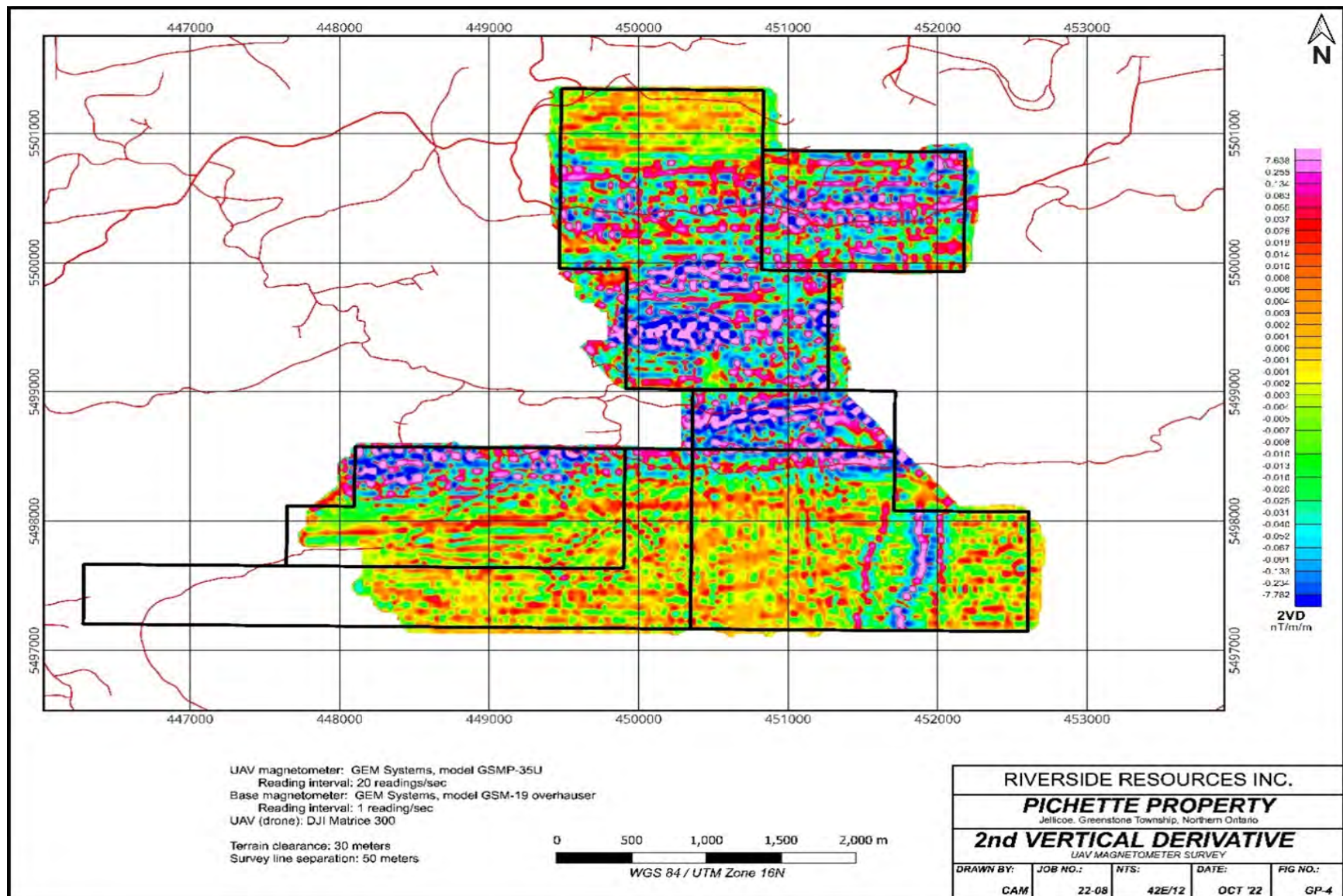


Figure 23. Pichette-Clist area Pseudo-colour image of 1<sup>st</sup> Vertical Derivative (1VD) survey data.





**Figure 24: Pichette-Clist area Pseudocolour image of 2<sup>nd</sup> Vertical Derivative (2VD) survey data.**

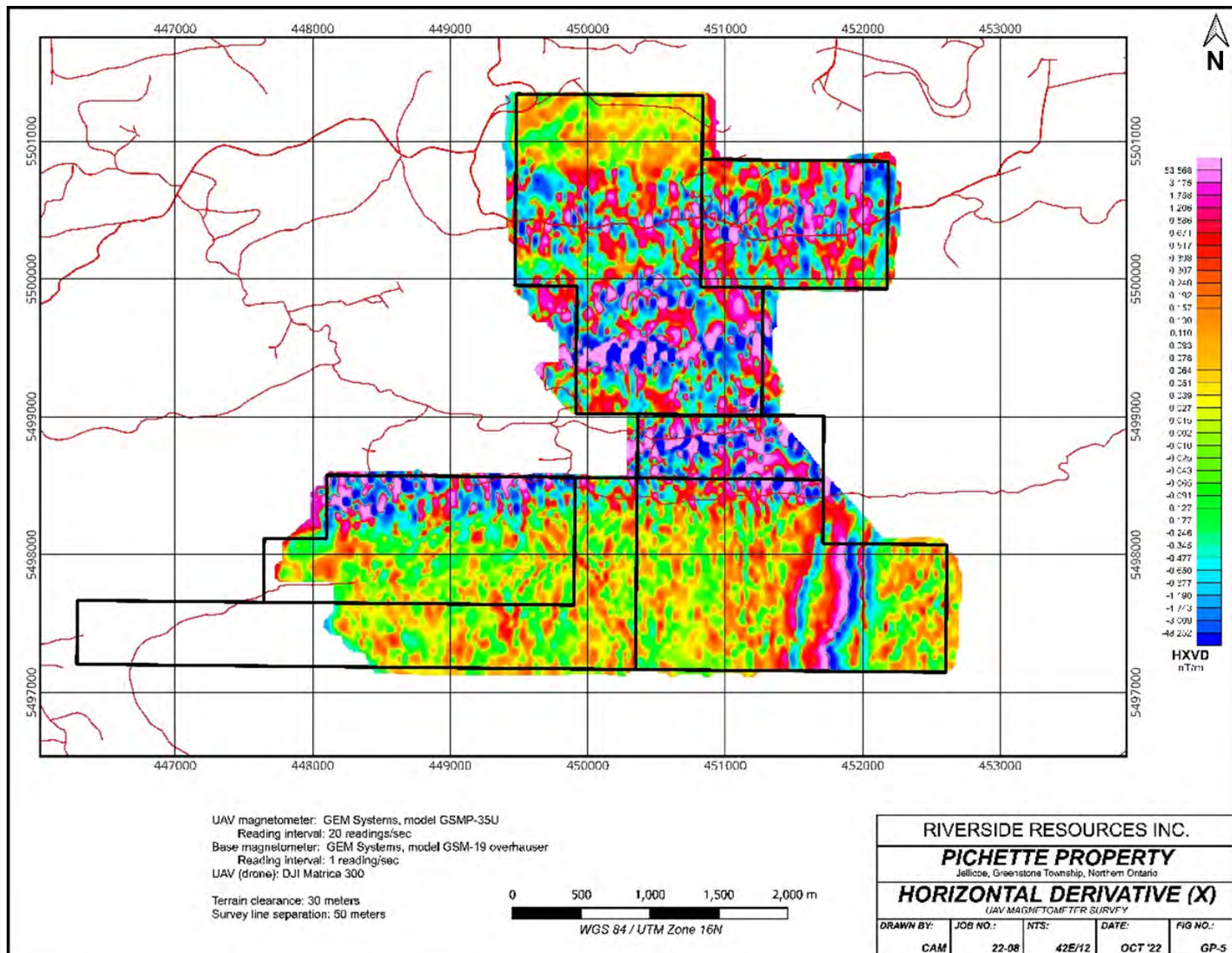


Figure 25: Pichette-Clist area Pseudo-colour image of Horizontal Derivative X (HDX) survey data.

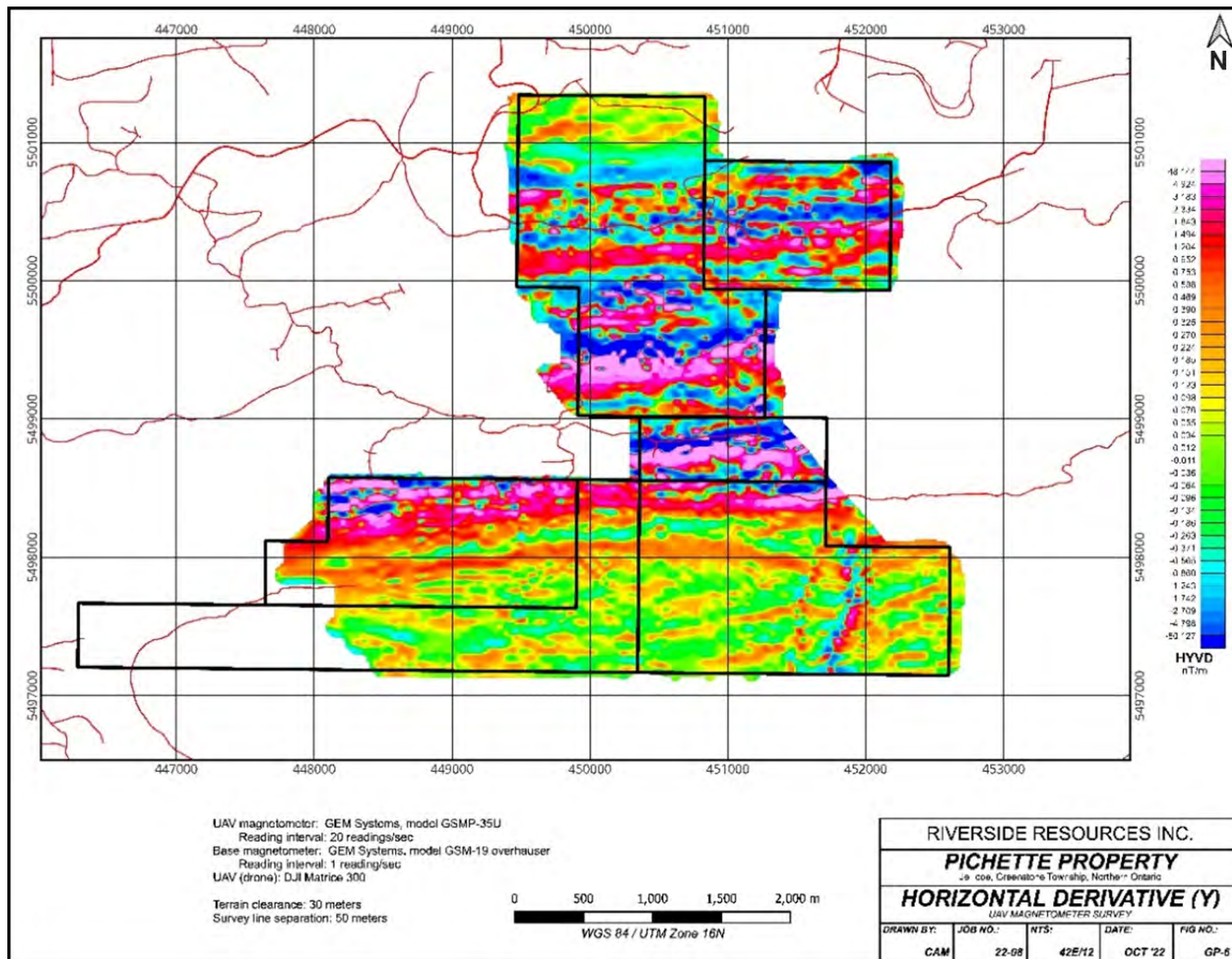
The second vertical derivative (2VD) carries out a double differentiation with respect to vertical distance and thus tends to emphasize, even further than the 1VD, the anomalies associated with small, shallow geologic structures at the expense of larger, regional features. The 2VD map can help identify additional near-surface anomalies not clearly imaged in the 1VD map.

The Horizontal X Derivative is similar to the 1st vertical derivative, except that it is calculated horizontally along the east-west direction by subtracting one reading from the other and dividing by distance. The horizontal x derivative map is used to show contacts, especially those striking in the northerly direction. Horizontal Y Derivative, is the same as the horizontal X derivative, except that it is calculated horizontally along the north-south direction. The horizontal derivative map is used to show contact, especially those striking in easterly directions.

### **Basic Interpretations**

The UAV magnetic survey revealed a magnetic field varying in strength from a low of 53,644 nT within the northern part of the survey area to a high of 60,537 nT within the central part of the survey area, resulting in a variation of 6,893 nT. This is a very large variation and is typical of magnetite-rich rocks such as occur within the bedded iron formations on the property.





**Figure 26. Map over Pichette-Clist area Pseudocolour image of Horizontal Derivative Y (HDY) survey data.**

The most prominent feature of the magnetic plan maps is a 3.2-kilometer-wide zone of magnetic highs that strike in an  $85^{\circ}$  -  $265^{\circ}$  direction. The known geology of the area indicates this magnetic feature to be reflecting meta-volcanics that host banded iron formations, a photograph of one that occurs above under 'Geology'. These are reflected as lineal-shaped, easterly-striking strong magnetic highs and are shown on the magnetic plan maps as solid blue lines totaling five in number. In addition, there are weaker lineal-shaped highs that could also be reflecting banded iron formations, and thus the number could be greater than five.

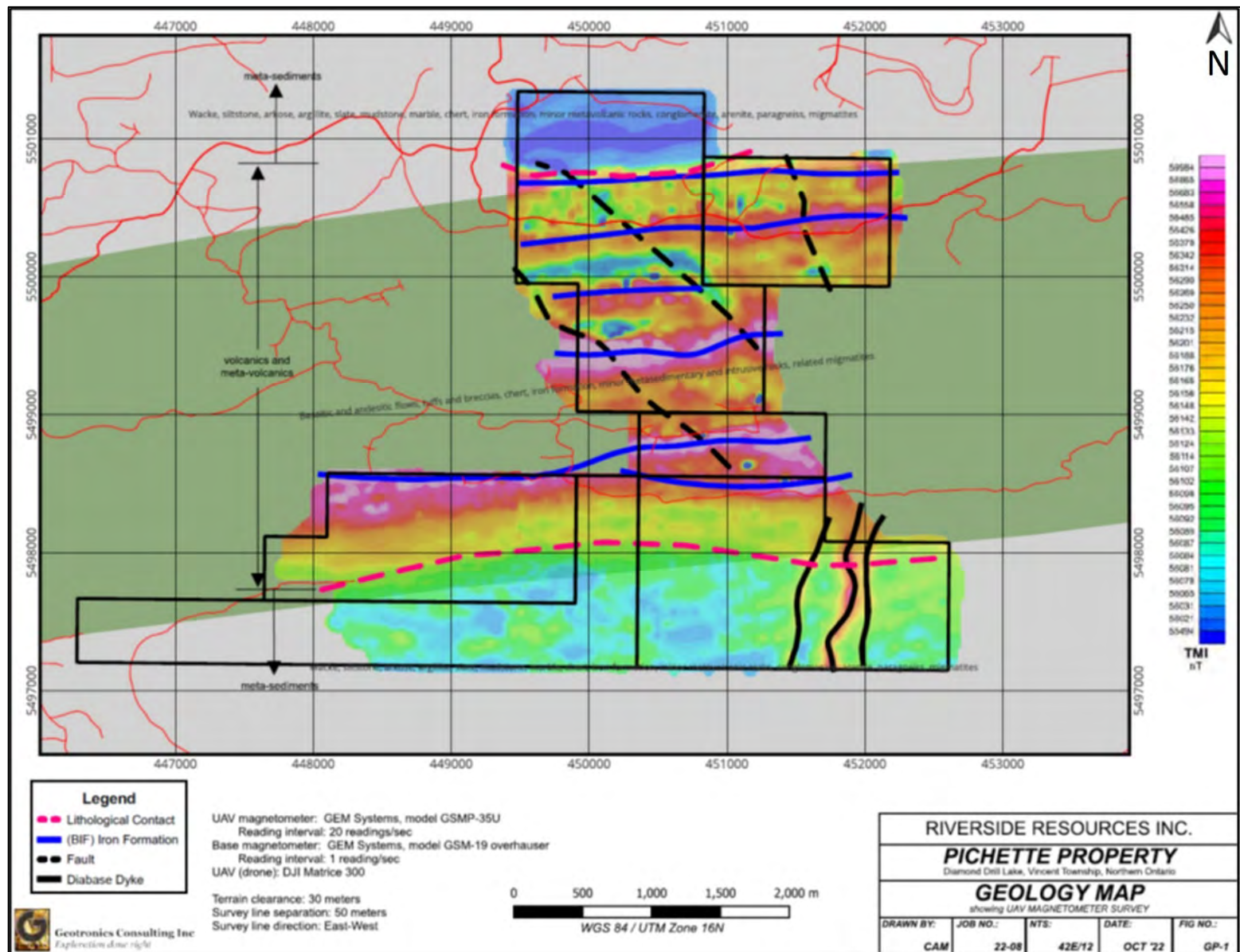
The magnetic fields to the north and to the south, respectively, of this band are much quieter and is thus interpreted to be reflecting the metasedimentary rocks that are known to occur within these two areas.

Three lineal-shaped magnetic highs striking in a north-northeast direction occur within the southeast corner of the survey area. These are interpreted to be reflecting dykes.

The magnetic maps show three prominent lineations of magnetic lows with two striking northwesterly and the third one striking north northwesterly. These are indicative of geological structure such as faults, shear zones, and/or contacts and thus are exploration targets, especially where they intersect other faults and contacts.

The directional horizontal gradient is performed upon the gridded observations after the data has been reduced to a pole. Vectors are drawn by the interpreter along observed lineations to represent possible contact, fold and fault locations (Mark, 2022).





**Figure 27: Pseudo-colour TMI Map showing interpretation extracted from Geotronics Drone Magnetics 2022 survey report**

## **LiDAR-Orthophoto Survey 2024 by Blue Jay Gold**

During September 19-24th, Rosor Engineering of 20 Dundas St. W Toronto, Ontario conducted 58 flights for LiDAR acquisition and 180 flights for orthophoto capture. The scanning and data collection was performed using a DJI M300 drone equipped with the Green Valley International LiAir X3-H LiDAR sensor and ZENMUSE P1 camera. A Green Valley LiBase GNSS receiver was used as a GNSS base station and was set up approximately 100 m from each take-off location and within the survey area. The entirety of the flight was recorded, and the precise location data was used to increase LiDAR point data accuracy in post-processing. The drone flew programmed missions automatically with minimal human intervention. After each flight the LiDAR data was checked for accuracy, consistency and full area coverage. The work was conducted on a contract all-in basis. Rosor Engineering has provided a comprehensive report, dated December 16th on the survey that includes details on: Flight Mission design, Data Acquisition, Data Processing, Deliverables and Georeferencing and EPSG Codes. Their report is appended to the end of this report.

## **Outcrop Stripping and Channel Sampling 2024 by Blue Jay Gold**

During the month of September and the month of November excavator work and sampling was conducted by the owners of the Clist project which is currently under option to Blue Jay Gold. The Caterpillar 315 was transported and brought to site on a float truck from Thunder Bay. The 315 CAT has 110 horsepower and can dig up to 19 ft 7 in depth with an Operating weight of 35,700 lbs.

Prior to the arrival of the excavator trails were flagged in the field to take advantage of old and new logging trails, minimizing trail construction. The outcrops were stripped using a Wajax pump for high pressure washing. Channel sample locations were marked with paint and cut out using a 420 Stihl rocksaw, these channels were typically 1 inch wide and 0.5m in length. Samples were chipped out of the channels and placed into plastic samples bags with an assay tag. A matching assay tag was wrapped around a rock chip with ribbon and inserted back into the channel at the appropriate location for future sample reference. The samples were driven directly from site to Act Labs in Thunder Bay by the contractor. Standards for gold and blanks were inserted into the sample stream while in the field and sample descriptions were handwritten while on site. Blue Jay geologists arrived onsite to inspect the samples and sample locations once in September and once in November. Outcrops maps were prepared by Blue Jay during these visits.

Blue Jay measured the perimeter of the washed/stripped areas using a flexible measuring tape and sample locations were measured relative to the stripped perimeter and to geology and then transferred onto graph paper. Geological structures were freehand drawn onto the graph paper in relation to sample locations. Some difficulties were encountered taking structural measurements do to the slight magnetic interference caused by the banded iron formation in in some cases diabase dikes, as at outcrop B1. In general, the geology strikes roughly east-west at about 80 degrees. The outcrop maps were created in Illustrator computer program and assays once received located appropriately on the maps by Blue Jay.

The Act Labs certificate below contains gravimetric gold assays and geochemical gold content in parts per billion (ppb) from the 2024 channel sampling program. Amounts of gold range from <5 ppb Au to 45.1 g/t Au. Samples were delivered direct from the property to Act Labs in Thunder Bay by the contractor. Gravimetric assays of gold standards when compared to the accepted gold content are within 3 standard deviations. The author of this report considers the results to be valid and acceptable for an early exploration property.

**Table 7. Actlabs certificate for Blue Jay's channel samples in 2024**

<b>Quality Analysis ...</b>		<b>Innovative Technologies</b>
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<b>Blue Jay Resources Corp</b> <b>Thunder Bay Ontario</b> <b>Canada</b>	<table border="0"> <tr> <td><b>Report No.:</b></td> <td><b>A24-14801</b></td> </tr> <tr> <td><b>Report Date:</b></td> <td><b>14-Jan-25</b></td> </tr> <tr> <td><b>Date Submitted:</b></td> <td><b>02-Dec-24</b></td> </tr> <tr> <td><b>Your Reference:</b></td> <td><b>Goodman Clist Lake</b></td> </tr> </table>	<b>Report No.:</b>	<b>A24-14801</b>	<b>Report Date:</b>	<b>14-Jan-25</b>	<b>Date Submitted:</b>	<b>02-Dec-24</b>	<b>Your Reference:</b>	<b>Goodman Clist Lake</b>
<b>Report No.:</b>	<b>A24-14801</b>								
<b>Report Date:</b>	<b>14-Jan-25</b>								
<b>Date Submitted:</b>	<b>02-Dec-24</b>								
<b>Your Reference:</b>	<b>Goodman Clist Lake</b>								

ATTN: Freeman Smith (Invoices)

## CERTIFICATE OF ANALYSIS

56 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-Tbay	QOP AA-Au (Au - Fire Assay AA)	2024-12-06 21:32:01
1A3-Tbay	QOP AA-Au (Au - Fire Assay Gravimetric)	2024-12-10 14:46:52
1F2-Tbay	QOP Total (Total Digestion ICPOES)	2024-12-24 08:01:25

REPORT      **A24-14801**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.


**Notes:**

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Values which exceed the upper limit should be assayed for accurate numbers.

Refer to the Scope of Accreditation for information on accredited elements.



**ACTIVATION LABORATORIES LTD.**

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CERTIFIED BY:

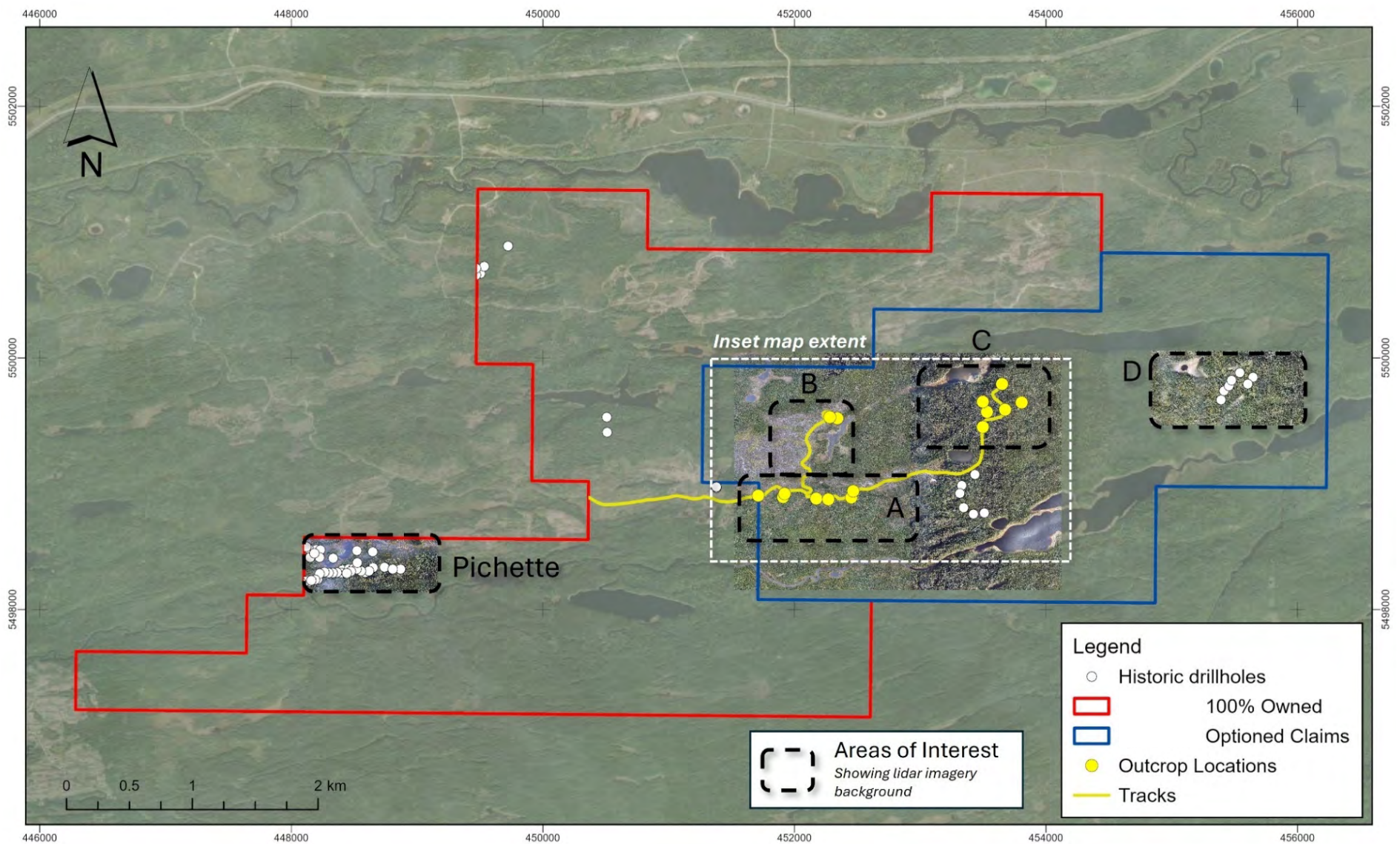


Mark Vandergeest  
Quality Control Coordinator

Results			Activation Laboratories														Report: A24-14801									
Analyte Symbol	Au	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K	Mg	Li	Mn	Mo	Na	Ni	P			
Unit Symbol	g/tonne	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%	%	ppm	ppm	ppm	%	ppm	%			
Lower Limit	0.03	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	0.01	0.01	1	1	1	0.01	1	0.001			
Method Code	FA- GRA	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP			
440675	7.37	> 5000	1.2	0.51	827	7	< 1	4	1.41	0.7	16	142	143	14.4	1	< 0.01	0.71	< 1	6900	< 1	< 0.01	27	0.003			
440676	1.75	1490	0.8	0.88	42	31	< 1	5	5.82	< 0.3	12	80	47	18.4	< 1	0.07	1.40	3	10500	< 1	0.15	22	0.007			
440677	2.85	2600	0.8	1.15	52	9	< 1	4	2.62	< 0.3	38	11	154	13.6	3	0.03	0.88	11	2670	< 1	0.15	28	0.002			
440678		11	< 0.3	1.68	< 3	35	< 1	2	3.64	< 0.3	10	45	54	12.8	4	0.29	1.34	15	1850	7	0.24	23	0.005			
440679		13	< 0.3	0.83	< 3	42	< 1	4	0.52	< 0.3	12	31	153	16.5	2	0.09	0.43	5	468	5	0.20	41	0.007			
440680		6	0.4	5.93	5	48	< 1	2	4.04	< 0.3	34	130	110	12.1	10	0.48	1.65	19	2110	< 1	3.21	138	0.015			
440681		17	0.6	0.38	53	26	< 1	9	0.42	0.5	55	17	170	27.1	< 1	0.10	0.15	2	2270	1	0.02	109	0.003			
440682		92	1.9	0.82	139	17	< 1	6	0.53	0.6	204	38	80	28.1	< 1	0.09	0.48	6	673	< 1	0.19	91	0.004			
440683		9	< 0.3	4.40	13	79	< 1	2	0.97	< 0.3	32	216	69	12.6	11	0.47	2.10	25	1490	< 1	2.96	128	0.016			
440684		31	1.0	0.28	143	11	< 1	11	0.24	2.4	67	13	169	30.5	< 1	0.06	0.15	2	810	1	< 0.01	104	0.003			
440685		12	0.8	0.19	< 3	18	< 1	12	0.26	< 0.3	85	21	180	33.2	< 1	0.04	0.06	< 1	952	< 1	< 0.01	170	0.004			
440686		18	< 0.3	5.18	12	43	< 1	< 2	3.30	< 0.3	83	126	103	12.1	9	0.49	1.72	20	1270	< 1	2.48	143	0.013			
440687		6	< 0.3	6.49	< 3	42	< 1	2	4.32	< 0.3	32	140	75	9.63	10	0.54	1.71	19	2510	< 1	3.57	138	0.014			
440688		7	< 0.3	4.17	< 3	47	< 1	< 2	2.89	< 0.3	56	120	110	18.0	7	0.46	1.78	22	1730	< 1	1.59	138	0.011			
440689		125	1.5	3.35	151	18	< 1	5	2.33	< 0.3	117	18	1520	17.9	10	0.27	1.09	17	1510	< 1	0.16	37	0.022			
440690		33	1.1	1.65	3	10	< 1	5	2.66	< 0.3	84	20	1350	16.7	5	0.24	0.58	10	822	< 1	0.08	43	0.014			
440691		9	< 0.3	4.62	6	59	< 1	4	1.16	< 0.3	77	53	144	18.1	11	0.14	1.79	27	1140	1	1.00	71	0.030			
440692		78	< 0.3	0.59	< 3	111	< 1	4	1.89	< 0.3	3	13	710	9.84	4	0.17	0.37	2	803	< 1	0.17	6	0.036			
440693		22	2.2	0.15	210	< 7	< 1	22	0.71	< 0.3	18	10	2100	31.9	< 1	< 0.01	0.12	1	296	< 1	0.10	27	0.061			
440694		8	0.6	0.20	< 3	< 7	< 1	5	2.04	< 0.3	5	21	277	14.9	< 1	< 0.01	1.10	< 1	7270	< 1	< 0.01	6	0.005			
440695		36	< 0.3	0.41	< 3	< 7	< 1	< 2	0.41	< 0.3	8	11	214	5.42	1	0.07	0.25	3	926	< 1	0.11	12	0.002			
440696	3.21	3420	0.5	0.27	76	< 7	< 1	4	0.72	< 0.3	16	28	1430	11.7	< 1	< 0.01	0.17	3	423	5	0.16	25	0.013			
440697	45.1	> 5000	7.2	3.88	118	102	< 1	< 2	1.78	< 0.3	66	61	998	15.3	11	0.59	0.67	9	749	< 1	1.94	67	0.028			
440698		218	0.4	1.20	9	23	< 1	< 2	1.59	< 0.3	8	28	648	5.91	5	0.07	0.34	1	601	1	0.87	6	0.006			
440699		90	1.7	1.34	5	64	< 1	3	0.55	< 0.3	521	84	3310	15.3	5	0.35	0.04	3	432	1	0.56	26	0.010			
440700		44	1.2	1.32	< 3	42	< 1	5	0.65	< 0.3	65	24	2510	14.1	5	0.13	0.41	5	1050	2	0.23	79	0.012			
440701		969	2.5	2.00	427	88	< 1	< 2	0.16	< 0.3	71	42	7770	8.09	5	0.28	0.06	2	918	8	1.26	24	0.022			
440702		38	1.4	1.11	< 3	9	< 1	7	0.50	< 0.3	127	35	3000	22.2	3	< 0.01	0.51	3	1850	1	< 0.01	28	0.011			
440703		< 5	< 0.3	0.56	3	28	< 1	< 2	0.90	< 0.3	8	20	268	6.20	2	0.18	0.22	2	1120	34	0.02	10	0.007			
440704		41	11.8	0.68	5	23	< 1	52	4.77	< 0.3	21	50	587	3.96	3	0.05	0.42	5	924	7	0.15	18	0.006			
440705		< 5	< 0.3	0.09	3	< 7	< 1	< 2	0.02	< 0.3	4	21	205	1.90	< 1	0.02	< 0.01	< 1	87	2	0.02	3	0.004			
440706		17	< 0.3	0.58	< 3	16	< 1	3	0.29	< 0.3	10	21	170	10.9	2	0.05	0.52	< 1	740	< 1	< 0.01	9	0.015			
440707		996	3.2	6.80	420	405	< 1	< 2	4.34	2.7	27	161	119	5.31	15	1.26	3.22	31	1080	5	1.56	114	0.071			
440708		< 5	< 0.3	7.08	3	753	< 1	< 2	1.51	< 0.3	4	19	22	2.46	12	1.56	0.49	3	620	3	3.17	7	0.035			
440709		187	0.5	0.23	34	< 7	< 1	4	1.32	< 0.3	89	16	610	10.4	1	0.02	0.30	< 1	549	1	0.17	14	0.001			
440710		641	0.7	1.05	52	49	< 1	5	2.38	0.3	38	25	327	10.8	6	0.22	0.64	4	1020	4	0.43	16	0.006			
440711		39	< 0.3	0.54	< 3	43	< 1	4	2.08	< 0.3	7	12	633	13.9	4	0.09	0.62	2	1100	< 1	0.18	6	0.019			
440712	4.22	3690	0.7	0.75	273	48	< 1	4	2.73	< 0.3	9	19	618	13.9	5	0.31	0.69	4	1050	< 1	0.06	11	0.035			
440713		864	2.8	0.63	1520	27	< 1	6	1.97	< 0.3	33	12	1790	13.5	3	0.04	0.45	2	664	1	0.45	12	0.007			
440714	3.94	3400	2.4	0.46	1560	18	< 1	4	1.18	< 0.3	10	23	1130	11.0	3	0.14	0.20	2	593	< 1	0.10	12	0.047			
440715	1.73	1610	< 0.3	1.91	4	81	< 1	< 2	0.28	< 0.3	2	26	358	6.79	7	0.31	0.26	4	313	< 1	0.71	4	0.012			
440716		981	2.8	6.69	400	400	< 1	< 2	4.29	2.7	27	155	116	5.24	14	1.23	3.17	30	1070	4	1.54	112	0.067			
440717		8	< 0.3	7.23	< 3	771	< 1	< 2	1.55	< 0.3	4	22	22	2.47	12	1.57	0.51	3	639	3	3.24	7	0.035			
440718		32	< 0.3	0.37	4	46	< 1	5	2.23	< 0.3	9	10	684	13.0	3	0.14	0.44	2	796	< 1	0.04	8	0.040			
440719		870	1.3	0.14	67	9	< 1	10	1.38	< 0.3	24	9	1900	16.5	< 1	0.01	0.24	1	410	< 1	0.06	15	0.012			
440720		384	0.5	0.99	65	59	< 1	5	4.56	< 0.3	4	13	544	13.2	6	0.30	1.03	6	1730	< 1	0.20	8	0.035			
440721	4.32	4590	0.8	0.48	< 3	145	< 1	3	1.09	< 0.3	3	11	407	11.2	3	0.09	0.44	3	805	< 1	0.10	3	0.024			
440722		358	0.5	0.82	3	97	< 1	5	2.61	< 0.3	6	23	1470	18.5	4	0.06	0.90	4	1570	3	0.26	8	0.042			
440723		49	0.4	1.75	< 3	42	< 1	5	5.23	< 0.3	12	31	547	16.5	7	0.53	0.78	4	1580	13	0.50	11	0.052			
440724		15	0.5	1.18	< 3	74	< 1	6	3.55	< 0.3	20	26	498	17.0	5	0.41	0.76	3	1360	< 1	0.28	13	0.046			

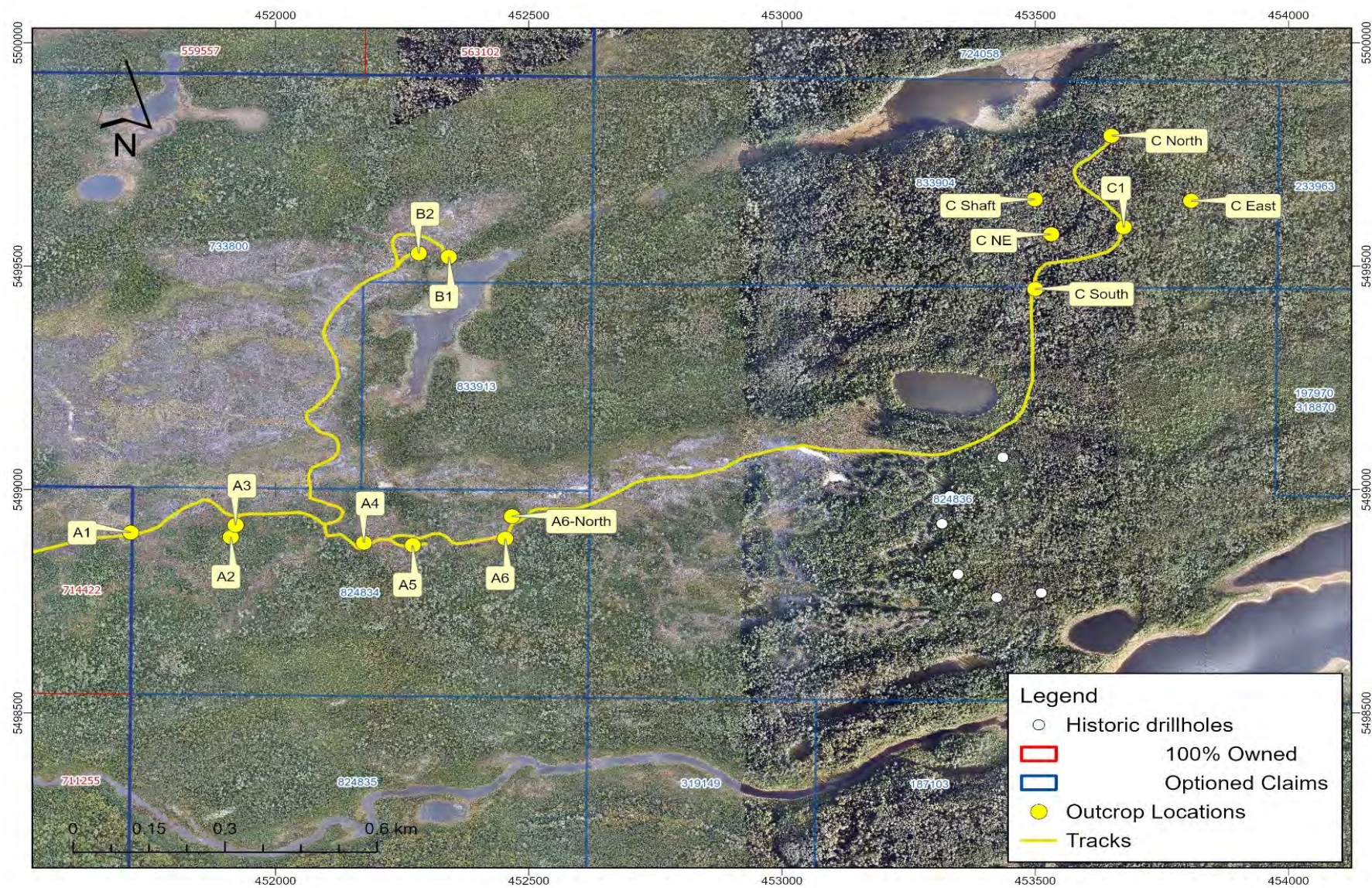
Results				Activation Laboratories												Report: A24-14801									
Analyte Symbol	Au	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K	Mg	Li	Mn	Mo	Na	Ni	P		
Unit Symbol	g/tonne	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%	%	ppm	ppm	ppm	%	ppm	%		
Lower Limit	0.03	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	0.01	0.01	1	1	1	0.01	1	0.001		
Method Code	FA- GRA	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP		
440725		42	0.5	2.04	< 3	18	< 1	4	1.88	< 0.3	8	11	344	13.1	5	0.35	1.24	7	1240	2	0.56	10	0.022		
440726	2.26	2530	1.9	0.32	114	56	< 1	12	3.06	< 0.3	56	21	1330	22.2	1	0.09	0.78	3	927	< 1	0.06	16	0.003		
440727		883	3.4	0.15	278	12	< 1	16	2.31	< 0.3	149	12	1340	21.5	< 1	0.03	0.53	< 1	904	1	0.05	14	0.012		
440728	3.45	3330	1.0	0.68	> 5000	41	< 1	6	0.70	< 0.3	31	10	1250	12.6	4	0.21	0.12	4	751	< 1	0.18	7	0.023		
440729	1.51	1300	0.4	0.69	897	25	< 1	4	1.10	< 0.3	8	17	1750	10.9	3	0.09	0.25	3	674	1	0.36	6	0.009		
440730	24.7	> 5000	0.9	3.78	982	87	< 1	9	2.62	< 0.3	47	104	1250	13.5	9	0.31	0.62	3	1980	4	2.63	60	0.019		





**Figure 28: Pichette and Clist claims overlain on Google Image showing the primary areas of interest in 2024 sampling campaign.**





**Figure 29: Detailed map of the Clist claims overlain on the 2024 orthophotos, showing areas of stripping and trail**



location.

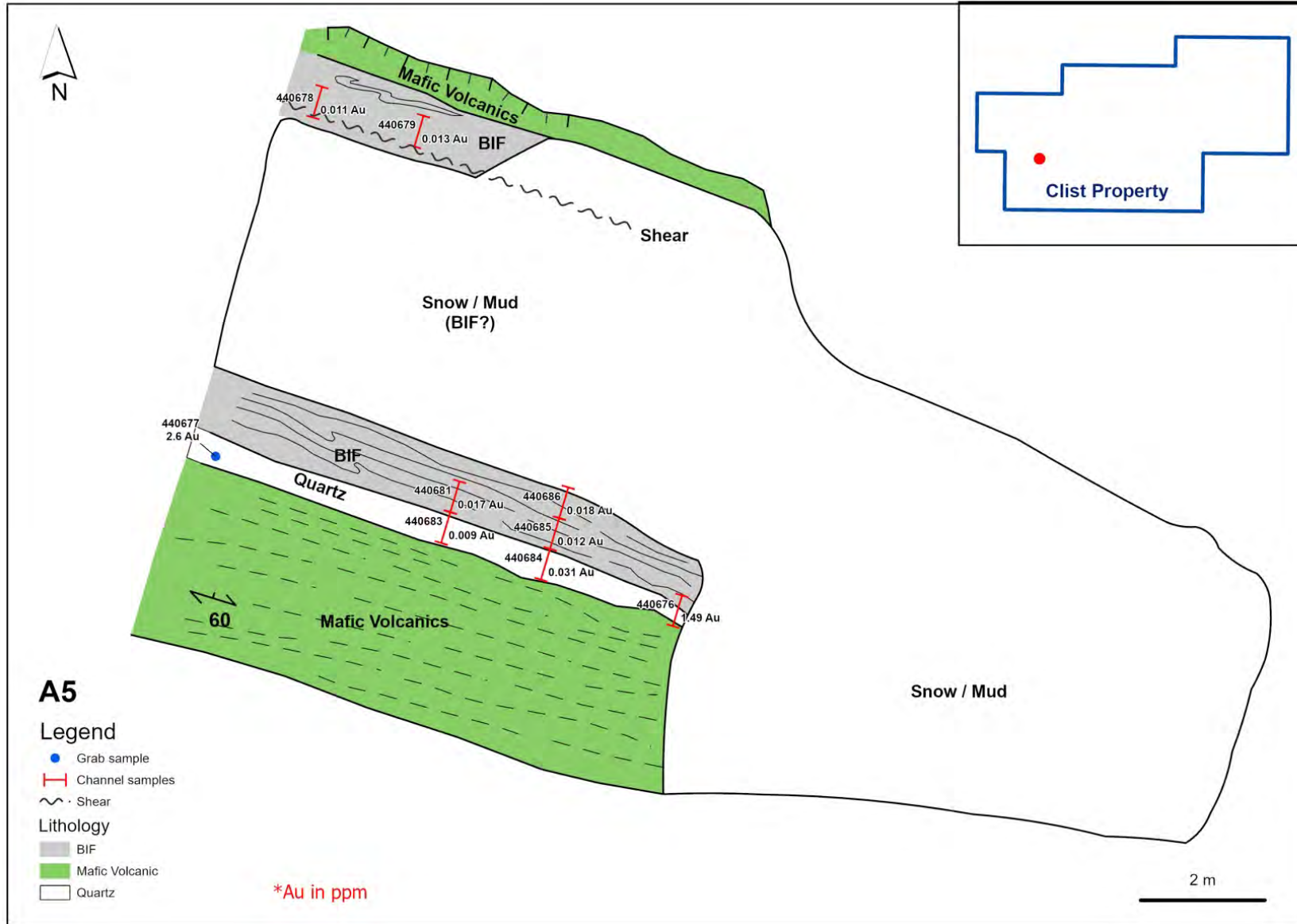
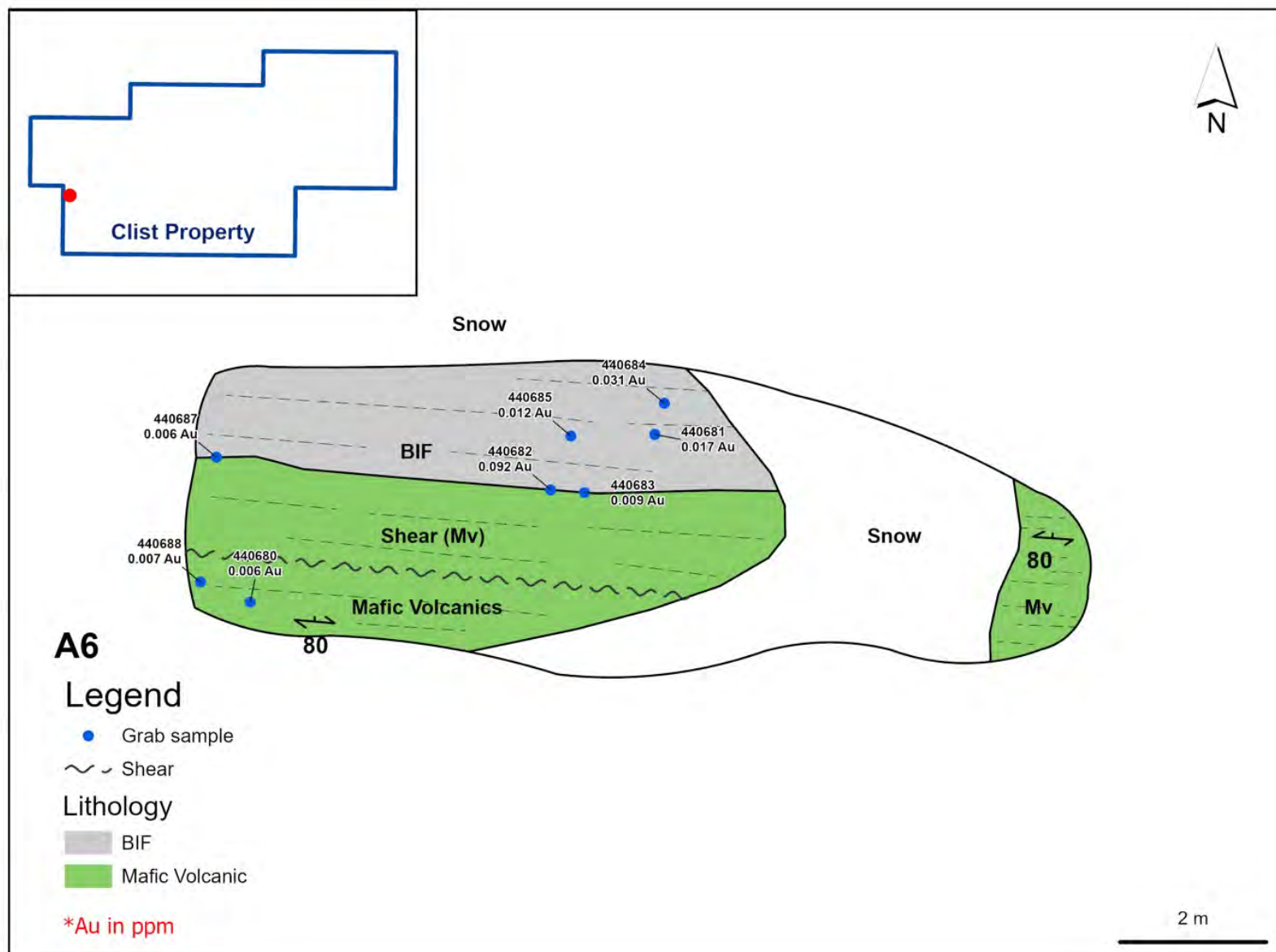
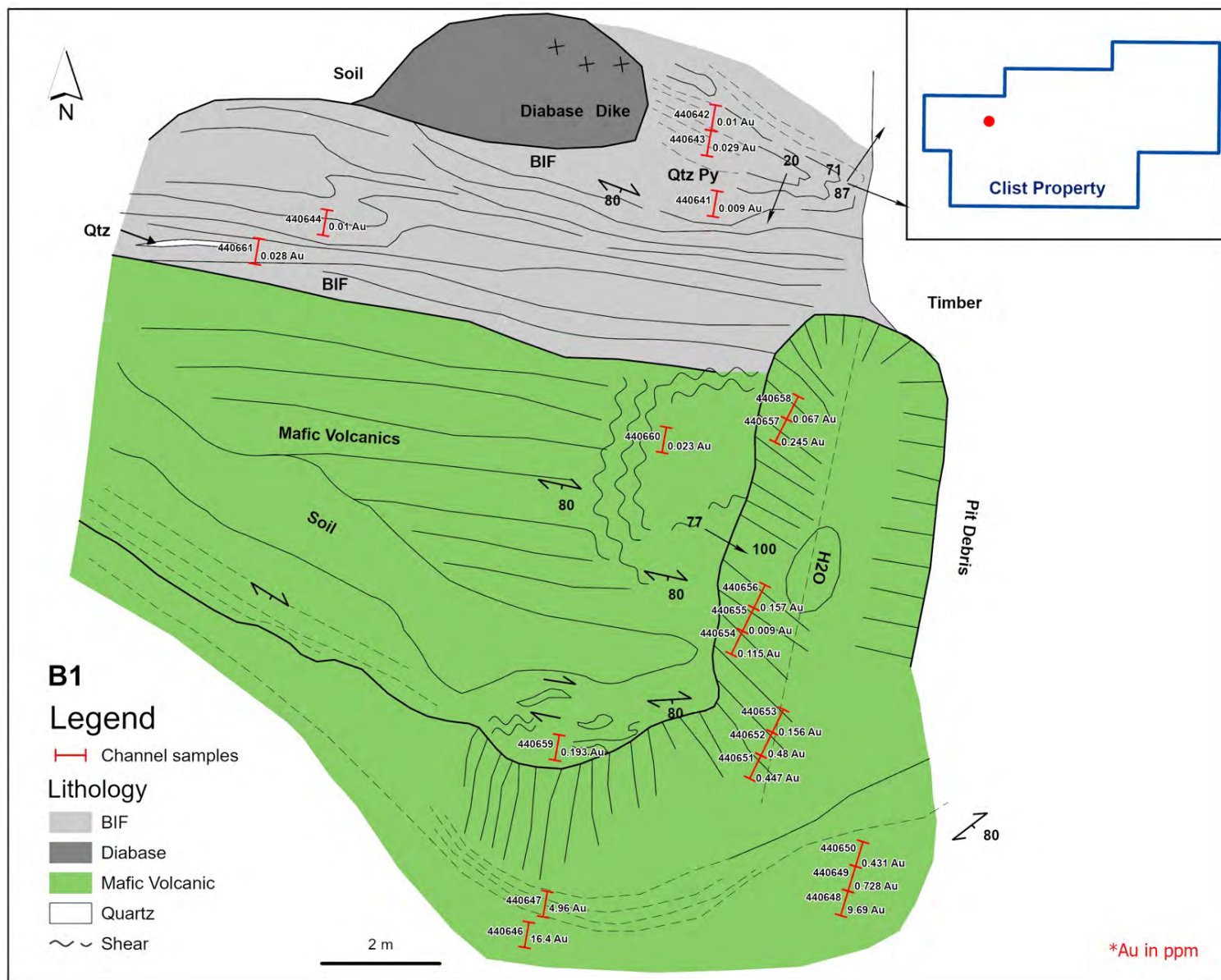


Figure 30: Outcrop map for stripped Area A5 with assays of quart-rich veins and BIF units.

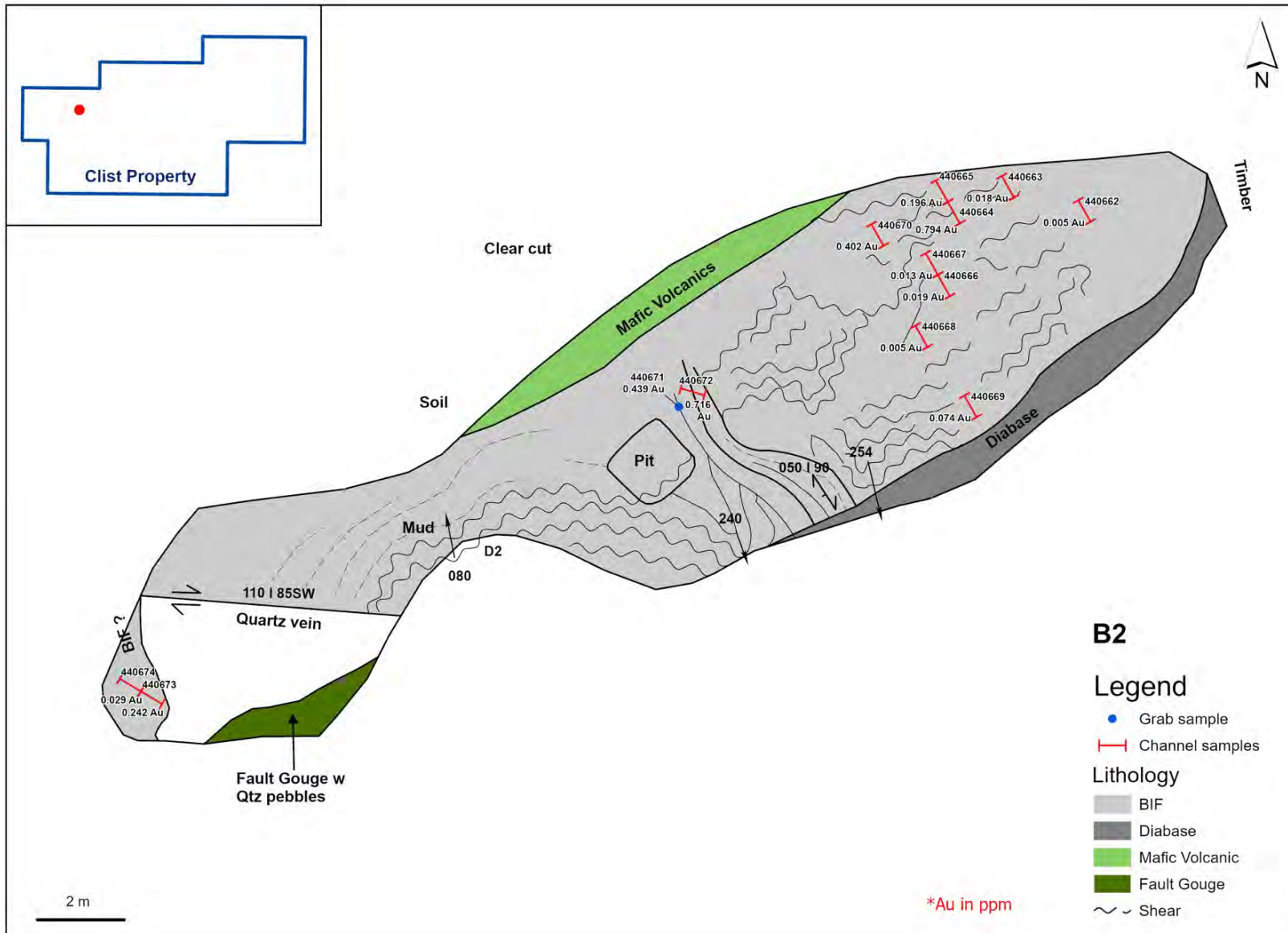


**Figure 31: Outcrop map for stripped Area A6 showing gold assay results returned from shears with mafic volcanic rocks.**

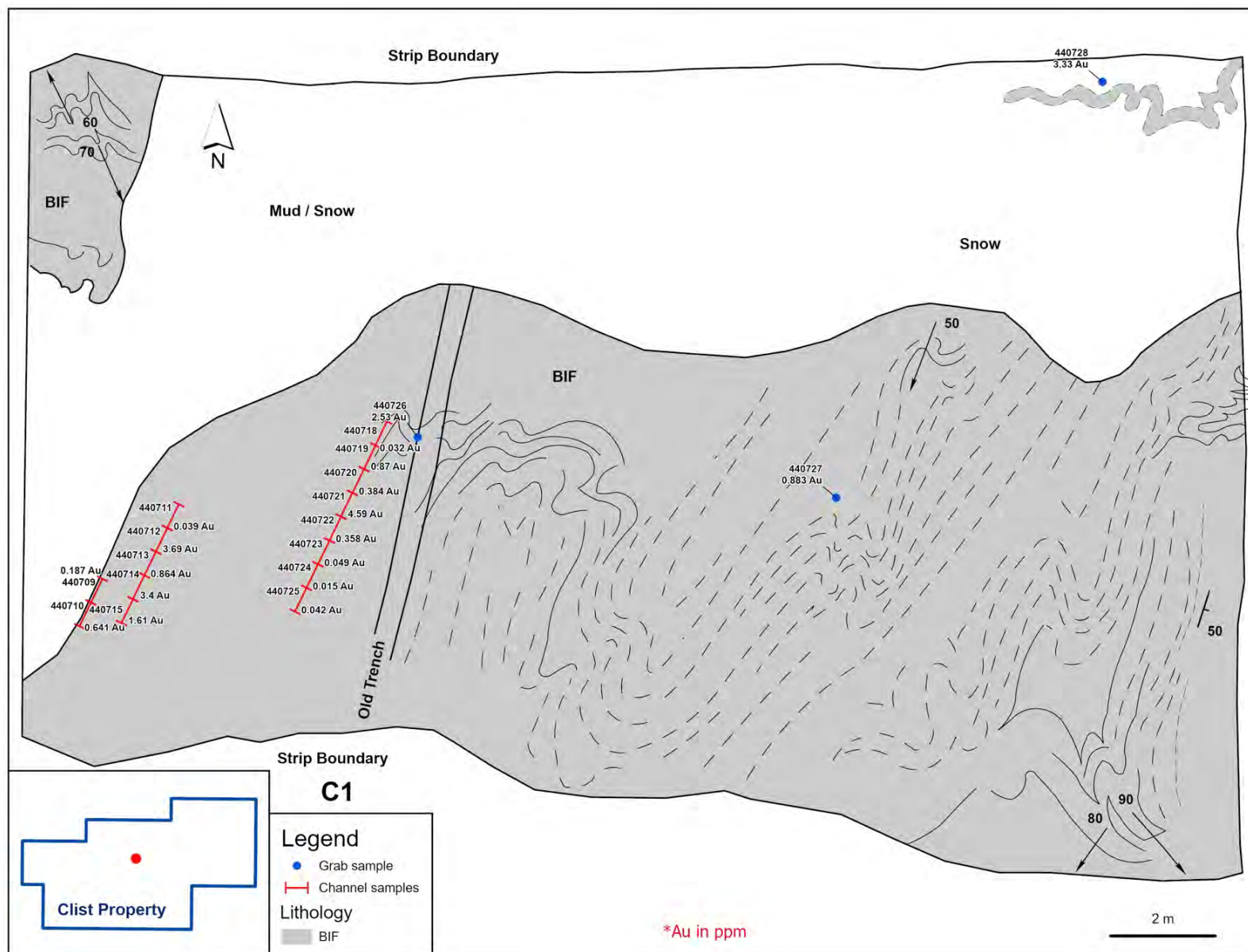


**Figure 32: Outcrop map for Area B1 (Noranda). Au-bearing mineralization occur in spatial association with shears in altered mafic volcanic rocks.**

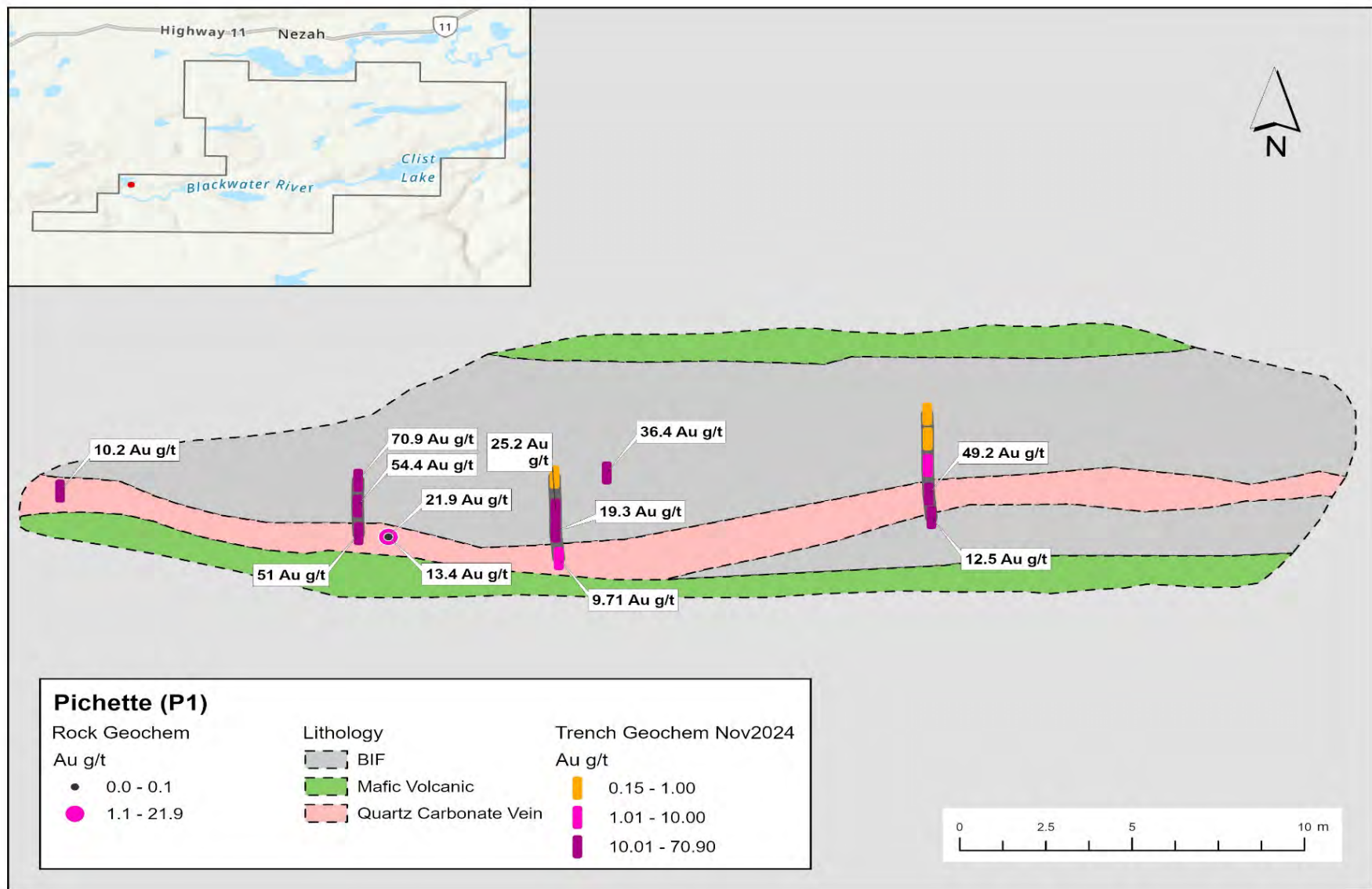




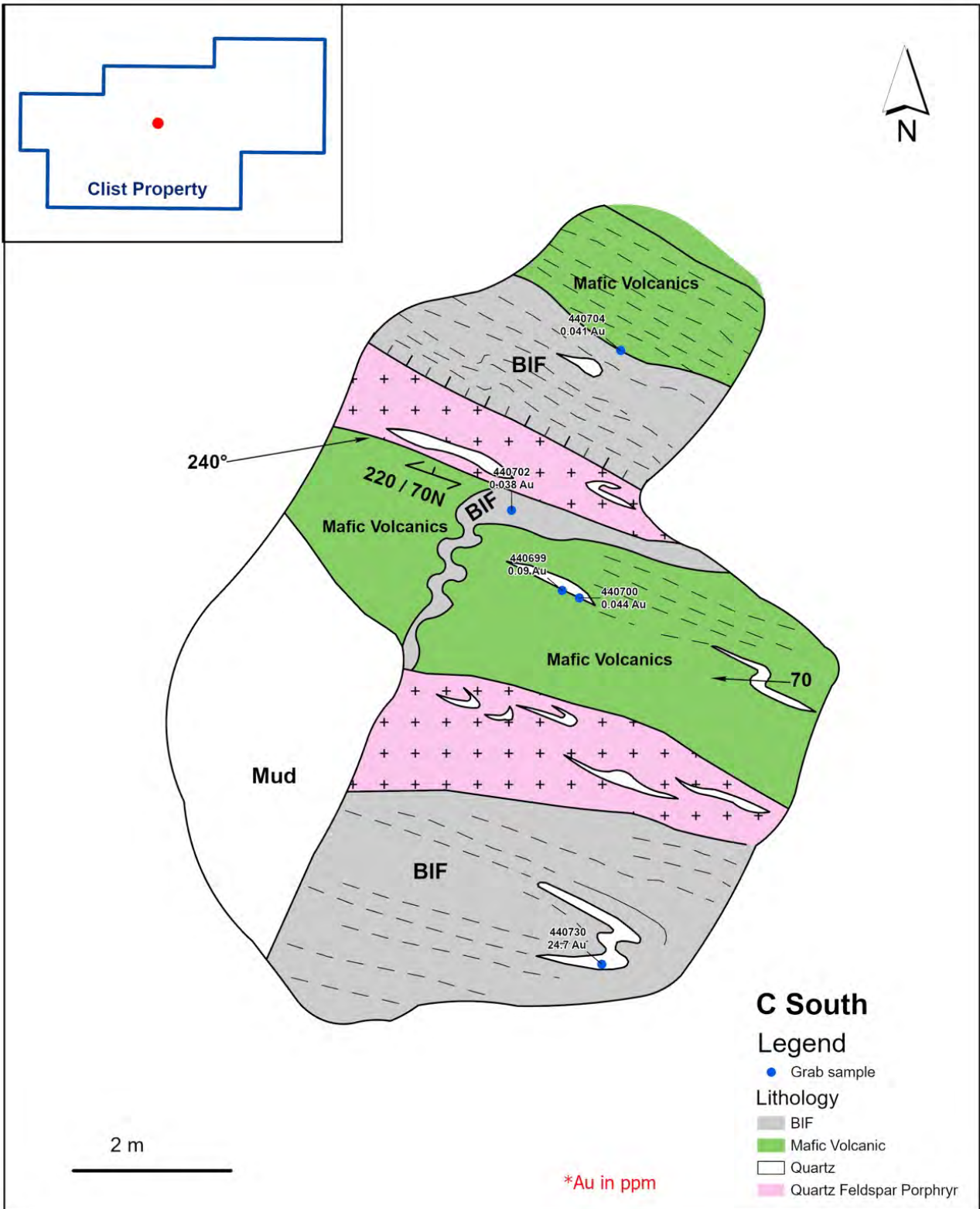
**Figure 33: Outcrop map for Area B2. Mineralized samples show bluish quartz with pyrrhotite, minor pyrite, trace chalcopyrite.**



**Figure 34: Outcrop map for Area C1. Gold mineralized intervals constrain bluish quartz with disseminated pyrrhotite within altered BIF.**



**Figure 35: Pichette (P1) outcrop map showing inserted geology and the distribution of north-south oriented channel samples across geology and tectonic fabric.**



**Figure 36: Outcrop map for stripped Area C-South with grab sample assays from quartz veins and geological contact zones.**

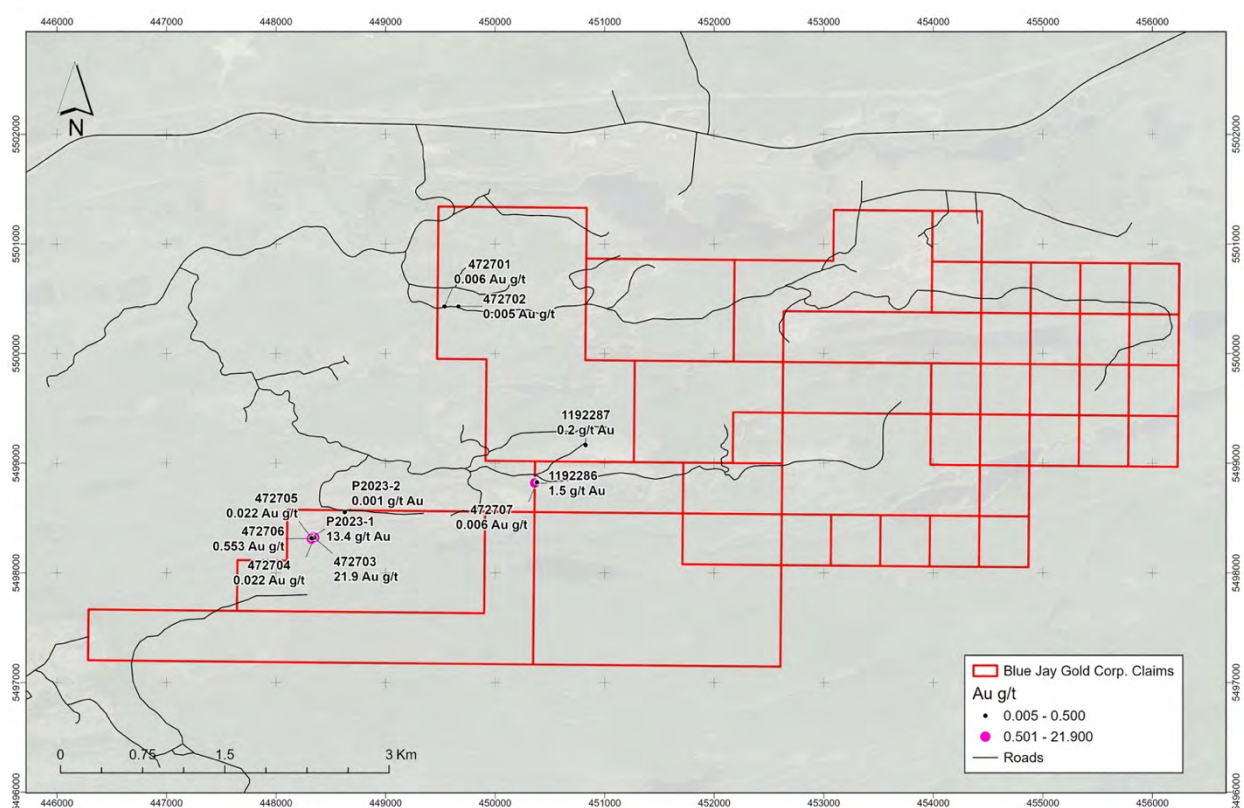


## 10 DRILLING

Riverside Resources and Blue Jay are yet to have drilled on the Pichette-Clist property.

## 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

Samples were chipped out of the channels and placed into plastic sample bags with an assay tag. A matching assay tag was wrapped around a rock chip with ribbon and inserted back into the channel at the appropriate location for future sample reference. The samples were driven directly from site to Act Labs in Thunder Bay. Standards for gold and blanks were inserted into the sample stream while in the field and sample descriptions were handwritten while on site.



**Figure 37: Bedrock sampling by Riverside 2022-23.**

The Riverside's bedrock sampling program comprised a small crew with one geologist. During the survey, the samples were brought out of the field daily and stored in a secure place inside the geologist's hotel room. The samples were checked for agreement between the enclosed sample tags and the sample number written on the outside of the bag. Bag closures were also checked and repaired as needed. Periodically, the company geologists packaged the samples for shipment in plastic-mesh sacks which were driven directly from site to Act Labs in Thunder Bay (a 3-hour drive) for preparation and analysis.

At the lab, each sample is first weighed, and the weight recorded. It is then put into a steel pan for handling with an identification tag attached. The sample is crushed in a jaw

crusher (and cone crusher, if required) set at 4 mesh (Taylor), or 4.75 mm. The crusher(s) is thoroughly cleaned before and after each sample. The crushed sample is quartered with a 0.75 in (1.91 cm) rifle and a subsample of 200 to 300 grams is placed into another clean steel pan with an identification tag. The subsample is pulverized in a stainless-steel rotary pulveriser to 95% minus 140 mesh (105 microns). The shatter box is cleaned with silica sand before and after each sample. The subsample is mixed and quartered again to about 50 grams in a stainless-steel riffler. Rejects are combined with the original sample.

At ACT Labs the samples in 2019 were analyzed using their 1E3 QOP AquaGeo (Aqua Regia ICPOES) package an Aqua Regia "Partial" Digestion This digestion uses a combination of concentrated hydrochloric and nitric acids to leach sulphides, some oxides and some silicates. Mineral phases which are hardly (if at all) attacked include barite, zircon, monazite, sphene, chromite, gahnite, garnet, ilmenite, rutile and cassiterite. The balance of silicates and oxides are only slightly to moderately attacked, depending on the degree of alteration. Generally, but not always, most base metals and gold are usually dissolved. Note: Results from acid digestions may be lab dependent or lab operator dependent. Act labs has automated this aspect of digestion using a microprocessor designed hotbox to accurately reproduce digestion conditions every time. Quality Assurance and Quality Control was done through. Activation Labs who add an internal standard as the 21<sup>st</sup> sample in a batch of 40 samples. Act Labs of Thunder Bay is an accredited certification ISO 17025:2005 and is a commercial company that provides analytical services that are independent from Riverside Resources, Blue Jay, and the author of this report.

As part of the sample submission standards and blanks were inserted randomly into the prospecting sample batches prior to be dropped off at Act Labs. The blanks and standards were purchased from CDN Resource Laboratory in Langley, BC and brought to site. Assay results all fell within the accepted limits and no issues were noted with quality control at Act Labs. In the instance of the Pichette trench, gravimetric work was requested on all samples over one gram/tonne gold. In this instance it was noted that the gravimetric results were within 5 to 15% of the original atomic absorption values (both positive and negative). Due to the nuggety nature of the gold at Pichette gravimetric and total digestion techniques are recommended as the exploration work advances.

The Qualified Person considers Blue Jay assay results sampling methods, sample security and analytical technique to be acceptable for early stage exploration, but note that some early work used aqua regia digestion that can lead to partial sample digestion and under representation of some elements (as stated above): a four acid digest is suggested to be employed in the future for multi-element analysis on drill core samples.

## 12 DATA VERIFICATION

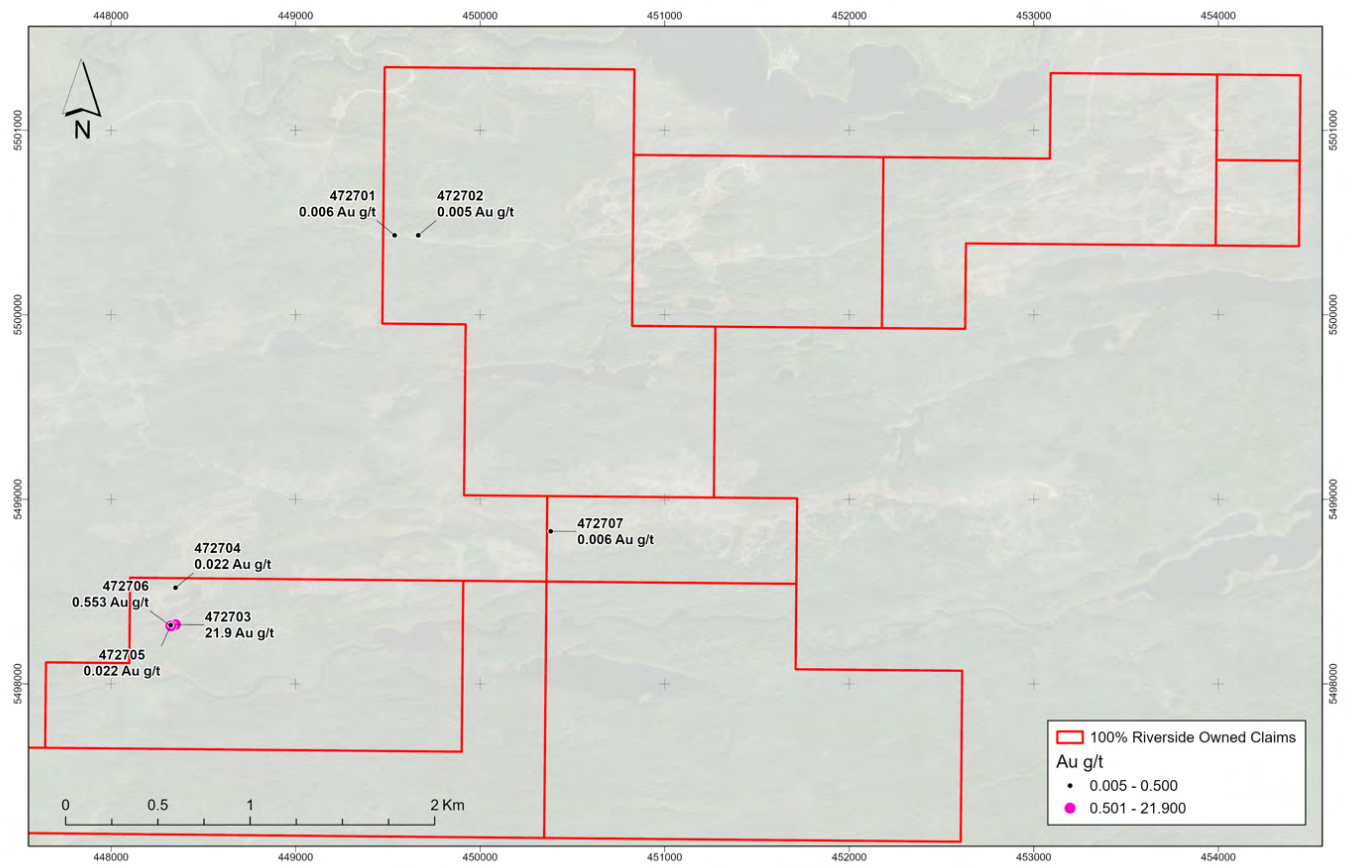
### 12.1 Data Verification Procedures

Locke Goldsmith, P.Geo., the author, visited the property on November 20, 2023 to verify previous exploration work, to examine mineralized outcrops, and to collect necessary geological data and samples. During the visit of the Property, GPS coordinates using NAD83 datum to mark sample locations and rock outcrops were taken for 7 samples from outcrops.

The sample locations and results from Riverside Resource's programs conducted at the Property between 2019-2021 were provided as digital files. No errors or issues were identified in the historical exploration data. All other information regarding historical exploration on the Property was obtained from mineral assessment reports. The assessment reports were found to be often incomplete and inconsistent and generally not reliable. Assay certificates could not be obtained.

**Table 8. Samples collected by Locke Goldsmith, Nov 20, 2023**

Sample ID	Easting	Northing	Date	Comments
472701	449537	5500431	20-Nov-23	Metaseds, shear zone, 1.3m continuous sampling across
472702	449665	5500431	20-Nov-23	Metaseds, shear zone, 1.3m continuous sampling across
472703	448350	5498321	20-Nov-23	Resampling the location of 13g/t sample, 1.75m Shear zone with Q-Carb, rusty, Strike@070, Dip@ 80 N
472704	448350	5498521	20-Nov-23	Metaseds, shear zone, 1.5m continuous sampling across, at the location of the 13 g/t.
472705	448324	5498318	20-Nov-23	Q-Carb vein, 12cm wide, no sulfides, following the structure to the W by the lake
472706	448324	5498313	20-Nov-23	Metaseds, fg, sheared, siliceous, west of the 13 g/t
472707	450382	5498827	20-Nov-23	on the Boundary, at the location of 1.5 g/t, exposure 1.5m x 0.7m, Sheared, rust Metasediment with Q-Carbs.
472708	STD HI		20-Nov-23	CDN-ME-1903 3.035 g/t
472709	Blank		20-Nov-23	BLANK




**Figure 38: Location of Locke Goldsmith's samples**



**Table 9. Actlabs certificate for Locke Goldsmith's samples**

Quality Analysis ...



Innovative Technologies

**Riverside Resources**  
**550-800 West Pender St**  
**Vancouver BC V6C 2V6**  
**Canada**

**ATTN: Freeman Smith**

**Report No.: A23-17757**  
**Report Date: 04-Jan-24**  
**Date Submitted: 04-Dec-23**  
**Your Reference: PICHETTE**

**CERTIFICATE OF ANALYSIS**

9 Rock samples were submitted for analysis.

The following analytical package(s) were requested:		Testing Date:
1A2-Tbay	QOP AA-Au (Au - Fire Assay AA)	2023-12-12 15:57:22
1A3-Tbay	QOP AA-Au (Au - Fire Assay Gravimetric)	2023-12-14 10:32:11
1F2-Tbay	QOP Total (Total Digestion ICPOES)	2023-12-21 20:30:54
8-AR Tbay	QOP Assay (Code 8-Assays)	2024-01-03 17:35:23

**REPORT A23-17757**

This report may be reproduced without our consent. If only selected portions of the report are reproduced, permission must be obtained. If no instructions were given at time of sample submittal regarding excess material, it will be discarded within 90 days of this report. Our liability is limited solely to the analytical cost of these analyses. Test results are representative only of material submitted for analysis.

**Notes:**

If value exceeds upper limit we recommend reassay by fire assay gravimetric-Code 1A3

Values which exceed the upper limit should be assayed for accurate numbers.

Refer to the Scope of Accreditation for information on accredited elements.




LabID: 673

**ACTIVATION LABORATORIES LTD.**

1201 Walsh Street West, Thunder Bay, Ontario, Canada, P7E 4X6  
TELEPHONE +807 622-6707 or +1.888.228.5227 FAX +1.905.648.9613  
E-MAIL Tbay@actlabs.com ACTLABS GROUP WEBSITE www.actlabs.com

**CERTIFIED BY:**



Elitsa Hrischeva, Ph.D.  
Quality Control Coordinator

Results				Activation Laboratories Ltd.										Report: A23-17757									
Analyte Symbol	Au	Ag	Al	As	Ba	Be	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	K	Mg	Li	Mn	Mo	Na	Ni	P	Pb
Unit Symbol	ppb	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	%	%	ppm	ppm	ppm	%	ppm	%	ppm
Lower Limit	5	0.3	0.01	3	7	1	2	0.01	0.3	1	1	1	0.01	1	0.01	0.01	1	1	1	0.01	1	0.001	3
Method Code	FA-AA	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP
472701	6	< 0.3	6.44	< 3	20	< 1	< 2	2.90	0.4	36	75	67	13.2	19	0.03	3.35	23	2730	< 1	0.83	49	0.025	< 3
472702	< 5	< 0.3	6.72	< 3	15	< 1	< 2	2.82	< 0.3	40	133	34	16.5	18	0.09	3.16	31	3740	< 1	0.11	64	0.024	< 3
472703	> 5000	2.1	1.69	> 5000	86	< 1	3	0.50	< 0.3	6	47	101	10.00	7	0.21	0.65	6	786	1	0.12	16	0.022	< 3
472704	22	< 0.3	8.29	27	424	< 1	< 2	3.09	< 0.3	38	211	72	7.88	19	1.67	3.05	50	1680	< 1	1.43	135	0.019	< 3
472705	22	< 0.3	0.10	13	< 7	< 1	< 2	0.58	< 0.3	< 1	27	2	0.36	< 1	0.01	0.05	< 1	94	3	0.02	4	0.115	< 3
472706	553	< 0.3	0.08	3	10	< 1	< 2	1.29	0.3	2	116	15	13.7	1	0.04	0.82	< 1	4380	2	< 0.01	6	0.023	4
472707	6	< 0.3	7.19	8	72	< 1	< 2	0.69	< 0.3	11	61	51	7.69	16	0.21	1.65	25	900	3	3.59	18	0.029	< 3
472708	3300	> 100	4.78	892	96	< 1	259	2.01	89.8	48	46	> 10000	11.3	13	1.44	1.07	27	996	447	1.22	56	0.050	> 5000
472709	5	< 0.3	8.03	< 3	660	3	< 2	1.47	< 0.3	3	58	8	1.27	19	1.55	0.76	146	305	2	3.74	5	0.036	8

Results										Activation Laboratories Ltd.										Report: A23-17757									
Analyte Symbol	Sb	S	Sc	Sr	Te	Ti	Tl	U	V	W	Y	Zn	Zr	Au	Ag	As	Cu	Pb	Zn										
Unit Symbol	ppm	%	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	g/tonne	ppm	%	%	%	%										
Lower Limit	5	0.01	4	1	2	0.01	5	10	2	5	1	1	5	0.03	3	0.01	0.001	0.003	0.001										
Method Code	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	TD-ICP	FA- GRA	ICP- OES	ICP- OES	ICP- OES	ICP- OES	ICP- OES										
472701	6	< 0.01	41	21	< 2	0.23	< 5	< 10	249	< 5	22	199	52																
472702	< 5	< 0.01	45	13	< 2	0.31	< 5	< 10	235	5	20	114	42																
472703	< 5	0.38	7	18	8	0.08	< 5	< 10	67	< 5	3	55	13	21.9		0.74													
472704	< 5	< 0.01	46	55	< 2	0.19	< 5	< 10	157	< 5	10	114	38																
472705	< 5	< 0.01	< 4	11	< 2	< 0.01	< 5	< 10	4	< 5	4	3	< 5																
472706	6	0.17	< 4	10	< 2	< 0.01	< 5	< 10	7	< 5	4	21	5																
472707	< 5	0.37	25	125	< 2	0.37	< 5	< 10	201	< 5	11	111	57																
472708	35	11.1	8	109	20	0.21	< 5	< 10	103	15	12	> 10000	46		181		1.27	1.10	1.75										
472709	< 5	0.02	< 4	418	< 2	0.13	< 5	< 10	20	< 5	3	39	68																

<b>Report Date: 15/12/2023</b>		
Analyte Symbol	Au	Au
Unit Symbol	ppb	g/tonne
Detection Limit	5	0.03
Analysis Method	FA-AA	FA-GRA
472701	6	
472702	< 5	
472703	> 5000	21.9
472704	22	
472705	22	
472706	553	
472707	6	
472708	3300	
472709	5	

Along with the 7 rock samples collected by Locke Goldsmith, sample # 472708, standard CDN-ME-1903 that was submitted for geochemical analysis has a content of 3.035 g/t Au as obtained by repeated gravimetric analyses. The ALS geochemical result of 3300 ppb Au is a close comparison to the gold content in the Standard of 3.035 g/t Au. The geochemical result from the sample 472809, a Blank of 5 ppb Au indicates that there was no contamination from ALS Labs in the samples that were submitted by Locke Goldsmith.

## 12.2 Adequacy of the Data

The author has reviewed the adequacy of the exploration information and the visual, physical, and geological characteristics of the Property and has found no significant issues or inconsistencies that would cause one to question the validity of the data. The author has reviewed the geochemical analyses sheets and descriptions of channel and grab rock samples that were collected by Blue Jay geologists and the contractor, and is satisfied that the results are appropriate for an exploration level property. The author takes the responsibility to include the historical exploration data in section 6 as background information for a geological introduction and qualifying Technical Report.

## **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

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There has not been any formal mineral processing on the property.

## **14 MINERAL RESOURCE ESTIMATES**

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There are no mineral resource estimates on the project.

## **15 MINERAL RESERVE ESTIMATES**

---

There are no mineral reserves estimates on the project.

## **16 MINING METHODS**

---

N/A. Pichett-Clist Property is an exploration project.

## **17 RECOVERY METHODS**

---

N/A

## **18 PROJECT INFRASTRUCTURE**

---

N/A

## **19 MARKET STUDIES AND CONTRACTS**

---

N/A

## **20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

---

No environmental studies have been conducted on the property. Blue Jay Gold has applied for an Early Exploration Permit, application number PR-24-000143. Clist has a valid Early Exploration Permit that allowed trenching with heavy equipment and diamond drilling.

## **21 CAPITAL AND OPERATING COSTS**

---

N/A

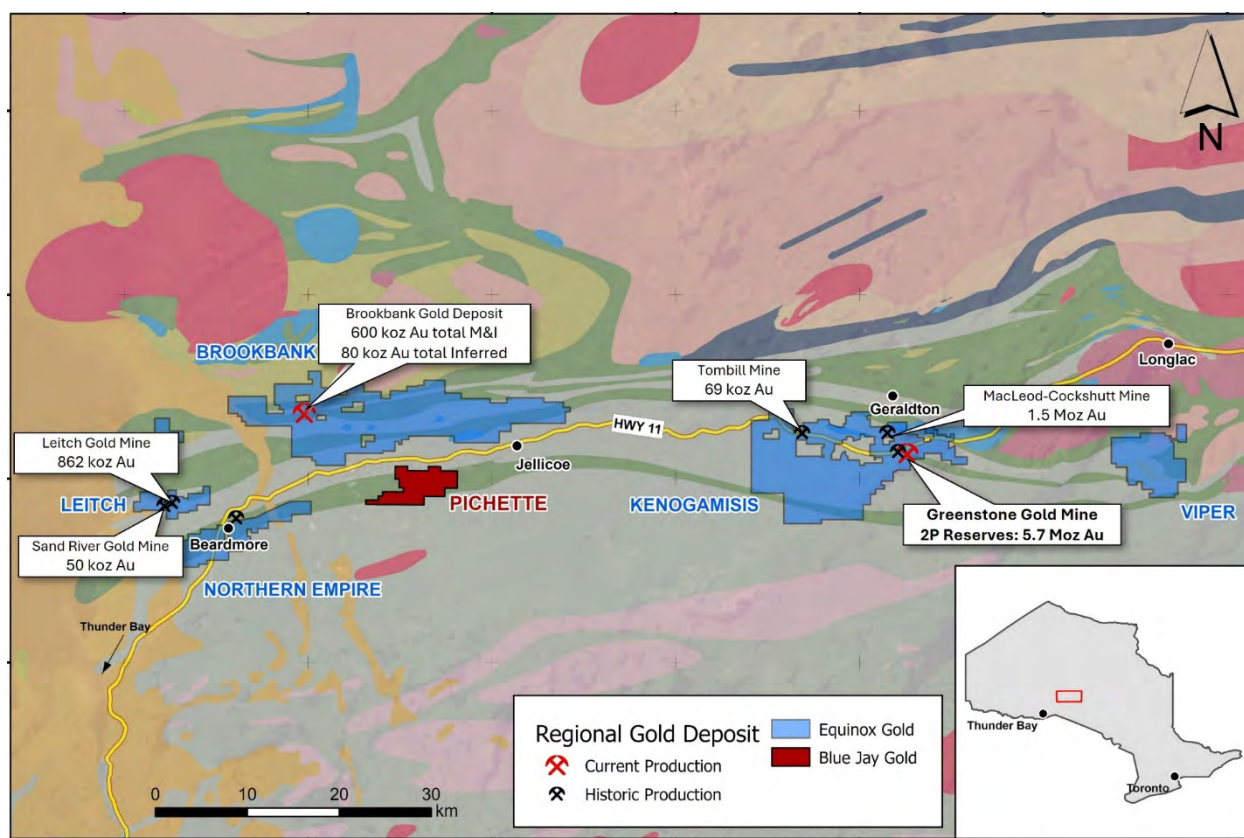
## **22 ECONOMIC ANALYSIS**

---

N/A. Pichett-Clist Property is an exploration project.

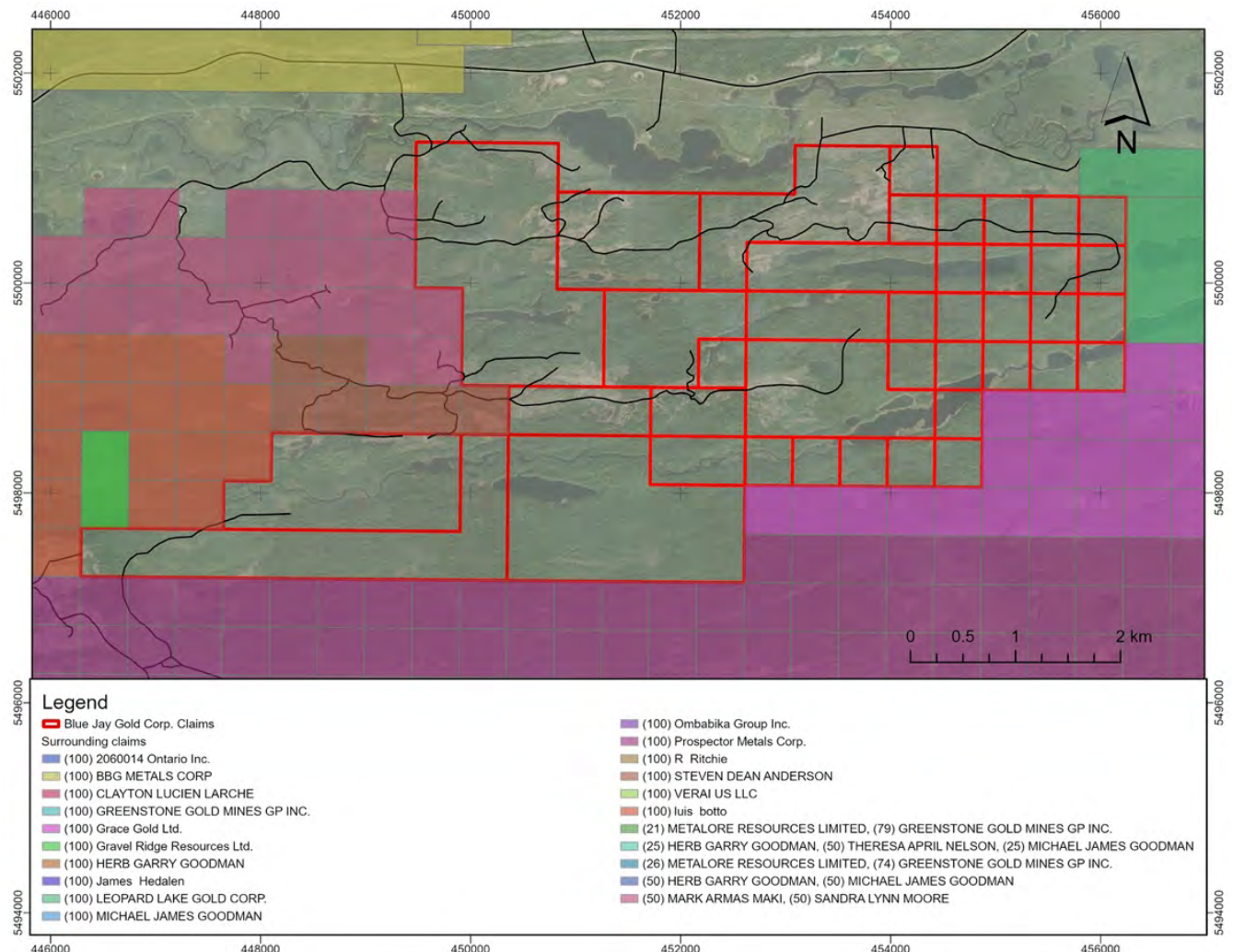
## 23 ADJACENT PROPERTIES

The area of the Pichette-Clist project has seen a lot of grass roots exploration and drilling campaigns over the years primarily during the 1950s and 1970s when mining was very active in the area. Figure 14 & 39 show the current claims in the vicinity of the Pichette-Clist Project. The entire BGB has been staked over the past 5 years following the announcement by Equinox Gold to start development. Figure 40 shows claim owners near the Pichette-Clist project.



**Figure 39: Map of the Deposits and Historical Mines relative to the location of Pichette - Clist Project**





**Figure 40: Map showing a recent version of neighboring claims and ownership in addition to the known leases.**

## 24 OTHER RELEVANT DATA AND INFORMATION

No other relevant data has been excluded from this report.

## 25 INTERPRETATIONS AND CONCLUSIONS

Based on the previous work and the information available on the MLAS website there appears to be a significant amount of past work conducted on and in the vicinity of the Pichette-Clist Project area. The project contains areas of shear hosted gold mineralization commonly associated with banded iron formation. The area is marked by a regional east-west trend, of which the geology and shearing align. There is a secondary north-northeast striking extensional fault that does not appear to be mineralized nor documented as being mineralized elsewhere. The surface exposures of the shears are subdued and not easily located in the field. The shears host smaller 0.5m-scale quartz carbonate veins with pyrite,

pyrrhotite and rarely arsenopyrite. Alteration is generally on the meter to tens of meter scale and includes sericitization and silicification typical of orogenic deposit types found locally and regionally. The mineralization is found in proximity to banded iron formations which appear to accommodate a significant amount of strain through ductile deformation and accommodates movement within the volcanic rocks that are more brittle. Quartz veins are often found parallel to the BIFs at several locals and may or may not be mineralized. The BIFs although they do not contain a lot of magnetite do stand out in magnetic maps making locating them easy identify and locate.

These non-stratiform deposits contain sulfide-rich alteration zones immediately adjacent to late structures and are like mesothermal vein-type gold deposits. Late quartz veins and/or shear zones are present in the most well-known BIF-hosted gold deposits. At Hardrock the distributions of gold-bearing veins and sulfide-rich zones are commonly controlled by fold structures. Major faults of regional scale have been recognized near many non-stratiform deposits. Irregular massive lenses of sulfides and quartz occur in a folded series of greywacke and iron formation in the Hardrock and MacLeod-Cockshutt mines. These massive replacement lenses (up to 65% sulfides) cut the folded iron formation and are related to quartz-carbonate veins up to 0.6 m wide. Veins are usually barren of gold mineralization except where they contain sulfides; primarily pyrite, arsenopyrite and pyrrhotite. In other areas mineralization in veins and shears is found in metavolcanic rocks often in association with contact zones between mafic and felsic rocks.

The author concludes that exploration by Blue Jay has been conducted professionally. Mapping of geology has located several occurrences of gold mineralization on the property. Samples have been collected from sawed channels on bedrock that contain gold content ranging from < 5 ppb to 45.1 g/t Au. The security of channel samples was insured by direct delivery from the sample site to Act Labs by Blue Jay contractor.

Sufficient favourable results have been compiled by the Blue Jay team to warrant that work on the property should be continued in the recommended Phase 1.

The Pichette–Clist property is in an early exploration stage. There is a risk that the recommended future work on the property may not indicate the presence of a mineral deposit that might be mined profitably. Commodity prices of metals fluctuate and introduce a risk of low metal prices to the extent that a mining operation would not be profitable. First Nations might deny permits.

## **26 RECOMMENDATIONS**

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Additional exploration is warranted to better understand and delineate known gold mineralization on the Pichette-Clist property, as well as to explore the potential for additional gold mineralization associated with past drilling results east and west of the main area of interest. Because the project is an early-stage exploration project a two-stage approach is recommended, with the second phase being contingent on the first phase, to better delineate gold-bearing structures of merit.

Phase 1 exploration should include:

1. Conducting an Induced Polarization survey over the P.A.T. Mines drilling area with the intention of extending the target eastward. The target(s) are very narrow and persistent in orientation. For this reason, the grid should consist of short lines generally less than 1 km comprising approximately 20 km of Induced polarization pole-dipole geophysical and resistivity surveys using a tight grid of 100 m line spacing and 15 m dipole spacing, conducted over the area of interest oriented roughly north-south, perpendicular to the suspected dominant vein orientation.
2. An additional 200 metres of hand and/or backhoe trenching, and channel sampling should be conducted in the area south of the small lake in the area of P.A.T. Mines drilling where the depth to bedrock is shallow. Trenching in this area will provide information on mineralization, structural complexity orientation, and geology. This should be generally completed following the IP survey, although some obvious areas have already been identified.
3. Prior to any drilling, and in conjunction with trenching, detailed geological studies including, geochemical vectoring and interpretation could be used to better define and/or confirm the deposit type(s).

Several mineralized zones have been identified on the project. The above exploration would expand and better define these zones, creating refined drill targets within the main NE-trending corridor. Diamond drilling would be required to further advance the project and collect the vital structural data required to put together a structural model and history of mineralization.

**Phase 2 exploration** would be contingent on positive results from Phase 1 and would include a drilling program that would expand on the known mineralization on the project.

***Table 10. Recommended Budget for the Pichette-Clist Project***

Phase 1		
Activity Type	Unit Rate	Cost
Line cutting (15km)	\$1000/km	\$ 15,000
Geophysical IP and Resistivity Survey (15-line km plus mob/demob)	\$2000/km	\$ 30,000
Hand/Backhoe trenching (200 metres)	\$70/metre	\$ 14,000
Trench sampling (100 samples)	\$60/sample	\$ 6,000
Diamond core (NQ) drilling (1,400 metres, all-in cost)	\$300/metre	\$ 420,000
Contingency	10%	\$48,500
<b>Phase 1 Subtotal (CAD)</b>		<b>\$533,500</b>

<b>Phase 2 – Contingent on the results of Phase 1</b>		
Diamond core (NQ) drilling (6,000 metres, all-in cost)	\$300/metre	\$ 1,800,000
Geophysical IP and Resistivity Survey (30-line km plus mob/demob.)	\$2000/km	\$ 60,000
Line cutting (30km)	\$1000/km	\$ 30,000
Additional geological field studies	-	\$ 30,000
Contingency	10%	\$192,000
<b>Phase 2 Subtotal (CAD)</b>		<b>\$ 2,112,000</b>



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## CERTIFICATE OF AUTHOR

I, Locke B. Goldsmith, P.Eng., P.Geo., Permit to Practice # 1001672, do hereby certify as follows:

This certificate applies to the technical report entitled “NI43-101 Technical Report on the Pichette-Clist Property, Jellicoe Area, Northwestern Ontario. Latitude 49°39’00” and Longitude 87°39’36”. Effective date of January 29, 2025, and Signature date of January 29, 2025.

I, Locke B. Goldsmith, am a Registered Professional Engineer in the Provinces of Ontario and British Columbia, and a Registered Professional Geologist in the Province of British Columbia and the States of Oregon, Minnesota, and Wisconsin. My address is 5736 Telegraph Trail, West Vancouver, B.C. My occupation is that of Consulting Geologist.

I have a Mining Technician Certificate from the Haileybury School of Mines, a B.Sc. (Honours) degree in Geology from Michigan Technological University, a M.Sc. degree in Geology from the University of British Columbia, and have done postgraduate study at Michigan Technological University and the University of Nevada. I am a member of the Society of Economic Geologists and the AIME.

I have been engaged in mining exploration for the past 66 years. I have conducted exploration programs and evaluations of mineral deposits worldwide.

I have read the definition of “qualified person” set out in National Instrument 43-101 (“NI 43-101”) and certify that by reason of my education, affiliation with a professional organization (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101. I have read National Instrument 43-101, Form 43-101F1, and this report has been prepared in compliance with the Instrument.

I have authored the report entitled, “NI 43-101 Technical Report on the Pichette-Clist Property, Jellicoe Area, Northwestern Ontario with an effective and signature date of January 29, 2025. As of the effective date of this report I am not aware of any information or omission of such information that would make this Technical Report misleading. I am responsible for all items in the report, other than the validity and good standing of mineral titles, and have written all other sections of the report. The report is based on published and unpublished geological reports, maps, data collected by Blue Jay personnel, and by the author of this report at the time of a property visit November 20, 2023 and thereafter. Prior to the visit on November 20, 2023, I have had no previous experience on the property.

I am independent of Blue Jay Corp in applying the tests in section 1.5 of National Instrument 43-101. I do not hold, nor do I expect to receive, any securities or any other interest in any corporate entity, private or public, with interests in Blue Jay Gold Corp, the Pichette-Clist property that is the subject of this report, nor do I have any business

relationship with any such entity apart from a professional consulting relationship with Blue Jay Gold Cop. I visited the Pichette-Clist Property on November 20, 2023, collected seven rock samples for geochemical analysis, and wrote geological notes.

I have sold 42,500 shares of Riverside Resources Inc. into the market. I hold no shares or options from either Riverside Resources or Blue Jay Gold Corp.

The NI43-101 Technical Report on the Pichette-Clist Property, Jellicoe Area, Northwestern Ontario, centered at the approximate Latitude 49°39'00" and Longitude 87°39'36", and approximate UTM coordinates of 5499365.3 N and 452230.5 E, has an Effective and Signature date of January 29, 2025.

Respectfully submitted,

(signed) *"Locke B. Goldsmith"*

Vancouver, B.C  
January 29, 2025

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