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ASSESSMENT REPORT

BASED ON THE

2021 GEOPHYSICAL SURVEY & INVERSION MODELLING PROGRAMS

COMPLETED ON THE

SYLVANITE GOLD PROPERTY

FOR

EXIRO MINERALS CORP.

HALCROW, DENYES, TOOMS, GREENLAW, CROCKETT, RANEY, SWAYZE, CUNNINGHAM, EISENHOWER, & KAPLAN TOWNSHIPS, ONTARIO, CANADA

NTS: 41O15 & 41O10
LATITUDE 47° 45’ 35” N
LONGITUDE 82° 50’ 37” W

CONTRIBUTORS

Exiro Minerals Corp. & Orix Geoscience Inc.

October 22nd, 2021

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SUMMARY

This report provides documentation of the 2021 geophysics program completed on the Sylvanite Gold Property for Exiro Minerals Corp., summarizes the results, and suggest recommendations for future exploration programs. The Sylvanite Gold Property is situated within the Swayze Greenstone Belt, which is regarded as the southwestern extension of the Abitibi Greenstone Belt.

The 2021 Geophysics Program included reprocessing and modelling of publicly available geophysical data with assistances from Geoscience North Ltd. This initial modelling work provided the basis for designing and executing a high resolution heliborne magnetic survey, which was conducted by Sanders Geophysics. Follow up modelling and integration of the new geophysical data was completed, highlights exploration targets and provides a deeper understanding of the underlying controls on mineralization.

Sanders Geophysics Limited to conduct a high resolution airborne magnetic gradient survey over the Sylvanite Property. The project utilized a helicopter with towed bird. The traverse lines were oriented north-south and spaced at 50m. Control lines were oriented east-west and spaced at 500m. The survey was flown in radar terrain-following mode with a target clearance of 64 m above the tree tops for the helicopter, corresponding to a tree-top clearance of 40 m for the bird. The target average ground speed was 30 m/s. A total of 26 flights were carried out during the survey to complete the total 7233-line kilometers. Final processing of the data was completed by Sanders Geophysics Limited and reporting was complete by August 2021.

The Sylvanite property is approximately 350 square kilometers and located approximately 50km east of Chapleau, Ontario. The property encompasses parts of the townships of Halcrow, Denyes, Tooms, Greenlaw, Crockett, Raney, Swayze, Cunningham, Eisenhower, and Kaplan. The geographic coordinate location is 47°45'35"N 82°50'37"W.

The property comprises 39 multiple cell claims, 1053 single cell claims, and 7 boundary cell claims, for a total surface area of 34,983.99 hectares measure approximately 20km by 22km (Appendix 3.). The Property includes claims staked by Exiro Minerals as well as claims optioned from various underlying holders, some of which have retained the claims in their name during the option period. The Property occurs within the traditional territories of the Brunswick House First Nation, Flying Post First Nation, Chapleau Ojibwe First Nation and Chapleau Cree First Nation.

Upon acquisition of high-resolution magnetic data, the subsequent processing and inversion, initial targeting has commenced. Several structural trends have been identified from the new data which appear to control or partially influence the location of known mineralized occurrences. In particular, there appears to be a strong relationship between zones of reduced magnetic susceptibility and broad northeast to east-west directed shearing.

1.0 INTRODUCTION

This report provides documentation of the 2021 geophysics program completed on the Sylvanite Gold Property for Exiro Minerals Corp., summarizes the results, and suggest recommendations for future exploration programs. The Sylvanite Gold Property is situated within the Swayze Greenstone Belt, which is regarded as the southwestern extension of the Abitibi Greenstone Belt.

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Modelling and interpretation of the results was completed by Exiro's in house team.

1.1 TERMS OF REFERENCE

This report was prepared by Craig Fitchett, M.Sc. P.Geo, a Senior Geologist with Orix Geoscience Inc., Bill Spicer M.Sc., Senior Geophysicist with Exiro Minerals and Stephanie Chadder B.Sc.,(2021), Student Geologist With Exiro Minerals at the request of Exiro Minerals Corp.

This report is based, in part, on internal company reports and published government documents as listed in the Reference Section at the end of this report. Several sections from these reports authored by other consultants have been directly quoted and are so indicated in the appropriate sections. The author has not conducted detailed land status evaluations and has relied upon public documents and records provided by Exiro Minerals Corp., regarding property status and legal title to the Property.

2.0 PROPERTY DESCRIPTION & LOCATION

2.1 PROPERTY LOCATION

The Sylvanite property is approximately 350 square kilometers and located approximately 50km east of Chapleau, Ontario. The property encompasses parts of the townships of Halcrow, Denyes, Tooms, Greenlaw, Crockett, Raney, Swayze, Cunningham, Eisenhower, and Kaplan. The geographic coordinate location is 47°45'35"N 82°50'37"W.

Figure 2.1: Property Location Map (Natural Resources Canada, 2002)

2.2 DESCRIPTION AND OWNERSHIP

The property comprises 39 multiple cell claims, 1057 single cell claims, and 7 boundary cell claims, for a total surface area of 34,983.99 hectares measure approximately 20km by 22km (Appendix 3). The Property includes claims staked by Exiro Minerals as well as claims optioned from various underlying holders, some of which have retained the claims in their name during the option period. The Property occurs within the traditional territories of the Brunswick House First Nation, Flying Post First Nation, Chapleau Ojibwe First Nation and Chapleau Cree First Nation.

2.3 Exploration Plans & Permits

The work that was completed during the 2021 Geophysics Program on the Sylvanite Property did not require an exploration plan or permit. The exploration work conducted within the mining claims consisted of a high-resolution heliborne magnetic survey, reprocessing of geophysical data, and inversion modelling.

3.0 Accessibility, Climate, Infrastructure, & Physiography

3.1 Accessibility

The Sylvanite Gold Property is accessible from a network of forestry roads which are maintained by the Eacom Timber logging company. This access route is utilized year-round and is under a public access agreement with the province of Ontario. The Sultan Industrial Road connects at its far North corner the town of Sultan to the easternmost corner at Watershed 144 at King's Highway 144 and Secondary Highway 560. The southern portion of the property is accessed from the Kormack Road off of Highway 667 between Chapleau and the town of Sultan. The northern portion of the property is accessed from the Swayze Road off of the Dore Road off of the Sultan Industrial Road. Logging roads traverse through the majority of the property allowing for easily accessible exploration. Additional access is gained via ATV's and small boat.

3.2 Climate

The Property is located in a climatic region characterized by warm but rainy summers through May to August and long, cold winters. Chapleau has a significant amount of rainfall during the year with an average of 843.28 millimetres of precipitation falling annually. Long-term climate data (1981-2010) from the Chapleau Airport monitoring station (Government of Canada 2016a) indicates that the mean annual air temperature is 2.0°C, ranging from an extreme maximum of 39.4°C to an extreme minimum of -50°C. The minimum and maximum monthly mean temperatures measured at the Chapleau Airport monitoring station during 1981-2010 were -15.6°C for January and 14.8°C for June. There is an annual average of 98 frost-free days. On average, there are 181 days with precipitation per year with an average annual precipitation of 809.0mm (545.1mm as rain and 281.5mm as snow-water-equivalent).

3.3 Local Resources and Infrastructure

The neighbouring towns in relation to the project are those of Foleyet, Chapleau and Sultan. Chapleau being the largest of the residential towns has a population of approximately 2000 residents. Business in Chapleau is largely tied to the mining (Newmont) and the logging industry. Sultan is considerably smaller than Chapleau with a population of 49 (2011), the local economy is based primarily on hunting and related tourism. Sultan is 68 kilometers east of Chapleau. Foleyet located north of Chapleau with a population of 177 (2016) serviced by the Ontario 101 highway and is on the Canadian National Railway transcontinental main line. The larger centres of Sudbury and Timmins are an approximately 3 hour drive from the property.

3.4 Physiography

Within the Chapleau – Sultan area the terrain is characterized by low to moderate relief, with rock knobs and moraines forming the uplands and glaciofluvial deposits underlying the lowlands. Elevation ranges from 335 meters near Nemegosenda Lake to a maximum of ~579 meters near the Pemache river and on Lackner Hill. Windermere, Como, Borden and Nemegosenda Lakes are large lakes in the northern part of the area (Roed & Hallert, 1979).

The area displays numerous landforms, major terrain unit groups, including bedrock terrain, moraines, glaciofluvial outwash, eskers, and kames, and organic terrain. Less significant terrain units include alluvium and eolian deposits.

Bedrock terrain, which occurs in the northwestern corner of the Chapleau region, is constitute of underlain bedrock, either at surface or within 1 to 2m of the surface. There is very little overburden in this area, although patches of moraine till occur throughout. Within this area poorly drained depressions are seen with deposits of peat and organics. Most of the rock terrain is of moderate relief and is rugged to uneven with densely surrounding forests. A small amount of high relief rock terrain occurs in the southwest corner of the Chapleau region. Drainage is generally good except in the organic depressions. Small eskers, crevasse fillings and drumlins can be found in this unit, together with a small number of scarps and steep sided gullies (Roed & Hallert, 1979).

Morainal landforms in this region are either ground moraine or hummocky moraine. Moraines consist of sandy till which occur throughout the north-central and southwestern parts of the region as a major terrain unit or as a sub-ordinate unit.

Large tracts of land in the Chapleau region are underlain by glacio-fluvial outwash composed of sand and gravel. Often the upper 2m of the deposit consists of fine- to coarse-grained sand. This is underlain by stratified pebble to cobble gravel which in places, is ~5m thick. Interbedded sand and gravel layers may occur at depth.

4.0 PERSONNEL

This section outlines the companies that aided in completing the various components of the program described in this report.

Sander Geophysics Limited (SGL) was contracted to complete a high-resolution heliborne magnetic survey over the Sylvanite Gold Property. Production flights commenced on April 18, 2021, and data acquisition was completed on May 15, 2021.

SGL then provided post-survey processing of the raw data which was competed in June, 2021. This work was followed up by final product processing which was provided to Exiro Minerals by early August 2021.

Geoscience North Ltd. worked on developing an inversion model of the publicly available airborne magnetic data over the property and reinterpretation of the EM data. This work was completed by early April 2021.

Orix Geoscience and Exiro Minerals, worked to understand and develop new exploration targets based on this reprocessing and modelling of both the publicly available airborne data and the 2021 SGL survey data.

5.0 HISTORY OF EXPLORATION

A comprehensive search of previous work on the Sylvanite Gold Property was completed, including a full review of all available assessment reports. Available assessment reports were obtained from OGSEarth, an online compilation map published by the Ontario Ministry of Northern Development, Mines, Natural Resources and Forestry. Below is a brief description of the historical exploration activities that have occurred within the area of the current Sylvanite Gold Property. The exploration history is categorized

by means of townships and most significant occurrences. The property covers the majority of the Halcrow, Tooms, Denyes and Greenlaw Townships and parts of Swayze, Cunningham, Raney, Crockett, Eisenhower, and Kaplan.

The earliest record of work in the Swayze Greenstone Belt, are two geological surveys, one by Parks (1900) and the other by Emmons and Thomson (1929). The discovery of gold in Swayze Township in 1931, led to extensive prospecting which resulted in several new discoveries. In 1959, Bartley M.W. prospected an area covering all above listed townships on behalf of Canadian Pacific Railway Company.

Numerous companies have been actively involved in the exploration for gold in the Swayze area, since the early 1930's. A few of the more prominent companies are:

Kenty Gold Mines Ltd. (Swayze Township)

- Between 1931-1934 surface and underground work,
- In 1936, a 5-ton test mill was installed and operated for 3 months,
- Between 1947-1949 they dewatered the No. 1 shaft to continue with minor development, 100-ton mill was installed, 1,634 feet of diamond drilling was completed, and 1,250 tons of ore hoisted from the development and,
- Only a limited amount of work was completed in 1950.

Halcrow-Swayze Mines Ltd. (Halcrow Township)

- Between 1932-1935 surface and underground work was completed, installation of 25-ton pilot mill, and processing of 211 tons of ore to extract 38.98 oz. of gold,
- In 1937 there was minor diamond drilling completed, and
- In 1984 Regal Petroleum performed limited surface exploration.

Hotstone Minerals Ltd. (Greenlaw Township)

- From 1932 to 1945 surface exploration and diamond drilling was completed,
- Between 1946-1947 a more extensive surface exploration program, which included diamond drilling and EM surveys were completed, and
- Final, between 1982-1984, Noranda Exploration optioned the ground and conducted an extensive surface exploration.

The Ontario Geological Survey has published several reports on the area, Furse (1932), Rickaby (1934), Laird (1935) and Donovan (1965, 1968), and one regional report by Thurston et al. (1977). An aeromagnetic survey was flown jointly by the OGS-GSC (1970) and a combined airborne magnetometer and VLF-EM survey flown by the OGS (1982), both of which supply good geophysical data on a regional scale.

Currently there is an extensive multiple year research program occurring through the Swayze Greenstone Belt, which is part of Metal Earth. With funding from the Canada First Research Excellence Fund and federal/provincial/industry partners, Metal Earth is a strategic consortium of outstanding researchers from academia and allied Canadian and international research centres, government, and industry. This work is providing a new robust regional volcano sedimentary stratigraphic framework, allowing for a more comprehensive re-interpretation of the available historical data.

Table 5.1: List Of Geophysical Abbreviations Used In This Section.

Abbreviation	Description
EM, AEM	Electromagnetic (Airborne)
MAG, AMAG	Magnetometer Survey (Airborne)
VLF, AVLF	Electromagnetic Very Low Frequency (Airborne)
HLEM	Magnetic and Horizontal Loop Electromagnetic
IP	Induced Polarisation
GRAV	Gravity
VTEM	Versatile Time Domain Electromagnetic

5.1 Historical Exploration Activities

5.1.1 Tooms and Eisenhower Township

Gold discoveries in nearby Halcrow and Swayze townships in 1931 spurred a regional prospecting rush. Due to the extensive sandy overburden, Tooms Township experienced only cursory examination. Still, numerous old trenches in northeastern Tooms appear to be from this time period, and it is assumed they targeted gold since the exposed volcanic rocks are intensely sheared, silicified, carbonatized and pyritized (Rosatelli M.P., 1993).

In 1959, Anaconda Company (Canada) Limited explored the area between Upper Sylvanite Lake and the Kinogama River. They completed an EM survey followed by diamond drilling to test the identified conductors. The holes intersected primarily schistose metavolcanics; however, one intersected several mineralized (pyrrhotite, pyrite ± chalcopyrite) argillite horizons. No assay results are available.

Tooms Township was mapped in the early 1960s by the Provincial Government (Donovan, 1968).

In the mid-1960's, the Tooms Nickel Syndicate discovered Ni-Cu mineralization east of Upper Sylvanite Lake and south of Camp Lake in Tooms and Greenlaw townships. Surface trenching, sampling and multiple drilling programs were completed until 1967. Trenching identified a mineralized zone of approximately 250m strike length. Values in trenches were up to 0.674% Cu over 4.88m and 0.85% Ni over 1.49m (Brereton, W.E., 1999). Drilling indicated a steeply south-dipping sequence comprising "andesites" to the south, followed by a thick (to ±35m), variable sheared interflow sedimentary/tuffaceous unit, followed by ultramafic rocks in the structural footwall. Nickel – copper mineralization is contained within the interflow unit, which is associated with 1-10% pyrite-pyrrhotite disseminations and foliation – parallel wispy stringers and coatings (Rosatelli M.P., 1993). Assay results from drilling returned up to 0.516% Cu over 10.36m, 1.22% Ni over 1.95m and 0.79% Zn over 1.34m (Brereton, W.E., 1999). In 1967, an EM and MAG report for Tooms Nickel reported numerous EM anomalies identifying a geological environment considered favourable for the presence of base metal mineralization.

In 1968, INCO Ltd. drilled one hole for Canadian Nickel Company Ltd., intersecting mafic volcanics and tuffs, cherty iron formation and diabase (Panagapko, D., 1994).

In 1972, Canex Aerial Exploration Ltd completed geological mapping, MAG and EM surveys over an area close to the Tooms Nickel Syndicate occurrence outlining several VLF-EM conductors with coincident magnetic responses. Their report concluded that the area has excellent potential for a Ni-Cu deposit.

In 1977-1981, Granges Exploration drilled 37 holes on and around the Tooms Nickel Property as part of their regional Swayze base metals exploration program. Several diamond drillholes were completed on EM conductive zones approximately 1200m west of, and on general strike with, the Tooms Nickel Syndicate occurrence, which returned significant assay results including 0.15% Cu over 9.14m, 1.02% Ni over 0.88m and 0.05% Co over 9.14m (Brereton, W.E., 1999). Several other holes in the immediate vicinity reported various concentrations of pyrrhotite-pyrite with anomalous nickel assays (up to 0.2%). Two additional holes drilled approximately 250 meters south of the above group of holes, on another conductor, which returned 0.56% Ni over 3.01m and 0.55% Ni & 0.18% Cu over 0.92m. The latter intersection is contained within 23 meters of sulphide mineralization (Brereton, W.E., 1999). Host lithologies are intermediate to felsic volcaniclastics with intercalated mafic tuffs, which adjoin to serpentinite units.

Granges also drilled a series of holes in the Betty Lake area, targeting airborne EM zones. The drilling reported tuffs and/or ultramafics, with variable amounts of pyrrhotite.

In 1982 the Ontario Geological Survey issued airborne EM and total intensity magnetic survey maps of the western Swayze belt, which covered Tooms Township.

In 1982, Highland-Crow Resources completed one drillhole northeast of Upper Sylvanite Lake. No assay results are available.

In 1982-88, Quinterra Resources completed drilling and trenching in the area around Sylvanite Creek, encountering the most encouraging gold values to that date in the township. Several holes and trenches assayed anomalous gold values up to 1.36 oz/t Au over 1.5'. Additionally, anomalous copper and minor zinc mineralization was reported (Karvinen, W.O., 1984).

In 1983, Kidd Creek Mines reported detecting a single highly conductive zone over their four claims in northwestern portion of Tooms, which correlated with magnetic survey their carried out earlier.

In 1984, Taina Gold compiled a geological report northeast of Tooms Lake recommending an exploration program including VLF-EM surveys, IP, and drilling. The same year, Quinterra Resources completed AMAG/AVLF surveys over southern Halcrow and northern Tooms townships. A MAG survey over central Tooms Township covered parts of the Tooms Nickel occurrence and indicated high northeast-trending anomalies. Quinterra reported up to 1.36 oz/t Au and anomalous Cu.

1986, Canadian Nickel conducted a MAG survey and geological mapping covering 57 miles over central and northern Tooms and parts of Halcrow and Greenlaw townships. Further, 82 drillholes totalling 3492.94 ft were completed. Additionally, 36.85 miles were covered with a HLEM survey. Eighteen of the drillholes contained at least 1 sample with gold values greater than 1 g/t. The most significant are six holes located southeast of the northern most carbonate – silica alteration zone. Anomalous gold and arsenic values occur over a length of 9000 feet, suggesting a large stratabound gold bearing sulfide zone.

In 1987-88, Quinterra Resources drilled 21 drillholes showing anomalous results of up to 4.9 g/t Au.

In 1992, Patrie J. prospected north of Betty Lake. Nickel sulphides were discovered in altered sediments.

Kennecott Canada Inc. (1992-1993) contracted MPH Consulting Ltd. to perform MAG, HLEM, geological mapping and trenching. This was later followed with 8 diamond drillholes totalling 1564.4m.

In 1993, Kennecott drilled of one hole in the eastern section of the Tooms Nickel Property. The assay obtained anomalous values up to 2240 ppm Cu, 226 ppm Co and 3010 ppm Ni.

In 1993, Granges drilled 3 holes south of Betty Lake. Assays results are not available. The same year Patrie J. prospected claims northwest of Betty Lake reporting that gold-bearing quartz veins cross-cutting deformation zones were not evident. Veins within the structures were sampled for Au and Cu.

In 1997, International Kirkland Minerals Inc. reported a MAG survey on the Sylvanite Creek Property.

In 1999, Kirkland Minerals Inc. completed 3 drillholes on the Tooms Nickel Property. The same year Kennecott undertook an alluvial soil sampling around Betty Lake, followed by till sampling and prospecting in 2000. The results of the till sampling program indicated the presence of garnet, spinel, and ilmenite grains with a mantle signature; these are indicator minerals for kimberlites.

Between 2001 – 2002, Canabrava Diamond Corp completed prospecting, sampling, a helicopter-borne geophysical survey, and one drillhole on the north side of Upper Sylvanite Lake. A discrete geophysical anomaly was the target for the drilling; however, the drilling failed to explain the anomaly.

In 2008, Benton Resources conducted AEM and AMAG covering most parts of the township. Several anomaly groupings were identified across the property.

5.1.3 Greenlaw and Cunningham Township

Prospecting in the Greenlaw and Cunningham townships dates to the time of the construction of the Canadian Pacific Railway in the 1880's. However, no records seem to exist from that time. In 1984, Noranda Exploration reported old claim posts in the 1400 series while prospecting in the west end of their Ridout Lake Property. These are thought to be from claims that the Clement family of Ridout Station brought to patent in the early 1900s (Tremblay, M.A., 2011).

The discovery of gold by Jack and Miner Kenty in 1933 led to the Greenlee Mine in the Greenlaw Township. Sporadic exploration was conducted in the area from the mid-1960's to 1996 (Palmer, D., 2007).

Historical exploration in the Greenlaw and Cunningham Township mainly focussed in the following areas: Ridout (Stretching EW in N Greenlaw and Tooms), Hotstone Lake (center West Greenlaw), Engineer Lake (NE Greenlaw and NW Cunningham), Northern Isaiah Creek (Cunningham).

<u>Hotstone Lake Area</u>

The east – west striking carbonate shear zone exposed on the southwest shoreline of Hotstone Lake has been the focus of gold exploration since the early 1930's.

In 1932, Newbec Mines Limited trenched a 30m long quartz vein (Dunbar, 1989) and staked 10 claims on the west side of Hotstone Lake (Gibson D. L., 1999).

In 1941, Meen V.B. reported free gold in a trench within the highly altered carbonate zone.

In 1942, Kenty completed extensive trenching and gold panning on quartz veins within the carbonate zone. Over 50 trenches were dug with gold in quartz veins returning values as high as 3.14 oz/t across widths of 0.6 meters. The carbonatized host rock generally gave values of less than 0.5 oz/t.

In 1946, Hotstone Minerals Ltd. completed further trenching on the carbonate zone and drilled 26 diamond drillholes for a total of 3016 meters.

In 1956, Hotstone Minerals Ltd. performed geological mapping, geophysics, and diamond drilling. One hole returned 0.26 oz/t across 4.1 feet and another hole showed 0.47 oz/t in the sludge over 30'. No logs or other data was submitted by the company (Gibson D. L., 1999).

In 1967, Canadian Nickel Company Ltd. diamond drilled one 211' hole near the northern part and one 199' hole located on the north shore of Hotstone Lake. The 211' hole intersected felsic volcanics, some metasediments and some mafic volcanics. The 199' hole intersected a mix of gabbro, greenstone, dacite, rhyodacite and graphitic argillites. No mineralization was found (Cavey, G., 1985).

In 1980, Granges Exploration Ltd. staked several claims surrounding the Hotstone Minerals occurrence. Based on their HLEM survey, 2 holes, totalling 498 feet, were drilled. Trace pyrrhotite and chalcopyrite were found in both holes returning gold values of up to 1.05 g/t Au. In 1981, Granges drilled 5 more short holes (totalling 1,153 feet). Gold grades from 0.15 to 0.65 g/t found in rhyolites and rhyolite tuffs.

In 1980-1981, the Ontario Geological survey contracted Questor Survey Ltd. to complete AEM and AMAG survey over approximately 32 townships in north central Ontario including the Hotstone area.

In 1983, Kirkland Resources Inc. and International Rhodes merged their land holdings in the Hotstone Lake area and explored with Noranda Exploration as the operator. Noranda completed extensive geological mapping, humus and soil sampling, trenching, surface channel sampling, and eight diamond drillholes (1022m) to test the carbonate shear zone for its economic gold potential. Drilling yielded high but erratic gold values (as high as 0.23 oz/t across 1.4 meters). They further discovered 13 angular quartz boulders which assayed on average 1.5 oz/t with values up to 14 oz/t.

B. McDonough (1995) reports trenching was conducted in 1990, washing and mapping in 1991, followed by detailed mapping in 1992.

In 1991, McDonough K. conducted prospecting, geological mapping, geochemical soil sampling of the Hotstone West Property. Anomalous samples yielded up to 0.745 g/t Au. In 1993, he completed MAG-VLF surveys, mapping, rock sampling and trenching in an effort to investigate the extent of the Hotstone Lake carbonate zone and to locate the source of the high-grade quartz boulders (Sawitzky, E.G., 1993).

In 1994-1996, WMC conducted an exploration program in the Hotstone Lake area. Regional till sampling outlined heavy mineral concentrate (HMC) and gold grain anomalies in the Wakami River (WR) Hotstone Lake area. Till sampling on the Ridout Lake Grid outlined two areas of anomalous (>10 gold grains) modified plus pristine (M+P) gold grains and gold in HMC (>0.5 g/t). The anomalies are located east of Hotstone Lake north of the WR and >1km south of Hotstone Lake on the western flank of the WR. The anomalies were thought to be related to the Wakami high strain zone or subparallel shear zones. In

1997, WMC completed extensive exploration comprised of mapping, prospecting, IP survey, MAG survey, and a geochemical sampling program. Gold assays were not anomalous.

In 1997, Gibson D. reported a VLF survey that identified a resistivity high thought to map the porphyry described by Noranda Exploration. He mentions that an Orezone Resources' report describing a quartz-carbonate vein with trace pyrite and minor fuchsite returning 24.157 g/t and 1.252 g/t Au.

In 1999, Gibson D. reported 3 drillholes totalling about 300 meters. HS-99-002 intersected 0.965 g/t Au over 1.5m, hosted in quartz-carbonate veining and chlorite-sericite-carbonate schist.

Between 2014 – 2015, Gibson D. collected samples containing 77.88 g/t Au from a 90cm quartz vein, 37.81 g/t Au from an 80cm quartz – carbonate vein and 47.05 g/t Au from a 60cm quartz – carbonate vein.

In 2017, Gibson D. reported 7.69 g/t and 1.03 g/t gold in what he called the "high grade pits" area.

Ridout Area

Ridout stretches from east to west in the northern parts of Greenlaw and Tooms. The Tooms Nickel Property is part of Ridout West. Hotstone, in the central part of Ridout, is separately covered below.

From the time of WWII through to the 1960s only sporadic exploration occurred with very little work filed in the Assessment Files (Tremblay, M., 2011).

Parts of the Ridout area have been covered at various times with MAG, EM and mapping surveys. Diamond drilling, which consisted typically of holes <100m, targeted EM conductors in the search for massive sulphide deposits (Baker et. al., 1998).

In the 1970s work generally consisted of airborne geophysical surveys followed by small drilling programs in the search for base metals (Tremblay, M, 2011). In 1971, Dome Mines drilled one hole, reporting 0.04% copper. In 1977-78, Granges Exploration drilled 9 holes totalling 600m.

In 1982, Hollinger Argus Ltd. drilled 2 holes totalling 213m.

In 1982-1883, Quinterra Resources Inc. completed a basal till geochemical survey, yielding anomalous gold values up to 0.1 g/t. Detailed geological, MAG and IP surveys were completed on their Sylvanite Creek Property, located between Betty Lake and Hotstone Lake in Tooms, Greenlaw and Halcrow townships. Following this, Quinterra drilled over twenty diamond holes targeting geophysical and geochemical anomalies between Betty Lake and Sylvanite Creek to the east. Holes SC-18 and SC-19 intersected exhalative horizons with very anomalous (0.01 oz/t to 0.03 oz/t) gold values.

In the mid 1980's, Noranda Exploration carried out a comprehensive program of geophysics, geochemistry, geology, stripping and drilling on an area covering Ridout East and Sultan Creek as well as some parts of Hotstone. In 1984, geological mapping and humus sampling resulted in only single sample anomaly.

In 1984, D. R. Bell Geological Services conducted AMAG, AEM and AVLF surveys for Aerodat Limited. Numerous conductors were identified within both metasedimentary and volcanic rocks that may

indirectly indicate zones favorable to gold mineralization. Several conductors of higher conductance may also warrant investigation as potential base metal prospects.

In 1985, Granges Exploration completed a soil sampling program testing for Cu, Pb, Zn, Au & Ag east of Sylvanite Creek and west of Ridout Lake. No anomalous results were reported.

In 1986, Greyhawk Resources performed a geological and geochemical program on Gertrude Lake. The program focused on grab and B-horizon soil samples; no anomalous results were reported.

In 1987, Quinterra drilled 2 holes on the Sylvanite Creek Property. Highest assay result was 0.25 g/t Au.

In 1989, M. Tremblay prospected the North Greenlaw Iron Formation. Assay results showed up to 0.025% Cu and 0.035% Zn, noting that an adjoining property hosts a significant zinc deposit.

In 1990, OPAP completed several projects including prospecting, geophysics and lithogeochemistry.

In 1990-1992, McDonough K. carried out prospecting, geological mapping and geochemical sampling on the East Ridout Claim Group. Several anomalous gold results were reported within exposed outcrops consisting of mafic volcanic and felsic to mafic intrusive rocks. The highest gold value reported is 0.79 g/t. In 1993, he completed a geophysical exploration program encountering a number of geophysical conductors, the majority of which displayed the same trend as the Gold Island Shear (below).

In 1993, Cameco Corporation conducted geological mapping, IP and drilling. Six holes totalling 870m were drilled along the Ridout Shear Zone. A fuchsite altered ultramafic unit is reported.

Following the discovery of pristine gold grains by the OGS, WMC International optioned the McDonough property in 1994. In the following years they staked 490 units, covering the Ridout area in Greenlaw and Cunningham townships. IP, MAG and VLF-EM surveys were completed in 1995. Mapping, prospecting, and geochemical sampling (rock, soil, till, lake sediment and lake water) along with 154 meters of RC drilling and 1601 meters of diamond drilling were undertaken in the area. This work outlined a 900-meter-long by 300-meter-deep gold anomalous (0.3 - 3. 1 g/t Au) ankeritized shear zone. Mapping on the Ridout Lake grid outlined a 900m by 80m wide ankeritized gabbro/mafic volcanic shear zone with anomalous gold in 22 rock samples (0.1 - 2.02 g/t Au). Also, 28 samples of the Gold Island Vein assayed 0.1 - 122.6 g/t Au. The 1996 till sampling program highlighted two areas of anomalous (>10 gold grains) modified plus pristine gold grains and gold in HMC (>0.5 g/t). The gold in till anomalies were assumed to be related to the Wakami High Strain Zone or subparallel shear zones. In 1996, a 4 hole (1600m) drill program was designed to test the Ridout Lake alteration zone at a depth of 300m. It proved that a 900m by 60m altered mafic to ultramafic unit north of Ridout Lake extended to depth and contained anomalous gold. Work in 1996-1997 included prospecting, regional geological traverses, mapping, geochemical sampling, IP, and MAG surveys. Gold assays were not anomalous.

In 1997 WMC extended their program west to Hotstone Lake, completing geological mapping, till sampling and an IP survey. Several chargeability anomalies extend across the area. During the same year, Canadian Golden Dragon Ltd. completed an IP survey south of Gertrude Lake reporting a NW-SE anomaly across the property. The conductive zones are thought to parallel the formational contacts and associated with sulphides.

In 2009, Tremblay M. stripped and trenched the south-east portion of the Ridout Property. A significant alteration zone was identified along the contact between Temiskaming-type sediments and mafic volcanics. Grab samples of 0.30 and 0.51 oz/t in trench B and 0.3 and 1.1 g/t in trench G were encouraging. Prospecting on Gold Island returned samples from the Garvey Vein of 0.256 oz/t Au and 7.876 oz/t Ag. Prospecting and sampling at the Garvey vein in 2007 had shown up to 2.3 oz/t Au.

In 2012, Teck Resources acquired large parts of the Ridout Lake Area claims covering northern Greenlaw and Tooms and parts of Cunningham and Halcrow townships. In 2012-2014, Teck conducted geophysical surveys and spruce tree bark sampling. The helicopter borne VTEM and horizontal magnetic gradiometer survey was completed. Several EM anomalies were identified across the property. Both long linear conductive zones and isolated local conductors correspond to moderate to high conductive targets and have very strong association with magnetic anomalies. The depths to the top of conductors are interpreted to be in the range from surface to 300m depth. The spruce bark data contained several anomalies across the Ridout Property (Byron S., 2014).

Southern Greenlaw

In 1959, Clemet T. carried out AMAG and AEM surveys west of the Ridout River in southern Greenlaw Township. The AEM did not encounter anomalous readings. The AMAG showed a linear anomaly on the northern claims that was thought to be the expression of a mafic volcanic horizon or a sill-like mafic intrusive.

In 1985, Noranda completed 6 drillholes on the Sultan Creek Property. No assays were reported.

In 1992, Tremblay M. A. performed prospecting, VLF survey and soil sampling in southern Greenlaw along the Ridout River. He reports a banded iron formation hosted Cu-Zn occurrence and concludes that the area is promising for volcanogenic massive sulphide mineralization. No assay results are available.

Probe Mines conducted a diamond drilling program on the Shunsby Property in 2006 comprising 8 holes, totalling 1,062m. The holes were drilled to test geophysical conductors identified on previous AEM and AMAG surveys interpreted to represent potential zones of sulphide mineralization. All holes intersected the volcano-metasedimentary sequence, including sulphide mineralized sections hosted by sericite-chlorite altered quartz-magnetite, quartz-argillite, quartz-chlorite and argillite horizons.

Between 2009-2016, Broomhead K. and F. intensively prospected and sampled the area along Sultan Creek covering southern Greenlaw and Cunningham townships. Assay results showed gold results up to 9.36 g/t.

In 2010-2012, Sino Minerals Corp prospected, conducted AMAG and AVLF surveys, and geochemical surveys in the southern part of Greenlaw Township. No anomalous gold values were reported.

Prospecting in the center of the Greenlaw Township was conducted by D. Gibson in 2014.

Cunningham Township/Northern Isaiah Creek

Numerous companies and individuals explored throughout Cunningham Township since early 1900's. Historically, work focused on iron formation hosted Pb and Zn mineralization, of which the most notable is the Shunsby prospect in the north central part of the township (Troup, W., 1991). Th Isaiah Creek Property is situated in the northwest sector of Cunningham Township.

In 1956, Bussin J.J. conducted a MAG survey in northwestern Cunningham.

Cunningham Township was mapped for the Ontario Department of Mines, by V.B. Meen, in 1941 and by G.M. Siragusa for the Ontario Geological Survey in 1978.

In 1975, Sicintine Mines Ltd. conducted an EM – MAG survey, which produced an anomaly associated with iron formation.

In 1977, Granges Exploration completed one drillhole within the footprint of the Sylvanite Gold Property, which intersected a mineralized zone of pyrite and pyrrhotite.

In 1980, the Ontario government completed AEM surveys over Cunningham Township and surrounding areas. In the area of the Isaiah Creek Property, a series of anomalies were outlined along trend of the mineralized iron formation, which to the east is an apparent host to the Shunsby Cu-Zn deposit.

In 1983, Kidd Creek Mines completed geological mapping and ground geophysics over the eastern portion of the Isaiah Creek Property and confirmed that the AEM anomalies had a bedrock origin.

In 1990, Troup and Otton staked 15 claims and conducted rock sampling. All samples returned significant Cu, and Zn values. Sample "CUN-1" returned assays of 6.4% Cu, 2.0% Zn and 79.0 g/t Ag.

In 1991, Troup W. and Otton B. completed geological mapping, prospecting, ground geophysics (EM, MAG) and humus sampling in select areas of the Isaiah Creek Property. They observed stringer mineralization extending for up to 200ft into the footwall felsic volcanics south of the chert-argillite horizon. Geophysics confirmed the presence of a weak to moderate strength EM anomaly, coincident with the cherty argillite horizon. Surface channel sampling returned up to 4350 ppm Zn and 692 ppm Cu across 6 feet.

In 1991 and 1992, Noble Peak Resources Ltd. conducted diamond drilling and geophysical surveys (GRAV & MAG). The two drillholes tested the mineralized stratigraphy near its outcrop at the properties eastern limit and on its projected extension southwest into covered ground next to the creek (Boniwell, J.B., 1991).

Engineer Lake Area

Engineer Lake is located in the northwest of the Greenlaw Township right at the border to Denyes Township.

Brereton, W.E. et al (1985) summarized the exploration history for the area as follows:

> *"Much of the bedrock geology is concealed by lake and/or glacial overburden, particularly in the western half of the Engineer Lake Area. From scattered outcrops, published government maps (OGS Map 2221-1976) and previous exploration in the vicinity of the property, the claims are indicated to be underlain by mainly mafic metavolcanics with a band of metasediments in the northeast. These rocks are part of the Swayze sector of the Abitibi Greenstone Belt. These units strike dominantly east-west; dips are generally steep to vertical. Aeromagnetic surveys carried out by the OGS indicate several bands of prominent magnetic anomalies extending onto the property from the east. These anomalies are thought to reflect iron formations within the metasediments. A major fault near the centre*

of the property is inferred to terminate the western extent of metasediments. This fault, which trends northwest, has an indicated left-lateral displacement of several kilometers. The property and its environs have been explored to a moderate extent prior to Folkestone Resources."

In 1976, Mattagami Lake Mines covered the area just north of Engineer Lake with EM and MAG surveys.

In 1980, the OGS covered the area with surveys published in 1982 as Map 80-541. This survey detected a band of strong anomalies within the metasediments and appear to be associated with iron formations.

In 1984, Folkestone Resources conducted MAG, VLF-EM and IP surveys over the Engineer Lake area.

5.1.4 Denyes, Swayze and Raney Township

The Swayze Greenstone Belt in the Denyes Township has a rich exploration history focussing on various locations including the parts of Swayze and Raney that are part of the Sylvanite Gold Property. The section below presents important occurrences such as Lee Lake and Sylvanite Lake (SW Denyes/NW Greenlaw and SW Denyes, respectively), Sylvanite Occurrence (NW Denyes), Dyment Lake (Denyes center), Barty Lake (Center South Denyes), Topboot Lake/Derraugh Occurrence (NW Swayze/ NE Denyes), Cree Lake (SW Swayze) and Raney Lake (South Raney).

The earliest known work in Swayze and Denyes Townships was reconnaissance mapping by the Ontario Bureau of Mines along the Woman, Groundhog and Ivanhoe rivers (Parks, W.A., 1900).

The Swayze area saw little activity until 1931 when J.G. and J.L. Kenty made a gold discovery in Swayze Township near Brett Lake. In 1932 the Ontario Department of Mines conducted further reconnaissance mapping in the township and in 1933 development work commenced at the "Kenty Mine" (Furse, 1932; Donavon, 1965; Donavon, 1968).

Gold occurrences within the northern Denyes and Swayze Townships include the Derraugh, Dyment and Sylvanite occurrences. These prospects have received sporadic exploration attention in the past. Gold mineralization for all three occurrences is hosted by quartz veins related to quartz-feldspar porphyry dykes intruding mafic to felsic flows and tuffs, and metasediments (Canadian Nickel, 1984).

In 1976, UMEX (Union Miniere Exploration) completed an AMAG survey over Denyes, Swayze, Dore, Raney, Heenan and Hollo townships.

In 1981, Canadian Nickel Company staked 560 contiguous claims in parts of Denyes, Swayze, and Dore Townships and carried out an AMAG survey delineating the structure of the area. A series of mafic to ultramafic flows, sills and intrusions with a broad magnetic signature were outlined in a horseshoe shape, inferred to be a synclinal fold. The AMAG detected 2 conductors, identified as graphitic argillites in past drilling i.e., Canico. Canadian Nickel continued the work in 1983 with a detailed mapping program.

<u>Lee Lake and Sylvanite Lake Occurrences</u>

In 1932, a group of 17 claims was staked by Martin Shunsby. In the same year control of this claim group was passed to Lee Gold Mines Ltd. The early exploration and development (1932-1934) consisted of surface trenching (seven trenches across 300 feet), diamond drilling (2,000 feet over 11 holes), underground development consisted of a 253-foot shaft with 1,539 feet of lateral development on the

125- and 250-foot levels. Mineralization is confined to a highly schistose zone dipping 80N and striking 60E. Surface samples collected from the mineralized schist resulted in grades of up to 0.1 oz/t and four of the drillholes are reported to have assayed between 0.25 – 0.64 oz/t Au. The mineralized zone is displaced by a fault below the 250-foot level (Gordon et al, 1979).

During 1935, Greenlee Mines Ltd. acquired the 17 claims controlled by Lee Gold Mines Ltd. as well as two claims controlled by Greenlaw Gold Mines Ltd.

Between 1935-1954 the Lee Lake property was decreased to 9 patented mining claims. In 1954, New Athona Mines Ltd. acquired all properties and interests of Greenlee Mines Ltd. The patents expired in 1969. No records of new or additional exploration have been reported for the period from 1934 to 1969.

In 1967, Canadian Nickel Company drilled one hole southeast of Lee Lake. No assay results are available.

During the early 1970's exploration activity, in the vicinity of the present claim group, increased dramatically. In 1971, Scan Exploration undertook EM and MAG surveys over a block of 15 claims. A VLF conductor was identified and diamond drilling for Cu-Au was recommended.

In 1972, Dome Exploration (Canada) Ltd. completed one diamond drillhole to test an EM anomaly, reporting a zone showing abundant quartz veins and disseminated pyrite.

Also in 1972, Scan's claim block, was acquired by Greenlaw Developments Ltd., who then completed a second set of geophysical surveys. Several anomalous EM and magnetic zones were delineated, prompting Broad Scope Developments Ltd. to option nine of Greenlaw Developments' claims.

During the same time period Broad Scope completed EM and MAG surveys over their own group of claims. The results encouraged a small 4-hole diamond drilling program, two of which were drilled on the Greenlaw Development option. The program totalled 1,207 feet and gold assays obtained up to 0.01 oz/t Au, across a 2.7ft section in a rhyolite or silicified zone.

Activity in the area ceased until 1976 when UMEX conducted an AMAG survey over nine townships. As a result of this survey 222 mining claims were staked, with five of these in Greenlaw Township. No further work was reported, and at least five claims were allowed to lapse.

In 1976, Mattagami Lake Mines completed a single drillhole. Assay results were not reported.

In 1977, Granges Exploration conducted a 4-hole drill program, totalling 1,815 feet. Highest reported assay results were 0.95 g/t Au, although logs from 3 holes are missing. Granges held a block of 20 claims, centered around Lee Lake and containing the ground formerly held by Lee Gold Mines Ltd.

On March 30, 1982, the Ministry of Natural Resources for the Province of Ontario released the results of an airborne magnetic survey carried out over the Swayze metavolcanic belt. Based on the survey results, Dejour Mines Ltd and Intl Gold & Minerals Inc. undertook extensive exploration east of Lee Lake. The exploration actives included geological mapping, geochemical and geophysical surveys. These efforts resulted in three marginally anomalous copper and zinc values. Gold results were only slightly anomalous with values of up to 0.016 g/t (Derry et.al., 1983).

In 1983, Collingwood Energy conducted ground geophysics (MAG & VLF-EM) over 48 contiguous claims in the Denyes and Greenlaw townships. The survey identified several anomalies. They further carried out 14 diamond drillholes in 1984. The highest gold value reported was 0.63 g/t.

In May of 1984, Aerodat Ltd. completed AMAG-AEM survey for Lenora Exploration on claims south and west of Sylvanite Lake, identifying six east-west to southeast trending EM conductors. The survey also covered the Lee Lake Property and the southeastern part of Halcrow (Patrie D, 1997).

In 1985, Folkestone Resources completed two drillholes on Sylvanite Lake north of Lee Lake. No anomalous results were reported.

In 1988, Patrie D. and J. staked a group of 25 claims to cover a mineralized shear on the banks of Sylvanite Creek. Subsequently MAG and VLF-EM surveys were completed. The property was also prospected. Rock samples collected yielded results up to 15.7 g/t Au and 196 ppm Zn. In 1989, they conducted additional AMAG and AVLF-EM surveys covering the southwestern part of Denyes and southeastern part of Halcrow townships. A sampling program was conducted. Assays returned up to 27 g/t Au.

Ireland J. (1988) of the Ontario Ministry of Northern Development and Mines visited the Patrie Claim Group including the Barty Lake Area for the Mineral Deposit Inventory Record.

In 1989, Terraquest carried out an aerial survey over Lee Lake for M. Tremblay; the survey highlighted a correlation between the strongest conductors and pyritiferous chert beds.

In 1990, D. Patrie carried out further stripping and sampling between Lee Lake and Sylvanite Lake. One sample returned 0.175 oz/t Au. Numerous samples returned anomalous results for Zn (up to 376 ppm) and Cu (up to 77 ppm).

In 1993, Noranda Exploration drilled 7 diamond holes for Hemlo Gold Mines Inc. south of Sylvanite Lake. No anomalous assay results reported.

In 1996, Panterra Minerals conducted prospecting and Beep-Mat surveying on the New Athona Prospect in the Lee Lake area. No magnetic response was obtained from the survey. Four samples returned values above 1 g/t Au (from 1.35 to 2.60 g/t Au), all taken from a historical muck pile and described as being composed of sheared, altered (carbonate and quartz veining) volcanic rocks hosting trace to 2% pyrite.

In 1998, D. Patrie supervised diamond drilling and sampling northeast of Sylvanite Lake for East West Resource Corp. Assay results showed up to 0.15 g/t Au.

In 1998, Panterra Minerals completed a MAG survey. Results identified a good magnetic zone characteristic of the host unit believed to carried significant gold mineralization. The feature identified is a quartz porphyry dyke that has the associated carbonate alteration, which is flanking a shear zone.

In 2011, prospecting and sampling was conducted by S. Anderson on the western side of Lee Lake. Of the 13 grab samples taken, all but 3 returned anomalous values in gold, ranging from trace to 1.983 g/t.

Barty Lake Area

The Barty Lake area has been sporadically explored. In 1994, Pressacco R. wrote that "*No records of previous exploration activities [in the Barty Lake area] aside from that performed by the vendors, are on file at the Timmins Resident Geologist's office. During the 1988-1990 period the vendors carried out a variety of field work including VLF and magnetometer surveys, limited HEM surveys, humus sampling, geological mapping and limited mechanical stripping. Numerous hand-dug pits and trenches were dug prior to 1988 and were located in the field but no record of these have been located*".

Noranda Exploration conducted an exploration program in 1992 consisting of geological mapping, an IP survey, an attempted trenching and a small 4 drillhole program (Pressacco, R., 1993).

Patrie D. (1996) mentions that the area was mapped by J.F. Donovan for the OGS from 1964 to 1965.

Terraquest Ltd. covered the area to the west of the Barty Lake with an AMAG and AVLF-EM survey in 1989. The magnetic survey interpreted the bedrock to be intermediate to mafic volcanic rocks containing several west-northwest trending magnetically active horizons particularly in the central and southern parts of the property. The magnetic data has further indicated numerous diabase dykes trending northwest and northeast and faults (Patrie D., 1998).

In 1991, Patrie J. and Norwin Geological Ltd conducted a limited exploration program on the Barty Lake Property, including MAG, VLF-EM and HL EM surveys. The surveys indicated several anomalies on the property that may indicate sulphides. Patrie further reported, that old trenching, likely from the 1930's, was found indicating early prospecting work.

In 1992, D. Patrie conducted an exploration program including stripping, prospecting, and humus sampling. Highest result of the humus sampling was 0.52 g/t, grab samples obtained up to 0.271 g/t Au. Stripping and sampling was further carried out on claims between their Barty and Sylvanite Lake claims. Five areas of potential economic interest were identified, one showing up to 0.27 g/t Au and another up to 152 ppm arsenic.

In 1993 and 1998, Patrie D. completed several geophysics programs throughout the Barty Lake Area. The IP survey north of Barty Lake in 1998 was deemed very encouraging, giving the property potential for a gold and base metal orebody.

Sylvanite Vein Occurrence Area

The Sylvanite occurrence lies north of Sylvanite Lake and its exploration history is linked to Lee Lake and Sylvanite Lake's development.

This occurrence was originally worked in the 1930's by Erie Canadian and Sylvanite Mines. In 1932 & 1933 Sylvanite Gold Mines staked 18 claims, conducted trenching and encountered a 200 ft long zone of porphyry dykes and quartz-carbonate-pyrite veins in bedded tuffs (Rickaby, 1934). The claims were optioned in 1934 by Erie Canadian Mines Ltd., who carried out geological mapping and channel sampled the trenches (Harris, Flanagan and Green, 1932-34). High grade assays obtained up to 2.41 oz/t Au over 8 feet. Widths were attained up to 10.4 feet averaging 1.86 oz/t Au. Abernathy (1987) states that 5 short diamond drillholes were recommended by Erie. There is no evidence that the holes were drilled.

In 1940 Sylvanite Gold Mines Ltd. confirmed the earlier results and extended the trenches to 300 feet.

In 1964, Goldstar Explorations Ltd. carried out an EM and MAG survey in central Denyes Township, which led to the completion of 4 drillhole into a conductor. The drill logs indicate favourable carbonate alteration and local pyritization.

In 1973, Falconbridge performed an exploration program composed of mapping and sampling. Sampling showed the main zone in historical Trench 4 to contain only low, erratically distributed gold values (0.22 oz/t over an 8.5' width and a strike length of 16 feet).

In 1976, the area just north of the Sylvanite occurrence was covered with EM and MAG survey by Mattagami Lake Mines as part of their extensive geophysics program. They also drilled one drillhole north and one on the western shore of Dyment River. Assay results were not anomalous.

In 1977, Gulf Mineral drilled one hole northwest of the Sylvanite occurrence. No assay results are given.

In 1981, (Johns-) Manville Canada Inc. re-staked the Sylvanite occurrence, carried out EM and MAG surveys, geological mapping, and re-sampled the old trenches. Quartz veining occurs along the porphyry contact, which has been sampled intermittently over a strike length of 200 ft. Assays reportedly achieved up to 0.20 oz/t Au over 5'. In 1984, they conducted a radiometric surveying outlining an anomaly over the Sylvanite occurrence (Evelegh, 1984).

In the 1980s, several government-sponsored airborne geophysical surveys were conducted in the area.

In 1984, Canadian Nickel Company Ltd. carried out a MAG survey in the area covering the Sylvanite occurrence. An additional area between Dyment and Barty Lake was covered as well.

Between 1986-1988, Glen Auden Resources Ltd. completed geological mapping, AMAG and AVLF-EM surveys, and re-sampled the old trenches. The surveys found numerous conductors associated with structures that may host mineralization. Grab samples collected from the trenches yielded assays up to 0.321 oz/t Au. This result is associated with a vein hosted in a feldspar porphyry dyke.

During 1992, Jones and Filo prospected in northwestern Denyes Township. Work consisted mainly of prospecting and geological mapping. Grab and chip sampling in the vicinity of the main mineralized gold occurrences resulted in values ranging between 0.36 g/t to 29 g/t Au.

Dyment Lake Area

There is a sparse record of historical work done in the area around Dyment Lake.

The Dyment Lake gold occurrence was staked by Joseph Beaumont for Dyment Mining and Investments Limited in 1932. The company completed numerous trenches and a series of short drillholes totalling 1000 feet, underneath and along strike of the main showing (Patrie D., 1996)

The Ontario Department of Mines (Rickaby, 1935) reported that native gold was visible along fractures within the milky-white quartz. Galena and chalcopyrite were also noted in the veins.

The Canada Centre for Mineral and Energy Technology, Ottawa, took out a (101 pound) bulk sample in 1953 and tested for gold and silver, which assayed 18.25 oz/t Au and 3.08 oz/t Ag.

Mattagami Lake Mines (1960) completed the only diamond drilling in the area to test a geophysical anomaly. The hole intersected dacite tuffs and argillites. No significant gold values were found.

The Dyment Lake area was initially mapped by Donovan, J.F. (1968).

In 1968, Umex completed an AMAG survey, illustrating a strong east – west magnetic trend about 1km south of Dyment Lake. There was no magnetic response from the gold showing.

In 1971, Scan Exploration undertook a VLF survey over the Dyment Lake area, reporting 10 conductive zones. In 1972, Claw Lake Molybdenum Mines completed a MAG survey over 41 claims in the area.

In 1976, the area was covered by an EM and MAG survey by Mattagami Lake Mines as part of their extensive geophysical program.

In 1984-1985, Placer Development Limited did 23km of geological mapping, ground magnetics, VLF, and humus sampling (Patrie, 1996). The survey did not find strong evidence for sulphide occurrences. Their drilling program obtained gold results up to 11.84 g/t in a quartz vein hosted in altered porphyry.

In 1984-1985, Canadian Nickel Company Ltd. conducted mapping and Boniwell J. completed MAG, VLF surveys in the southwest portion of Dyment Lake, followed by geological and geochemical sampling by C G Keech. The highest result obtained a grab sample was from a quartz vein that returned 43.42 g/t Au.

In 1991, Salo L. J. prospected the area south of Dyment Lake.

In 1994, Houle K. commented: "*A series of pits and trenches was located south of Dyment Lake along an east – west trending ridge. The work in this area follows a series of white quartz veins within a feldspar intrusive. Most of the exposed quartz veining has been removed from the trenched area and now lies in a pile to the north central portion of the trenches. The quartz from the trenches is milk white and rusty along most fracture surfaces with occasional trace of tourmaline along some vein margins. Pyrite was found to occur as trace to 2% disseminates associated with fine fractures and margins of quartz veins. The presence of some very highly weathered, gossan fractures/shears may indicate weathering of more massive sulphides. The presence of galena and sphalerite as mentioned in previous descriptions was not observed. A north – south trench located to the east of the main trenches revealed well foliated intermediate tuffs striking at 270 degrees and dipping to the north and is strongly sericite altered with occasional trace sulphide*"

In 1995-1996, Patrie D. carried out an IP and VLF-EM surveys on the south side of Dyment Lake. The surveys indicated several anomalies in the area that may indicate sulphides. In 1997, he conducted an IP survey on the Dyment East Property.

In 2011, Salo J. stripped and prospected the area south of Dyment Lake.

<u>Topboot Lake Area/ Derraugh Occurrence</u>

The early history of the Derraugh Occurrence in the Topboot Lake area is summarized by Goad, 1988:

"The Topboot Lake area has been periodically explored since the discovery of the Kenty Mine in 1931. In 1932, Derraugh J.E. made a gold discovery in the area and staked 8 claims. The discovery was hosted in quartz-carbonate veins with pyrite, chalcopyrite, and traces of galena, which he traced in trenches over a

strike length of 220 feet. Rickaby (1934) examined the discovery for the Ontario Department of Mines and described the veins as lenses up to 6 feet wide adjacent to a lamprophyre dyke. He obtained gold grades up to 2.22 oz/t Au over 8". In 1932-33 the property was acquired by Kirkland Hudson Bay Gold Mines Ltd., who drilled a series of short holes totalling 2,000 feet.

Prospecting, trenching, and blasting were periodically carried out on the Topboot Lake property over 10 years (Abernathy, 1987). Several AEM and AMAG surveys were also flown in the area including 2 sponsored by the Ontario and Canadian governments.

In 1975-76, George Mangotich staked 21 claims around the Derraugh occurrence. VLF, EM and MAG geophysical surveys and geological mapping were conducted (George, 1977). In addition, a 170 ft hole was drilled north of Topboot Lake. The hole intersected rhyolite, chert, graphite with 1/4"- to 1" wide quartz-carbonate veinlets, diabase, and quartz-sericite-feldspar schist with quartz-carbonate-tourmaline-pyrite stringers. No assays were given.

In 1983, Norminex Ltd. staked 3 claims over the Derraugh occurrence and conducted a MAG survey and geological mapping (Winter, 1983; Davies, 1984). Re-sampling of the Derraugh vein yielded assays up to 1.65 oz/t Au over 24 inches. Parts of the Topboot Lake claim group were among a 581 group of claims staked in 1983 by Canico Ltd. and Golden Hope Resources.

The Topboot Lake area was again staked in 1986 by Robert Abernathy, who later optioned them to Glen Auden Resources Ltd. Glen Auden carried out geological mapping and sampling, lithogeochemistry, IP and MAG surveys (Abernathy, 1987; Abernathy and Hodges, 1987). Re-sampling of the Derraugh and #2 veins initially yielded assays up to 1.369 oz/t Au and 0.189 oz/t Au, respectively (Abernathy, 1987). The later lithogeochemistry survey achieved graces in the Derraugh and #2 vein up to > 30 g/t Au and 19.4 g/t Au, respectively (Abernathy, 1987). Additional areas of anomalous gold concentrations were also identified in the survey, including an old trench at the southeast corner of the property (2.45 g/t Au), and proximal to the dominant northeast trending swamps or lineaments (up to 2.1 g/t Au). Abernathy (1987) interpreted these lineaments as faults, which were locally intruded by diabase. Results indicate anomalous concentrations of Ag, W, Ba and locally Cu, Pb, As, Zn and Sb.

The magnetometer survey conducted by Hodges in 1987, identified several distinct magnetic lows corresponding to the afore mentioned lineaments and were attributed to dykes. The survey also identified several positive magnetic anomalies.

The IP survey conducted for Glen Auden Resources Ltd., identified numerous discontinuous and continuous conductors. Abernathy and Hodges (1987) mention two particularly strong anomalies, which were interpreted as graphite. Several weak, narrow anomalies were also noted adjacent to a northeast-trending lineaments near the known gold occurrences."

Can-Mac Exploration Ltd. optioned claims in the Topboot Lake area in 1987 and conducted a 1,228-foot diamond drill program. Four holes were drilled into lineaments near the #2 vein and a fifth hole could not be anchored and had to be abandoned. The holes encountered zones of intense carbonate, sericite, chlorite, and pyrite alteration and returned assays up to 0.08 oz/t Au (Goad, 1988).

Also in 1987, an AMAG and AVLF was conducted on E.J. Blanchard's property south of Topboot Lake, outlining several conductive zones and anomalous zones.

Can-Mac Exploration performed the construction of a winter roads, stripping, trenching, and mapping in the winter of 1987/1988 (Goad R., 1988).

In 1996, Patrie D. conducted an IP survey of the Swayze Road Property southeast of Topboot Lake.

In 1997, Sedex Mining Corp conducted an exploration program including 3 diamond holes, sampling and geological mapping. Recorders are incomplete.

In 2006, McKinnon D. carried out stripping of an area north of Topboot Lake.

In 2007, Vencan Gold Corp prospected the West Abitibi Property covering most of Swayze Township including the area around Topboot Lake.

In 2009, Red Pine Exploration conducted AMAG and AEM over the Denyes, Dore, Heenan and Swayze townships covering the Topboot Lake area.

In 2010, Red Pine Exploration conducted resistivity and IP survey

Cree Lake Property

The Cree Lake Property in Southwestern Swayze was subject of considerable exploration for gold during the flow-through heyday of 1984-87. Gold was found on an island in Cree Lake, and later 3500 feet east on the mainland. Gold was reported to be in a quartz-carbonate-sulfide vein system within sheared tuffs and andesite-basalts, averaging 2 feet in width. Both historical findings are outside the Sylvanite Gold Property, as only a few western most claims of the Cree Property are included in the property. Throughout the years multiple airborne geophysical surveys, mapping, prospecting, and sampling work have been conducted. A detailed description of the exploration history is given by Hamilton, J. A. (1993).

5.1.1 Halcrow and Crockett Township

Significant occurrences in the Halcrow and Crockett Township include the Halcrow Creek, Belcher (Halcrow-Swayze) Mine, and Lyall Beidelman. The Belcher (Halcrow-Swayze) Mine is not part of the current Sylvanite Gold Property, but as the mine is an important mineral occurrence, it will be included in this summary.

The Lyall-Beidelman occurrence, located immediately northeast of the Halcrow Creek occurrence was discovered in the 1930's. Gold was reportedly panned freely from two shear zones in a red syenite porphyry.

In central Halcrow Township, a shaft was sunk to a depth of 371 feet and underground development took place on the 200 and 354 ft levels, during 1933-35. A small 25-ton test mill was erected on the site, which became known as the Halcrow-Swayze mine. Gold occurs within a shear zone localized along the contact between greywacke and volcanic tuffs. Pyrite and carbonate are abundant in the gold-bearing parts of the zone. The largest vein examined was 900 ft long, 7 ft wide and had an averaged gold grade of 0.12 oz/t. It was estimated that the main vein (No. 2) contained 35,000 tons of ore grading 0.17 oz/t (Rickaby, 1935).

Prospecting in the 1940's by Hammerstron and Koski led to the discovery of high-grade glacial float 2200 feet south of the Halcrow Creek occurrence. The discovery sample, assaying 3.65 oz/t Au, reportedly

consisted of vein quartz containing pyrite and arsenopyrite. Assays of up to 0.12 oz/t Au were reported previously from outcrop (Troup W.R., 2013).

In 1966, G. Bastarche drilled 6 diamond holes, which contained mineralized sections in the area of the Lyall-Beidelman occurrence. No gold analyses were reported.

In 1970, a site visit by the Ontario Geological Survey yielded a grab sample that assayed 1 g/t Au and 9.2 g/t Ag, and another grab sample yielding 15 g/t Au (Fumerton and Houle, 1995).

In 1976, Mattagami Lake Mines Ltd. drilled 3 holes on the current Sylvanite Gold Property, which were analysed for gold and base metals. Assay results showed no significant gold results.

In 1977, Granges Exploration drilled several widely spaced holes targeting base metal anomalies following an airborne survey. The hole in the center of the Halcrow Creek occurrence intersected dacitic tuff and graphitic argillite with between 10 to 30% pyrite. No gold analyses were reported (Troup W.R., 2013).

In 1980, Gossan Resources initiated a mapping and sampling program in the area, resulting in the discovery of an abundance of quartz-pyrite rich boulders southwest of the Halcrow Creek occurrence.

Between 1981-82, Sulpetro Minerals Ltd. staked and mapped claims over the Lyall-Beidelman occurrence. Gold values were verified, one value of 4.35 g/t Au was returned from an arsenopyrite - quartz vein and anomalous values from 0.1 to 0.4 g/t in the surrounding zone of disseminated pyrite.

In the mid 1980's, Regal Petroleum held a large land position in the area that included most of the Halcrow Creek occurrence and the Halcrow-Swayze mine. Reconnaissance mapping returned encouraging gold values. In 1984, airborne geophysical surveys (AEM, AMAG, AVLF), bedrock trenching, geochemical and geological mapping was completed as part of their larger investigation over most part of the Halcrow, northeastern Tooms and northwestern Greenlaw Townships.

In 1984, Topaz Exploration conducted AMAG, AVLF, geochemical and geological mapping programs in the southeastern part of the township. Micham Exploration and Melrose Resources executed AEM, AMAG and AVLF surveys in northeastern Halcrow. All 1984 surveys identified numerous conductors within metasedimentary and volcanic rocks that may indicate zones favorable to gold mineralization. Several conductors of higher conductance bear potential as base metal prospects.

In 1985, Regal Petroleum completed soil geochemistry, ground geophysics, trenching and drilling on the same structure associated with the Halcrow-Swayze mine identifying several zones of quartz-chlorite-carbonate-pyrite veining in cataclasite and narrow high-grade gold intersections (Besserer et. al., 2010).

Also in 1985, a site visit by the Ontario Geological Survey yielded grab samples with assays of 1.26 g/t Au with 3.0 g/t Ag, 22.4 g/t Au with 2.0 g/t Ag, and 2.1 g/t Au with 5.0 g/t Ag (Fumerton and Houle, 1995).

In 1986, Regal conducted rock sampling, soil geochemistry, trenching, ground geophysics, and a 9-hole diamond drill program, proving that the mineralization in the Halcrow-Swayze structure was continuous. Results did not exceed the 1985 results (Besserer et. al., 2010).

Troup and Otton prospected the Halcrow area in 1990 and staked the Halcrow Creek area for Alcanex in 1991. Prospecting in 1991-1992 located four zones of anomalous gold.

In 1993, Lorac Properties optioned the Alcanex claims and completed stripping and sampling on three of the four previously discovered gold zones. Anomalous gold values were confirmed at all three locations. A trench on Zone 2, in the south-central portion of the property, returned 1.11 g/t Au over 4.5 meters and individual gold values of up to 3.0 g/t. At Zone 4, the most northerly of the zones sampled, channel samples returned 0.89 g/t gold over 3.7 meters from a 20-meter-wide section of sheared, pyritized and carbonate-enriched volcanics. Follow-up exploration programs were not able to be financed.

Filo & Jones prospected the Lyall-Beidelman occurrence in 1992, reporting marginally anomalous gold results. Pyrite mineralization was reported to be fine-grained, disseminated, and very sporadic.

In 1993, Target Exploration, completed stripping and sampling in the area of the Lyall-Beidelman occurrence. Assay results showed anomalous results of up to 0.129 g/t Au. In 1993, Patrie J., conducted a prospecting, stripping and sampling program in the Vice Lake area, yielding up to 0.69 g/t Au.

In 1994, Cameco Corp. conducted geological mapping and lithogeochemical sampling in south central Halcrow and north central Tooms townships. No significant zones of gold mineralization were located. A value of 0.11 g/t Au was obtained from a sulphide zone along the contact between a felsic dyke and sheared mafic volcanic containing up to 10% pyrite. In the same year, MAG and VLF surveys indicated several potential targets, which were followed up with trenching in 1996. The highest assay result obtained was 0.41 g/t Au.

In 1994, Alcanex completed a MAG survey over the central part of their Halcrow Property covering all four known gold occurrences. In 1995, humus sampling, VLF and IP was completed over the west portion of the property. Coincident gold geochemical anomalies and geophysical conductors were encountered along trend from each of the known gold zones. In 1997, Alcanex extended the IP survey an additional 250 meters east, confirming the extensions of most zones of interest to the east.

In 2000, Patrie D. completed an IP survey covering a portion of their Halcrow Property. The survey indicated three parallel east-west anomalies with high resistivities, a typical signature for gold deposits.

In 2001, Patrie J. prospected in southwestern portion of Halcrow and northwestern Tooms townships. Soil and rock samples contained pyrope garnets, which they believed indicated the potential for kimberlite pipes to be present. Additionally, their MAG survey contained circular magnetic features, which they felt could be kimberlite pipes.

In 2005, Union Gold conducted prospecting and geophysics (MAG), re-confirming the precise location of the previously reported gold occurrences and IP anomalies. In October 2006, they completed 3 boreholes totalling 373m. Hole UN06-H1 encountered a thick section of sheared, variably altered and pyrite enriched mafic volcanic and quartz-feldspar-porphyry; assays yielded anomalous gold values. Mineralization primarily occurs with disseminated pyrite in areas of carbonate alteration. A section that was 0.7m width of sheared porphyry returned 2.96 g/t Au. (Troup W.R., 2013).

In 2009, APEX Geoscience Ltd. on behalf of Lund Gold, conducted an exploration program at their Halcrow Property, which included geochemical soil sampling (humus and B horizon). Seven samples returned assays with 0.03 g/t Au or greater. One sample yielded 0.095 g/t Au.

Jubilee Gold Exploration Ltd. was created in early 2013 following previous company mergers that included Union Gold. Exploration resumed on the Halcrow Property in the summer of 2013, with soil sampling south and east of drillhole UN-06-H1. Elevated gold values in the soil samples were encountered 60 meters west of hole UN-06-H1. During follow-up prospecting, a 5-foot chip channel sample across a north-south trending quartz vein returned a gold value of 0.1 oz/t (Troup, W.R., 2015).

In 2015, Jubilee conducted a soil sampling program on the Halcrow Creek Property totalling 206 samples and confirming the presence of elevated gold values from three areas on the property.

Raney Lake Area

The earliest documented exploration in the area was by the Raney Lake Prospecting Syndicate in 1932. A group of 35 claims northeast of Raney Lake was staked, prospected, and explored by selective trenching and sampling, leading to the discovery of high-grade gold. This occurrence is known as "Thome-Greaser Gold showing" and is located northeast outside of the Sylvanite Gold Property and will not be further discussed. Although there are no significant precious or base metal producers in the area, there are numerous recent discoveries of gold mineralization within the Swayze Greenstone Belt. A past producing gold mine is the Jerome Mine, located to the southeast of the Property in Osway Township. There are numerous occurrences in the Raney Lake area, which are developed prospects and have reserves (Kettles K., 2011).

In 1971, Baker D. performed one drillhole south of Raney Lake. No assay results are available.

In 1972, Claw Lake Molybdenum Mines conducted an AMAG survey over the southern part of Raney and northwestern part of Denyes. Magnetic survey results are reported to be flat.

In 1972, J-Dex Exploration Limited staked claim blocks southwest end of Raney Lake. Three winkie holes, intersecting rhyolite with some disseminated pyrite, were drilled totalling 345 ft. In 1973, an IP and MAG survey as well as geochemical survey produced 9 zones of anomalous chargeabilities and magnetic distortions. No anomalous Cu or Zn values were obtained. Also in 1973, an additional 110 ft of winkie drilling was completed. In 1973, J-Dex obtained the following results on their claim south of Raney Lake, 16.33 oz/t Cu, 0.62 oz/t Ni, 0.12 oz/t Au, 0.29 oz/t Ag and 0.07 oz/t Mo (note that units for base metals are written as stated in the source material and suspected should be percent).

In 1975-1979, five more winkie holes totalling 1,568 ft southeast end of Raney Lake were conducted.

In 1977-1979, Baker D. drilled eight boreholes southeast of Raney Lake. No assays available.

In 1982, the Ministry of Natural Resources for the Province of Ontario released the results of an AMAG survey carried out over the Swayze Greenstone Belt. Based on the results Dejour Mines Ltd and Intl Gold & Minerals Inc. undertook geological mapping, and geophysical surveys (EM, MAG) south of the western end of Raney Lake (Derry et.al., 1983).

In 1983, Dejour Mines reported 0.04 g/t Au obtained in their geochemical survey. No anomalous Cu or Zn values were obtained.

In 1983, Dore Explorations Inc. completed a geological survey. In the same year, Lacana Mining conducted a geological survey on the west boundary of Raney township west of Dore claim group. Carbonatite-alkalic complex rock types associated with the Kapuskasing Structural zone were mapped.

In 1984, J Dex completed geological mapping. Visible gold was reported but assays obtained only up to 0.156 g/t Au. In 1984, a limited winkie drilling program was completed by Caira N. for Baker D. totaling 615m in 11 drillholes. Highest Au value obtained is 0.839 oz/t over 1 foot from a quartz vein.

In 1986, J-Dex continued work in the southeastern Raney Lake area. IP, MAG and VLF surveys were conducted, resulting in identifying various anomalies. Also in 1986, a small part of the Sylvanite Gold Property east of Raney Lake was covered with a AMAG and AVLF survey conducted by Carlson Mines Ltd.

In 1987, Goldrock Resources conducted a MAG survey and lithogeochemical sampling program to test other alteration zones originally outlined by Caira and Coster (1984). Most samples taken from the alteration zones returned anomalous gold values, including 3.28 g/t Au and 1.15 g/t Au.

In 1988, Raney Minerals Ltd. completed a MAG survey used to define conductors and structure on the western area of the property, extending the coverage of previous surveys.

In 2011, Cascadero Copper Corp assessed the area around Raney Lake including prospecting traverses, geological mapping, and sampling. Assay results not available.

6.0 GEOLOGICAL SETTING & MINERALIZATION

6.1 ABITIBI AND SWAYZE GREENSTONE BELTS

The Property is located within the Swayze Greenstone Belt (SGB). The historic classification of the Swayze Greenstone Belt as a discrete lithostructural entity that is separate from the adjacent Abitibi Greenstone Belt is no longer tenable (Breemen et al., 2006) given the commonalities among depositional ages and rock assemblages in both belts (Ayer et al., 2002). Instead, the Swayze Greenstone Belt is now widely regarded as the southwestern extension of the prolifically endowed Abitibi Greenstone Belt (Heather, 2001; Ayer et al., 2002; Breemen et al., 2006; Thurston et al., 2008).

In general terms, the Abitibi Greenstone Belt comprises Archean metavolcanic rocks, related syn-volcanic intrusions, and clastic sedimentary rocks, intruded by Archean alkaline intrusions and Paleoproterozoic diabase dykes.

The supracrustal rocks of the Abitibi Greenstone Belt were deposited over a time span of ~125 m.y. from 2795 to 2670 Ma (Ayer et al., 2002b, 2005; Thurston et al., 2008; Leclerc et al., 2012). Based on geochronological information, six volcanic assemblages are distinguished in the southern Abitibi Greenstone Belt, that formed as a result of submarine volcanic activity between ~2750 Ma and ~2695 Ma. These assemblages are referred to, from oldest to youngest, as the Pacaud, Deloro, Stoughton-Roquemaure, Kidd-Munro, Tisdale, and Blake River assemblages (Ayer et al., 2002, 2005; Thurston et al., 2008; Monecke et al., 2017). Submarine volcanism was followed by the development of distinct sedimentary successor basins.

In the southern Abitibi Greenstone Belt, the sedimentary successor basins include the 2690 to 2685 Ma flysch-like deposits of the Porcupine assemblage and the 2679 to 2669 Ma molasse-like deposits of the Timiskaming assemblage (Corfu et al., 1991; Bleeker and Parrish, 1996; Ayer et al., 2002, 2005; Frieman et al., 2017; Monecke et al., 2017). The Timiskaming assemblage was deposited in a terrestrial setting and unconformably overly all older supracrustal rocks of the Abitibi Greenstone Belt (Born, 1995; Mueller et al., 1994; Corcoran and Mueller, 2007). The predominantly clastic sedimentary rocks of the Timiskaming assemblage are locally intercalated with alkaline volcanic deposits (Hyde, 1980; Mueller et al., 1994).

The bulk of gold mineralization is generally interpreted as having occurred over a protracted period of time after the deposition of the Timiskaming assemblage (Wilkinson et al., 1999; Ayer et al., 2005; Bateman et al., 2008; Ispolatov et al., 2008; Bleeker, 2012; Monecke et al., 2017; Dubé et al., 2017; Poulsen, 2017).

Figure 6.1 shows the regional extent and geology of the Abitibi Greenstone Belt, including the SBG, as well as notable deposits and structures.

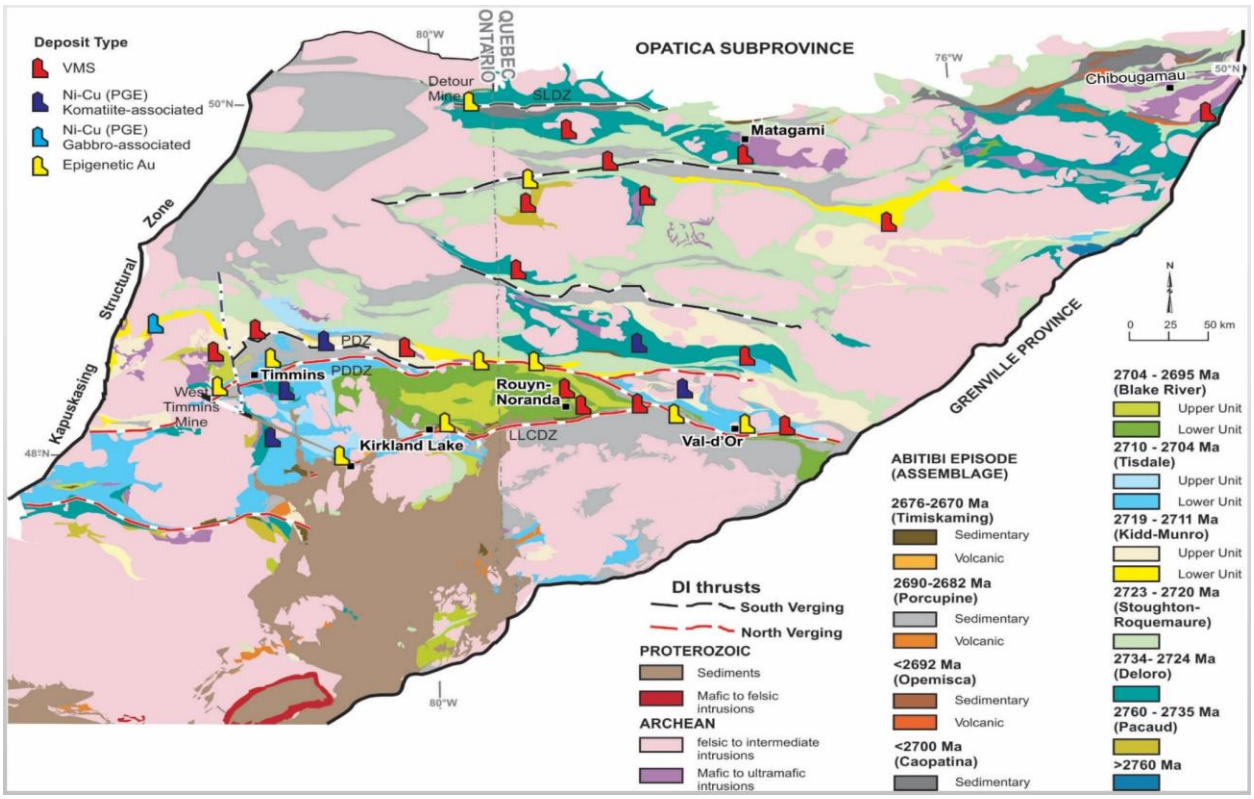

Figure 6.1: Abitibi Greenstone Belt Stratigraphy (modified from Thurston et. al, 2008)

The SGB can be divided into a northern (above 48 degrees N) and southern (below 48 degrees N) segment, which is bounded by the Nat River granitoid complex in the north, the Ramsey-Algoma granitoid complex in the south, the Kenogamissi granitoid complex to the east and the Kapuskasing structural zone to the west (Heather 2001; Breemen et al., 2006). The northern SGB is connected to the southwestern AGB by a narrow septum of volcano-sedimentary rocks associated with the Slate Rock High Strain Zone, while the connection in the southern SGB is via the Ridout High Strain Zone (Figure 6.1). Like the rest of the AGB, the SGB comprises a range of intrusive and extrusive rock types, including felsic to ultramafic volcanic, and chemical and clastic sedimentary rocks (Heather, 2001). All rock types within the belt are aged between 2,680 Ma and 2748.2 Ma (Heather et al., 1996) with plutonism lasting during the entire period of volcanism and subsequent sedimentation.

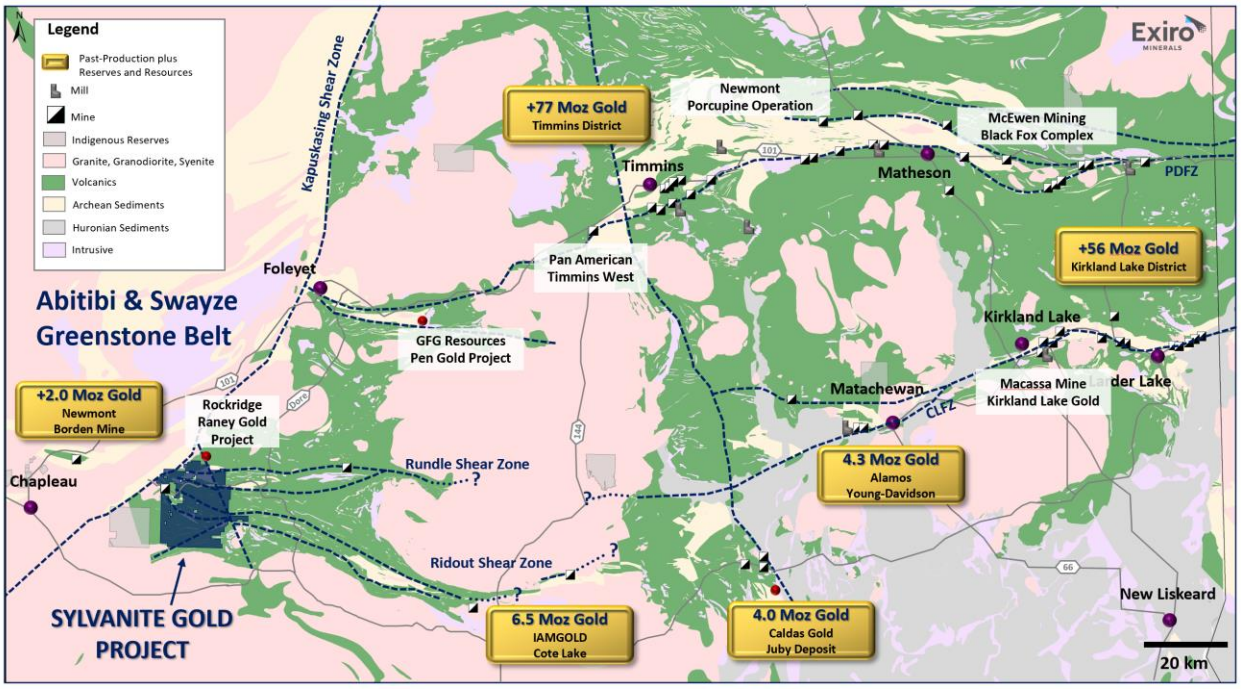

Figure 6.2: Regional geology of the Abitibi and Swayze Greenstone Belt (Modified from Ontario Geological Survey and Deposit Data Sourced from Company Websites in 2020).

The SGB underwent a complex and protracted structural history of polyphase folding, development of multiple foliations, ductile high-strain zones, and late brittle faulting. The map pattern preserved within the Swayze Greenstone Belt is dominated by regional F_2 folding, and anticlines and synclines with an associated S_2 axial-planar foliation interpreted to have formed during orogen-wide shortening across the entire Superior Province. An important structural element is the Ridout High Strain Zone (RHSZ), a major east–west high-strain zone that is interpreted to be the western extension of the Larder Lake-Cadillac deformation zone of the Abitibi Greenstone Belt (Breemen et al., 2006). The F_2 Ridout Synform coincides with the RHSZ wherein intense deformation is characterized by intense flattening, tight to isoclinal folding, transposition, and locally a component of dextral simple shear in east–southeast-striking zones (Heather et al., 1996).

The SGB includes several supra-crustal assemblages that form an upwardfacing "layer-cake". Rock types include ultra-mafic, mafic, and felsic intrusive and extrusive rocks, clastic sedimentary rocks, and chemical sedimentary rocks including a notable chert-magnetite iron formation. The SGB is bounded to the south by the Ramsey-Algoma granitoid complex, to the east by the Kenogarnissi granitoid complex, to the north by the Nat River granitoid complex, and to the west by the Kapuskasing Structural Zone (Heather, 2001; Heather and Shore, 1999).

Heather (2001) recognized six supracrustal groups; from the oldest to the youngest these are the Chester, Marion, Biscotasing, Trailbreaker, Swayze, and Ridout groups. These groups have subsequently been correlated by Ayer et al. (2002) with coeval assemblages across the southern Abitibi Greenstone Belt having similar characteristic features.

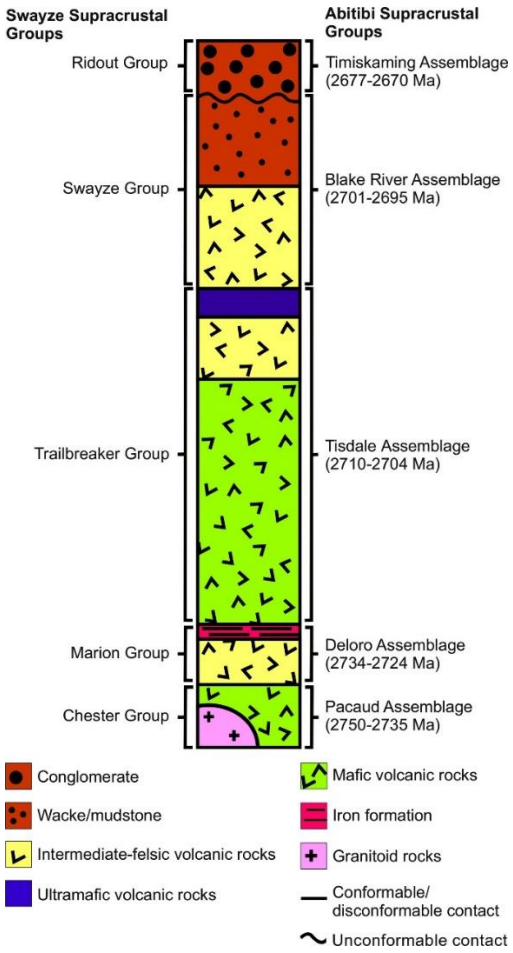

Figure 6.3*:* Schematic Stratigraphic Section for the Central Swayze Greenstone Belt, which correlated the Supracrustal Groups with the Abitibi Greenstone Belt (Katz, 2016).

Most of the rocks of the SGB have been metamorphosed to greenschist facies, which grades to amphibolite facies within the contact aureole of the large bounding granitoid batholith complexes (Heather, 2001; Heather and Shore, 1999).

In the SGB there are at least four separate diabase dyke swarms, ranging in age from late Archean to late Proterozoic:

- North-striking Matachewan dyke swarm
- Northwest-striking Sudbury dyke swarm
- East–northeast-striking Abitibi dyke swarm
- Late, southeast-striking dyke swarm.

Unlike the Abitibi, which is richly endowed with respect to orogenic gold, base metals (i.e., Cu, Pb, Zn, Au), and Ni-Cu deposits, the SGB has historically been regarded has poorly endowed. However, with the recent discovery of the world class high tonnage low-grade Côté Au deposit and the Borden Lake deposit near Chapleau, interest has been greatly renewed as a more prospective outlook has been developed for the belt.

Given the previous disregard for the belt, there is a lack of prior academic research and exploration activity undertaken on the mineral deposits of the SGB compared to those of the AGB.

6.2 SYLVANITE GOLD PROPERTY GEOLOGICAL SETTING

Located in the southwestern portion of the SGB, the Sylvanite Property encompasses quite a large area and includes much of the units seen in the larger regional geological map of the belt. The most dominant rock type is a larger mafic to intermediate volcanic sequence, with large packages of intercalated felsic volcanics, narrower bands of ultramafic volcanics, as well as several sequences of clastic metasedimentary rocks (Figure 6.4).

Ultramafics occur frequently across the property, as narrow packages of peridotite, pyroxenite and dunite intrusions spatially related to spinifex textured komatiite flows (Heather, 2001). Vesicular and/or variolitic pillow flows are common, as is hyaloclastic breccia in the pillow intersects. These ultramafic and high-Mg mafic units are noted to weather a distinctive chocolate orange brown colour, which distinguishes them from the surrounding Fe-tholeiite mafics (Heather, 2001).

The larger volcanic sequence is by Fe-tholeiitic, Mg-tholeiitic, and calc-alkaline basalts, along with intermediate calc-alkaline units. The mafic units occur in the form of massive, pillowed, pillow breccia, variolitic and amygdaloidal flows, while more intermediate units occur as massive to pillowed flows, volcanic breccia's, and lapilli and ash tuffs of andesitic composition. Synvolcanic gabbro and diorite dykes/sills are also common in the Property.

The intercalated felsic volcanics are dominant in the central and northeast portions of the Property and have been described in regional studies as including feldspar +/- quartz porphyritic dacite to rhyolite flows and intrusions, as well as ash tuffs, lapilli tuffs and volcanic breccia's (Heather, 2001).

Clastic metasedimentary units occur in the northern half of the Property, and as more narrow packages along the Ridout High Strain Zone in the south half. Historically, these rocks have been subdivided in to two major types:

1. Older sequences associated and intercalated with the volcanics, which would be the metasediments found mostly in the north (grey metasediments; Figure 6.4).

2. Younger sequences, referred to as the Ridout Group, which unconformably overlie the older volcanics and sedimentary rocks (brown conglomerate; Figure 6.4), likely correlative with the Timiskaming Group in the AGB (Heather, 2001).

Although no chemical metasediments have been noted at surface, iron formation has been noted in drilling and regionally in the SGB.

All of these units are cut by a series of NW striking diabase dykes of the Matachewan swarm (2452 Ma), with lesser occurrences of the NNE striking Biscotasing swarm (2167 Ma), the WNW striking Sudbury swarm (1238 Ma) and the NE striking Abitibi swarm (1140 Ma) (Heather 2001).

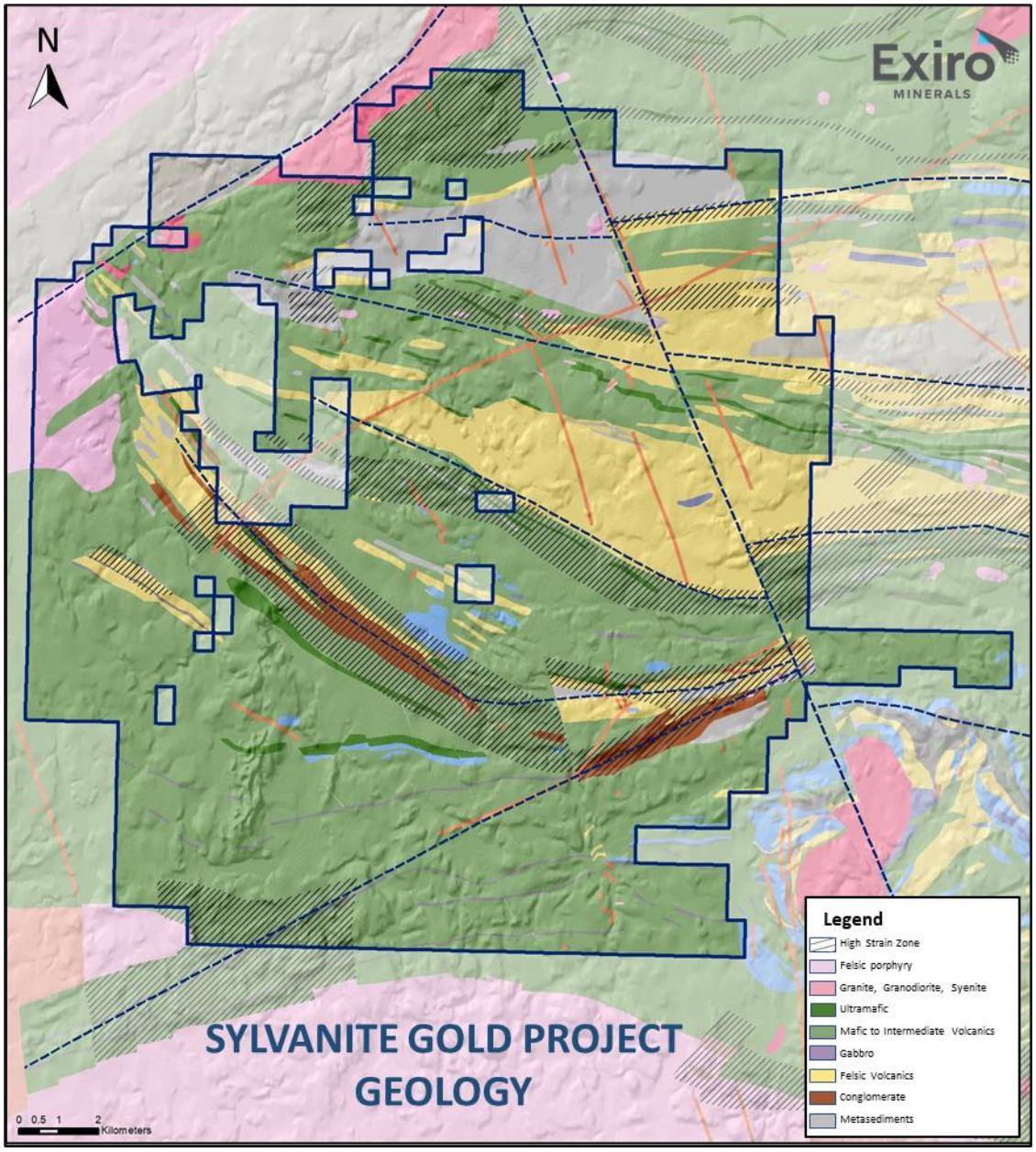

Figure 6.4: Local Geology of the Sylvanite Gold Property (Modified from Ontario Geological Survey).

Across the property, at least 5 deformation events (D_1-D_5) have been identified through recent structural reinterpretation and field observations. The events identified are as follows:

> **D_1**: The earliest deformation event of N-S shortening that can be identified in primary bedding (S_0) and early foliation(S_1) in pillowed mafic volcanics, volcanic breccia, and clastic metasediments. S_0/S_1 orientation is ENE in eastern portions of the Property but changes to WNW in the central and NW parts.

D_2: This NNE-SSW shortening is the most predominate deformation event that is defined by S_2 foliation, L_2 stretched mineral lineation's, F_2 tight isoclinal folding, and D_2 shear zones and high strain zones across the Property. This includes the notable Ridout High Strain Zone which is considered to be an extension of the Cadillac-Larder Lake Deformation Zone.

D_3: NW-SE shortening, defined by a local penetrative S_3 foliation which overprints S_0-S_2, and is axial plane to F_3 folds.

D_4: This E-W shortening is considered the latest ductile deformation event, seen as spaced NNE and NNW cleavage crenulation that overprints early fabrics.

D_5: Intense, late, NNE to NNW striking brittle faulting. Many of these host late diabase dykes and are easily identifiable through aeromagnetic data, with some major faults showing significant apparent sinistral offset across the Property.

6.3 SYLVANITE GOLD PROPERTY MINERALIZATION

The Swayze Greenstone Belt hosts a variety of gold deposit types whose genesis is poorly understood. According to Hastie et al. (2015), Hastie (2017) and Kontak et al. (2013), the gold deposits can be subdivided into five categories:

i) Intrusion-related deposits such as the Côté deposit,
ii) Syenite associated deposits, such as the Jerome and Rundle deposits,
iii) Greenstone hosted deposits, such as the Kenty deposit,
iv) Banded iron formation hosted deposits, such as the 4 K deposit, and
v) Auriferous VMS deposits, such as the Shunsby deposit.

This classification of gold deposits introduces a problem as it suggests that gold prospectivity is restricted to certain rock types which emphasizes the differences in gold mineralizing systems rather than commonalities of mineralization controls (Maepa and Smith, 2020).

There are several gold showings that occur within the Property, which are listed in the Mineral Deposits Index from the Ministry of Northern Development, Mines, Natural Resources and Forestry. Although, since this Property is still in the early stages of exploration, further work is required to validate and verify the accuracy of this information. Figure 6.5 illustrates the spatial distribution of the most significant gold showings within the Property.

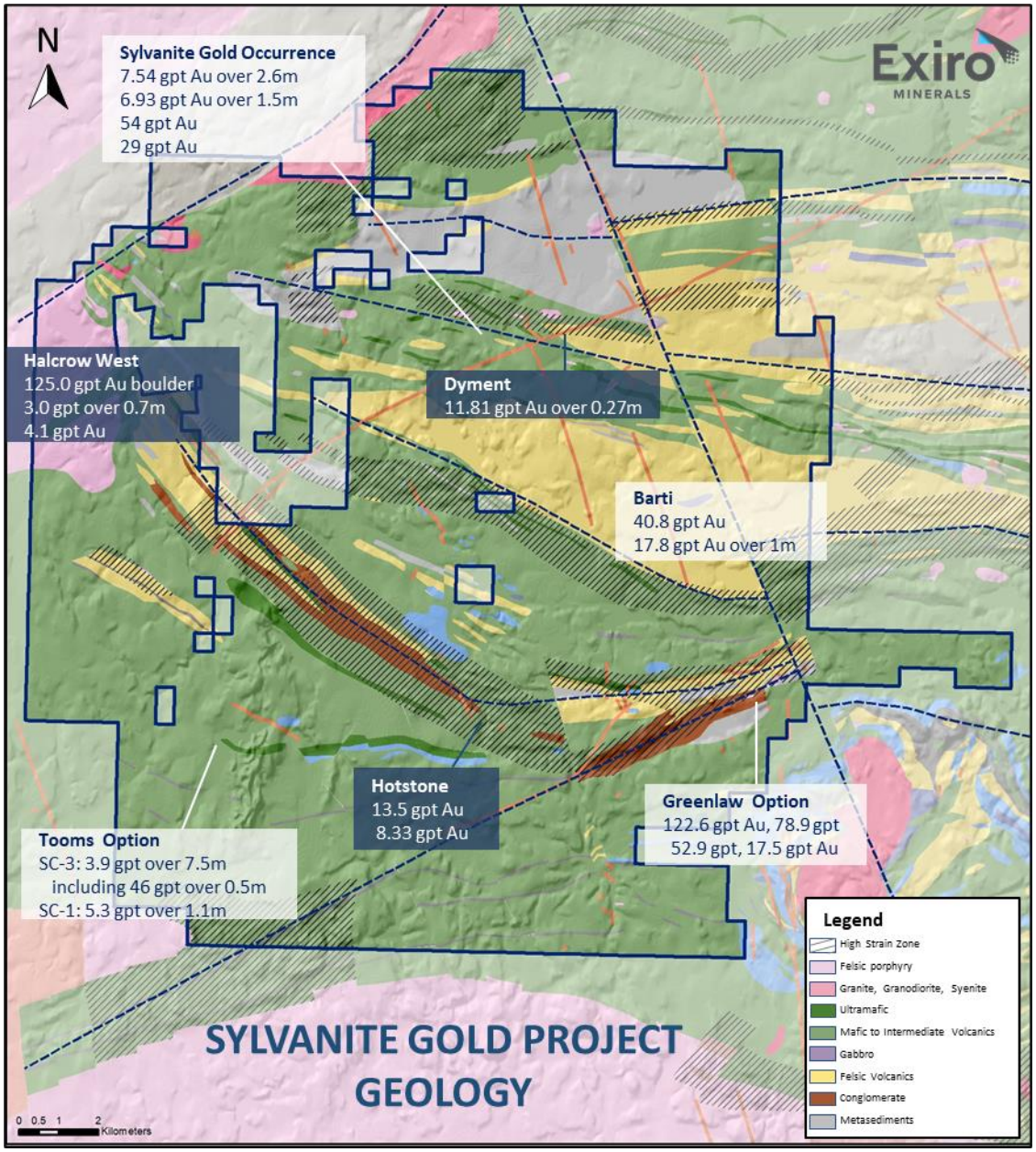

Figure 2.5: Local Geology of the Sylvanite Gold Property with Significant Gold Occurrences (Modified from Ontario Geological Survey).

Volcanogenic Massive Sulphides

Within the Sylvanite Property there are several occurrences of sulphide hosted base metals (Cu, Co, Pb, & Zn). However, due to the poor understanding of overall volcanic architecture of the SGB and complex structural overprinting, exploration efforts have not identified or understood the controls on these occurrences.

Two distinct types of base metal occurrences are observed in the SGB, both of which are considered to be related to exhalative synvolcanic processes: 1) iron formation type and 2) volcanogenic massive sulphide (VMS) type.

The SGB shares many features commonly associated with Archean aged volcanogenic massive sulphide. The majority of the known base metal occurrences in the SGB are associated with iron formation of the Woman River Formation. This association is analogous to the Geco deposit in the Manitouwadge Greenstone Belt (Heather, 2001). Furthermore, the age dates for many of the volcanic packages are similar to those found in volcanogenic massive sulphide camps in the Abitibi Greenstone Belt. Suggestive of the potential for a similar geodynamic setting to have existed.

In addition, an extensive zone of volcanogenic silicification in northeastern Foleyet Township bears resemblance to similar alteration associated with a number of Archean VMS deposits, including the silicification underlying the Mine Series deposits at Noranda, Quebec (Gibson et al. 1983). Throughout the SGB there is documentation of synvolcanic alteration zones, although continued studies are needed to understand the economic potential of the SGB to contain a base metal deposit.

Magmatic Ni-Cu

Nickel occurrences are closely associated with the cumulate textured ultramafic rocks. The presence of large ultramafic bodies, some of which have documented nickel mineralization, is an indication that there may be good potential for either intrusions hosted, or komatiite hosted magmatic Ni-Cu deposits. Further work is required to understand the geological potential of these showings to host an economic scale deposit. The most significant occurrence of magmatic Ni-Cu mineralization documented within the Property is the Tooms prospect, which has historically been drill tested. The showing is reported to be hosted in a strongly altered, medium-grained peridotite (MDI41O10NW00041).

7.0 DEPOSIT TYPE

Côté Gold Deposit Type

The Côté Gold deposit is a new Archean low-grade, high-tonnage gold (± copper) discovery. It is described as a synvolcanic intrusion-related and stockwork disseminated gold deposit (Kontak et al., 2012; Katz et al., 2015; Katz, 2016). Deposits of this type are commonly spatially associated with and/or hosted in intrusive rocks. They include porphyry Cu–Au, syenite-associated disseminated gold and reduced Au–Bi–Te–W intrusion-related deposits, as well as stockwork disseminated gold.

Certain features of the Côté Gold deposit resemble those characteristic of gold-rich porphyry deposits (as described by Sillitoe, 2000). These include:

- Emplacement at shallow (1–2 km) crustal levels; frequently associated with coeval volcanic rocks
- Localized by major fault zones, although many deposits show only relatively minor structures in their immediate vicinities
- Hydrothermal breccias are commonly associated with the deposits, and consist of early orthomagmatic as well as later phreatic and phreatomagmatic breccias
- Gold is fine-grained, commonly <20 μm, generally <100 μm, and is closely associated with iron and copper–iron sulphides (pyrite, bornite, chalcopyrite).

Orogenic Gold Deposit Type

Gold occurrences on the Property can be considered as belonging to the style of gold mineralization referred to as orogenic. The orogenic gold deposit model (Groves et al., 1998) characterizes structurally

controlled gold occurrences formed during orogenesis by relatively homogeneous hydrothermal fluid flows of variable origin (Fig. 7.1). The origins of the fluids are theorized to include metamorphic devolatilization, felsic plutonism and mantle fluids (Hagemann and Cassidy, 2000).

These deposits are thought to have first-order tectonic controls and are associated with crustal-scale faults, which tap sub-crustal source regions, although individual deposits are commonly situated in second order and third-order structures (Groves et al., 2016). Any rock type within a greenstone belt, including supracrustal rocks, dykes, or intrusions within or bounding such belts may host an orogenic gold deposit (Fig. 7.2). There is strong structural control of mineralization at a variety of scales, but the favoured host is typically the locally most reactive and/or most competent lithological unit.

Orogenic gold deposits exhibit strong hydrothermal alteration with lateral zoning composed of mineral assemblage's indicative of proximal to distal alteration. These alteration mineral assemblages, composed generally of carbonates (ankerite, dolomite or calcite) and sulphides (mainly pyrite, pyrrhotite, arsenopyrite), vary with the type of host rock and crustal depth. The assemblages are typically enriched in As, Au, CO_2, K, Rb, S, Sb, Te, and W; in some cases, Ag, B, Bi, Co, Cu, and Se are also enriched.

The mineralized deposits typically form shoots. A mineralized deposit can be 0.5 – 50 m wide, 100's of metres long, and consists typically of a vein network, an en-echelon vein swarm, or just of one single large vein. The depth extent of a mineralized deposit may well be much larger than its extent along strike.

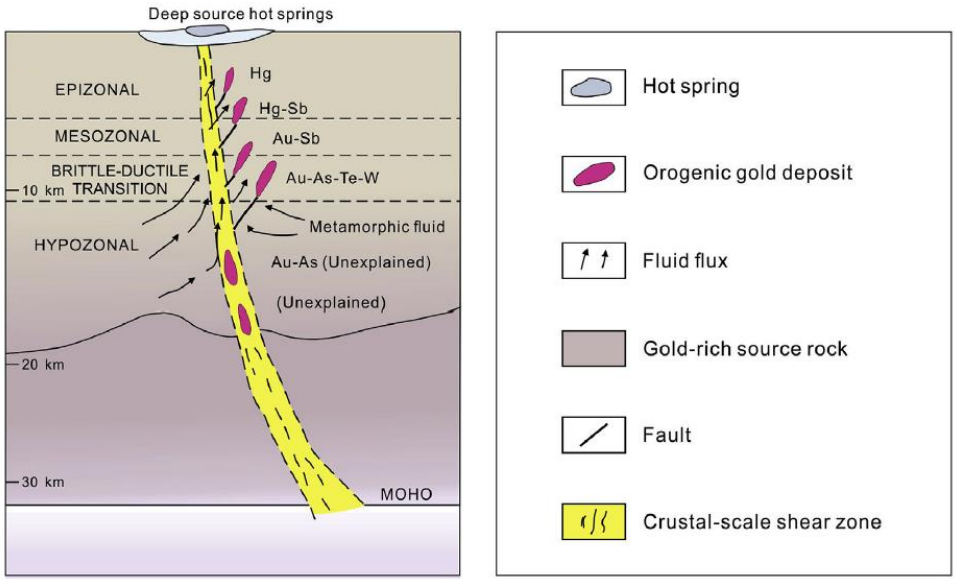

Figure 3.1: Schematic representation of mineralized-fluid source models for orogenic gold deposits (Groves et. Al, 2020).

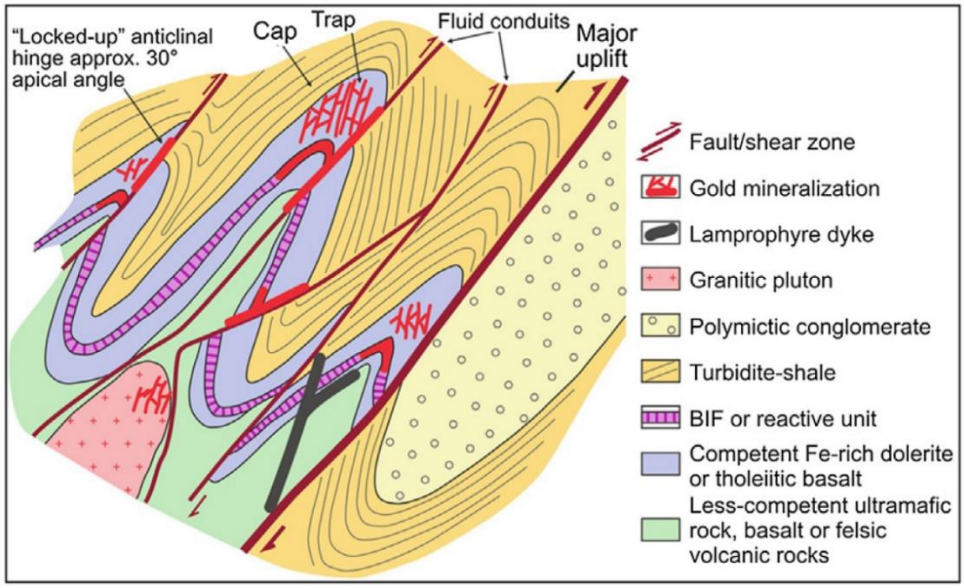

Figure 7.2*:* Schematic representation of the conjunction of parameters responsible for the formation of orogenic gold deposits (Groves et. al., 2016).

Syenite-Intrusion Related

The following is sourced from Robert (2001), and Hart and Goldfarb (2005). Syenite-Intrusion deposits are spatially associated with quartz-monzonite to syenite stocks and dykes and are located along major fault zones. Disseminated gold can occur within composite syenitic stocks or along their margins, along satellite dykes and sills, and along faults and lithologic contacts away from intrusions. Mineralized zones in these different positions are interpreted to represent proximal to distal components of large magmatic-hydrothermal systems centred on, and possibly genetically related to, composite syenitic stocks.

Mineralized zones are characterized by disseminated sulfide replacement zones with variably developed stockworks of quartz-carbonate-K feldspar veinlets, within zones of carbonate, albite, K-feldspar, and sericite alteration. The syenitic intrusions are broadly contemporaneous with deposition of Timiskaming sedimentary rocks and are often found in association with preserved slivers of alluvial-fluvial sediments.

8.0 2021 EXPLORATION GEOPHYSICAL SURVEY & INVERSION MODELLING PROGRAM

Throughout the course of the 2021 Exploration Program, various contractors were involved with the completion of the geophysical survey program. This section outlines the phases of the program and provides documentation of the activities and groups involved. The geophysical survey and inversion modelling program was performed through collaboration with Exiro Minerals, Sanders Geophysics Limited and Geoscience North Ltd.

Work on the Sylvanite Property began in April 2021 with initial planning, the geophysical survey and modelling program was completed with interpretation by August of 2021. During this time, new and historical geophysical datasets were compiled and integrated as well as a new survey was flown.

The survey was flown using SGL's Airbus Helicopter AS350 B3, registration C-GSGH operating from Chapleau Municipal Airport (CYLD). Flights operated from April 18th to May 15th 2021, complete reporting of the program was obtained in August 2021.

Appendix 1 of this report provides a detailed analysis of all work completed by Sanders Geophysics Limited.

All work has been completed using metric units and universal Transverse Mercator with a NAD83 datum and zone 17T.

8.1 GEOPHYSICAL SURVEY

The following new and historical geophysical datasets were compiled and integrated in this work:

- Sanders 50m line spaced, high resolution airborne gradient magnetic survey flown for Exiro Minerals Corp., utilizing a helicopter with towed bird.
- Detailed AEM/MAG from the Ontario Geological Survey's 200m line spacing GDS1015- Swayze Area Geotem AEM/MAG Survey.

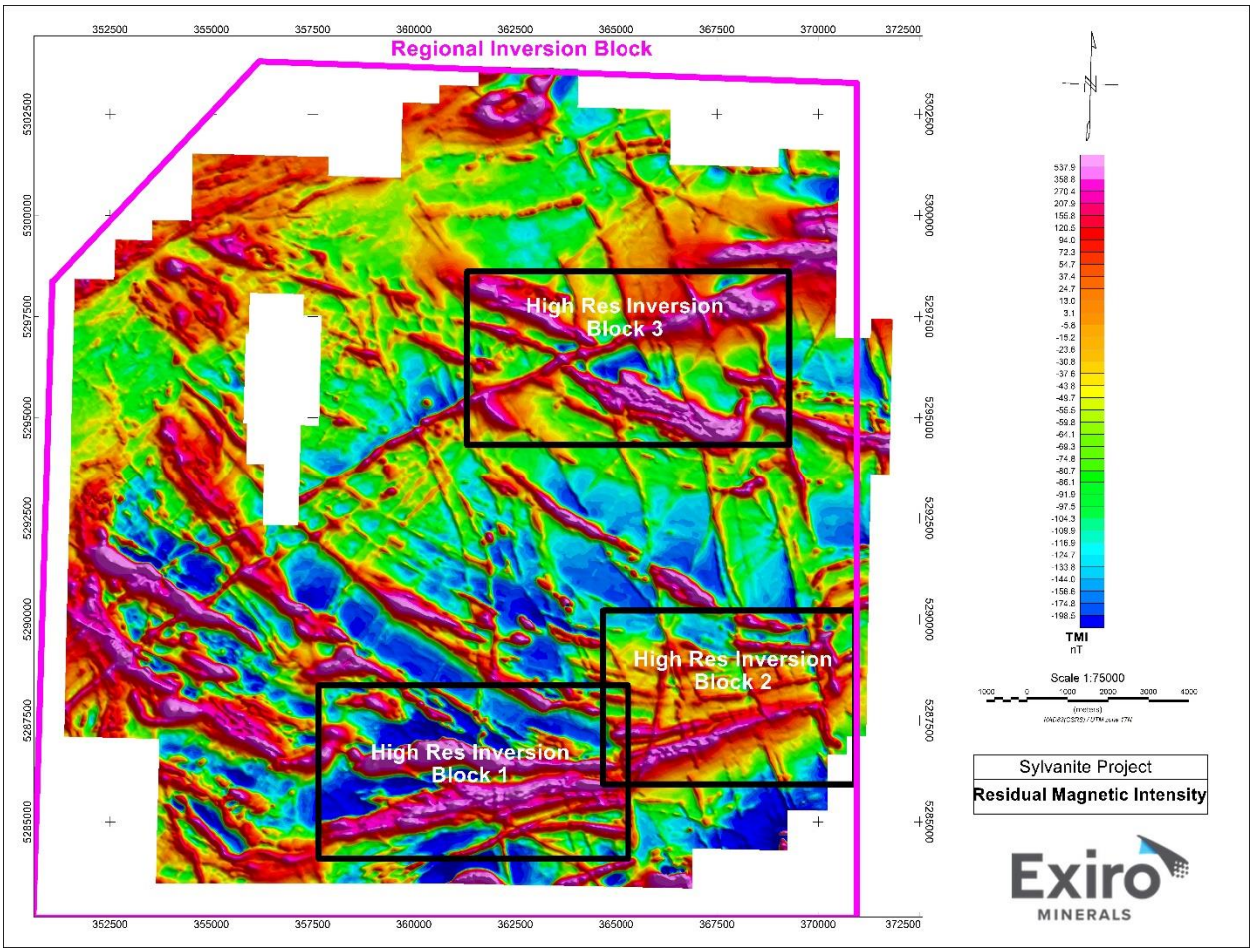

Figure 8.1: Residual Magnetic Intensity of 50m line spaced airborne gradient magnetic survey flown over Exiro Minerals Sylvanite Property. Regional and high-resolution inversion blocks are outlined in pink and black respectively.

The regional airborne magnetic and electromagnetic surveys over the Swayze greenstone belt was flown in 1981 by the Ontario Department of Mines to aid geological mapping and mineral exploration. The survey was flown at a nominal flight line spacing of 200m oriented north-south, to transect the predominant regional structural trends of the underlying rocks. The results of the survey were published on 1:20,000 semi-controlled photo mosaic paper maps. This data has since been digitized and reprocessed during an OGS re-formatting project completed in 2002. Regional data was used for broad, property-scale 3D inversions.

The 2021 Sanders survey traverse lines were oriented north-south and spaced at 50m, while the control lines were oriented east-west and spaced at 500m. The survey was flown in radar terrain-following mode with a target clearance of 64m above the treetops for the helicopter, corresponding to a tree-top clearance of 40m for the bird. The target average ground speed was 30m/s. The survey was flown using SGL's Airbus Helicopter AS350 B3, registration C-GSGH operating from Chapleau. The high-resolution gradient magnetic data were used to supplement surficial mapping and interpretation. The data was also inverted at a high resolution in specific areas in a more targeted fashion than the regional government data.

8.2 Software, Methodology, and Parameters for Inversion Modelling

The data were reduced and inverted within Geosoft's Oasis Montage geophysical software package. This included gridding, directional micro-levelling, derivative filtering and automated source body picking routines. Data were also prepared for 3D inversion the Oasis Montage Software suite.

Three-dimensional inversion of the magnetic data was carried out within VOXI Earth Modelling, a cloud-based geophysical inversion software service that generates 3D voxel models from a variety of geophysical datasets including magnetics, gravity, electromagnetics and induced polarization. VOXI is available as an extension within the Geosoft Software Suite.

3D geophysical modelling is an essential component to early-stage exploration. Converting a 2D dataset a three-dimensional property distribution, provides a more substantive understanding of earth below. This information is easily integrated with other exploration information, allowing resource explorers to more accurately target mineral deposits through use of geophysical data.

Behind VOXI Earth Modeling's speed and agility is cloud technology engineered by Geosoft to conduct the complex geo-computing using powerful cloud server farms, with minimal drain on the explorer's personal computer systems. The VOXI Earth Modelling cloud service is powered by Microsoft Windows Azure.

Geosoft VOXI Earth Modelling is offered as a software service extension accessible within Geosoft Oasis montaj. For more technical details on potential field inversion methods and software see the resources at: https://gif.eos.ubc.ca/documentation

8.3 Results of Inversion Modelling

A regional magnetic trend was removed from the total field data to produce a Residual Magnetic Intensity map (RMI). The RMI data were then treated using a variety of derivative filters to provide the Magnetic First Vertical Derivative (1VD), Analytic Signal (AS), Tilt Derivative (TDR) and Horizontal Gradient (HG) datasets. Edge detection routines were applied to provide an approximation of source body boundaries and major discontinuities.

The following products were created from the new and historical geophysical datasets using Geosoft Oasis Montaj magnetic data processing routines and the Geosoft Voxi geophysical data inversion software and cloud-based processing:

Regional Magnetics

- RMI and 1VD magnetic grid at 50m grid size
- Unconstrained inversions of regional magnetic 50m spaced gridded data using 50m cell size over the approximately 20km x 20km Property and clipped to a regional 1000m cell size SRTM DEM model.

High Resolution Airborne Gradient Magnetics

- RMI, 1VD, AS, TDR, and HG magnetic grid at 10m grid size.
- Source body edges in vectorized GIS format.
- Unconstrained inversions of regional magnetic 10m spaced gridded data using 10m cell size over several target locations generally 4km x 8km clipped to 10m cell size laser altimeter derived DEM model.

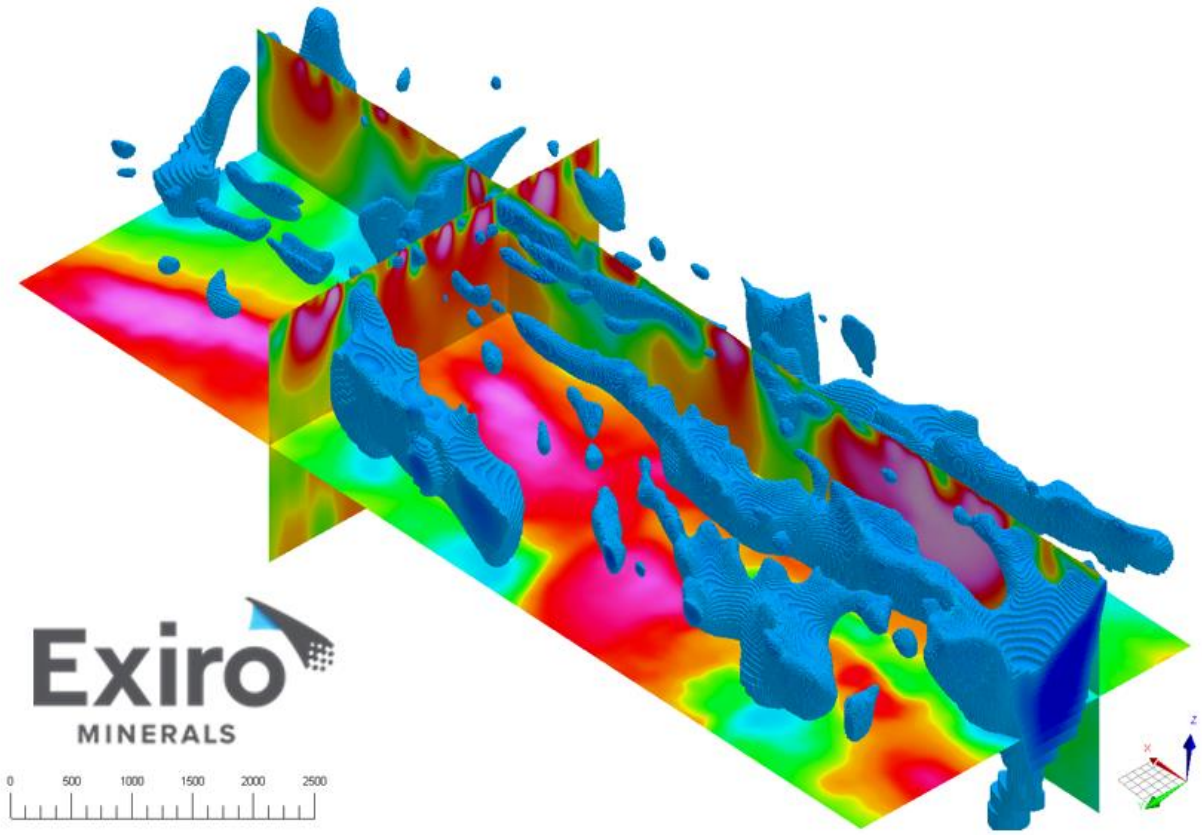

Figure 8.2: Isometric View looking southeast and down at the Geosoft Voxel Inversion Model of the Magnetic Susceptibility.

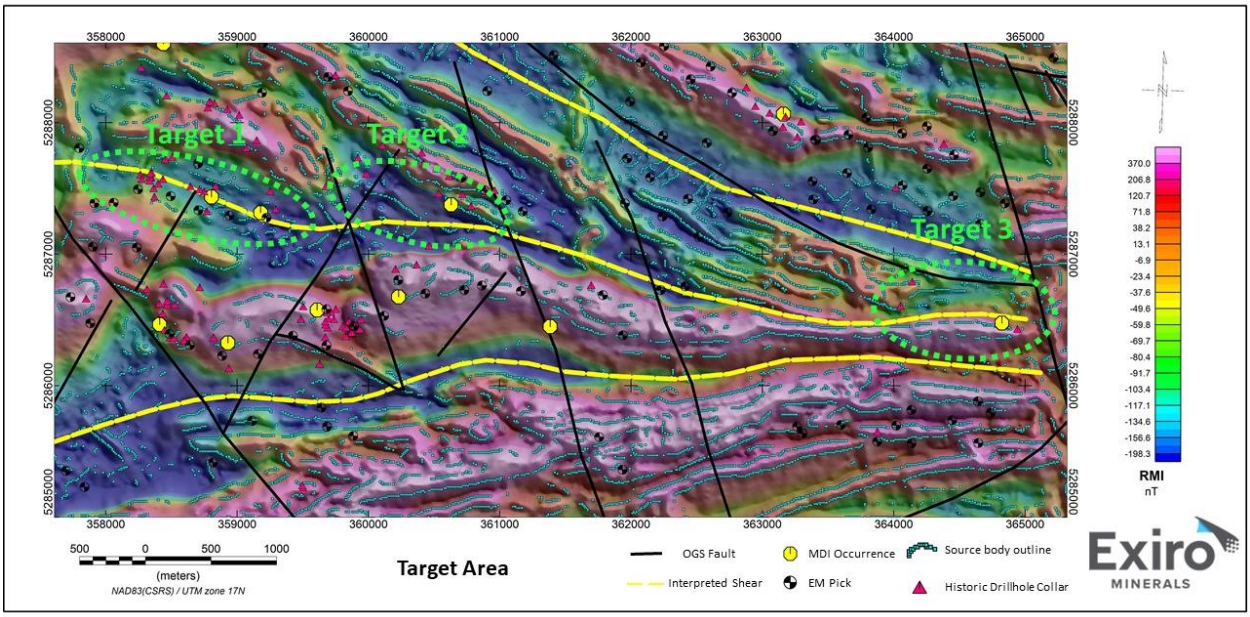

Figure 8.3: Residual magnetic field map illustrating three target areas identified through data processing, automated source body picking and inversion.

9.0 CONCLUSIONS & RECOMMENDATIONS

Upon acquisition of high-resolution magnetic data, the subsequent processing and inversion, initial targeting has commenced. Several structural trends have been identified from the new data which appear to control or partially influence the location of known mineralized occurrences. In particular, there appears to be a strong relationship between zones of reduced magnetic susceptibility and broad northeast to east-west directed shearing. MDI occurrences from within the OGS databases often occur along the identified magnetic source bodies, linked to the intersection of a shear zones with some magnetic discontinuity. These discontinuities, typically in a northwest or northeast orientation, are interpreted to represent faulting or localized brittle deformation. In addition to a more comprehensive understanding of the extents of large-scale shearing, insight into the geometry of magnetic bodies at depth is offered by the high-resolution inversions. This provides an initial three-dimensional framework of the sub surface geology across several priority areas.

Future recommendations for this project include:

- A soil or till sampling program may be useful to help define key areas where mineralization is proximal to the surface. The extensive but thin overburden has and continues to hamper traditional prospecting and mapping techniques but may be sampled highlight areas where the mineralization is possibly exposed at the overburden-bedrock interface.
- A focused geologic and structural interpretation. This work should integrate the recent geophysical products as well as all available drillhole and surface outcrop information.
- Identifying areas of magnetic destruction with a corresponding increase in conductivity may reflect silicification and sulphidation of which is associated with gold mineralization.
- A drilling program to test for potential structural-chemical traps associated with alteration zones marked by magnetic destruction, intersected by a favorable brittle deformation event.

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11.0 STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATION

CRAIG FITCHETT, M.Sc., P.Geo

This Statement of Qualifications applies to the Ontario assessment titled "2021 GEOPHYSICAL SURVEY & INVERSION MODELLING PROGRAMS", prepared for Exiro Minerals Corp., supplied to Exiro Minerals Corp. on 2021-10-22.

I, Craig Fitchett, P.Geo., do hereby certify that:

1. I am a Senior Geologist for the geological consulting firm of Orix Geoscience Inc. located at 1300 Kelly Lake Road, Unit 3A/C, Sudbury, Ontario, Canada, P3E 5P4.

2. I helped to prepare the Report for Exiro Minerals Corp. to be filed with the Ontario Ministry of Northern Development and Mines and utilized as documentation of work completed to satisfy annual work requirements to hold mining claims.

3. I have been involved in the report writing about the geophysical work completed on Exiro Minerals Corp.'s Sylvanite Gold Project but have not spent time on the property.

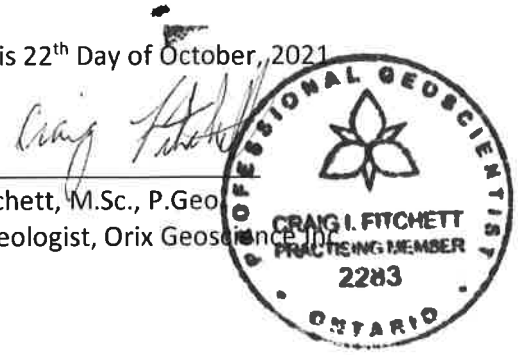
4. I hold the following academic qualifications: B.Sc. (Hons) Geology (2007) Laurentian University; M.Sc. Geology (2012) Laurentian University.

5. I have practiced my profession since graduation in 2007, with a two-year hiatus to complete my second degree of M.Sc. in Geology. I have been involved in various exploration projects located in Canada (Ontario, Manitoba and Nunavut) and Australia (Western Australia). I have focused my profession practice on the exploration for Lode Gold, Cu-Zn Sulphide, and Ni-Cu-PGE Sulphide deposits.

6. I am a member in good standing of the Association of Professional Geoscientists of Ontario (Member #2283).

7. As of the date of this certificate, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the report not misleading.

Dated this 22th Day of October, 2021



Craig Fitchett, M.Sc., P.Geo
Senior Geologist, Orix Geoscience Inc.

STATEMENT OF QUALIFICATION

BILL SPICER, M.Sc., P.Geo

This Statement of Qualifications applies to the Ontario assessment titled 2021 GEOPHYSICAL SURVEY & INVERSION MODELLING PROGRAMS", prepared for Exiro Minerals Corp., supplied to Exiro Minerals Corp. on2021-10-22.

I, Bill Spicer, P.Geo., do hereby certify that:

1. I am a Senior Geophysicist for the mineral exploration company Exiro Minerals, located at 1300 Kelly Lake Road, Unit 3A/C, Sudbury, Ontario, Canada, P3E 5P4.

2. I prepared the Report for Exiro Minerals Corp. to be filed with the Ontario Ministry of Northern Development and Mines and utilized as documentation of work completed to satisfy annual work requirements to hold mining claims.

3. I hold the following academic qualifications: B.Sc. (Hons) Earth Sciences (2008) McMaster University; M.Sc. Earth Sciences (2010) McMaster University.

4. I have practiced my profession since graduation in 2008. I have been involved in various exploration projects located in Canada (Ontario, Quebec, Newfoundland and British Columbia), The United States (Alaska, Nevada, Arizona, and Michigan), Greenland (Eastern Greenland), Chile, Brazil, Peru, Portugal, and Sweden. I have focused my professional practice on the exploration for Lode Gold, Cu-Au Porphyry, IOCG, Cu-Zn Sulphide, and Ni-Cu-PGE Sulphide deposits.

5. I am a member in good standing of the Association of Professional Geoscientists of Ontario (Member #2682).

6. As of the date of this certificate, to the best of my knowledge, information and belief, the Report contains all scientific and technical information that is required to be disclosed to make the report not misleading.

Dated this 22th Day of October, 2021.

Bill Spicer, M.Sc., P.Geo.
Senior Geophysicist, Exiro Minerals.