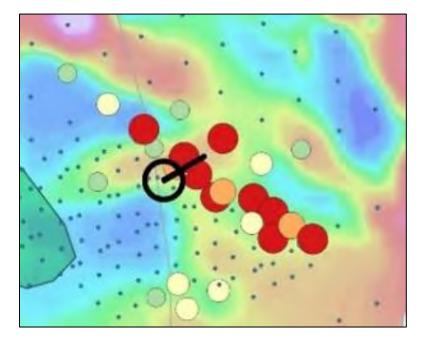
# **Carlin-Roop**

NI 43-101 Technical Report Carlin-Roop Silver Project Mayo Lake District Yukon Territory, Canada



Prepared for:



Author: Clinton F. Davis, PGeoEffective Date:22 Mar 2021Report Date:31 Mar 2021

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## 1 SUMMARY (ITEM 1)

This report presents a description of the exploration conducted by Mayo Lake Minerals Inc (MLM) Carlin-Roop Property (Property) in the Keno Hill Camp, Mayo District, Yukon Territory, Canada. It is one of a group of properties controlled by MLM in the Keno Hill Camp, (Figure 1.1). The Property is located northeast of Mayo and is held 100% by MLM subject to a Net Smelter Return Royalty (NSR) owned by Auropean Ventures Inc (Auropean), a related company. The effective date of this report is 22 Mar 2021.

The Keno Hill District has produced over 200 million ounces of silver from veins cutting Mississippian quartzite and schist. The Property lies in the northeastern portion of the Tintina Gold Belt, a 2,100 km long zone of gold and silver deposits extending across central Alaska and Yukon. Nearby deposits include Dublin Gulch (6.4 Moz Au), Keno Hill (20.5 Moz Ag), Red Mountain (1.3 Moz Au) and Marge (Au, Ag, Cu, Pb, and Zn). Focus of the exploration are precious metals gold and silver. Results on the Property to date point towards potential for silver mineralisation.

Initial work on the property consisted of a Precision GeoSurveys Inc (PGI) airborne magnetic survey undertaken during the Summer of 2012 in preparation for a prospecting and geochemical survey. The geophysical re-interpretation of data was done by Roman Tykajlo, PGeo, of Geo Digit-Ex (GDX) for MLM and resulted in areas to target during geochemical survey operations.

In 2012, MLM conducted a ridge and spur type reconnaissance soil sampling program on all of its claim groups. Subsequent programs between 2014 and 2017 targeted anomalies from the ridge and spur soil sampling program using grids, where grid-spacing and concentration increased with follow-up programs. Rock samples were also collected during the soils sampling campaigns.

First phase geochemical samples were processed by Acme Analytical Laboratories Ltd in Whitehorse and analyzed by Becquerel Laboratories Inc. in Mississauga Ontario using neutron activation for a suite of 35 elements including Au and Ag. Rock samples were additionally analysed using ICP-MS following a 4-acid digestion by Acme Analytical Laboratories Ltd. Acme was acquired by Bureau Veritas SA in 2012. Later geochemical surveys were processed at the same laboratories in Whitehorse, YT and Vancouver, BC using the same analyses package.

Anomalies in Au, Ag, Pb and Zn were noted from a soil survey completed in 2014 on the Roop Target in the north part of the Property. Samples from the survey were later analyzed using Soil Gas Hydrocarbon method at Activation Laboratories Ltd in 2017. Unique Au and Cu SGH anomalies were noted. A weak Ag soil anomaly and a low-quality Ag SGH signature were also noted on the Roop Target.

Results of initial phases of fieldwork focussed exploration efforts on three (3) areas, Roop North (R1 and R2) in the north, Carlin West in the southwest, Carlin East1 in the south. Carlin West has been the priority given the strongest soil anomalies. An Induced Polarisation (IP)-Resistivity survey line was completed outlining a steeply dipping structure coincidental with trend of soil anomalies. A back-pack drill sampling line was completed subparallel to the IP line. A later ground magnetic survey was completed over the same area, further defining structures. The main zone of possible mineralisation was interpreted to be a high angle (70-80° northeast) zone striking northwest, parallel to the zone of Ag-in-soil anomalies.

A short drill program was done in Autumn in 2020. Two holes from the same site were drilled perpendicular to the trend of an elongated northwest zone of anomalous Ag in soils. They encountered graphitic schist overlying interbedded graphitic schist and quartzite, which in turn overlied quartzite (laminated) into altered quartzites (silicified toward greenstone contact). Structures noted included quartz +/+ carbonate veining and shearing. Mineralisation consisted of blebby to stringer sulphides (pyrrhotite/magnetite, pyrite, and sphalerite) and sulphosalts. Results of core logging and sampling have confirmed Ag mineralised structures. MLM20-001 had intersections of a mineralised breccia returning 18.3 g/t Ag over 0.5 m, a sulphidic quartzite returning 33.0 g/t Ag over 1.02 m and rusty greenstone with 12.8 g/t Ag over 0.85 m. MLM20-002 intersected Ag mineralisations with 9.0 - 10.0 m 5.0 g/t Ag in blocky graphitic schist. MLM20-002 had the greatest result with 124.4 g/t Ag over 0.75 m in MLM20-02. True width is estimated to be 0.24 m assuming zone has 80° dip NE.

A two-phase exploration program and specific methodologies are proposed based on results of previous exploration campaigns, and information from a GIS stack created by the Author. The cost of the first phase is estimated to be about [\$200,500], with a second phase estimated budget of about [\$436,500] should the initial exploration phase prove positive.

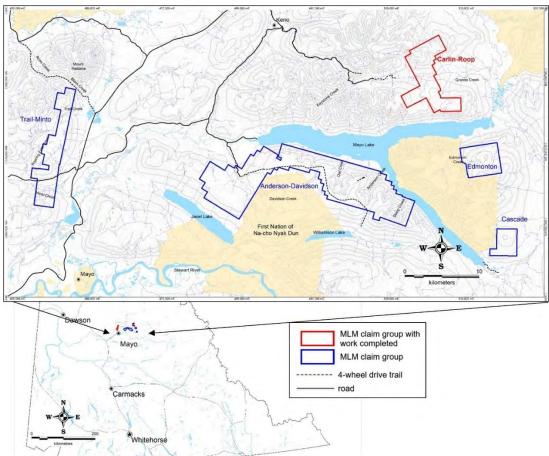


Figure 1.1: Location of MLM Mayo and Keno Hill properties with Carlin-Roop in red

## 2 INTRODUCTION (ITEM 2)

Mayo Lake Minerals Inc (MLM) is a private Ontario-based company that owns a 100 per cent interest in five claim blocks, presently consisting of 1139 quartz claims, in the Mayo Mining District of the Yukon. These claim groups all lie within the Tombstone Plutonic Belt of the Tintina Gold Belt (TGB), a 2100 km long zone of gold and silver deposits extending across central southeast Alaska and southwest Yukon. The subject of this Technical Report is the northeastern block known as the Carlin-Roop Property (Property).

Early 20th century placer mining led to the discovery of the Keno Hill Mining Camp located about 20 km north of Mayo Lake. The camp has produced over 200 million ounces of silver from veins cutting Mississippian quartzite and schist. This district is in the northeastern portion of the Tombstone Plutonic Belt. Significant nearby deposits within the area include intrusion related gold Dublin Gulch (6.4 Moz Au), Red Mountain (1.3 Moz Au) and Marge VMS (Au, Ag, Cu, Pb, and Zn).

Several soil anomalies supported by airborne and ground geophysics have been outlined on the Property by MLM since 2011. The goal of the late 2020 drilling was to confirm the presence of in-situ mineralisation on the Carlin West Target. Results of core logging and sampling have confirmed Ag mineralised structures, including 124.4 g/t Ag over 0.75 m (not true width) in MLM20-02. The main zone of mineralisation is interpreted to be a high angle (70-80° northeast) zone striking northwest, parallel to the Ag soil anomalous zone.

Exploration activities have been under the direction of Dr Vern Rampton, PEng, President and Chief Executive Officer, with the supervision of Tyrell Sutherland, PGeo, Vice President of Exploration. Drilling services in late 2020 were provided by Platinum Diamond Drilling Inc producing NQ core. Core samples were split and shipped to Bureau Veritas SA (BV) sample preparation facility in Whitehorse. The samples were then shipped to Vancouver for final pulverising and analysis.

This Technical Report conforms to the Standards of Disclosure for Mineral Projects as required by National Instrument 43-101 and has been prepared to report results of exploration programs conducted between 2011 and 2020 by MLM using the available historic geological, geophysical, and geochemical information for the Property. This Technical Report has been prepared on behalf of MLM.

Clinton Davis, PGeo, the Author of this Technical Report is a Qualified Persons as defined by National Instrument 43-101. The effective date of this report is 22 Mar 2021.

This technical report will be used by MLM in fulfillment of their continuing disclosure requirements under Canadian securities laws, including National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101). This report is based upon publicly-available assessment reports and unpublished reports and property data provided by MLM, as supplemented by publicly-available government maps and publications.

The World Geodetic System 1984 (WGS84) co-ordinate system is used in this report, unless otherwise indicated. The Carlin-Roop Property is in Universal Transverse Mercator (UTM) Zone 8N. All monetary figures quoted in this report are in Canadian dollars.

#### 2.1 Terms of Reference and Purpose of the Report

This technical report on the Carlin-Roop Property, was prepared at the request of Dr. Vern Rampton, President and Chief Executive Officer of Mayo Lake Minerals Inc (MLM). It has been prepared to comply with the standards outlined in National Instrument 43-101 for the Canadian Securities Administration.

This report was produced for the purpose of supplying updated exploration information and recommendations for further work to the shareholders of MLM.

#### 2.2 Qualifications of Consultant

#### 2.2.1 Details of Inspection

Due to restrictions on travel due to the Covid-19 Pandemic, a site visit was not possible at the time of writing and completion of the report.

#### 2.2.2 Contributing Authors

Mr. Clinton Davis, author of this report, is a qualified person under NI 43-101. In addition to several years of exploration at different phases of development, the Author has experience in gold and silver belts, including several projects in the Yukon.

#### 2.3 Sources of Information

The information upon which this Technical Report is based was obtained from both public records (e.g., SEDAR, Yukon Geologic Survey, other government sources), and data provided by MLM, the majority of which is listed under the section entitled References. This Technical Report is based upon published and unpublished data, primarily from geological reports. Most of these reports were written since the implementation of the standards relating to National Instrument 43-101. However, those reports from before to the implementation of NI 43-101 are considered to be of high-quality, as persons responsible for them held post-secondary degrees in geology or related fields.

MLM carried out multiple phases of exploration and evaluation programs between 2011 and 2020, which is summarised in this technical report. This report includes information on the samples collected, core logging, geologic interpretations, and airborne geophysical survey results. This work was Authorised by Dr. Vern Rampton, at the time the work was conducted and was supervised by Tyrell Sutherland, Vice President of Exploration.

The Author does not take responsibility for the accuracy of the historical data described herein. The Author acknowledges the helpful cooperation of MLM management, who made any and all data requested available and responded openly and helpfully to all questions, queries, and requests for material.

#### 2.4 Effective Date

This report was completed based upon information available at the effective date of this report, 22 Mar 2021.

#### 2.5 Units of Measure and Abbreviations

Units of measure are metric. Assays and analytical results for precious metals are quoted in parts per million (ppm) and parts per billion (ppb). Parts per million are also commonly referred to as grams per tonne (g/t) in respect to gold and silver analytical results. Silver endowment may be referred to as ounces (oz) as per industry common practice. Assays and analytical results for base metals are also reported in parts per million (ppm). Note 10,000 ppm is equal to 1 %. Temperature readings are reported in degrees Celsius (°C). Lengths are quoted in kilometres (km), metres (m) or millimetres (mm). All costs are in Canadian dollars (C\$ or \$) unless otherwise noted. A listing of abbreviations and acronyms can be found in Section 20.

## 3 RELIANCE ON OTHER EXPERTS (ITEM 3)

The Author has reviewed the exploration data provided by MLM, its contractors, consultants, and analytical laboratories. While exercising all reasonable due diligence in checking the data, the Author has relied upon the data presented by MLM in forming opinions found herein. This report is based on information available at the time of preparation, data supplied by outside sources, and the assumptions, conditions, and qualifications set out herein.

A description of the property, and ownership thereof, as set out in this Technical Report, is provided for general information purposes only as required by National Instrument 43-101. Mineral claim information was provided by the office of the Yukon Mining Recorder via its interactive web site. Approximate claim locations shown on government claim maps and referred to on maps that accompany this Technical Report have not been verified by accurate surveys. Information concerning claim status and ownership which are presented in Section 4 below have been provided to the Author by MLM and have not been independently verified by the Author. However, the Author has no reason to doubt that the title situation is other than what is presented here.

## 4 PROPERTY DESCRIPTION AND LOCATION (ITEM 4)

#### 4.1 Property Description and Location

The Property is located 20 kilometres east of Keno City in Yukon on NTS map sheets 105M 15 (Figures 1.1 and 4.1). The claims are registered in the Mayo Mining District in the name of Mayo Lake Minerals Inc with 100% ownership subject to a Net Smelter Return (NSR) owned by Auropean Ventures Inc (Auropean), a related company.

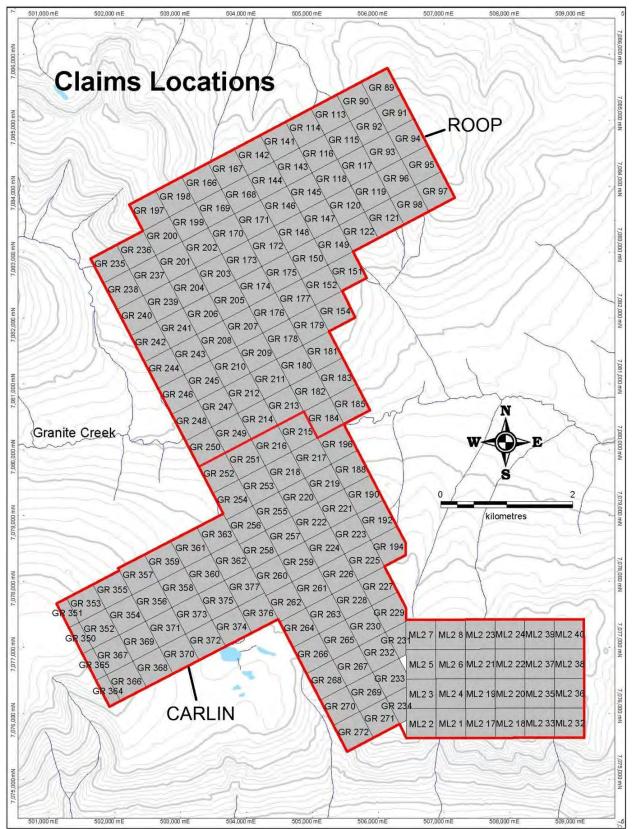


Figure 4.1: MLM Carlin-Roop Claims

2021

#### 4.2 Mineral Titles

The Property is 36.3 sq. km comprised of 186 claims registered to Mayo Lake Minerals Inc (MLM). All claims are in good standing until at least 19 Apr 2022, (Appendix 2). The claim ownership can be extended with further expenditures of \$100 per claim per year and \$5 renewal fee per claim per year. A total of \$652,447 has been spent on acquisition and maintenance and \$702,703 on exploration on the Property since 2012, with \$320,421 spent in 2020 alone. The Property is the result of the amalgamation of two previously larger claim blocks, Carlin to the south and Roop to the north. The combined area of the original properties was 115 sq km, with portions dropped subsequent to exploration evaluations on the north and east sides.

#### 4.2.1 Nature and Extent of Issuer's Interest

The Property is 100% owned by MLM subject to a NSR owned by Auropean Ventures Inc (Auropean) a related company.

#### 4.3 Royalties, Agreements and Encumbrances

The claims comprising the Roop portion of the Property are subject to a 2.5 % net smelter return royalty (NSR) and the Carlin portion is subject to a 2.75 % NSR. One percent of the NSR can be bought back by paying C\$1,000,000 if gold is at US\$1,000 or less and C\$2,000,000 if gold is at US\$3,000 with a sliding scale between US\$1,000 and US\$3,000; buy-backs can be in increments of 0.5%.

There are no other underlying royalties on the property, other than those owed the government and legislated requirements to local First Nations.

#### 4.4 Environmental Liabilities

The Author is not aware of environmental liabilities relating to this project.

#### 4.4.1 Environmental Liabilities from Past Mining Activities

There are no historical mine workings. Placer workings within the Carlin-Roop Property are held under different ownership and are not the responsibility of MLM.

#### 4.4.2 Current Environmental Liabilities

Most exploration work to date was of low intensity. The recent drill program from late 2020 was conducted under active Class 3 Operating Plan Permit (LQ00504) and was helicopter supported.

#### 4.5 Permits, Licenses, Leases

Exploration activity in Yukon requires a mining land use permit. Class 1 activities are low impact, usually early-stage, exploration. Class 2 and higher mineral exploration activities are subject to approval under the Yukon Environmental and Socio-economic Assessment Act (YESAA), a single assessment process that applies throughout Yukon, to all projects and all levels of governments. Consultation with the local First Nation of Na-Cho Nyäk Dun is facilitated in part through their involvement in the YESAA process.

#### 4.5.1 Class 3

MLM was issued a Class 3 Operating Plan Permit, (#LQ00504), after approval from the YESA Board, for the Carlin-Roop Property. It was effective as of 7 Sep 2018 and has a current expiry date of 6 Sep 2028. Work currently allowed under this permit includes up to 30 km of new trails less than 5 m wide, 10 km of brushed survey lines less than 2 m wide, 10 clearings per claims of less than 800 m<sup>2</sup>, one camp site or helicopter pad per claim of less than 500 m<sup>2</sup>, up to 100 trenches of less than 99 m per trench dug by hand or machine for a total volume less than 19,800 m<sup>3</sup>, up to 500 holes of less than 20,000 m of reverse circulation drilling, up to 500 holes of less than 10,000 m of diamond drilling.

All work, including restoration, must be completed by the expiry date, and inspected before application can be made for completion certificates. MLM is required to submit pre-and post-season reports. The Class 3 Permit is issued pursuant to the Quartz Mining Act and Quartz Mining Land Use Regulation under the direction of the Chief, Mining Land Use. It is subject to conditions which are attached to the approval. These conditions under certain circumstances can be modified with approval from Mining Land Use.

#### 4.6 Other Significant Factors and Risks

MLM has a good working relationship with the First Nation of Na-Cho Nyäk Dun (NND), on whose traditional territory the Property is situated. Consultation occurs through various official processes, such as permit applications, heritage reports, as well as periodic updates.

#### 4.6.1 Heritage Resources Overview Assessment

In 2012, MLM commissioned Ecofor Consulting Ltd (Ecofor) to prepare a Heritage Resources Overview Assessment (HROA) for their Mayo Lake Project properties (Project), including Carlin and Roop claim blocks. The objectives of the HROA were to identify and assess archaeological resource potential within the Project areas and prepare a written report detailing the results, dated 2 May 2012. This method is commonly used in cultural resource management and is designed to test the archaeological potential in a manner that allows for the confident assessment of the Project prior to development. This report is not for public distribution as it contains sensitive heritage site data to local First Nations. The 2012 report noted the Property has low probability of containing preserved sites. If sites are present, they would be more likely located in creek valleys that in upland areas. The report was shared with Na-Cho Nyak Dun First Nation on whose traditional lands the Carlin-Roop Property is located.

Reviews and assessments of this nature are ongoing during the life of the project. Areas of work are reviewed in consultation with the First Nation of Na-Cho Nyäk Dun in order to avoid interference with areas of heritage and archaeological importance.

## 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY (ITEM 5)

#### 5.1 Topography, Elevation and Vegetation

Carlin-Roop is located north of the east end of Mayo Lake (Figure 5.1) on the eastern slopes of the Gustavus Range straddling the Granite Creek Valley. Granite Creek drains the eastern slopes of the Gustavus Range north of valleys occupied by Mayo Lake. Valleys containing Mayo and Janet lakes are broad and U-shaped due to glacier ice being funneled down them from east to west during Pleistocene glaciations. Most small valleys tributary to the large valleys are narrow and confined by moderate to steep slopes. Uplands generally have moderate slopes. Streams draining the Property are all part of the Yukon River watershed.

The Property has been subjected to multiple glaciations (Hughes 1983). The youngest Pleistocene glaciation, the McConnell Glaciation, was confined to the trunk valleys occupied by Mayo, Janet, and Williamson lakes (Bond 1999). These valleys were filled with fast flowing ice that scoured their bottoms and sides. The upper limit of the McConnell Glaciation is marked by lateral moraines and kame terraces along the sides of these valleys. Minor lobes penetrated the upper reaches and tributaries of Granite Creek and may have flowed through the valley between Granite and Keystone creeks; here the glaciations former extent is marked by end moraines and kames. The westward limit of the McConnell Glaciation is along the base of the highlands to the west of Halfway Lakes between Mount Haldane and the Minto River. Uplands above the McConnell glacial limit were covered by glacial ice during the earlier Reid glaciation. The ice was probably cold-based, and transport of rock and debris was minimal as evidenced by landforms. Some uplands are mapped as a mixture of colluvium and till. Some patches of colluvium and alluvial benches at higher elevations may be representative of the Reid and older glaciations.

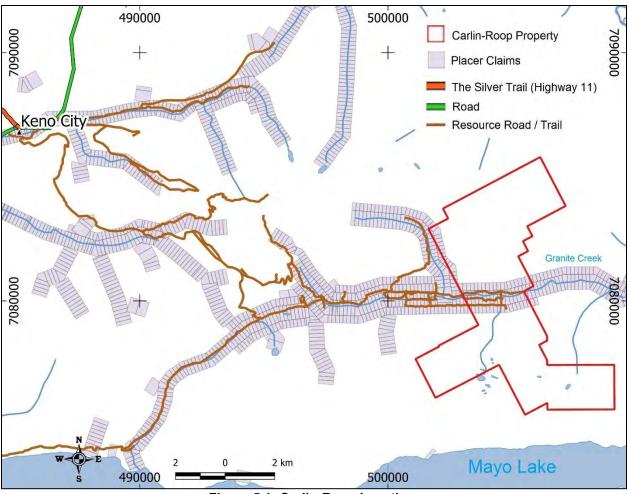


Figure 5.1: Carlin-Roop Location

Outcrop is uncommon on the Property, generally 10-15% of the area, though the distribution is weight heavily towards upper slopes and highlands. Soil development is immature, except on parts of the terrain above the McConnell glacial limit. Permafrost is likely pervasive on plateaus and north facing slopes, but discontinuous on south facing slopes.

Vegetation is predominantly black spruce with willow and alder understorey. Lowlands, north facing slopes and plateaus below the treeline exhibit a thick cover of organic matter, moss, and Labrador tea. South facing slopes are similarly vegetated but also include balsam and poplar groves.

#### 5.2 Climate and Length of Operating Season

The Property area is subject to a continental climate with long cold winters and warm dry summers. The average annual precipitation on the property is about 450 mm occurring mostly as rain in the warmer months. In the winter, the snowpack rarely exceeds 1 m in depth.

Permafrost occurs irregularly across north facing slopes. The best season for exploration is during the summer months from mid-May to mid-October.

#### 5.3 Sufficiency of Surface Rights

The surface rights are held by the Yukon government and any exploration, development or mining operations require regulatory approval. The Property lies within the traditional territory of the First Nation of Na-Cho Nyäk Dun.

#### 5.4 Accessibility and Transportation to the Property

Access to the Property is provided by seasonal roads servicing the placer operations along Granite and Keystone creeks and networks of historical drilling roads. These roads connect to the Silver Trail (Highway 11) at Keno City, which then connects with the Yukon's paved or chipsealed highway network at Mayo (Figure 5.1). The eastern edge and uplands of the Property are accessed primarily by helicopter from the town of Mayo or Keno City. There is a placer operation camp approximately 6 km from the central east boundary of the Property, along Granite Creek.

Highlands of the Gustavus Range are generally clear, whereas slopes were generally well drained and forested (preventing helicopters from landing except where pads had previously been cleared). Valley floors were poorly drained and boggy or covered with hummocky till.

#### 5.5 Infrastructure Availability and Sources

The Property is located in an isolated part of Yukon with relatively few local resources or infrastructure. All season road access goes to Keno City, and the next community is Mayo, farther to the southwest. Keno City has population of 20 as of Jun 2016, and Mayo has a population of 499 residents as of Jun 2017.

#### 5.5.1 Power

There is currently no power grid to the project areas. The closest grid access would be Keno City. The Eagle Gold Mine was connected to the Yukon Power Grid from the Wareham Dam 10 km north of Mayo. Generating capacity of this facility is roughly 15 Megawatts (Yukon Energy Corporation). The main 69 kVA line parallel to the government maintained Silver Trail Highway was being replaced in 2020 with a parallel 139 kVA line.

#### 5.5.2 Water

Mayo Lake is to the immediate south of the Property. There are multiple streams crossing the Property, the main one which is Granite Creek flowing east into Roop Lakes. Granite Creek cuts the property east-west approximately in the middle.

2021

#### 5.5.3 Personnel

Keno City and Mayo are the closest communities. Mayo is the larger of the two and is a fullservice community with an available workforce, and contracting facilities. Closer to and including Whitehorse, there are several communities with an historic attachment to mining and exploration. It is also common for personnel to fly in from all parts of Canada. There are several active projects in the area, including Victoria Gold's recently opened Eagle Gold Mine, and Alexco's advanced Keno Hill Silver Project, both to the northwest. They provide onsite accommodation for fly-in personnel.

#### 5.5.4 Potential Sites for Mine Infrastructure

Studies of this nature have not been commissioned at the time of writing. Though the terrain is hilly, with many steep slopes, there are many areas of shallow slopes, principally on the north-facing slopes on the southern half of the property. There are ample areas suitable for plant sites, tailings storage, and waste disposal areas should commercial production be contemplated.

## 6 HISTORY (ITEM 6)

The exploration history of the Property has been compiled from the Yukon Energy and Mines and Resources Library and Yukon Geological Survey MINFILE database. Carlin-Roop lies in the southern part of the heavily explored Keno Hill Silver Camp. Table 6.1 lists all known assessment reports that describe work done within the boundaries of the present Property or proximal areas with similar conditions.

#### 6.1 Past Exploration

#### 6.1.1 Geologic Mapping

The earliest regional mapping in the Mayo Lake area was undertaken by H.S Bostock in 1947. Early work by Bostock was followed from 1952 to 1965 by numerous workers who published geological maps; these included L.H Green et.al (1972), R.W Boyle (1964), and E.D Kindle (1962) with contributions by C.F Gleeson (Boyle 1964). Mapping was reinitiated in early 1992 by J.A Hunt et al. (1996), D.C. Murphy et al. (1996) and C.F Roots (1997) and later G. Lynch (2006); in addition to fieldwork, they integrated numerous geological publications dating from 1920 to 2006. Roots' work resulted in a regional map at 1:250,000 scale (Roots 1997). Surficial mapping was undertaken by Hughes (1983) in 1964 and 1979 and more recently by Bond (1999). Lynch held claims, Honey and Sugar claim blocks, partially overlapping the southeastern area of the Property for which he produced detailed geology maps in 2005 (Lynch, 2006).

#### 6.1.2 Geochemical Sampling Surveys

Operation Keno, headed by Dr. C.F. Gleeson of the Geological Survey of Canada (GSC), was completed in 1968 (Gleeson et al 1965-1968, Gleeson 1980a, Gleeson 1980b). It centred on Keno Hill and consisted of stream sediment, water, heavy-mineral and litho-geochemistry programs. Notably creeks draining into Mayo Lake were sampled, yielding numerous As, Sb and Au anomalies in heavy mineral concentrate. The area within, and adjacent to, the Property was again sampled during a stream sediment program by the GSC in 1986-87 (Hornbrook 1987) with a low sampling density. This program yielded few anomalies. These surveys are compiled and presented in Figure 6.1.

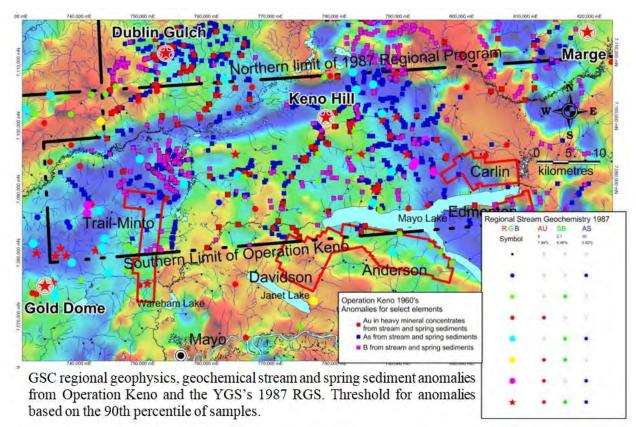


Figure 6.1: GSC and YGS Geochemical anomalies on Airborne Magnetics

#### 6.1.3 Geophysical Surveys

The GSC carried out two geophysical programs in the Mayo Lake area; the first at 1207 m spacing in 1968 and a second at 2000 m spacing in 1990 (Figure 6.1). Those surveys are corroborated by similar results obtained by MLM's airborne geophysical program, where MLM had tighter line spacing of 150 m. These surveys delineate the Robert Service Thrust (RST) / Tombstone Thrust (TT) faults and several major lineations likely representing thrust sheet imbrications or lithological marker horizons.

#### 6.2 Drilling

No previous drilling is currently known. MLM recently completed a small drill program in late 2020, discussed below.

#### 6.3 Historical Mineral Resource Estimates

Not applicable

#### 6.4 Historical Production

There is evidence for historic placer mining on most of the tributaries to Mayo Lake and the Mayo River. Modern placer mining is ongoing along Duncan, Lightning and Granite creeks. Placer claims in good standing are present on most creeks in the area.

 Table 6.1: Assessment Reports associated with Carlin-Roop

Report Number	Title	Company		
95766	Assessment Report Keno Silver Project June 2011 Field Work H-M-W- WW-X Quartz Mineral Claim Group	Blind Creek Resources Ltd.		
96311	2012 Surface Work on the Keynote Project	Stakeholder Gold Corp.		
96587	Assessment Report on the Roop Claim Group Describing 2012 Geophysical Interpretation and Geochemical Surveys and Interpretation	Mayo Lake Minerals Inc.		
96265	Assessment Report on the Roop Claim Group Describing an Airborne Geophysical Survey	Mayo Lake Minerals Inc.		
96267	Assessment Report on the Carlin Claim Group Describing an Airborne Geophysical Survey	Mayo Lake Minerals Inc.		
96268	Assessment Report on the Edmonton Claim Group Describing an Airborne Geophysical Survey	Mayo Lake Minerals Inc.		
96592	Assessment Report on the Carlin Claim Group Describing 2012 Geophysical Interpretation and Geochemical Surveys and Interpretation	Mayo Lake Minerals Inc.		
96808	Assessment Report on the Roop Claim Group GR Various Describing 2014 Geochemical Survey and Interpretation	Mayo Lake Minerals Inc.		
96928	Assessment Report on the Mayo Lake Project YMEP #15-029 Describing the 2015 Mayo Lake Program on the Trail-Minto, Anderson- Davidson, Edmonton and Carlin Claim Groups	Mayo Lake Minerals Inc.		
97025	Assessment Report on the Trail-Minto and Carlin Claim Groups Describing the 2016 Soil Sampling Survey	Mayo Lake Minerals Inc.		
97035	Assessment Report on the Trail-Minto and Carlin Claim Groups	Mayo Lake Minerals Inc		
97043	2017 Surface Work on the Keynote Project	Taku Gold Corp		
97036	Assessment Report on the Roop Claim Group describing the 2017 Soil Gas Hydrocarbon Survey	Mayo Lake Minerals Inc.		
97179	Assessment Report on the Carlin-Roop claim group describing the 2017 Soil Sampling Survey	Mayo Lake Minerals Inc.		

## 7 GEOLOGICAL SETTING AND MINERALISATION (ITEM 7)

#### 7.1 Regional Geology

The Property is located within the Selwyn Basin of the Tintina Gold Belt. Simplified regional geology as shown on Figure 7.1 depicts Upper Proterozoic to Lower Cambrian Hyland Group stratigraphy in contact with Paleozoic metasedimentary units of the Ern Group and Keno Hill Quartzite along the Robert Service Thrust (RST). Mid-Triassic mafic sills and greenstones are common within the Keno Hill Quartzite and Ern Group but are rarely encountered in other units. All stratigraphic units have been intruded by the Mid-Cretaceous age Tombstone Plutonic Suite. The 100 km<sup>2</sup> Roop Lakes Stock, east of the Keno Camp, is the largest member of the Tombstone Plutonic Suite and probably drove hydrothermal circulation leading to the mineralisation at Keno Hill, as referenced by Roots (1997).

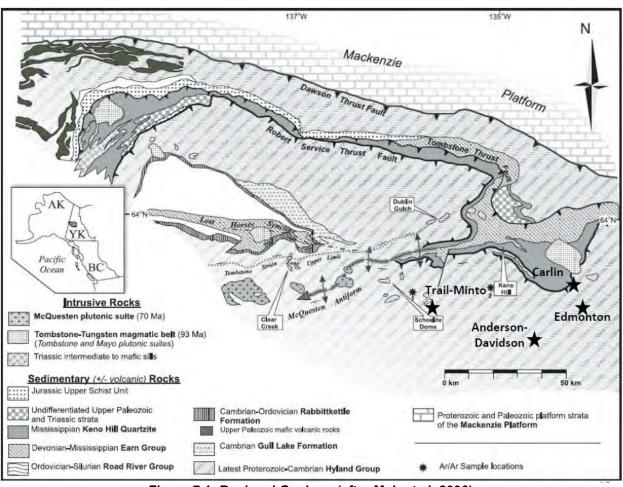


Figure 7.1: Regional Geology (after Mair et al, 2006)

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The dominant structural features in the area are a pair of imbricated thrust sheets; the RST and the Tombstone Thrust Sheet (TTS) have over 150km of combined NE directed transport of rock masses. The RST Sheet itself contains many internal thrusts that are commonly difficult to distinguish due to subsequent intense folding of faults and contacts and a strong penetrative structural fabric imparted by the later underlying TTS; the area deformed during this event is often referred to as the Tombstone Strain Zone. Intense folding is especially evident in units immediately around Keno Hill. Large open folds, the McQueston Antiform (E-W) and Mayo Lake Antiform (NW-SE), and several inferred brittle faults were developed after the large thrusting events (Roots 1997).

Mineralisation within the Tombstone Plutonic Belt is primarily the result of magmatic hydrothermal systems; these large epizonal systems result in variable deposits that on the surface may appear unrelated. It should be noted that the proximal relationship to crustal scale features, such as the RST and TTS, is also common among many large ore forming systems both globally and within the Tintina Gold belt.

Proximal mineralisation associated with Tombstone intrusives are sheeted gold veins or stockworks within the rim or immediately adjacent to Tombstone Suite plutons. Intrusion related mineralisation itself is generally (i) enriched in Au-Bi-Te, possibly W; (i) depleted in base metals and (iii) situated in tensional zones of the stock. At intermediate distances from source plutons, As-Sb-Au veins develop and have been the subject of minor exploration around Van Cleaves Hill, west of Mayo Lake.

A major intrusion related gold occurrence located within 50 km of the Property is Dublin Gulch (Victoria Gold's Eagle Mine). It is located in the upper plate of the RST within Hyland Group metasedimentary rocks. Sheeted veins related to the Tombstone Plutonic Suite contain most of the gold. Other nearby intrusion related Au occurrences within 50 km, to the west and north, include McQueston, Sundown, Secret, Skate and Erin.

Where metasomatic circulation contacts carbonate lithologies skarnification is common, such as at the Ray Gulch tungsten skarn near Dublin Gulch. These skarns are generally high in Au-W-Cu-Zn. Skarnification of rocks surrounding Tombstone suite intrusions will result in hydrothermal signatures different from those illustrated in Figure 7.2. Gold Dome (formerly Scheelite Dome) appears to be skarn type mineralisation, though also classed as intrusion related gold.

The most distal mineralisation associated with Tombstone intrusives are polymetallic Ag-Pb-Zn veins similar to the locally developed Keno Hill Type veins. This mineralisation represents the

furthest extent of hydrothermal influence related to these intrusions and may occur many kilometres from the source stock (Figure 7.2).

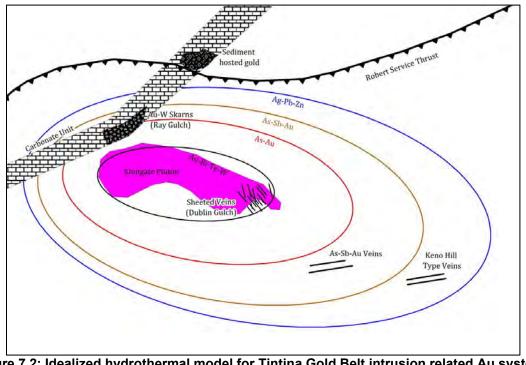


Figure 7.2: Idealized hydrothermal model for Tintina Gold Belt intrusion related Au systems (modified from Hart et al, 2002)

The Keno Hill Silver District (KHSD) has produced over two hundred million ounces of silver since 1921 from Keno Hill Type Veins (KHTV). Productive veins occur in the Keno Hill Quartzite and underlying Lower Schist (Earn Group). Although faults with associated mineralisation (mineralised faults) are believed to cut through the RST and continue into the Hyland Group, no significant silver mineralisation has been discovered above the RST.

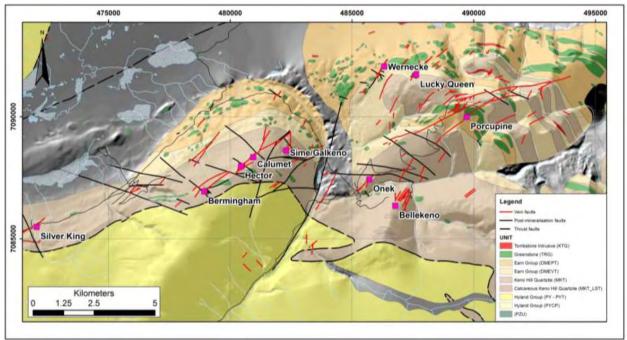
Consensus is that KHTV are the product of hydrothermal circulation in reactivated structures driven by the emplacement of the Roop Lakes Stock, up to twenty (20) kilometres away. The veins are generally within the Keno Hill Quartzite, but are inferred to cut through the RST and continue into the overlying Hyland Group. Abundant narrow Cretaceous dykes (Murphy 1997) related to the Tombstone Suite near Keno Hill could be an alternate hydrothermal engine or fluid source. In addition to Ag, Pb and Zn, other elements enriched in KHTV include Ba and Cu and in some cases Sb, Fe and Ca.

Ore shoots within the veins typically consist of galena, sphalerite and tetrahedrite with siderite or quartz gangue. In the vicinity of Keno City, the mineralised (traverse or strike slip) faults trend within a north to east-northeast arc and dip steeply to the southeast with left lateral offsets

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ranging from a few metres to over a hundred metres (Boyle 1965, Cathro 2006). Longitudinal faults offsetting the mineralised faults are east-striking and steeply north-dipping and contain little Ag mineralisation, (Cathro, 2006). Longitudinal veins are typically mineralised with massive quartz sometimes up to 5-m wide and can be weakly mineralised in places with arsenopyrite, pyrite and rare jamesonite and boulangerite in a quartz gangue, (Cathro, 2006), see Figure 7.3.





In the KHSD, multiple pulses of hydrothermal fluids or fluid boiling, probably related to repeated reactivation and breccia formation along the host fault structures, have formed a series of vein stages with differing mineral assemblages and textures, (Beaudoin & Sangster, 1992; Churcher et al, 2020). The largest accumulation of minerals of economic interest in the KHSD occur in areas of increased hydrothermal fluid flow in structurally prepared competent rocks such as the Basal Quartzite Member and Triassic Greenstone. Within thick-bedded quartzite, the transverse veins can become up to 30-m wide and typically branch into a number of parallel to sub-parallel fractures filled by gouge or breccia, along which recurrent movement has occurred, (Cathro, 2006).

Incompetent rocks like phyllites tend to produce fewer and smaller (if any) open spaces, limiting fluid flow and resulting mineral precipitation, (Beaudoin & Sangster, 1992; Churcher et al, 2020). Within schistose units, mineralised veins consist of a number of slips and fractures carrying gouge and breccia that rarely exceed 0.3 m in thickness. In many cases, they exhibit as

fractures or slips less than 0.1 m thick, along which the wall rocks have been dragged, contorted, and smashed, (Cathro, 2006).

#### 7.2 Local and Property Geology

The Carlin-Roop Claim Group is underlain by Keno Hill Quartzite intruded by Triassic greenstones and the Cretaceous Roop Lakes Stock (Figure 7.4). A contact metamorphic aureole extends away from the stock up to 4km affecting most units underlying the Property.

#### 7.3 Stratigraphy

The stratigraphy is exclusively Keno Hill Quartzite which is comprised of massive to well foliated lineated quartzite with lesser phyllitic quartzite, chloritic and carbonaceous phyllite (Roots 1997). On the Property the Keno Hill Quartzite is interbedded with intermediate to felsic volcaniclastics, likely a local extension of the "Marge sequence", a unit of abundant green weathering tuffaceous metavolcanic rocks. The Marge sequence hosts the Marge VMS deposit east of the Keno-Ladue River. Thin beds of carbonates are also present, though rare.

Lynch (2006) describes "[five] mapable units from within the Keno Hill Quartzite unit can be described...in ascending order: (1) interbedded, grey-black quartzite, graphitic schist and phyllite, with minor greenstone; (2) a unit of thinly bedded, competent, dark green, tuffaceous volcanic rocks and trachytic andesite; (3) pervasively altered, porous, white sandstone; (4) interbedded, silver-grey and brown-coloured schist and phyllite; and (5) foliated to massive, feldspathic greenstone or metadiorite". Lynch notes that units 1 – 4 are part of the Mississippian Keno Hill Quartzite, whereas unit 5 is likely Triassic in age.

#### 7.4 Intrusives

The Roop Lakes Stock is roughly 100 sq km in a northeast trending 16 by 8 km ellipsoid centred just east of the Property. The marginal phase is quartz diorite to quartz gabbro with abundant chloritised hornblende. The main phase is medium-grained granodiorite with lesser quartz monzonitic with occasional hornblende is up to 15 mm long. The contact locally is a 100 m wide zone of aplite and pegmatite dykes (Green, 1971) in quartz phyllite. The metamorphic aureole extends up to 4 km beyond the contact grading from sillimanite schist at the contact passes outwards to garnet-staurolite-plagioclase-biotite-muscovite schist, whereas the outermost halo is characterized by graphite-andalusite schist, or locally biotite-muscovite schist, (Lynch, 2006).

Triassic sills of greenstone and gabbroic composition are common on the Property, (Lynch, 2006). They are dark green, foliated, fine to medium grained and weather in a blocky fashion. The main mineral assemblage consists of amphibole, chlorite, and plagioclase. Sills are

common in the Keno Hill Quartzite and Ern Group and are also known, though rare, within the Hyland group. Due to their commonly small size and abundance many such intrusions are located on the Property.

#### 7.5 Structural

Deformation on the Property is typical of the Tombstone Strain Zone, including a strong penetrative fabric and intense large-scale deformation (Roots 1997). Broad post-metamorphic folding is also present and is indicated by variable foliation dips. Foliation is generally shallow, dipping southwest to southeast. Boudinaged quartz +/- carbonate veins are common within the Hyland Group and generally parallel to foliation. These veins likely predate the development of the Tombstone Strain Zone.

Government maps of the local area indicate an antiform fold approximately parallel the length of the Propery, trending about 140° and plunging 10° southeast with an axial plane striking 320° and dipping steeply 88° northeast. Apparent bedding on the west side dips gently 20° - 30° southwest; and the east side dips 15° - 30° northeast.

In the southeast of the Property, Lynch observed in 2005 that bedding strikes north-northwest and dips moderately east-northeast. He also noted that two penetrative fabrics are generally preserved within the micaceous units, and to varying degrees within the more competent rocks. The earliest and strongest foliation is parallel, or sub-parallel to bedding, and is characterized by aligned mica and locally a schistose fabric. The fabric is axial planar to isoclinal folds. Highly sheared, detached, intrafolial folds, boudins, and fault rock were observed at a contact, which has been interpreted as a thrust fault, extending northwards to a mylonitised greenstone outcrop. The second fabric comprises an upright-spaced cleavage which strikes northwestsoutheast, and is axial planar to open folds which plunge moderately to the southeast. The two stages of deformation are well known in the district and can be related, in succession, to early thrusting in association with the Robert Service Thrust (RST), followed by later upright folding in association with the Mayo Lake Anticline, (Lynch, 2006).

Quartz +/- carbonate veining and shear zones were noted in 2020 MLM drilling in the southwest area of the Property, inferred to be steeply dipping.

#### 7.6 Significant Mineralised Zones

MLM soil sampling between 2012 and 2017 found elevated Ag and Au anomalies, with follow-up surveys outlining elongated zones of consistent Ag, As, Pb and Sb anomalies. Recent drilling

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by MLM in Autumn 2020 on the Carlin West Target has confirmed Ag mineralisation and occurrences of pyrrhotite, magnetite, pyrite, sphalerite, and possible sulphosalts.

Minfile has no occurrences within the area of the Carlin-Roop Property. Mt. Albert (105M 047) is the closest Minfile occurrence, Vein Polymetallic Ag-Pb-Zn+/-Au showing found in the 1960s, off the southwest corner of the Property. Table 7.1 lists all known Yukon Minfile occurrences documented adjacent to the area of the Property, which also occur in similar geologies. There are many more mineral occurrences in similar geologic setting as the Property in the environs of Keno City.

NUMBER	NAME	ТҮРЕ	STATUS	PRODUCER	COMMODITY	ZONE	UTME	UTMN
105M 036	ETTA	Unknown	Anomaly	Ν	Zn	8	512105	7072367
105M 070	HAVRENAK	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect	Ν	Au, Ag, Pb	8	496711	7083334
105M 052	MT HINTON	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect	Ν	Au, Ag	8	494009	7083338
105M 047	MT. ALBERT	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing	Ν	Pb, Ag	8	500492	7077854
105M 044	ROOP	Skarn W	Showing	Ν	w	8	517389	7080099

Table 7.1: Adjacent Mineral Occurrences (Yukon Minfile)

#### 7.7 Quaternary Geology

An airphoto interpretation for ground cover was completed by V. Rampton, MLM personnel, (Figure 7.5). It is predominantly a mix of glacial deposits and bedrock / colluvium, with variable thickness of cover. Glacial deposits are mostly till and moraine. Bedrock and colluvium dominate at higher elevations. Ice flow direction from glacial striae is to the south-southwest in the central areas and west-southwest in the southern areas (MLM observations; Boyle, 1964; Green, 1970).

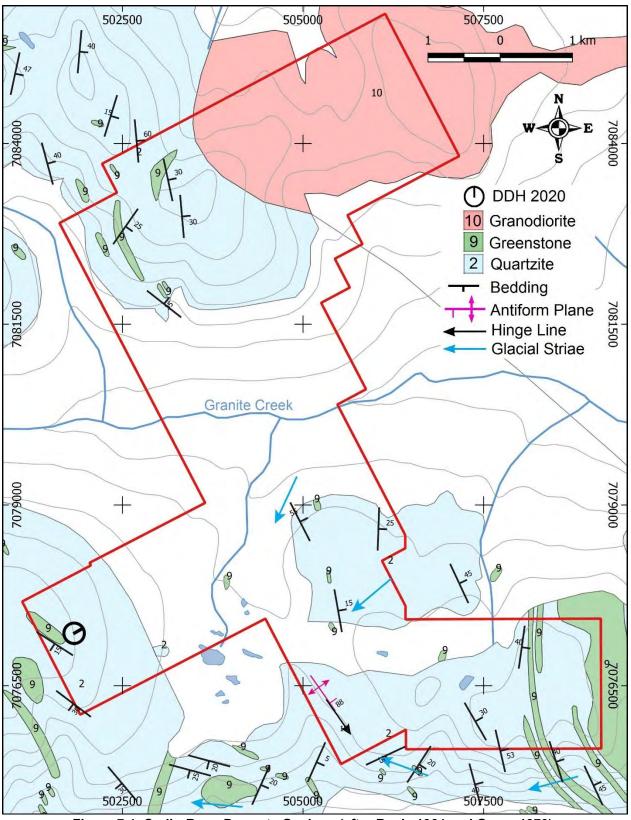


Figure 7.4: Carlin-Roop Property Geology (after Boyle 1964 and Green 1970)

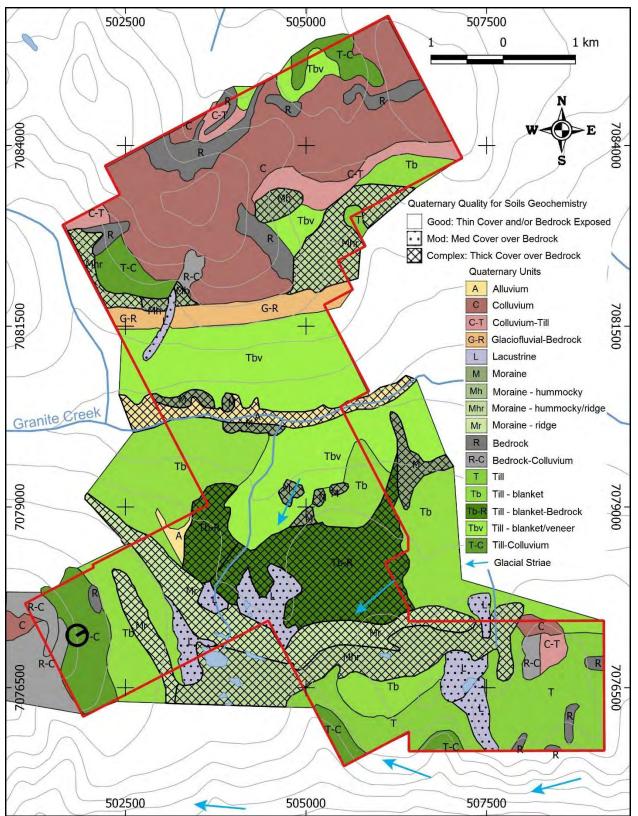


Figure 7.5: Ground Cover from MLM Airphoto Interpretation

## 8 DEPOSIT TYPES (ITEM 8)

The Property is a prospective host to a variety of deposit styles related to the complex Mesozoic and Cenozoic metamorphic, plutonic, and volcanic history associated with the formation of the northern Canadian Cordilleran orogeny and particular the Tintina Gold Belt. The most attractive of these are:

- Polymetallic veins: mainly Keno Hill Type, which are typically high in silver, lead and zinc and are related to the intrusion of the Tombstone Plutonic Suite and constitute the main ore at Keno Hill.
- Intrusion related gold: such as Dublin Gulch and Fort Knox (in Alaska). These deposits are related to post-orogenic, mid-Cretaceous Tombstone Suite stocks that intruded Selwyn Basin sedimentary rocks.
- Orogenic gold veins: formed after peak metamorphism of the Yukon-Tanana Terrane; their erosion likely contributed to the Klondike placer deposits. These are narrow, high-grade deposits; typical is the Pogo Mine in Alaska with reported reserves and resources of 4.9 Moz Au at 12.45 g/t Au. They may be high grade, epithermal or mesothermal, structural end-members of the intrusion related gold model rather than typical orogenic veins.
- Skarns; such as the Ray Gulch Tungsten Skarn at Dublin Gulch and a small skarn southeast of the Roop Lakes Stock.

The Carlin West Target is the most advanced on the Property and initial assessments are that it may be a Keno Hill Type Ag occurrence. It has steeply dipping structures cutting Keno Hill Quartzite which have been shown to host Ag mineralisation.

## 9 EXPLORATION (ITEM 9)

#### 9.1 Airborne Geophysics

In 2012, MLM had an airborne geophysical survey flown over all of its claim groups between February and March by Precision GeoSurveys Inc (PGI) that saw the acquisition of high-quality magnetic data (Figure 9.1). The survey was flown using a Bell 206 BIII jet ranger at 150-metre spacing. The average survey was flown at an approximate height of 30m above terrain with a line spacing of 150m and tie lines every 1.5km for a total of 5098 line-kilometres. The survey data acquisition specifications and coordinates for the different claim groups can be found in Rampton and Sutherland (2012 a, b, c, d, e, and f).

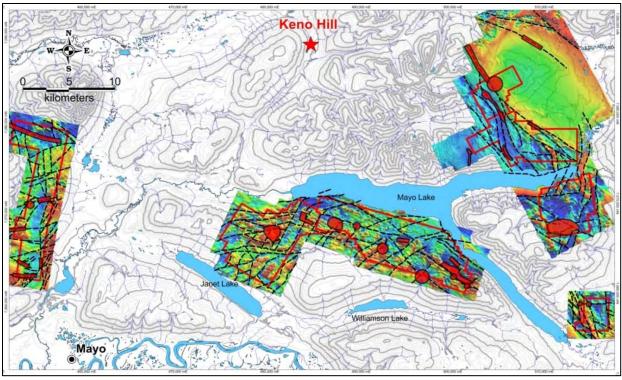


Figure 9.1: 2012 PGI airborne total magnetic intensity covering MLM claim groups

The Carlin-Roop Property at the time of the survey was much larger (Rampton and Sutherland, 2012f). PGI designated that part of the survey as Block C, which overlapped the current Property. To develop targets for exploration and prospecting from airborne magnetics, MLM contracted Roman Tykajlo, PGeo, of Geo Digit-Ex (GDX). GDX provided a second opinion on the quality of geophysical data collected by PGI as well as independent interpretation of the data and further interpolation of data. These analyses were used to determine which magnetic features likely correspond to structures, contacts, or alteration zones and, in conjunction with historical geochemical data, determine credible targets for exploration (Figure 9.2).

This program delineated the major structural trends on the Property, including a long NW trend, and the Roop Pluton in the NE portion of the block, (Figure 9.2). There are indications in the magnetics of structures running E-W, as indicated in the southeastern area of Figure 9.2. The analytical signal outlines magnetic-high anomalies interpreted to be indicative of greenstones, (Figure 9.3). A fabric of intersecting linear anomalies is also apparent on the analytical signal magnetics, outline by breaks in magnetic highs, (Figure 9.3). The predominant sets are WNW (310°) or NW (315° – 320°), as well as ENE (65° - 70°).

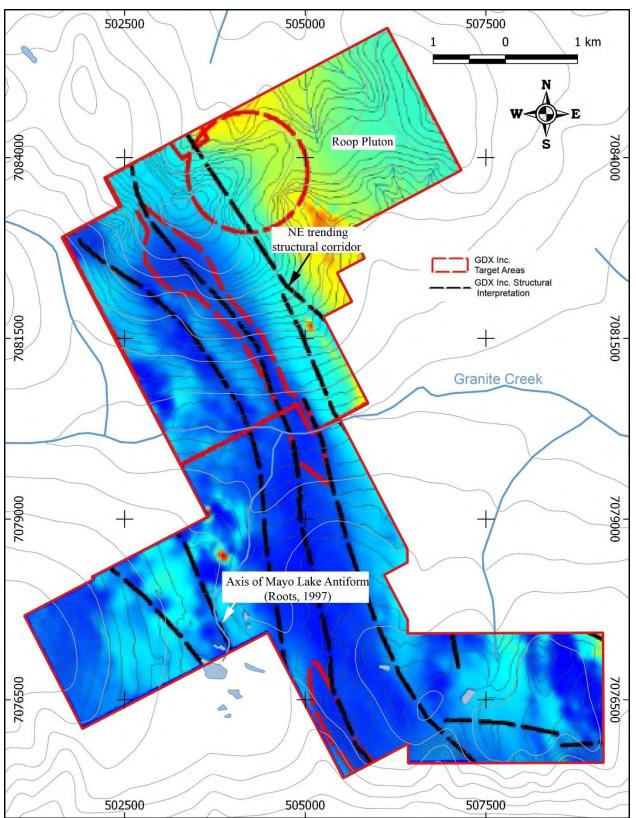


Figure 9.2: 2012 Carlin-Roop Airborne Total Magnetic Intensity with GDX Targets

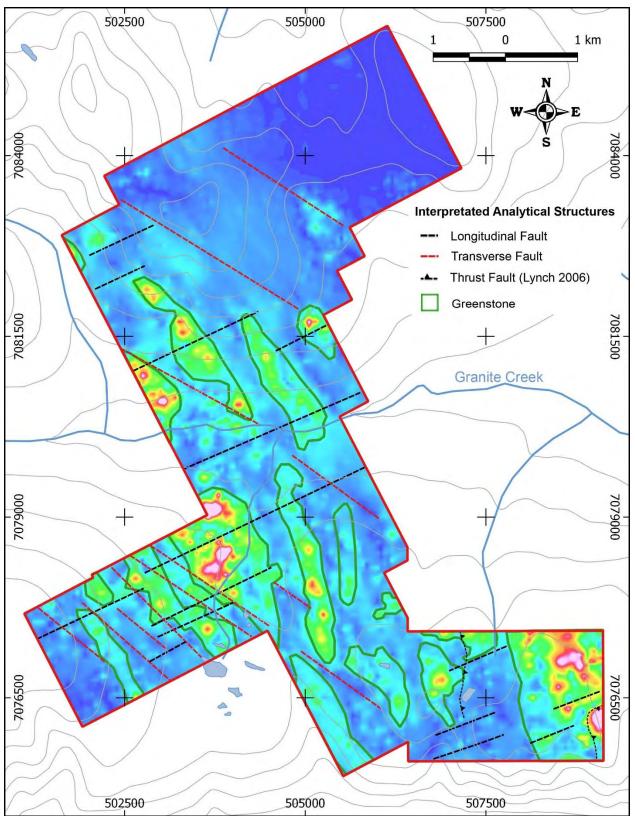


Figure 9.3: 2012 Carlin-Roop Airborne Magnetics Analytical Signal Interpretations

#### 9.2 Soil Sampling

There were several MLM soil sampling campaigns, starting with a reconnaissance ridge & spur in 2012, followed by a grid on Roop North in 2014, a grid each at Carlin West and Carlin East1 in 2014, finally focussing on Carlin West with extended grids in 2016 and 2017 (Figure 9.4).

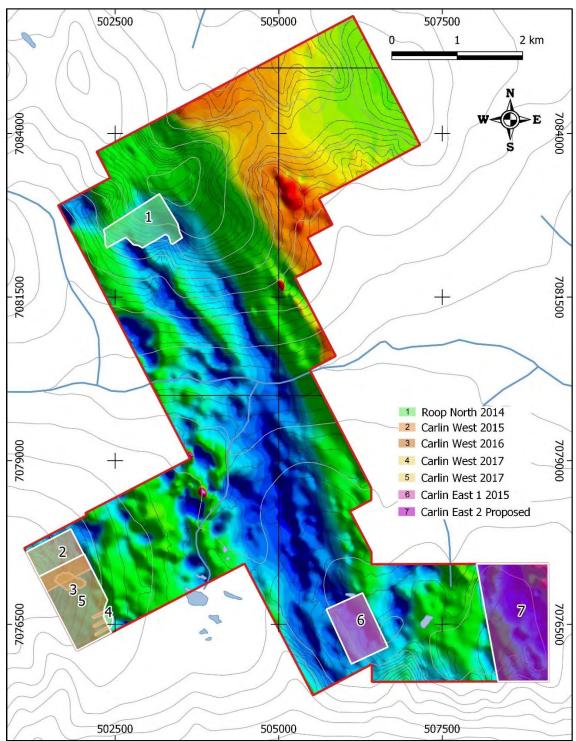


Figure 9.4: MLM Areas of Interest and Soil Grids on 2012 PGI Shaded TMI

#### 9.2.1 2012 Reconnaissance

In 2012, MLM conducted a ridge and spur type reconnaissance soil sampling program on all of its claim groups (Rampton and Sutherland 2013 a, b, c, d, and e), (Figure 9.5).

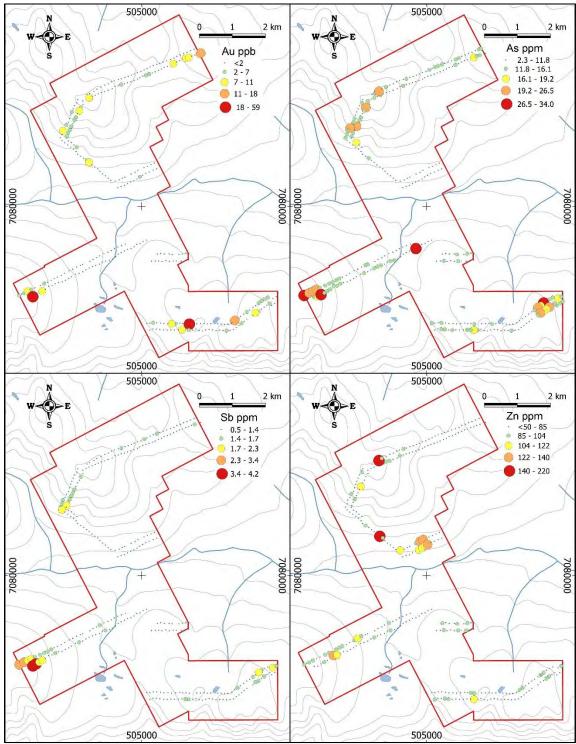


Figure 9.5: MLM 2012 Carlin-Roop Ridge/Spur Soil Anomalies Au, As, Sb, Zn

Notable regional anomalies were Au, As, Sb and Zn enrichment south of Granite Creek (Carlin West and Carlin East) and an area to the north of Granite Creek (Roop North). One should be cautioned that the Au values from ICP-MS after aqua-regia digestion are affected if graphite is present in the sampled materials.

#### 9.2.2 2014 Roop and 2015 Carlin Grids

Sampling programs in 2014 and 2015 targeted anomalies from the ridge and spur soil sampling program on the Property (Figure 9.4): Roop North in the northwest corner of the Property in 2014; Carlin West and Carlin East to the south of Granite Creek in 2015. This consisted of soil grids with variable sampling intervals, generally 60m x 120m.

An area of anomalous soil samples from the Roop North area was sampled with a grid in 2014. One hundred and fifteen (115) soil samples were collected along eight (8) lines which also transected multiple geophysical lineaments. There are two (2) distinct anomalous multi-element geochemical associations delineated by the soil grid, described here as R1 (Figure 9.6) and R2 (Figure 9.7). Most elements indicate mass movement down slope with anomalies generally stretched to the south.

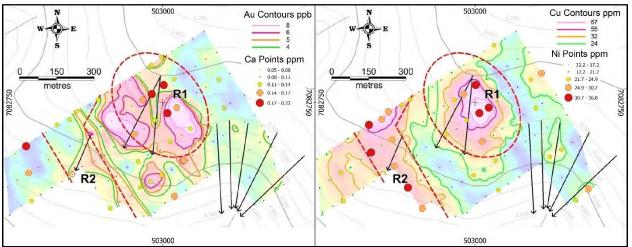


Figure 9.6: 2014 Soils Roop North R1, Au with Ca and Cu with Ni

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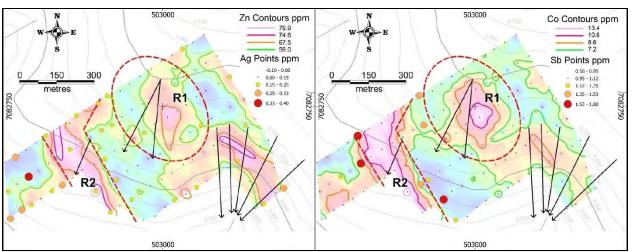


Figure 9.7: 2014 Soils Roop North R2, Zn with Ag and Co with Sb

R1 is an oval shaped 350 m by 250 m zone on the north central portion of the grid. It is delineated by anomalous or elevated values of Au, Ca, Co, Cu, Na, Ni, Sc, and Ti. Figure 9.6 illustrates Au with Ca and Cu with Ni. Elevated Au and several other elements within and around R1 are associated but are not mutually anomalous. The Au typically being strongest around the southern edge of R1 and most other elements strongest within the centre of R1. R1 is bisected by several boulder falls within which some elements do not show anomalous or enhanced values. There is a linear TMI magnetic low which increases in width within the project area, suggesting a thickening of a lithological unit or area of alteration (Figure 9.3).

R2 is a linear trend of elevated Al, Co, Fe, Mg, Mn, Ni, V and Zn values. Figure 9.7 illustrates Zn with Ag and Co with Sb. Ag and Sb are weak anomalies, but their pattern is moderately elevated within the R2 trend, strong along the R2 margins and weakest in the R1 zone. The R1 linear feature crosses all samples lines along the western quarter of the grid. Many elements also appear to have truncated anomalies or different backgrounds on either side of this anomaly.

The Carlin West Grid (Figure 9.4) sampled cryoturbated soils above the McConnell glacial limit. Samples contained up to 39 ppb Au-in-soil with anomalous values oriented in complex or discontinuous north-northwest to north trending anomalies. As and Sb values in soil correlated well with each other, but were offset from Au in soils, (Figure 9.6). Periglacial sorting and the effects of mass wasting the soil samples from the Carlin West grids may explain some inconsistencies, but lateral movement is minimal with cryoturbation. More samples taken in 2016-2017 clarified anomalous trends in various metals and pathfinders (see Section 9.2.3).

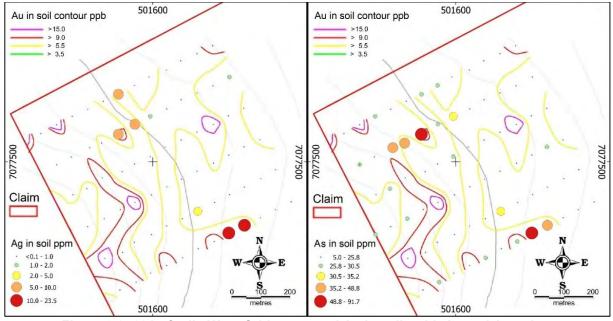


Figure 9.8: 2015 Carlin West Grid contoured Au in soils with Ag and As points

The Carlin East1 Grid (Figure 9.4) sampled an area right at the McConnell glacial limit; samples were taken from a mixture of boulder fields and moraines. Au anomalies up to 13 ppb in soil are oriented roughly northwest and reflected in the As plot (Figure 9.9). The tenure of the As results are overall lower than the Carlin West results, but they correlate more strongly with Au on this grid. Ag results are weak, very much lower compared to Carlin West, though moderately more correlated to Au results on this grid. Anomalies located within the McConnell glacial limit may show the effects of glacial transport from the northeast.

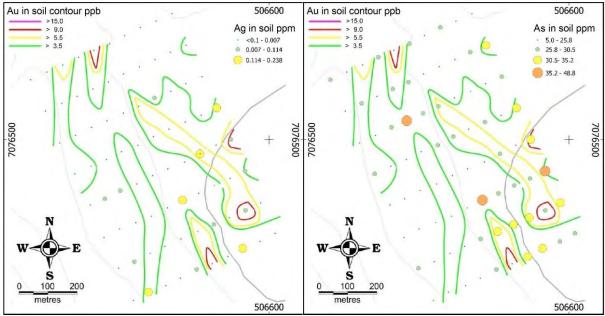


Figure 9.9: 2015 Carlin East1 Grid contoured Au in soils with Ag and As points

#### 9.2.3 2016-2017 Carlin West Grids

The western soil grid south of Granite Creek, dubbed the "Carlin West" Grid was expanded southeast in 2016. The Carlin West grid sampled from 2015-2016 delineates elevated trends of Ag, Au, and several pathfinders in soil. Based on the abundance of float visible and the lack of Ag or Au mineralisation in float or outcrop, it is likely that the bedrock source for the anomalies is relatively recessive due to friability and ease of weathering, consistent with most mineralisation within the Keno Camp.

In 2017, MLM completed a closely spaced 30 m x 30 m soil grid to further define Ag and Au anomalies within the extents of the western Carlin West grid that was sampled originally in 2015 and expanded in 2016. Also, three lines of infill sampling were completed at the southeastern corner of the grid (Figure 9.10). Samples from the 2017 Carlin West grid contained up to 45 ppm Ag-in-soil with anomalous values oriented in a linear northwest to north trending pattern (Figure 9.10).

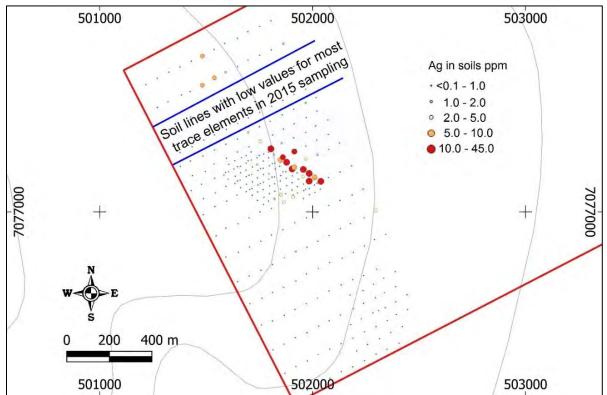


Figure 9.10: Carlin West All Surveys Ag in soils

Ag anomalies strongly correlate with Pb, Sb and As values in soil (Figure 9.11). Au analysis from 2017 sampling shows no discernable pattern, but when incorporated into the older broader spaced sampling show an irregular anomaly roughly parallel but off-set from the Ag, As, Pb and Sb anomalies. Periglacial sorting and mass wasting may have led to some inconsistency in Au

results on the Carlin West grid. The detailed sampling completed in 2017 over the central part of elevated Ag and Au anomalies (Sutherland and Rampton 2017) further defines consistent Ag, As, Pb and Sb anomalies.

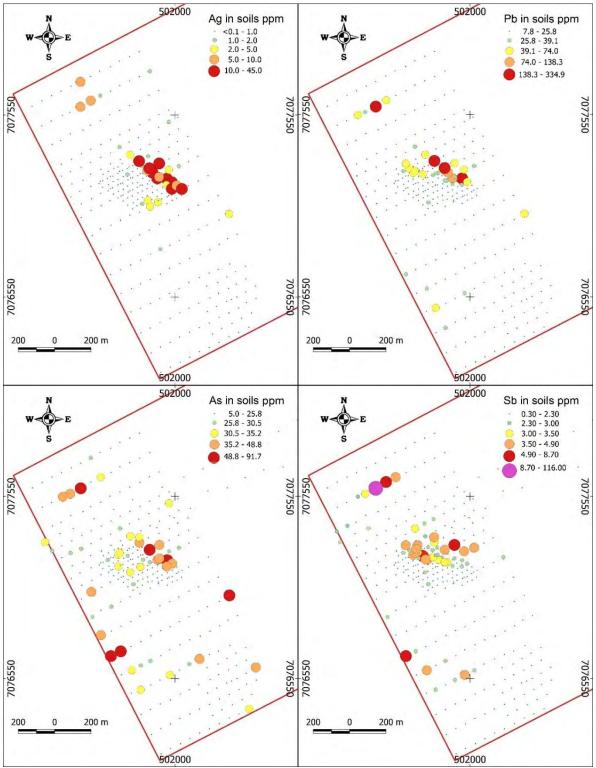


Figure 9.11: Carlin West All Soil Survey Compare Ag Pb As Sb

#### 9.3 Silt Sampling

Silt sampling proved to be effective during Operation Keno and Carrell's 2004 program around Mayo Lake. Silt samples collected in 2012 were processed by Acme Analytical Laboratories Ltd in Whitehorse and analyzed by Becquerel Laboratories Inc in Mississauga, Ontario using neutron activation for a suite of 35 elements including Au and Ag. Over the original Carlin Claim Group southern portion of the Property, twenty (20) silt samples were collected, whereas fourteen (14) were collected from the original northern Roop Claim Group portion (Rampton and Sutherland, 2013b and f). There are twelve (12) silt samples that are relevant to the Property, nine (9) of which are contained within the current boundaries, (Figure 9.12). No samples were anomalous for Au, nor Ag. Samples in the northern areas were anomalous in As and Sb, one moderately anomalous sample just north of the Roop North Target and an area outlined in the east half of Roop block, to the east of Roop North.

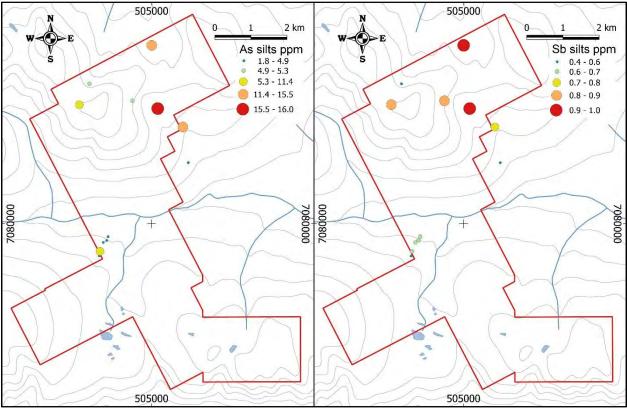


Figure 9.12: Carlin-Roop Silt Samples - As and Sb

### 9.4 Soil Gas Hydrocarbon

A soil sampling grid was completed in 2014 in the north part of Carlin-Roop Property, where previous anomalies in Au, Ag, Pb and Zn were noted, designated the Roop North Target. These samples were later and analyzed using Soil Gas Hydrocarbon (SGH) in 2017, (Sutherland,

2017). Unique Au and Cu SGH anomalies were noted. A weak Ag soil anomaly and a lowquality Ag SGH signature were also noted on the Roop Target.

SGH is a deep penetrating geochemistry that involves the analysis of surficial samples from over potential mineral or petroleum targets. The analysis involves the testing for 162 hydrocarbon compounds in the C5-C17 carbon series range applicable to a wide variety of sample types. As noted by Activation Laboratories Ltd (ActLabs) in their standard reports preamble, SGH is a method to determine "organic, deep penetrating geochemistry. As SGH provides such a large data set and is not interpreted in the same way as an inorganic geochemical method, the provision of this interpretation and report enables the user to realize the results in a timely fashion and capitalizes on years of research and development since the inception of SGH in 1996 combined with the knowledge obtained by Activation Laboratories through the interpretation of SGH data from over 1,000 surveys for a wide variety of target types in various lithologies from many geographical locations". ActLabs also states that specific classes of hydrocarbons (SGH) have been successful for delineating mineral targets found at over 950 metres in depth. Samples of various media have been successfully analyzed i.e., soil (any horizon), sand, till, drill core, rock, peat, humus, -bottom sediments and even snow.

Samples were collected for soil geochemistry in 2014 by personnel working under contract to MLM and processed by Bureau Veritas SA (BV), formerly Acme Analytical Ltd. In Mar 2017, MLM submitted the samples from their 2014 program on the Property for SGH analyses to Activation Laboratories Ltd (ActLabs) of Ancaster, Ontario. The SGH survey was completed using samples collected from a targeting grid on the Property with sample spacing of 120 m x 60 m.

Interpretations were requested for Au and Ag mineralising systems. An interpretation for Cu was also included voluntarily due to strong positive pathfinders related to Cu mineralisation. Cu potential was not recognized prior to this survey. Results of ActLabs interpretation show the location of an interpreted circular redox cell with zones that are prospective for Au and Ag (Figure 9.13) and Cu (Figure 9.14).

ActLab's report notes that: "The SGH signature for the anomalies within the dotted yellow areas was distinctive however there is really only two transects and thus only a few samples to describe and support this interpretation...This is still one of the most definitive signatures at Roop with many compounds measurements which make up several chemical class maps that have been associated with the presence of Gold. The Gold mineralized fluids may have flowed in a SW direction from the centre of the Redox cell where it is predicted that they fluids

originated from (yellow triangle in figures 9.13 and 9.14) ... With the advent of the development of 3D-SGH in 2012, that interprets the spatial symmetry of anomalous areas, the ultimate rating of confidence as 6.0 on a scale of 6.0 is more difficult to obtain. To observe this symmetry a larger survey is often needed. The SGH results for Gold tend to imply that the mineralisation is relatively shallow. This anomaly at the southern end of Roop was focused on as it fit well with the zonation and Redox cells that were interpreted...After review of all of the SGH Class maps, the results from this Roop SGH Survey suggests a "rating of 5.0" out of a possible 6.0 (6.0 being the best) for the apical SGH anomalies for gold... The SGH signature for the anomalies within the dotted blue zones was distinctive for the SGH signature of Copper that is within the Redox zone associated with the source of the mineralized fluids...After review of all of the SGH Class maps, the results from this Roop SGH Survey suggests a "rating of 5.5" out of a possible 6.0 (6.0 being the best) for the two apical SGH anomalies for Copper...This is actually a broad rabbit-ear type of anomaly. Such zonation of SGH results and predicted mineralisation has been noted for Copper-Gold type target and together with the possible indication of mineralisation within the black dotted outline, said to be silver, certainly indicates that mineralisation here is polymetallic".

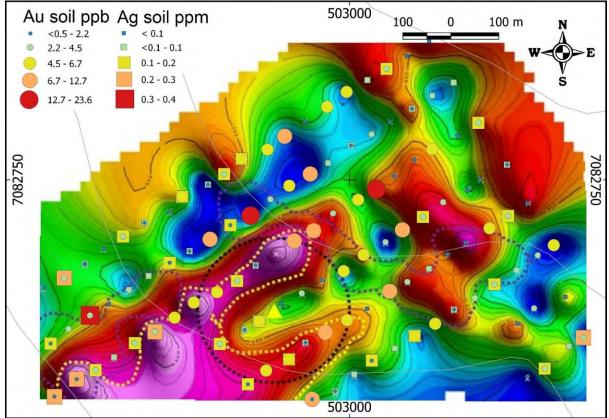


Figure 9.13: SGH - Au (yellow dotted line) and Ag (purple dotted line) with Au and Ag Soils

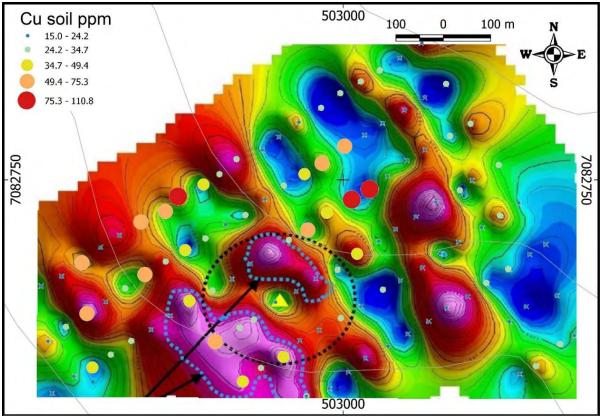


Figure 9.14: SGH - Cu (blue dotted line) with Cu Soils

### 9.5 Prospecting and Rock Sampling

Bedrock observed on the Property is primarily KHQ and granodiorite from the Roop Lakes Stock with some Ern Group schists within the metamorphic aureole of the Roop Lakes Stock. In 2012, there were six (6) samples collected from the northern area of the current Property (Table 9.1).

				Ag ppm	Au ppm	Zn ppm	Ag ppm	Au ppm	Ba ppm	Zn ppm
Sample	Date	UTM E	UTM N		Acme		Becquerel			
1575209	23-Jul-12	503523	7083099	0.6	<0.1	273	<5	<2	93	260
1575210	23-Jul-12	503523	7083099	<0.1	<0.1	25	<5	<2	<50	<50
1575251	23-Jul-12	502987	7083575	<0.1	<0.1	16	<5	<2	550	<50
1575252	23-Jul-12	502776	7083782	<0.1	<0.1	5	<5	<2	<50	<50
1575253	23-Jul-12	503578	7084497	<0.1	<0.1	5	<5	<2	<50	<50
1575254	23-Jul-12	503925	7084837	<0.1	<0.1	64	<5	<2	1700	76

Table 9.1: 2012 Roop Grab Samples (WGS84, 8N)

Becquerel results (Neutron activation analysis) were two (2) samples anomalous in Ba (1575251 with 550 ppm Ba and 1575254 with 1,700 ppm Ba), two (2) anomalous for Zn (1575209 with 260 ppm Zn and 1575254 with 76 ppm Zn), while none were anomalous Au, nor

Ag. With respect to results from Acme (ICP-MS) one sample, 1575209, is weakly anomalous for more than one element, in particular Ag, 0.6 ppm, and Zn, 273 ppm.

#### 9.6 Ground Magnetics

In Oct 2018, MLM contracted Dahrouge Geological Consulting Ltd (Dahrouge) of Edmonton, AB to complete ground magnetic survey over a small grid on the Carlin West Target, (Figure 9.15). Orientation and layout of mag lines were designed by MLM personnel. The Dahrouge crew was based out of Mayo for the duration of fieldwork with field survey completed 17-20 Oct 2017. The Roop-Carlin Survey area was accessed via helicopter and was subject to safe weather conditions for flying.

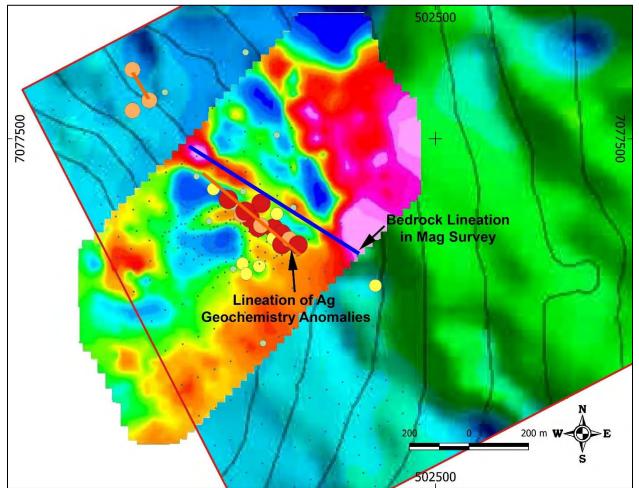


Figure 9.15: Carlin West Ground Total Magnetic Intensity over 2012 Airborne TMI

Twelve walking lines were completed within the Carlin West area. These lines were ~1.3km long with 50 m line spacing. The lines were oriented at 65° azimuth so that most lines intersect the dominant fabric observed from an earlier airborne magnetic survey (330-335°). They were

also oblique to the trend of the strong geochemical anomaly (about NW 310°) that cut the fabric observed from the airborne magnetic survey.

The data collected during the ground survey matched the 2012 aeromagnetics moderately well. The tighter spacing provided higher resolution which allowed visibility of features not evident within the airborne results. There is no evidence of the magnetic high along the southern boundary of the survey in the aeromagnetics, thus was likely an edge effect. The very strong high in the eastern corner is visible in the airborne survey and measurements of this are what likely lead to the high edge effect along the southern boundary of the survey.

#### 9.7 IP-Resistivity

In 2019, Resistivity and Induced Polarization (IP) geophysics were used to determine shallow bedrock structures, isolated areas of mineralisation and major bedrock contacts within an area of the Property. These methods were used to identify significant bedrock contacts and structures, as well as overburden depths, in preparation for a drilling program.

Kryotek Arctic Innovation Inc (KAI) of Whitehorse, YT was contracted to conduct the highresolution geophysics surveys on two (2) MLM properties, of which one with a total length of 0.1 km was completed on the Carlin-Roop Property (Survey MLM 5). A final report was submitted by Jim Coates of KAI, and dated 22 Oct 2019.

The survey cut across the strong Ag-in-soil anomaly on the Property at Carlin West (Figure 9.16). The survey ran southwest to northeast across the anomalous trend, which was centred at 50 m on the horizontal scale, see resulting profiles in Figure 9.17.

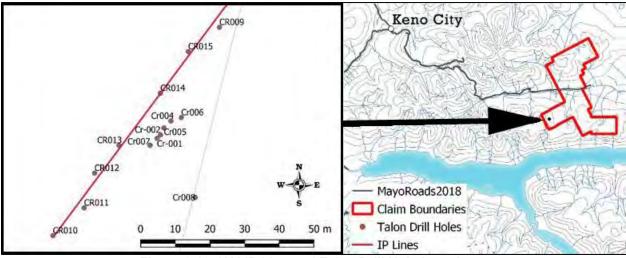


Figure 9.16: KAI IP Line and Talon Drill Hole Locations

The resistivity survey showed a strong vertical high resistivity structure 10-15 m in width extending from near surface (2-3 m depths) to at least 20 m depths. This is consistent with the resistivity of a silicified structure. High near-surface resistivities across the top 7m of survey are likely flat-lying Keno Hill quartzite with a layer of felsenmeer quartzite boulders mixed with frozen soil in the upper 2-5 m. The inferred contact with competent bedrock is identified with an undulating line on the resistivity profile (top of Figure 9.17). Below 10 m depths the bedrock resistivity decreased dramatically. This may be the lower limit of surface weathering, where cracks in the quartzite are filled with ice, or it may be a transition into a lower resistance intrusive rock type.

The Induced Polarization survey showed similar results to the resistivity. The inferred mineralised vein has extremely high IP values of 134 ms (E). This is consistent with high metal content within quartz veins. The IP showed the same vertical vein structure with high IP surrounded by extremely low IP host rock (bottom of Figure 9.17).

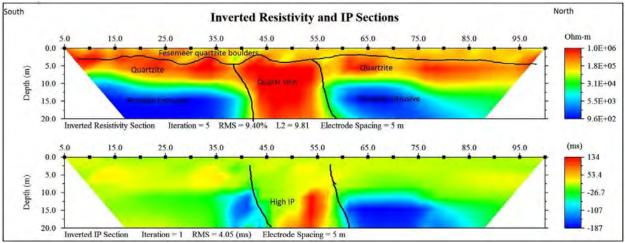


Figure 9.17: MLM5 Inverted Resistivity and IP Sections, Carlin-Roop Property

#### 9.8 Significant Results and Interpretation

#### 9.8.1 Carlin West

At Carlin West, the elongated distribution of anomalous soil samples suggests a linear bedrock source >400m in length, probably structurally controlled vein-type mineralisation, (Sutherland and Rampton 2018), (figures 9.5, 9.8, 9.9, 9.10, 9.11, 9.15). Sampling from 2015 suggest that these anomalies may continue to the north, but two sample lines north of the 2017 sampling outline an interruption of the trend. The width of this interruption is difficult to gauge due to current sampling patterns, (figures 9.10, 9.11, 9.15). Low values along sample lines in a restricted area from 2015 sampling may represent abrupt changes in underlying bedrock

geology which commonly cuts or controls strongly mineralised zones, (Sutherland and Rampton 2018).

The Ag, As, Pb and Sb anomalies bifurcate along two axes within the detailed portion of the broader anomaly, (Figure 9.11). This apparent bifurcation may cause the anomaly to appear wider than would be the case for single anomalous vein. This is supported by the width of the IP anomaly. MLM suggested that the bedrock source of this anomaly may have been reactivated with slightly different orientations and fluid chemistries, (Sutherland and Rampton 2018). The northeast boundary of the anomaly shows strongly anomalous Ag, As, Pb, Sb and Zn whereas the southern boundary is dominated by anomalous Pb, and Sb. Alternatively, though less likely, this variation could be due to smearing of bedrock anomalies in overburden and variable transfer of elemental anomalies, (Sutherland and Rampton 2018).

The change in the orientation on the northern most two lines from the 2015 sampling from N-S to NW-SE within the detailed sampling from 2017 coincides with a change in the orientation of the slope, (Figure 9.15). The two blocks are separated by an WSW-ENE ( $70^{\circ} \pm$ ) depression, possibly a longitudinal fault. The axis of the Ag, Sb, As, and Pb anomalies upon the steeply sloping ground imply a roughly NW to NNW trending structure dipping steeply to the east, (Sutherland and Rampton 2018).

The Carlin West IP-Resistivity "Survey MLM 5" showed a resistivity and IP anomaly consistent with a vertical highly silicified and mineralised structure 10-15 m wide with possible multiple quartz veins and breccia zones, (Figure 9.17). It is centred under the area of anomalously high Ag soil samples. KAI concluded that this was an excellent target for drilling or a more extensive and deeper geophysics program, (Sutherland, 2020).

The NW trending ground magnetic high anomaly in the central portion of the area covered by soil surveys corresponds to a strong NW trending Ag-in-soil anomaly with values between 2 and 45 ppm, (Figure 9.15), as well as the structure outline by the IP-Resistivity. These both are likely resultant from a single structure the apparent offset in the mag is common in total magnetic intensity plots whereby anomalies shift slightly north due to the earths magnetic field. The structure likely dips to the east evidenced by the change in orientation of the geochemical anomaly from NW to NNW coincident with the change in slope. It is possible that the bedrock structure fits within the group of "Transverse Veins" which contain the majority of economic mineralisation within the Keno Hill Camp, (Cathro, 2006; Sutherland and Rampton 2018, 2019). The gap in anomalous soils at the northern portions of the sampled area, coincidental with a ground depression, may represent a longitudinal fault seen in the central areas of the KHSD.

"Transverse Veins" identified in the Keno Camp strike NE and dip steeply SE 60° - 90°, generally having their widest mineralised zones at intersections with weakly mineralised to barren, "Longitudinal Faults", (Lynch, 1989, Cathro, 2006). Any rheological contrast will promote brecciation, potentially increasing local mineralisation. Locally the small greenstone stock near the northwest side of the grid may contribute to this, (Sutherland and Rampton 2018).

Since the Property is at some distance from the main Keno Hill Camp, there may be changes in mega structure orientations, (figures 7.1, 7.3), where the Robert Service Thrust wraps around the Property. Locally the transverse (NW-NNW) and longitudinal (WSW-ENE) structures may not quite align to those within the central Keno Hill Camp, but their relative orientations exhibit similar angles within a strain ellipse model.

#### 9.8.2 Carlin East

An area containing anomalous Au in soil from the 2012 reconnaissance soil survey was designated Carline East1. The area is at the south end of a TMI magnetic low from the 2012 PDI airborne survey, which is subparallel the length of the Property. It is the same magnetic low hosting the Roop North Target. The Carlin East1 area was subsequently confirmed anomalous with the 2015 grid soil survey. The tenure of the anomalous results was much weaker compared to Carlin West. The apparent size of the anomalous area was small and confined mostly to the southeast corner of the 2015 grid, (figures 9.2, 9.4, 9.5, 9.9). Tenure of anomalous zone for Au, Ag and pathfinders may be affected by glacial transport from the East to Northeast within the McConnell Glacial Limit.

The 2012 reconnaissance survey outlined an anomalous area in the southeast area of the Property, designated Carlin East2. The area was strongly anomalous with As and moderately with Sb. This patch of anomalous soils is strongly coincidental with a north-south elongate TMI magnetic low from the 2012 PDI airborne survey, (figures 9.2, 9.4, 9.5).

#### 9.8.3 Roop North

An area of interest was outlined at the north end of a magnetic low by GDX after data reprocessed from the 2012 PDI airborne survey. This area coincided with an area containing coincidental soil anomalies of several elements in the 2012 reconnaissance soil survey. This area, now designated Roop North, was subsequently confirmed anomalous with the 2014 grid soil surveys, when the R1 circular anomaly and R2 linear anomaly were outlined. ActLabs reporting for their interpretation of 2017 SGH results provided a rating for potential for each element out of 6, where 6 was the greatest. The assigned rating for the elements interpreted were 5.5 for Cu, 5.0 for Au and 3.0 for Ag in the areas outlined in their report.

#### 9.8.4 Roop Other

The 2012 reconnaissance soil survey also outlined an anomalous area in Au and As at the east end of the survey line. This may be supported by 2012 silt samples anomalous in As and Sb in streams running off the ridge, both north and south. The anomalous silts were to the west of the soil anomalies, but also down ice of glacial propagation. On airborne magnetics, this area is coincidental with an area of moderate magnetics, east of a magnetic high and was highlighted by GDX as a geophysical target. This area is underlain by the Roop Lakes Pluton.

### 10 DRILLING (ITEM 10)

Two types of drilling were carried out on the property. A small back-pack based shallow target testing developed by Kryotek Arctic Innovation Inc (KAI); and a later program using diesel-engine powered diamond drill by Platinum Diamond Drilling Inc (PDD).

#### 10.1 Drilling - Kryotek Arctic Innovation Inc

MLM targeted the central IP-Resistivity anomaly (silicified vertical structure) on the resistivity line for utilising Talon, a backpack drill system.

#### 10.1.1 KAI Type and Extent

A small back-pack based shallow target testing developed by Kryotek Arctic Innovation Inc (KAI) in conjunction with Quantum Machine Works of Whitehorse. The drive consisted of a modified DeWalt battery powered rotary hammer mated to an aluminum frame and 1" tooling developed by Kryotek and Produced by Quantum Machine works. The entire system weighed under 60lbs and was trialled in an effort determine if it would be effective substitute for excavator trenching on the properties. It could drill up to 2 m in quartzites on and over 3 m in schists and granodiorite.

Over the central silicified vertical structure holes were drilled at 2 m spacings. Beyond the central structure holes were drilled at 10 m for a total of 13 drill holes, (Figure 10.1). For the holes over the central structure two samples were collected if there was enough material for an overburden and a bedrock material. For the holes spaced at 10m intervals only a single composite sample of overburden/bedrock interface was collected.

#### 10.1.2 KAI Summary of Drilling Data

Felsenmeer and visible boulders were exclusively comprised of Keno Hill Quartzite (KHQ) and posed significant difficulties for drilling with this backpack drill. KHQ is extremely hard and was difficult for the drill to penetrate effectively. Also due to the rocky nature of the overburden, distinguishing true bedrock from large boulders was particularly challenging. Samples yielded

results similar to and or marginally lower than analysis of soils, (Figure 10.1), suggesting that sampled material was likely a mixture of felsenmeer and boulders.

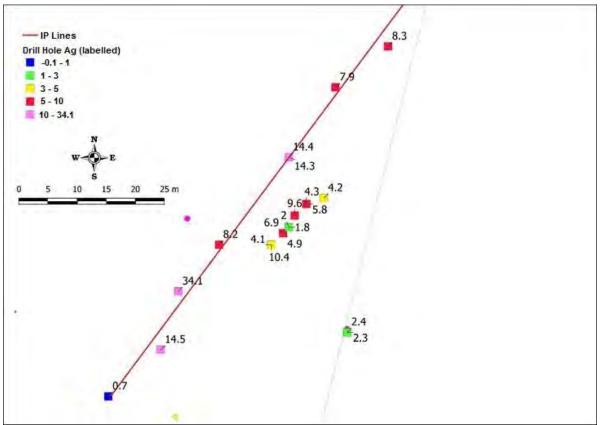


Figure 10.1: Carlin West Backpack Drill Holes with Ag Analysis over IP Line

#### 10.2 Drilling - Platinum Diamond Drilling Inc

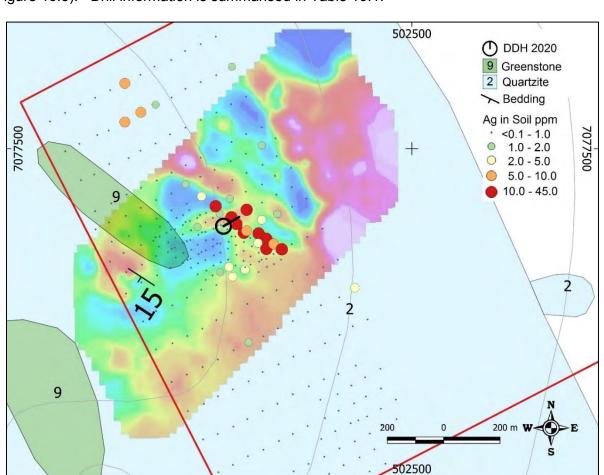
A small program was initiated during the Autumn of 2020 to confirm mineralisation for targets developed with geophysical and geochemical surveys in the Carlin-Roop Property. Drilling was contracted to Platinum Diamond Drilling Inc (PDD) headquarted at 253 Rivers Street, Winnipegosis, MB with a Yukon office at 180 Collins Road, Whitehorse, YK.

#### 10.2.1 PDD Type and Extent

PDD used a Discovery 1 with a Sandvik NQ head built by Multi Power of Kelowna, BC and produced NQ core. Two (2) holes from one site for a total meterage of 204 m were completed on one set up before cold weather shut down the program for the season. Another site was planned to scissor the first site, but weather precluded their completion.

#### 10.2.2 PDD Summary of Drilling Data

Two (2) holes were drilled in late Oct-early Nov 2020 to confirm in situ Ag mineralisation (Figures 7.3 and 10.2). The first hole, MLM20-001, was drilled past its targeted depth to



127.5 m, while the second, MLM20-002 was abandoned at 76.5 m due to a frozen waterline (Figure 10.3). Drill information is summarised in Table 10.1.

Figure 10.2: 2020 Drill Location at Carlin West (Geology Green 1970; TMI 2019)

DDH	Date started	Date finished	Az	Dip	UTME	UTMN	Target (m)	Planned EOH (m)	Actual EOH (m)
MLM20-001	29-Oct-20	31-Oct-20	60	-45	501832	7077225	71	120	127.5
MLM20-002	31-Oct-20	1-Nov-20	60	-60	501832	7077225	118	240	76.5

#### Table 10.1: DDH Information Summary (WGS84, 8N)

#### 10.3 Interpretation and Relevant Results

Lithology was graphitic schist overlying interbedded quartzite with graphitic schist, transitioning to foliated quartzite, ending in altered quartzite over greenstone, see profile in Figure 10.3. This lithology is typical of Keno Hill deposits, (Boyle, 1965; Cathro, 2006). Highlights from sampling results are presented in Table 10.2 and complete results for Ag, Cu, Pb, Zn, Sb and As presented in Appendix C.

Based on a relative intersection of lithologies between the two holes, bedding / foliation appears to be dipping  $20^{\circ} - 30^{\circ}$ , rarely  $40^{\circ}$  WSW. Angles to core axes observations imply local sub-

horizontal foliations. Logging noted shearing was generally parallel to bedding and foliation. Steeply dipping structures like breccias and quartz veins crosscut all geologic units. Mineralisation was blebby to stringer pyrrhotite + magnetite, variable pyrite, and some sphalerite. Possible sulphosalts were also noted.

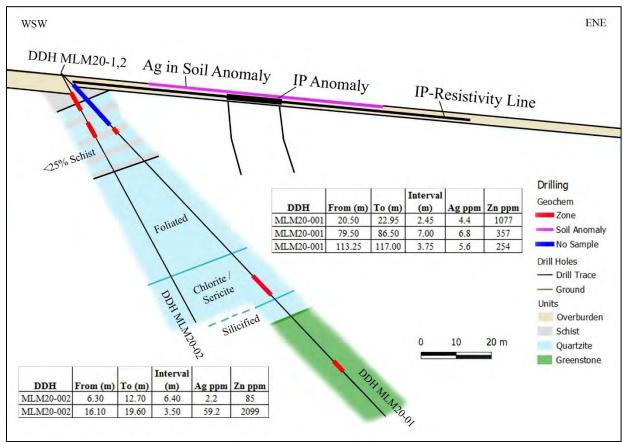


Figure 10.3: 2020 Drill Profile

Zones sampled in MLM20-001 were approximately 18 - 23 m, 40 - 43 m, 57 – 61 m and 71 - 124 m. MLM20-001 intersections included: a mineralised breccia returning 18.3 g/t Ag over 0.5 m from 21.50 m in a zone with quartz veining cutting foliation; a sulphidic quartzite returning 33.0 g/t Ag over 1.02 m from 82.50 m in a zone of bleaching and quartz sweats overlying a shear zone; and rusty greenstone with 12.8 g/t Ag over 0.85 m from 114.25 m in a zone of core parallel rusty open fracturing.

Despite not reaching the target depth in the second hole, several intersections of sulphide mineralisations were observed and sampled. Areas of interest sampled in MLM20-002 were 6.30 – 12.70 m, 16.10 – 19.60 m, 25 - 29 m, 38 - 39 m, 42 - 44 m and 64 - 72 m. An upper weakly mineralised zone is graphitic schist with subparallel quartz veining. The best assay result was hosted by mineralised shear, 124.4 g/t Ag over 0.75 m (18.00 – 18.75 m) in MLM20-02.

True width is estimated to be 0.65 m assuming zone dipping sub-horizontally with strike perpendicular to DDH azimuth.

At first glance it might be thought that the mineralised intersection from 79.5 – 86.5 m in MLM20-001 is that detected in the IP survey, though this is not likely from logging which implies bedding parallel mineralisation. The greenstone was not expected in the first hole and there was a short intersection of mineralised breccia within it, 113.50 – 115.10 m, which could also be related to the IP anomaly. If the lower intersection is related to the IP anomaly, it is much thinner than projected, and implies a slightly shallower dip closer to 45°, than subvertical. The structure in the breccia may suggest a footwall position to the main KHSM in the IP anomaly. The shortened drill program was not able to be definitive in this interpretation, but if confirmed, it is possible that the greenstone-hosted mineralised structure is a transverse fault.

There may be two mineral assemblages as defined by Ag:Zn ratios, with one a relatively Zn-rich (low Ag:Zn ratio) assemblage in the upper mineralised zone in MLM20-001. Whether this is due to different mineralising fluids, or simply variability in the same event, may become clearer with future work. The Zn-rich intersection was from a sphalerite rich brecciated zone in quartzite overlying a shear which is similar to the intersection in MLM20-02 17.10 – 18.00 m. The greenstone breccia had a relatively poorer in Zn (higher Ag:Zn ratio), so may be a different mineralisation event. The See Table 10.2 and tables in Figure 10.3.

DDH	From (m)	To (m)	Interval (m)	Rock Type	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Sb ppm	As ppm	Ag:Zn (E-2)
MLM20-001	20.50	22.95	2.45		4.4	18	96	1077	7	137	0.41
including	21.50	22.00	0.50	Mineral. Breccia	18.3	43	307	4449	18	397	0.41
MLM20-001	79.50	86.50	7.00		6.8	41	147	357	8	90	1.89
including	82.50	83.52	1.02	Quartzite - sulphide	33.0	56	580	1471	40	429	2.24
MLM20-001	113.25	117.00	3.75		5.6	161	102	254	10	81	2.22
including	114.25	115.10	0.85	Greenstone - rust	12.8	249	172	452	18	67	2.83
including	115.10	116.10	1.00	Greenstone	6.7	53	187	355	16	183	1.89
MLM20-002	6.30	12.70	6.40		2.2	18	14	85	4	64	2.60
including	9.00	10.00	1.00	Graph Schist - block	5.0	41	37	233	9	53	2.15
MLM20-002	16.10	19.60	3.50		59.2	41	1907	2099	35	291	2.82
including	16.10	17.10	1.00	Quartzite - QV	34.0	35	752	426	21	174	7.98
including	17.10	18.00	0.90	Quartzite - breccia	48.1	20	3737	4695	34	241	1.02
including	18.00	18.75	0.75	Mineral Shear	124.4	81	2141	1938	66	586	6.42

Table 10.2: DDH Highlights Carlin West 2020

Exploration work undertaken by MLM was conducted using strict quality control/quality assurance and sample security protocols. Sample preparation and analytical procedures for drill hole and surficial samples are disclosed and well documented by the analytical laboratories employed.

#### 11.1 Soil Surveys

The methods of sample preparation, analysis, and security for the soil surveys by MLM in 2012, 2016 and 2017 are well documented in the Yukon Assessment Reports (Rampton, V.N. and Sutherland, T.B., 2013b; Sutherland, T.B. and Rampton, V. N., 2017 and 2018; Sutherland, T., 2017).

#### 11.1.1 Sample Collection Methods – Soils

In 2012, at each station the first 40cm of soil and overburden is penetrated by use of an auger. The next 10-15cms of soil is sampled and placed into a labelled paper sample bag. The location of the sample is then noted and an identification tag containing the sample number is attached. Samples were not taken from permafrost or bogs/swamps; in this situation samplers walk to the next possible sample location.

For surveys from 2014 -2017, at each sample site the soil and overburden were penetrated by an auger until the C horizon was reached. The next 10-15 cm of soil is sampled and placed into a labelled paper sample bag. In areas where C horizon was sparse, nonexistent, or frozen, a sample from the B horizon was collected.

Samples were hung on a drying rack at the end of every day to remove excess water from the samples. These samples are dried for 24-36 hours at approximately 90 °C. The length of drying is entirely dependent on humidity of the sample. Once dry, each sample is then individually packaged in order to decrease possible cross-contamination.

### 11.1.2 Data Collection – Soils

Soil sampling in 2012 was undertaken by samplers provided by Breakaway Exploration Inc (Breakaway) of Val d'Or QC and directed by MLM personnel. Breakaway personnel utilised the iPAQ personal pocket computer with GPS to record all data and observations; this ensured the precise and accurate documentation of sample sites as well as minimised the possibility of typographical errors. In addition; the iPAQ enabled samplers to make minor modifications to pre-planned routes.

For surveys between 2014 and 2017, sample collection was done by MLM staff and contractors. Sample sites were located using the Garmin GPS Map 62s and recorded in a field book and sample book. An identification flag with the sample number recorded is attached at each sample location. Sample data entered a database upon returning to camp at the end of each day.

#### 11.1.3 Analytical Methods – Soils

In 2012, samples were initially processed at Acme Analytical Laboratories Ltd. preparatory laboratory in Whitehorse, YT. Soil samples underwent preparation code SS80; dried for 24 hours at 60 °C then screened for 100g at -80 mesh; rejects were discarded. Samples were then sent to Becquerel Laboratories Inc. in Mississauga, Ontario and underwent neutron activation for Sb, Cr, La, Sm, Tb, As, Co, Lu, Sc, Th, Ba, Eu, Hg, Se, Sn, Br, Au, Mo, Ag, W, Ca, Hf, Nd, Na, U, Ce, Ir, Ni, Sr, Yb, Cs, Fe, Rb, Ta and Zn.

Soil samples collected between 2014-2017, underwent modified preparation code SS80 at Bureau Veritas SA (BV) in Whitehorse, YT; dried for 24 hours at 40 °C instead of 60 °C, then screened for 100g at -80 mesh; rejects were discarded. Samples were then sent to BV in Vancouver, BC to undergo analysis code AQ201, which is an ICP-MS analysis after aqua regia digestion of a 15g sample for Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Hg, Sc, Tl, S, Ga, Se, and Te.

#### 11.1.4 Security Methods – Soils

Samples from 2012 were packed and shipped to Acme Analytical Laboratories Ltd. preparatory laboratory in Whitehorse, YT. For surveys between 2014 and 2017, soil samples were delivered directly to Bureau Veritas SA (BV) preparatory laboratory in Whitehorse, YT. BV then shipped the samples to their main laboratory in Vancouver, BC

#### 11.1.5 QA/QC Samples – Soils

A duplicate sample was taken every 50 samples for the 2012 surveys. Analysis of submitted duplicates in 2012 indicated that results were acceptably reproducible to within 15%, 22 times out of 37 for most elements. The nugget effect may have an influence on gold analyses. For surveys between 2014 and 2017, samplers collected a duplicate sample every 33rd sample. All laboratories cited above maintains rigorous QA/QC protocols on all analyses. One should be cautioned that the gold values from ICP-MS after aqua-regia digestion are affected if graphite is present in the sampled materials.

#### 11.2 Silt Survey

The methods of sample preparation, analysis, and security for the silt surveys by MLM in 2012 is documented in the Yukon Assessment Reports (Rampton, V.N. and Sutherland, T.B., 2013b).

#### 11.2.1 Sample Collection Methods – Silt

In 2012, daily transects were undertaken parallel to major creeks, targeting tributary streams. Samplers would take silt samples at every tributary or at 300m intervals where possible along major creeks. Smaller tributaries and the heads of mapped creeks where often dry or filled with material not suitable for sampling. At each sample site 500g of silt was collected and placed in a labelled cloth bag and the location was flagged with the sample number. In fast flowing streams or on transects where silt was scarce (i) amalgamated samples from several hundred metres would be collected or (ii) moss was collected and brushed out for captured sediments. Samples were dried for up to a week before packaging for shipment to Whitehorse.

Silt sampling was undertaken by samplers provided by Tom Morgan of Dawson, YT and directed by MLM personnel. Tom Morgan's crew consisted of two members.

#### 11.2.2 Data Collection – Silt

Sample sites were located using the Garmin GPS Map 62s and recorded in a field book and sample book. This data was then entered into a database upon returning to camp at the end of each day.

#### 11.2.3 Analytical Methods – Silt

Soil and silt samples underwent preparation code SS80; dried for 24 hours at 60°C then screened for 100g at -80 mesh; rejects were discarded. Samples were then sent to Becquerel Laboratories Inc. in Mississauga, Ontario and underwent neutron activation for Sb, Cr, La, Sm, Tb, As, Co, Lu, Sc, Th, Ba, Eu, Hg, Se, Sn, Br, Au, Mo, Ag, W, Ca, Hf, Nd, Na, U, Ce, Ir, Ni, Sr, Yb, Cs, Fe, Rb, Ta and Zn. Silt sampling proved to be effective during Operation Keno and Carrell's 2004 program around Mayo Lake.

#### 11.2.4 Security Methods – Silt

Samples were packed and shipped to Acme Analytical Laboratories Ltd preparatory laboratory in Whitehorse, YT.

#### 11.2.5 QA/QC Samples – Silt

Based on duplicated soils sample results in 2012 indicated that results were acceptably reproducible to within 15%, 22 times out of 37 for most elements. The nugget effect may have

an influence on gold analyses. All laboratories cited above maintains rigorous QA/QC protocols on all analyses.

#### 11.3 Rock Samples

Daily traverses were designed to cross anomalies interpreted from geophysical or historic geochemical data and noteworthy topographical features observed on air photos. The primary goals of prospecting and mapping activities were to assess the validity of historical mapping and to determine the association between topographical and geophysical features, historical geochemical anomalies, and mineralisation. Exposed outcrop is most abundant on steep slopes, and abundant subcrop was visible on the apex of hills. Lower and gentle slopes where generally covered in thick vegetation.

#### 11.3.1 Sample Collection Methods – Rock

Prospecting and mapping activities were carried out by geologists employed by MLM. During traverses, rock types, structural measurements and geological phenomena were recorded; and samples of potential mineralisation were taken.

#### 11.3.2 Data Collection – Rock

Outcrops were located using the Garmin GPS Map 62s and recorded in a field book and sample book. This data was then entered into a database upon returning to camp at day end.

#### 11.3.3 Analytical Methods – Rock

Samples were crushed, pulverised then analysed using both neutron activation and ICP-MS after 4-acid digestion. Neutron activation analysis was carried out by Becquerel Laboratories Inc. for Sb, Cr, La, Sm, Tb, As, Co, Lu, Sc, Th, Ba, Eu, Hg, Se, Sn, Br, Au, Mo, Ag, W, Ca, Hf, Nd, Na, U, Ce, Ir, Ni, Sr, Yb, Cs, Fe, Rb, Ta and Zn. ICP-MS analysis was undertaken by Acme Laboratories Ltd. in Vancouver for Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe%, As, U, Au, Th, Sr, Cd, Sb, Bi, V, Ca%, P % La Cr, Mg%, Ba, Ti%, Al%, Na%, K%, W, Zr, Ce, Sn, Y, Nb, Ta, Be, Sc, Li, S%, Rb, Hf, In, Re, Se, Te, and TI.

#### 11.3.4 Security Methods – Rock

Rock samples were packed and shipped to Acme Analytical Laboratories Ltd preparatory laboratory in Whitehorse, YT, then onto their main laboratory in Vancouver, BC.

#### 11.3.5 QA/QC Samples – Rock

Acme Analytical Laboratories Ltd is a certified laboratory which maintains a rigorous QA/QC protocol on all analyses.

#### 11.4 Soil Gas Hydrocarbon Survey

The grid north of Granite Creek was analyzed using Soil Gas Hydrocarbon in 2017 from soils samples collected for geochemistry in 2014.

As noted by Activation Laboratories Ltd (ActLabs) in their standard reports preamble, Soil Gas Hydrocarbon (SGH) is a method to determine organic, deep penetrating geochemistry. They go on to state that: "As SGH provides such a large data set and is not interpreted in the same way as an inorganic geochemical method, the provision of this interpretation and report enables the user to realize the results in a timely fashion and capitalizes on years of research and development since the inception of SGH in 1996 combined with the knowledge obtained by Activation Laboratories through the interpretation of SGH data from over 1,000 surveys for a wide variety of target types in various lithologies from many geographical locations. Although referenced today as a "nano-technology", the analysis of SGH has not changed since inception. The report is compulsory as it is the only known organic geochemistry that, in spite of the name, uses "non-gaseous" semi-volatile organic compounds interpreted using a forensic signature approach. Many different sample types can be used in the same survey. Interpretation is based solely on SGH data and does not include the consideration from any other geochemistry (inorganic), geology, or geophysics that may exist related to the survey area(s). This report can also provide evidence of project maintenance. To keep the price to a minimum and to provide as short a turnaround time as practically possible, usually only one SGH Pathfinder Class map is illustrated in a "Standard Report" with an applied interpretation although several other SGH Pathfinder Class maps are used and referenced".

#### 11.4.1 Sample Collection Methods – SGH

A group of samples collected as part of the soil sampling survey in 2014 were split in 2017 for soil gas hydrocarbon analysis at Activation Laboratories Ltd (ActLabs) of Ancaster, Ontario.

Samples were collected from a grid patterned survey. At each sample site the soil and overburden are penetrated by an auger until the C horizon is reached. The next 10-15cms of soil is sampled and placed into a labelled paper sample bag. In areas where C horizon was sparse or nonexistent or frozen, B horizon was collected. No special preservation is required for shipping.

Different sample types can be taken even "within" the same survey or transect, data levelling is rarely required. SGH is highly effective in areas of very difficult terrain. Samples should be evenly spaced in a grid or as a second choice, in a series of transects with sample lines spaced at a ratio of up to 4:1 (line spacing: sample spacing). A minimum of 50 sample "locations" is

recommended with one-third over the target and one-third on each side of the target into background if this can be predicted. More samples representing a larger area is preferred in order to optimize data contrast. If very wet, samples can be drip dried in the field.

#### 11.4.2 Data Collection – SGH

Sample sites were located using the Garmin GPS Map 62s and recorded in a field book and sample book. This data was then entered into a database upon returning to camp at the end of each day.

#### 11.4.3 Analytical Methods – SGH

Interpretations were requested for Gold and Silver mineralising systems. An interpretation for copper was also included voluntarily due to strong positive pathfinders related to copper mineralisation.

ActLabs notes: "This "SGH Interpretation Report" has been prepared to assist the user in understanding the development and capabilities of this Organic based Geochemistry. The interpretation of the Soil Gas Hydrocarbon (SGH) data is in reference to a template or group of SGH classes of compounds specific to a type of mineralisation or target that is chosen by the client (i.e., the template for gold, copper, VMS, uranium, etc.). The various templates of SGH Pathfinder Classes that together define the forensic identification signature for a wide range of commodity target types; Gold, Nickel, VMS, SEDEX, Uranium, Cu-Ni-PGE, IOCG, Base Metal, Tungsten, Lithium, Polymetallic, and Copper, as well as for Kimberlites, Coal Seam, Wet Gas and Oil Play, have been developed through years of research and have been further refined from review of case studies and orientation studies has proven to be able to also address a wide range of lithologies. Even with 15+ years of development and experience with SGH, Activation Laboratories Ltd. cannot guarantee that the templates used are applicable to every type of target in every type of environment. The interpretation in this report attempts to identify an anomaly that has the best SGH signature in the survey for the type of mineralisation or target chosen by the client. However, this interpretation is not exhaustive and there may be additional SGH anomalies that may warrant interest".

The samples are air-dried at a relatively low temperature of 40°C. The samples are then sieved and the -60 mesh sieve fraction (<250 microns, although different mesh sizes can be used at the preference of the exploration geologist) is collected. The collected "pulp" is packaged in a Kraft paper envelope and transferred from our sample preparation department to our Organic Geochemical department also located in Ancaster, Ontario. Each sample is then extracted,

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After preparation in the laboratory, the SGH analysis incorporates a very weak leach, essentially aqueous, that only extracts the surficial bound hydrocarbon compounds and those compounds in interstitial spaces around the sample particles.

The results of the SGH analysis are reported in raw data form in an Excel spreadsheet as "semi-quantitative" concentrations without any additional statistical modification.

#### 11.4.4 Security Methods – SGH

Samples were shipped to Activation Laboratories Ltd in Ancaster, Ontario.

#### 11.4.5 QA/QC Samples – SGH

ActLabs notes in their report that: "As the author is the originator of the SGH geochemistry, has researched and developed this exploration tool since 1996, and has produced similar interpretations using SGH data for close to 1,000 surveys, he is the best qualified person to prepare this interpretation as assistance to clients wishing to use this SGH geochemistry. Activation Laboratories Ltd. can offer assistance in general suggestions for sampling protocols and in sample grid design; however, we accept no responsibility to the appropriateness of the samples taken. Activation Laboratories Ltd. has made every attempt to ensure the accuracy and reliability of the information provided in this report".

An equal aliquot of a random sample is analyzed as a laboratory replicate. Due to the large amount of data, the estimate of method variability is reported as the percent coefficient of Variation (%CV). A laboratory replicate analysis is reported at a frequency of 1 for every 15 samples analyzed. The variability of field duplicate samples is similarly reported if identified.

ActLabs notes that: "Although the SGH analysis reports results at such trace ppt concentration levels, the average %CV for laboratory replicates is excellent at an average of 8% within a range of ±4%. Field duplicates have historically been 3 to 5% higher than laboratory replicates. Laboratory Materials Blank (LMB-QA) values are only an early warning as a quality assurance procedure to indicate the relative cleanliness of laboratory glassware, vials, caps, and the laboratory water supply at the ppt concentration level. The LMB-QA values should not be subtracted from any SGH data as any background or noise characteristics have already been removed from SGH data through the use of a Reporting Limit instead of a Detection Limit.".

#### 11.5 2019 Talon Drill Program

#### 11.5.1 Sample Collection Methods – Drill

Samples were collected off of the auger drill bit while drilling through overburden. While drilling through bedrock a one-way sample collector was attached to the end of the drill string this was then removed from the hole emptied into sample bags. In both cases a mix of rock chips, and fine material were produced and placed into plastic ore bags with sample tags. During drilling on Carlin Roop two prospecting samples were collected ~250m north west of the drilling area within the Ag-in-soil anomaly.

#### 11.5.2 Data Collection – Talon

Sample recording was done on-site by KAI personnel.

#### 11.5.3 Analytical Methods – Talon

Samples underwent modified preparation code PRP70-250; crushed until 70% passes through a 10 mesh and then pulverized; rejects were discarded. Samples were then sent to Bureau Veritas SA (BV) in Vancouver, BC to undergo analysis code AQ201, which is an ICP-MS analysis after aqua regia digestion of a 15g sample for Mo, Cu, Pb, Zn, Ag, Ni, Co, Mn, Fe, As, Au, Th, Sr, Cd, Sb, Bi, V, Ca, P, La, Cr, Mg, Ba, Ti, B, Al, Na, K, W, Hg, Sc, Tl, S, Ga, Se, Te, and U. Samples were also analyzed by Fire assay for Au, Pt, and Pd.

#### 11.5.4 Security Methods – Talon

Samples were delivered to Bureau Veritas SA preparatory laboratory in Whitehorse, YT.

#### 11.5.5 QA/QC Samples - Talon

Sample analyses were within acceptable limit for most elements. There is an issue with W and possibly with Mo results. During all previous surveys W analysis are generally below 0.5ppm; from this program most W analysis are >1ppm except for the two prospecting samples which yielded <0.01ppm. This suggests that the higher W analysis are resulting from some contamination in the drill bit or samplers rather than due to the different sample prep procedure. Supporting this assertion, the holes that were the most difficult to drill CR001-CR008 correlate with the highest amount of W in samples. Holes CR009-CR015 were easier to drill but harder than holes drilled on Trail-Minto and have intermediate W analysis. Holes drilled on Trail-Minto generally had the lower W values though orders of magnitude greater than in soils. Specialized steels were utilized to produce the drill bits and samplers and it is assumed that small amounts of this are responsible for the high W analysis. The same pattern is visible in Mo analysis though with less extreme results, possibly being 1-5 times higher than background rather than hundreds of times higher for W.

#### 11.6 2020 DH Drill Program

In 2020, NQ core was drilled and was intended to confirm KHS mineralisation in Carlin West which had no previous drilling.

#### 11.6.1 Sample Collection Methods - Drill

MLM implemented a quality control procedure to ensure that drill core from the Property was handled, sampled, and analyzed according to best practice protocols, that samples were representative of mineralisation intersected by drilling, and that no systematic sample bias had occurred. Core from diamond drilling was logged by the geologist, who also determined and marked intervals to be sampled, not longer than 1 m, or less than 0.3 m. Some samples were slightly longer than 1 m. Sample intervals did not cross lithological boundaries, and an effort was made to avoid sampling across anticipated changes in gold concentration, although this was modified to stay within sample width guidelines. All core sampling was supervised on site by the geologist. Sampling was selective to zones of obvious mineralisation and interesting structures with bounding margins of approximately 1 m.

During the 2020 MLM diamond drill campaign, MLM20-001 a total of 32.80 m samples collected in 38 samples for an average 0.86 m/sample; and MLM20-002 a total of 31.73 m samples in 36 samples collected for an average 0.88 m/sample.

#### 11.6.2 Data Collection - Drill

All core logging and cutting by MLM was performed on site at in Mayo and core remaining from the sampling is stored at the Yukon Core Library in Whitehorse, YT.

Upon receipt from the drill, core boxes were examined to ensure the hole number and box numbers are correct. Metric conversion of drilled footage was done by the drillers at the drill. The drillers depth markers were verified, and discrepancies recorded.

Geologists logged on laptops and entered the geological information in excel spreadsheets. The logs recorded hole location information, dip test results, lithologic description, structural observations, and sample intervals. Geotechnical measurements were limited to recovery and rock quality description (RQD) taken between drill run marker blocks.

Drill core was cut in half along its long axis using diamond blade core saws or, if the rock is soft enough, split using a gas-powered splitter following cut lines drawn by the geologists. Core splitters and cutters were instructed to be consistent as to which half of the core was replaced in the box and which half was sent for analysis. A sample tag was left in the core box at the start of the sample interval. Half of the core not sampled was returned to the original core box and is stored at the YGS core library in Whitehorse, YT.

#### 11.6.3 Analytical Methods – Drill

Samples were sent to Bureau Veritas SA (BV) in Whitehorse, YT. Samples were prepared either in Whitehorse or Vancouver BV facilities as recorded on lab certificates. Analyses were done in their Vancouver, BC laboratory. BV preparation used was PRP70-250: Crush, split and pulverize 250 g rock to 200 mesh. The analysis code used was MA300: 4 Acid digestion with ICP-ES analysis for 35 elements (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Th, Ti, U, V, W, Y, Zn and Zr).

#### 11.6.4 Security Measures

Only Authorised personnel are permitted access to the core shack and the drill core.

One half of cut core was placed in a clean sturdy plastic sample bag marked with the sample ID along with a sample tag stapled to the inside top to prevent it from being damaged. The sample bags were then tied securely and placed in large rice bags, which were fastened with security zap strap tags. The rice bags containing the samples were shipped to Bureau Veritas SA (BV) in Whitehorse, YT.

#### 11.6.5 QA/QC Samples - Drill

BV inserted two (2) blanks into each batch. Standards used by the laboratory were STD AGPROOF, STD OREAS25A-4A, STD OREAS45H, STD OXQ114, and STD OXQ132. For duplicates, four (4) pulps from the initial phase of sampling were re-processed by Bureau Veritas. References inserted for the current program returned results that verify the adequacy of the quality of the control, handling, and processing of the samples. It is noted that the laboratory is an industry standard and is certified.

#### 11.7 Opinion on Adequacy

Based on assessment of sample collection, analytical, security, and QA/QC procedures, the Author concludes that the data are adequate for supporting the confirmation of mineralisation. Sampling of remainder core from the current drill program could be re-assayed for future resource estimation. Bureau Veritas (BV) is compliant under ISO 9001 and ISO/IEC 17025. All processes during preparation and analyses are subject to rigorous QA/QC control.

### 12 DATA VERIFICATION (ITEM 12)

#### 12.1 Airborne Geophysics

Airborne magnetic surveys were flown by Precision GeoSurveys Inc. (PGI) over all of MLM properties in the Mayo area by that saw the acquisition of high-quality data. The properties were flown using a Bell 206 BIII jet ranger. A total of 5098 line-kilometers were flown at an approximate height of 30m above terrain with a line spacing of 150m and tie lines every 1.5km.

To develop targets for exploration and prospecting from airborne magnetics, MLM contracted Roman Tykajlo, PGeo, of Geo Digit-Ex (GDX). GDX provided a second opinion on the quality of geophysical data collected by PGI as well as independent interpretation of the data and further interpolation of data. To undertake this analysis GDX was provided with unleveled raw data from the survey. This was then re-leveled and analyzed using Oasis Montaj to check the previous digital elevation model, total magnetic intensity and first vertical derivative; and create second vertical derivative, tilt derivative and analytic signal plots.

#### 12.1.1 Statement on Data Adequacy – Airborne Geophysics

The Author is of the opinion that data provided by the contractor was of good quality. PGI provided a report signed by a geophysicist with registered professional status. This is also supported with results correlating well with historic, though less precise, airborne surveys by the Geological Survey of Canada (a 1968 magnetic survey with 1207m spacing and a second at 2000m spacing in 1990).

#### 12.2 Soil

In 2012, MLM conducted a ridge and spur type reconnaissance soil sampling program on all of its claim groups. This was done using daily transects on the Property were designed to obtain the utmost coverage of principle targets by utilizing strategically located helicopter drop off and pick up locations. The transects were selected based on data from geophysics in conjunction with air photo interpretation and proximity of historical anomalies or placer workings. Selected claims were revisited by geologists where favourable geology was present or to complete a broader and more precise geochemical coverage of the area. Transects varied from 2-4 kilometres in length depending on terrain with sample spacing of approximately 100 metres.

Subsequent programs between 2014 and 2017 targeted anomalies from the ridge and spur soil sampling program using grids, where grid-spacing and concentration increased with follow-up programs. Initial grids were 100 m line spacing with approximately 50 m stations. A tighter grid was completed over the Carlin West Target with 30-35 m line spacing and 25-30 m stations.

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#### 12.2.1 Statement on Data Adequacy - Soil

The Author is of the opinion that the data is of sufficient quality.

#### 12.3 Soil Gas Hydrocarbon

Soil samples collected in 2014 by personnel working under contract to MLM. Samples were originally processed by Bureau Veritas Commodities Canada Ltd. (Bureau Veritas) in Whitehorse and analyzed by Bureau Veritas in Vancouver B.C. using ICP-MS following an Aqua Regia digestion (ICP-MS). The results of the initial analysis are described in Sutherland and Rampton 2014. In March 2017 MLM submitted the samples from their 2014 program on the Roop Target for SGH analysis to Activation Laboratories Ltd (ActLabs) of Ancaster, Ontario.

ActLabs noted that in: "general, the number of samples was adequate to show what the author believes to be valuable information at the Roop SGH Survey. The use of a regularly spaced survey grid design significantly enhanced the interpretation and reduced the possibility of bias from clustering".

#### 12.3.1 Statement on Data Adequacy – SGH

The Author is of the opinion that the data is of sufficient quality.

#### 12.4 Ground Magnetics

Survey planning was carried out by Tyrell Sutherland of MLM. The workers mobilised to carry out the mag survey were Jack Krykow and Andrew Shumilak of Dahrouge Geological Consulting Ltd (Dahrouge) of Edmonton, AB, who were also responsible for post processing and normalizing data. During the surveys Dahrouge utilised two magnetometers, a roving unit and base station to correct for diurnal variations. The magnetometers used are two GEM GSM-19 Overhauser magnetometers. The magnetometers had the following specifications: Sensitivity: 0.022 nT @ 1 Hz, (0.015 nT option); Resolution: 0.01 nT; Absolute Accuracy: +/- 0.1 nT; Dynamic Range: 20,000 to 120,000 nT; Gradient Tolerance: Over 10,000 nT/m; Sampling Intervals: 60+, 5, 3, 2, 1, 0.5, 0.2 sec. The rover unit also included an integrated (OEMStar) GPS. Twelve walking lines were completed within the Roop -Carlin survey area. These lines were ~1.3km long with 50 m line spacing.

#### 12.4.1 Statement on Data Adequacy – IP-Resistivity

The Author is of the opinion that the data is of sufficient quality. Interpretations are subjective and highly dependent on the experience of the interpreter.

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#### 12.5 IP-Resistivity

Kryotek Arctic Innovation Inc (KAI) of Whitehorse, YT was contracted in 2019 to conduct highresolution geophysics surveys on two (2) MLM properties, of which one was completed on the Carlin-Roop Property with a total length of 0.1 km. The surveys were conducted by James Coates and Astrid Grawehr in Sep 2019 using a Lippmann 4-point Resistivity System. This system allows over 100 m of depth penetration. The 2019 survey used 1, 2.5 and 5 m electrode spacing in a combined Wenner-Schlumberger array format. A final report was submitted by Jim Coates of KAI, and dated 22 Oct 2019. Resistivity was used for this area as the electrical properties of overburden, schist bedrock, granodiorite bedrock and mineralised fault systems are distinct and easily definable

Data was collected and inverted using AGI Earth Imager 2D software (Advanced Geosciences Inc). Noisy data points and electrodes with poor contact resistance were removed and data was filtered for spikes or depressions in resistivity. The software produced two-dimensional tomograms using a smoothed, least squares damped and robust inversion parameters. Preliminary interpretations were conducted on the processed data. The images were interpreted by James Coates and features such as thawed regions, ice-rich permafrost, competent bedrock, degraded bedrock and top of bedrock contours were identified.

The Mayo area is a unique landscape with complex and poorly understood surficial and bedrock geology. Best efforts were made to identify ground material types based on surface exposure, borehole, and test pit data as well as experience in the area.

The electrical resistivity and induced polarizations method provide an estimate of subsurface conditions only at the specific locations where lines were conducted and only to the depths penetrated, and within the accuracy of the method. Data gathered represents a hemispherical cross-section extending downwards from the surface. Results are more accurate closer to the surface and become more general with increasing depths. The presence of permafrost is a major complicating factor and can cause changes in resistivity of up to several orders of magnitude.

#### 12.5.1 Statement on Data Adequacy – IP-Resistivity

The Author is of the opinion that the data is of sufficient quality. Interpretations are subjective and highly dependent on the experience of the interpreter. James Coates has over thirteen (13) years of experience performing over 5,000 geophysics surveys commercially for the engineering and exploration industries and academically at the doctoral level.

#### 12.6 Drilling

Drill collars were located and sited by handheld GPS and compass. Location and attitude information were noted on logs. Hole attitudes were tested during drilling. Tests were done every 20-30 m, Table 12.1.

DDH	Az	Dip	Test (m)	Az Test	Dip Test
MLM20-001	60	-45	15	58.8	-44.3
			42	59.5	-44.7
			66	60.7	-44.9
			91	60.6	-44.8
			115	62.3	-44.8
MLM20-002	60	-60	16	57.9	-60.1
			37.9	59.4	-60.0
			67	59.4	-60.4

#### Table 12.1: DDH Dip Test

Core was logged by geologist with geotechnical data collected by a field technician. Data was entered into a spreadsheet, which included geology, sample intervals, and geotechnical results.

A quality assurance/quality control program consisted of inserting lab blanks and re-analysis of pulps as duplicates. Bureau Veritas also maintained an QA/QC program for which results were provided to MLM. A set of core sample pulps were sent to ActLabs in Kamloops for re-analysis using their package 8-Ag-Kamloops, a fire assay and gravimetric method, with detection limits of 3 - 10,000 gpt Ag. (Table 12.2). Duplicate samples, blanks, and certified standards were processed by ActLabs with this sample batch to ensure proper quality assurance and quality control. The check samples generally confirm the tenure of results of the initial analyses.

DDH	Sample ID	Ag ppm ICP	Ag gpt FA						
MLM20-001	1903306	<0.5	< 3						
MLM20-001	1903320	33.0	29						
MLM20-001	1903330	1.3	< 3						
MLM20-001	1903336	12.8	18						
MLM20-002	1903340	2.4	< 3						
MLM20-002	1903345	1.2	< 3						
MLM20-002	1903357	0.8	< 3						
MLM20-002	1903360	1.6	< 3						
MLM20-002	1903370	1.5	< 3						
MLM20-002	1903371	<0.5	4						

After core sample assays were received from the lab, they were cross-referenced with sample records attached to the drill logs, and assay results were compared to expected mineralisation.

### 12.6.1 Statement on Data Adequacy - Drill

The Author is of the opinion that the data is of sufficient quality for a grass roots drill program. If data is to be used in future resources estimates, stored core may need to be re-sampled with inclusion of MLM-sourced standards and blanks. References inserted for the current program returned results that verify the adequacy of the quality of the control, handling, and processing of the samples.

Bureau Veritas (BV) and Activation Laboratories (ActLabs) are both commonly used by explorationists throughout the world and are compliant under ISO 9001 and ISO/IEC 17025. All processes during preparation and analyses are subject to rigorous QA/QC control.

### 13 MINERAL PROCESSING AND METALLURGICAL TESTING (ITEM 13)

No metallurgical testing has been carried out by MLM.

### 14 MINERAL RESOURCE ESTIMATE (ITEM 14)

There are no current reserves or mineral resources on the Carlin-Roop Property.

### 15 MINERAL RESERVE ESTIMATES (ITEM 13)

There are no mineral reserve estimates stated on this project. This section does not apply to the Technical Report.

## 16 MINING METHODS (ITEM 16)

This section does not apply to the Technical Report.

## 17 RECOVERY METHODS (ITEM 17)

This section does not apply to the Technical Report.

### 18 PROJECT INFRASTRUCTURE (ITEM 18)

This section does not apply to the Technical Report.

### **19 MARKET STUDIES AND CONTRACTS (ITEM 19)**

This section does not apply to the Technical Report.

### 20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT (ITEM 20)

These topics are related to those presented in Section 4, whereas Section 20 is intended for more advanced development phases (e.g., delineation drilling with many drill rigs, mini-bulk sampling, mine development).

Activities on the Property to date have not exceeded the minimum requirements of any regulatory agency. In anticipation of future activities, MLM applied for and was issued a Class 3 Operating Plan Permit, (#LQ00504), after approval from the YESA Board. It was effective as of 7 Sep 2018 and has a current expiry date of 6 Sep 2028.

A Heritage Resources Overview Assessment (HROA) dated 2 May 2012 was prepared for MLM by Ecofor Consulting Ltd. The 2012 report noted the Property has low probability of containing preserved sites. If sites are present, they would be more likely located in creek valleys than in upland areas. Reviews and assessments of this nature are ongoing during the life of the Project, in consultation with the Na-Cho Nyak Dun First Nation.

### 21 CAPITAL AND OPERATING COSTS (ITEM 21)

This section does not apply to the Technical Report.

### 22 ECONOMIC ANALYSIS (ITEM 22)

This section does not apply to the Technical Report.

### 23 ADJACENT PROPERTIES (ITEM 23)

There are numerous historic and abandoned workings associated with the long history of mining in the Keno Hill Silver District. Most of these historic working and current projects are concentrated predominantly to the north and northwest, (Figure 23.1). These areas contain several mineral occurrences listed in Yukon's Minfile database. MLM itself holds four other blocks to the west and southwest. Alexco Resource Corp has the advanced Keno Hill Project and Victoria Gold Corp operates the Eagle Gold Mine, Yukon's newest mine, both northwest of the Carlin-Roop Property. Metallic Minerals Corp holds a large block to immediate north of Carlin-Roop, and Strategic Minerals Ltd (under name Archer, Cathro & Associates (1981) Limited) on the west side. Other claim holders in the area are C2C Gold Corp, Cheryl Klippert, Shawn Ryan, and the Coynes (Jim, Robert) with John Fraser Hindson.

#### 23.1 Alexco Resource Corp - Keno Hill

The Keno Hill Project is approximately 22 km to the northwest of the Carlin-Roop. It is operated by Alexco Resource Corp, a Canadian primary silver company that owns the majority of the historic high-grade Keno Hill Silver District. Keno Hill Project claims are registered to Elsa Reclamation & Development Company Ltd and Alexco Keno Hill Mining Corp. According to the Yukon government's Minfile database, between 1913 and 1989 the Keno Hill Silver District produced in excess of 200 million ounces of silver from over 5.3 Mt of ore with average grades of 44 oz/t Ag, making it the second-largest historical silver producer in Canada. In 1989, with

falling metal prices and increased environmental standards, the former owners of the Keno Hill Silver District, United Keno Hill Mines Limited, terminated its mining activities in the District.

The Keno Hill Project hosts past producers and several advanced deposits. Alexco's Bellekeno Silver Mine, one of the world's highest-grade silver mines with a production grade of up to 1,000 g/t Ag, commenced commercial production at the beginning of 2011 and was Canada's only operating primary silver mine from 2011 to 2013.

In Mar 2019, Alexco published a positive prefeasibility study that estimates production of 1.18 Mt of ore at an average rate of 430 t/d at an average grade of 805 g/t Ag, 2.98% Pb and 4.13% Zn, over an eight-year mine life from the Flame & Moth, Bermingham, Bellekeno, and Lucky Queen deposits.

#### 23.2 Metallic Minerals Corp - Keno Silver

Metallic Minerals Corp (formerly Monster Mining Corp) hold a large block of claims to the immediate north and north-northwest of the Carlin-Roop Property called the Keno Silver Project. According to Metallic Minerals, the eastern zone of the Keno Hill Camp has seen little modern exploration due largely to unconsolidated multiple claims by various holders. According to their website: *"Target refinement and advancement work has focused on a combination of work at the advanced stage targets located along the known historically productive trends both down dip and along strike from past producing mines in the western and central part of the district, as well as target development in the underexplored eastern part of the district where 10 priority multi-kilometer-scale early-stage targets were identified with highly-elevated silver, lead and zinc in soils and multiple high-grade rock samples over 1,000 g/t silver...Follow-up work on these early-stage targets has confirmed the presence of significant high-grade Keno-style silver mineralisation hosted within both the Keno Hill quartzite and greenstones which are the most productive host rocks in the district. Each of these areas has the same strike length footprint as some of the largest deposits in the Keno district."* 

Recent work by Metallic Minerals has identified 12 multi-kilometre-scale anomalies east of the more developed part of the Keno Hill District, defined by soil sampling and geophysical surveys. Metallic Minerals notes that these anomalies spatially correspond with large geophysical magnetic low features that may represent magnetite destructive alteration zones or proximal, buried mineralising intrusive bodies. Their most recent drill campaign in 2020 confirmed both the continuation of the geologic and structural setting for high-grade Keno-style vein structures from the more developed western part of the district. Metallic Minerals plan follow-up RC and diamond core drilling in 2021.

#### 23.3 Strategic Metals Ltd - Mount Hinton

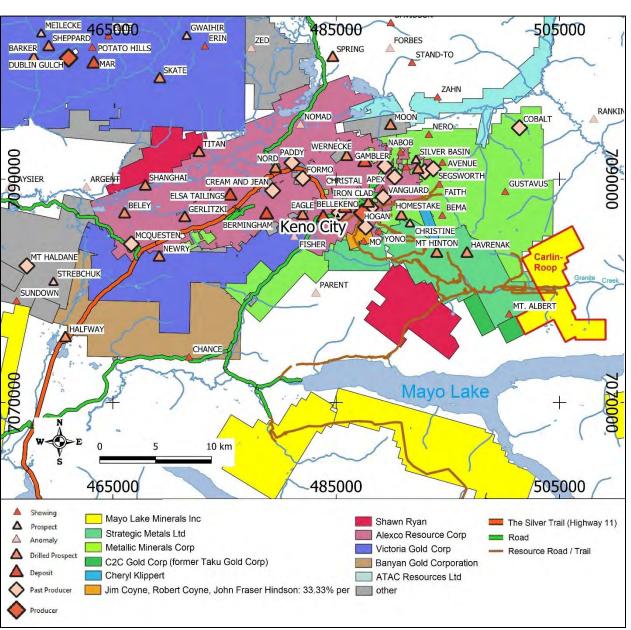
Strategic Metals Ltd owns a large block of claims on the west side of Carlin-Roop known as the Mt Hinton Project. These are registered under the name of Archer, Cathro & Associates (1981) Limited. There are three Minfile occurrences on this block, the southeastern most of which is a Pb-Ag showing called Mt Albert. It was staked in 1965 by United Keno Hill Mines Ltd to cover a heavy metal stream anomaly located by the GSC's Operation Keno (1964). Prospecting located several shear zones in quartzite containing minor galena mineralisation. The best assay returned 308.6 g/t Ag and 0.5% Pb (Minfile 105M 047).

#### 23.4 C2C Gold Corp – Keynote Property

C2C Gold Corp changed name from Taku Gold Corp in Dec 2020. Their Keynote Property is off the southwest corner of the Property, consisting of 40 claims in two blocks (24 and 16), down from a 77-claim block. Despite its neighbours targeting silver occurrences, C2C, as Taku Gold, acquired Keynote for its gold potential. Work on Keynote by the Vendor before Jul 2017 had located an anomalous gold-in-soil zone with values form trace to 292 ppb Au on the east side of the property. Surface rock grabs ranging from 175 to 553 ppb Au had been collected from this zone. The gold values are associated with sheeted quartz veins and elevated arsenic values. Taku Gold suggested this style of mineralisation appeared to fit the reduced intrusion-related gold systems-type (IRGS) deposit model. Taku Gold submitted an assessment reported in Dec 2017 for soil survey and rock samples which remains confidential for two more years. This property is a low priority for C2C, where their focus has been on other properties in Yukon and Newfoundland.

#### 23.5 Victoria Gold Corp - Eagle Gold Mine

Victoria Gold's Eagle Gold Mine on Dublin Gulch Property lies approximately 53 km westnorthwest of the Carlin-Roop Property. Dublin Gulch is accessible by road year-round and is connected to Yukon Energy's electrical grid. The Dublin Gulch property covers an area of approximately 555 sq km. The Eagle Gold Mine is Yukon's newest operating gold mine and is an open pit, heap leach operation. The Eagle Deposit represents a large-tonnage reduced intrusion-related gold systems associated with Cretaceous Tombstone and Mayo suite granodiorite intrusions and structurally controlled high-grade gold-sulfide veins. The NI 43-101 Mineral Resource for the Eagle and Olive deposits has been estimated to host 227 Mt averaging 0.67 g/t Au, containing 4.7 million ounces of gold in the "Measured and Indicated" category, inclusive of Proven and Probable Reserves, and a further 28 Mt averaging 0.65 g/t Au, containing 0.6 million ounces of gold in the "Inferred" category. The mineralisation is not



considered indicative of the Carlin-Roop. However, the construction and operation of the mine may provide both benefits and challenges in terms of available resources for the Property.

Figure 23.1: Adjacent Properties 28 Feb 2020

# 24 OTHER RELEVANT DATA AND INFORMATION (ITEM 24)

The Author is not aware of any other data on the Carlin-Roop or adjacent properties that would change the conclusions and recommendation in this report.

Airborne Geophysics was flown across the Property for high-quality total magnetics, producing analytical signal, total magnetic intensity, first vertical and tilt derivatives maps. These outline the various lineations marking stratigraphy boundaries, faults, joint patterns, as well as magnetic highs and lows marking major bedrock lithologies. They also mark areas of potential mineralisation. Results of airborne magnetics and the derivatives are available for targeting areas for Ag  $\pm$  Au, Pb, Zn mineralisation and pre-drilling exploration. There are indications of good size potential for any mineralisation and facilitates exploration by providing multiple closely spaced targets where linear anomalies cross each other.

The geology of the Carlin-Roop Property is dominated by the Keno Hill Quartzite (Roots, 1997), also known as the Central Quartzite Formation as noted by Boyle (1965). It is comprised of quartzite, schist, and greenstone lenses. Greenstones are amphibole-chlorite (rarely augite) metadiorite and metagabbro, foliation-concordant, (Roots, 1997). The northeast corner overlies an area of a granitoid intrusion (Tombstone Intrusions: hornblende ± biotite granite, quartz monzonite and granodiorite).

The Property lies within the Tombstone Strain Zone where the Robert Service Thrust wraps around the south half of the Property on three sides four to seven kilometres distance. A north-northwest anti-form trends subparallel to the Property centre line along its length, known as the Mayo Lake Anticline. A sub-parallel syn-form crosses the eastern edge of the property. Generally, there are two sets of faulting on the Property, a pre-dominant set, trending northwest to north-northwest and second set trending west-southwest, possibly subparallel dip direction of bedding / schistocity. Similar to the Keno Hill Camp, the soils and indicated mineralisation appear to be related to near vertical faults and related fractures, similar to the pattern shown on Figure 9.4. More fracturing because of the Robert Service Thrust may be present.

Reconnaissance sampling in 2012 did not return anomalous Ag results, but did have significant occurrences of Sb and As anomalies, good pathfinders for Ag mineralisation. A good correlation between Ag and those two elements was seen in subsequent grid sampling. When all soil surveys are plotted with consistent Sb and As intervals, Carlin West stands out as a primary target.

Some difficulties remain in obtaining relevant samples from a variety of overburden types. Soil anomalies are possibly shifted and patchy because of the variable cryoturbation couple with areas of steep landforms. Mass wastage of and glacial transported stacking of materials will also influence soil anomalies. Graphitic material may affect Au-in-soil responses.

It would appear that major mineralisation has not been previously recognised because of poor exposure, glacial transport, and the resulting complex stratification of the overburden. More robust soil sampling and trenching techniques will be needed to better test targets in those areas so affected.

There are two types of polymetallic mineralisation within 30 km of the Property. Keno Hill type veins and the Marge VMS deposit. Given the presence of volcanics locally in the Keno Hill Quartzite the Property could be host to either of these types of mineralisation.

Keno Style Mineralisation (KSM) Ag mineralisation targets were subsequently identified with geochemical soil anomalies (Ag + As + Sb + Pb + Zn soil anomaly). One of those geochemically identified zones in the southwest (Carlin West) was prioritised where a shallow IP-Resistivity survey refined a target. This target was later confirmed to host KSM-style Ag mineralisation by an initial short drill program. This also confirms that IP-Resistivity appears to be an effective method for defining the local mineralised structure and should continue to be utilised on the Property. Areas of low magnetics on airborne TMI appear to delineate linear features which are coincidental with geochemically anomalous zones from soil surveys, possibly consistent with Keno Hill Mineralisation (KHM) types.

The  $310^{\circ} \pm$  magnetic linear trend appears to be the dominant control on parallel soil anomalies trend at Carlin-West. There is a distinct break in the  $310^{\circ} \pm$  soil anomaly trend coincidental with a 65° magnetic linear trend. Locally, zones of anomalous Sb within Carlin East (1 and 2) parallel these linear trends. These also coincide with magnetically delineated structures and similar geology to Carlin West. Carlin East1 has a smaller anomalous area but is on trend with the Roop North anomalous area. The Carlin East2 area in the southeast corner of the Property warrants a soil grid survey at minimum, to test the anomalous area outlined in the 2012 ridge and spur reconnaissance soil survey.

Roop North Target, north of Granite Creek is a weaker target in that respect, given similar cover and geology. Although there is a good geophysical signature and a weak subparallel trend in anomalous Sb. Roop North is anomalous in other elements, delineated by anomalous or elevated values of Au, Ca, Co, Cu, Na, Ni, Sc, Ti in East of the 2014 soil grid. Soil sampling and SGH interpretations show the potential for Au mineralisation on the property, likely polymetallic in nature, with strong Cu correlation +/- Ag. In short, Roop North contains two (2) possible targets in a small area. The eastern area of the Roop Claim Block was moderately anomalous is Au and As in the 2012 reconnaissance soil sampling, supported by bounding 2012 stream sediment samples anomalous in As and Sb. GDX also outlined a circular target from 2012 airborne magnetics.

#### 25.1 Carlin West

Results to date from the MLM's soil sampling programs, geophysics and limited drilling provide strong evidence that a significant source of Ag mineralisation is present in the Carlin West area of the Property. There is a long history of silver exploitation in the Keno Camp, so that would be the target deposit model.

Within the Carlin West soil grid primary pathfinders are As, Sb, Pb and Zn, which suggest an underlying vein system is present over a strike length of 400m to >1000m. The longer strike length contains at least on significant gap, which may be a result of a longitudinal fault. The abundance of Ag in soil in association with other with other vein pathfinders and features visible in the Roop-Carlin magnetic survey suggests that this vein system is probably a Transverse KHTV trending about 310°. In 2019, a Resistivity and IP survey line was completed for MLM by KAI in Carlin West that outlined an anomalous zone consistent with a sub-vertical silicified structure (or quartz vein system) 10-15 m wide and centred under an area of anomalously high Ag in soil samples.

Initial diamond drilling in 2020 on the Carlin West Target has confirmed mineralisation and the general stratigraphic and structural setting. From top to bottom the drilling intersected graphitic shist with quartz veins (5 m ±); graphitic shist and foliated quartzite (60 m ±); altered quartzite, chlorite, and sericite down to silicification, with sphalerite veins and sulphosalts (25 m ±); and finally, greenstone with isolated quartz veins with possible sulphosalts. Theses lithologies in the drill holes match the those observed on surface and those as described by Boyle (1965) in the Central Quartzite Formation, later called Keno Hill Quartzites, typical of Keno Hill Ag Deposits. Attitude of bedding of the quartzite and graphitic schist foliation apparently dip gently to the WSW 10° - 30° (rarely 40°) with an estimated strike of approximately 150° SSE based on surface observations, geophysical traces and interpreted regional anti-form hinge line (Boyle, 1964). Other structures of note in the drill holes are veins and shears, generally parallel bedding and foliation with steeply dipping breccias apparently 70-80° ENE. Brecciation angles to core axis suggest a steeply dipping KSM.

Intersection with greenstone was not entirely expected, though many greenstones are noted in the area to the west and north (Boyle, 1964, MLM recent observations). Locally, greenstone units were observed at the top of the hill upslope to the west of the recent drilling.

Drilling results, coupled with IP and soils, suggest that there are two to three separate "zones" of mineralisation. An upper one is a separate system within the interbedded schists and quartzites. Structures within it are both parallel the foliation (bedding) and to the core axis (breccia,  $10^{\circ}$ ±). Each structure have different magnitude of Ag:Zn ratio, relatively Zn-rich in breccia. A middle zone in the altered quartzite with veins subparallel bedding, perhaps having developed by fluids being diverted parallel to bedding and the greenstone/KHQ contact. Finally, the lowest zone in the greenstone, with structures with angles  $10^{\circ}$ ± to core axis (breccia), possibly in the footwall of the lower edge of the IP anomaly.

On surface, there appears to be a WSW trending structure outlined by an elongated low along the north half of the ground magnetics, offsets in magnetic highs on the airborne analytical magnetics, a topographic dip, as well as a break in an elongate anomalous soil zone that trends about 310°. This could be a longitudinal fault, 65°, that cuts a mineralised NW trending structure.

The Carlin West area of the Property contains an excellent target for further drilling, based on geochemical, geophysical, and initial drilling results. Further drill planning and interpretations may also be helped by extending the soil sampling, deeper IP-resistivity imaging and possibly ground magnetics.

### 25.2 Carlin East

Three geochemical targets were outlined in 2012 reconnaissance soil line which had anomalous Au, As, and Sb. A 2015 soil grid over the western most geochemical target confirmed anomalous Au, As, Sb +/- Ag in an area roughly 400 m by 300 m (Carlin East1). This was possibly associated with narrow veins radiating from the nearby gabbro stock. One such limonitic quartz vein with minor chalcopyrite cutting the gabbro stock sampled 1 km to the east yielded between 9 and 56 ppb Au. Other limonitic quartz veins sampled were completely barren. Alternatively, the source of the mineralisation could be deeper or further from site with exposed gabbro stocks providing local competency contrast to allow visible fracturing and veining. The 2012 reconnaissance sampling had another similar cluster of anomalous Au, As and Sb 600 m to the west that coincides with an elongate north-northwest geophysical target outlined by the 2012 GDX interpretation of aeromagnetics.

Another geochemical target farther to the east (Carlin East2) have only had two reconnaissance soil sample lines. These parallel lines had a cluster of anomalous results for Au, As and Sb in area of a mix of gabbro (greenstone) and KHQ. The area of anomalous soil results, in particular

As, was strongly coincidental with a north-south magnetic low outlined in the 2012 airborne survey.

### 25.3 Roop North

The Roop North Target area is situated on what may be the south edge of some sort of intrusion or part of the Roop Stock alteration halo, overlapping with a sinuous regional NNW trending structure, based on airborne magnetics.

The circular shape of R1 suggests a plug or point source, however lithological control cannot be ruled out as it may appear circular due to masked values within the boulder falls to the southeast. An additional explanation could be a plunging fold axis since such a feature could express with features of both a circular source and linear trend. Further investigation will be required to determine the nature of R1.

R2 is a linear trend of elevated elements further defined by truncated anomalies or different backgrounds on either side of this anomaly. The change in background values and parallel Au anomaly suggest faulting or fracture sets associated with a dyke or bedrock contact. The Au anomaly on the edge of R2 corresponds with a slight magnetic high.

Anomalous Co, Cu and Ni suggest that any shallow intrusions or dykes present within the project area are likely mafic in nature, probably related to the Triassic greenstones or gabbros. The anomalous mafic indicators in conjunction with high Ca values, close Au-Hg association and geophysical lineations suggest a possible carlin-type provenance for the anomalous Au values at R1. The change in background values across R2 suggest veining associated with a fault, dyke, or bedrock contact and the slight magnetic high strongly suggests a dyke, likely of mafic composition. For both R1 and R2 a likely candidate for economic mineralisation is orogenic type gold veins. This is supported by the apparent interaction between R1 and R2 as well as the decoupling of the gold anomaly at R1 from the major multi-element anomaly at R1.

Soil sampling anomalies in Au, Ag, Pb and Zn are outlined on the Roop Target with unique Au and Cu SGH anomalies. A weak Ag soil anomaly and a low-quality Ag SGH signature were also noted on the Roop Target. Some gold in soil geochemical anomalies were not reflected by the SGH analysis, however these geochemical anomalies fit reasonably well with the "redox cell" model. The association of both Ag and Cu with this redox cell suggests polymetallic mineralisation at a shallow depth with a significant degree of certainty. The SGH interpreted mineralisation does not correlate clearly with geochemical anomalies at surface, however this could be a function of varying depth and slope shifting the surface expression of SGH anomalies. The various geochemical base metal anomalies and Au anomalies in soil also suggest polymetallic mineralisation.

### 26 RECOMMENDATIONS (ITEM 26)

### 26.1 Recommended Work Programs

The Author recommends a two-phase program, focussed primarily on Carlin West Target. Secondary priority of additional pre-drilling surveys on the Roop Target and Carlin East2, along with expansive reconnaissance sampling. Phase I would be consist of coincidental soil sampling, IP-Resistivity, and completion of 2020 Carlin West drill program. Phase II would continue drilling at Carlin West, drilling at Roop North, ongoing soil sampling surveys, along with trenching where areas outlined in Phase I activities.

Preliminary results from the 2020 drilling confirmed Ag mineralisation. The strong Ag soilanomaly within the Carlin-Roop survey area warrants significant trenching to determine the nature and intensity of bedrock silver mineralisation, accompanied by continued drilling. The Keno Hill Type mineralisation further defined by this program appears open to the north and east. Roop North and Carlin East2 targets show prospectivity from previous geochemical investigations and airborne geophysics. These earlier results warrant expanded geochemical sampling.

Detail soil sampling is recommended in three areas: Carlin West; Roop North; and, Carlin East2. At Carlin West, infill and expanded sampling of previous grids should be completed to further define its extent and structural controls. Roop North sampling to expand and extend previous programs to the west and north. Focus should be on the area between the target and northern Property boundary. Carlin East2, should have a grid overlapping and parallel to 2012 reconnaissance lines, which is perpendicular to bedding/dyke strike and TMI magnetic low. Grid patterns can be biased towards geologic controls as presently understood from outcrops and geophysics. Unless the trends of mineralisation can be clearly defined the recommended sampling grid is 60m by 100m for targeting, and 30m by 30 m for detail. Additional reconnaissance soil line and prospecting samples will be collected during this period, in part to test geophysical interpretations. Structural mapping should be included in prospecting activities.

Proposed IP-Resistivity surveys at Carlin West include step-out lines from the original, one a western extension on trend with the 2020 drilling to cover the upper mineralisation zone, and another parallel line to the north of the break in soil anomalies. At Roop North, the geology and the aeromagnetic signature suggest NNW trending structures. Soil geochemistry suggests two

(2) parallel mineralised zones. Roop North and Carlin East2 would benefit from IP-Resistivity survey lines, as these was shown to be effective at Carlin West. The Roop North Target is ready for an IP-Resistivity survey at present, possibly a line of 400 m to attempt to capture both possible mineralised zones. At Carlin East2, lines should be perpendicular to structures outlined by aeromagnetics and centred on strongest soil anomalies, accounting for possible creep.

Drilling would focus on Carlin West and Roop North. First, the originally planned Carlin West program from 2020 should be completed, with an additional step-out two-hole pad based on Phase I results. Up to four (4) holes on two (2) sites are recommended for Roop North, depending on IP survey, with ongoing evaluation as drilling progresses.

Trenching is recommended at Carlin West, with 2 - 3 trenches of 100 - 200 m length, along with channel sampling. Ideally at least one trench should be located on either side of the east-west break in soil anomalies and centred over the north-south trend of those anomalies. Trenching is recommended for Roop North, ideally after IP surveying, but the priority is Carlin West.

### 26.1.1 Cost Estimates

Following is presented cost estimate for the recommended two (2) phase program, (tables 26.1 and 26.2).

Description	Phase	Unit	#	Unit Cost	SubCost	Cost	Note
Geochemical Survey	10-1-10-10		1000				
Soil Survey Grids		Sample	180	\$140.00	\$25,200.00		CW
Soil Survey Recon		Sample	100	\$140.00	\$14,000.00		10 line-km 50m spacing
Rock - Prospecting	- D	Sample	18	\$42.75	\$769.50		Estimate about 10% of soils total samples
Total			298			\$39,969.50	All-in cost, helicopter supported, collection, analysis and reporting
Days			8		F	fa	Estimate 40 samples / day
IP-Resistivity Survey	1	Line m	1300	\$40.00	í	\$52,000.00	All-in, Estimate \$ per line m
Days			7		]]		assume 1 x 200 m line per day
Drilling	I	m	350	\$203.00			All-in Estimate less samples, CW 2 holes 1 pads; \$90/m drill, \$113/m avg all else
Samples 1m		1m	350	\$55.00		\$19,250.00	1m samples, Logging, cutting, lab costs
Days			6.5			1223	100 m per day + 3

ontingency 10% I \$18,226.95 SubTotal I \$200,496.45

Total Days I 22

Description	Phase	Unit	#	Unit Cost	SubCost	Cost	Note		
Geochemical Survey			1 1			1			
Soil Survey Grids	11	Sample	324	\$140.00	\$45,360.00	0	RN, CE2		
Soil Survey Recon	- 0 E .	Sample	100	\$140.00	\$14,000.00		10 line-km 50m spacing		
Rock - Prospecting	Ш	Sample	42	\$42.75	\$1,795.50		Estimate about 10% of soils total samples		
Total			466			\$61,155.50	All-in cost, helicopter supported, collection, analysis and reporting		
Days			12	·			Estimate 40 samples / day		
Drilling	U	m	1050	\$203.00		\$213,150.00	All-in Estimate less samples, Roop North 4 holes, 2 pads ; \$90/m drill, \$113/day, \$113/m avg all else		
Samples		1m	1050	\$55.00		\$57,750.00	1m samples, Logging, cutting, lab costs		
Days			13.5				100 m per day + 3		
Trenching	ll -	m	500	\$95.00		\$47,500.00	All-in Estimate less assay cost; 500m trenching of 100 - 200 m per trench		
		trail	lump			\$4,700.00			
Samples		1m	500	\$25.00			1 m samples in channels, assay cost		
Days	1		12				100m per day + 2 mob + 1 per area move, 4 areas		
				Contin	gency 10% II	\$39,675.55			
					SubTotal II	\$436,431.05			
					Total Days II	38			

Table 26.2: Cost Estimate	for Recommended	Program – Phase II

### 26.2 Opinion of Merit

The Author is of the opinion that the Carlin-Roop Property is of merit sufficient to justify the recommended two-phase exploration program, with cost estimates as tabelled above.

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# 28 GLOSSARY

Ag ALS As Au °C C\$ CIM CIRNAC cm Cu DDH DIAND NND g g/t GDX GSC ICP-MS INAA KSM KHSD KHTV km koz kW Ibs m M	Silver ALS Laboratories Arsenic Gold degrees Celsius Canadian Dollar Canadian Institute of Mining, Metallurgy and Petroleum Crown Indigenous Relations and Northern Affairs Canada centimetre Copper diamond drillhole Department of Indian Affairs and Northern Development First Nation of Na-Cho Nyäk Dun grams grams per tonne Geo Digit-Ex Geological Survey of Canada inductively coupled plasma - mass spectrometry instrumental neutron activation analysis Keno Style Mineralisation Keno Hill Silver District Keno Hill Silver District Keno Hill Transverse Veins kilometre thousand troy ounces kilowatt hours pounds metre Million
MW oz	Megawatt Troy Ounce
Pb PGI	Lead Precision GeoSurveys Inc
ppb	part per billion
ppm QP	part per million Qualified Person(s)
RQD	Rock Quality Designation
Sb	Antimony
TMI UKHM	Total Magnetic Intensity United Keno Hill Mines Ltd
US\$	United States Dollar
UTME	Universal Transverse Mercator Easting
UTMN	Universal Transverse Mercator Northing
W YESAA	Tungsten Yukon Environmental & Socio-economic Assessment Act
YESAB	Yukon Environmental & Socio-economic Assessment Act
YGS	Yukon Geologic Survey
Zn	Zinc

# **APPENDIX A Certificate of Author**

I, Clinton François Davis, residing in Ottawa, Ontario, do hereby certify that:

- I am a registered professional geologist with the Professional Geoscientists of Ontario, (no 1072) and the Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (no L2813).
- I am a 1997 graduate of Carleton University, Ottawa, Ontario with a B.Sc. (Honours) in Geology. I have taken graduate mineral economics courses at the Colorado School of Mines. I have a Diploma in Urban and Land Economics from the University of British Columbia, 2017.
- I have been practicing my profession as a geologist since 1996, excluding educational periods, with exploration fieldwork in Canada, Mongolia, South America and short stints in Africa, from grassroots to advanced exploration and property evaluations. I have worked in the Yukon for both gold and silver projects.
- I am the author of this report entitled "NI 43-101 Technical Report Carlin-Roop Silver Project, Mayo Lake District, Yukon Territory, Canada" on the Carlin-Roop Property located in east of Keno Hill, Yukon Territory, with an effective date of 22 Mar 2021.
- I own 20,000 common share of Mayo Lake Minerals Inc and 10,000 purchase warrants entitling the purchase of one common share of Mayo Lake Minerals Inc at a price of \$0.15 per common share for 36 months from the closing date of 30 Mar 2018.
- I am a "qualified person".
- I have not visited Carlin-Roop Property due to COVID-19 Pandemic restrictions.
- I have had no prior involvement with the Carlin-Roop Property.
- I have based this report on previous exploration experience, review of reports listed in the references and sources of data section.
- I am not aware of any material fact or material change related to this report that is not reflected in the Report.
- I have read National Instrument 43-101, Form 43-101F1 and believe my report is in compliance with National Instrument 43-101.
- I consent to the filing of the Technical Report by Mayo Lake Minerals Inc with any stock exchange and other regulatory authority and any publication of the Technical Report by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public.

Dated this 31<sup>st</sup> day of Mar 2021

Geo Clinto Da PGO

## **APPENDIX B CLAIMS INFORMATION**

The following table contains information for Carlin-Roop Property quartz claims held 100% by Mayo Lake Minerals Inc. They are located in Mayo Mining District within NTS sheet 105M/15.

Grant #	Tenure	Status	Claim Name	Claim #	Stake Date	Recorded	Expiry
YE25401	Quartz	Active	ML2	1	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25402	Quartz	Active	ML2	2	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25403	Quartz	Active	ML2	3	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25404	Quartz	Active	ML2	4	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25405	Quartz	Active	ML2	5	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25406	Quartz	Active	ML2	6	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25407	Quartz	Active	ML2	7	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25408	Quartz	Active	ML2	8	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25417	Quartz	Active	ML2	17	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25418	Quartz	Active	ML2	18	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25419	Quartz	Active	ML2	19	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25420	Quartz	Active	ML2	20	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25421	Quartz	Active	ML2	21	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25422	Quartz	Active	ML2	22	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25423	Quartz	Active	ML2	23	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25424	Quartz	Active	ML2	24	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25432	Quartz	Active	ML2	32	08-Apr-2011	19-Apr-2011	19-Apr-2022
YE25433	Quartz	Active	ML2	33	10-Apr-2011	19-Apr-2011	19-Apr-2022
YE25435	Quartz	Active	ML2	35	09-Apr-2011	19-Apr-2011	19-Apr-2022
YE25436	Quartz	Active	ML2	36	09-Apr-2011	19-Apr-2011	19-Apr-2022
YE25437	Quartz	Active	ML2	37	09-Apr-2011	19-Apr-2011	19-Apr-2022
YE25438	Quartz	Active	ML2	38	09-Apr-2011	19-Apr-2011	19-Apr-2022
YE25439	Quartz	Active	ML2	39	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE25440	Quartz	Active	ML2	40	07-Apr-2011	19-Apr-2011	19-Apr-2022
YE46089	Quartz	Active	GR	89	12-May-2011	25-May-2011	19-Apr-2022
YE46090	Quartz	Active	GR	90	12-May-2011	25-May-2011	19-Apr-2022
YE46091	Quartz	Active	GR	91	12-May-2011	25-May-2011	19-Apr-2022
YE46092	Quartz	Active	GR	92	12-May-2011	25-May-2011	19-Apr-2022
YE46093	Quartz	Active	GR	93	12-May-2011	25-May-2011	19-Apr-2022
YE46094	Quartz	Active	GR	94	12-May-2011	25-May-2011	19-Apr-2022
YE46095	Quartz	Active	GR	95	12-May-2011	25-May-2011	19-Apr-2022
YE46096	Quartz	Active	GR	96	12-May-2011	25-May-2011	19-Apr-2022
YE46097	Quartz	Active	GR	97	12-May-2011	25-May-2011	19-Apr-2022
YE46098	Quartz	Active	GR	98	12-May-2011	25-May-2011	19-Apr-2022
YE46113	Quartz	Active	GR	113	12-May-2011	25-May-2011	19-Apr-2022
YE46114	Quartz	Active	GR	114	12-May-2011	25-May-2011	19-Apr-2022

Grant #	Tenure	Status	Claim Name	Claim #	Stake Date	Recorded	Expiry
YE46115	Quartz	Active	GR	115	12-May-2011	25-May-2011	19-Apr-2022
YE46116	Quartz	Active	GR	116	12-May-2011	25-May-2011	19-Apr-2022
YE46117	Quartz	Active	GR	117	12-May-2011	25-May-2011	19-Apr-2022
YE46118	Quartz	Active	GR	118	12-May-2011	25-May-2011	19-Apr-2022
YE46119	Quartz	Active	GR	119	12-May-2011	25-May-2011	19-Apr-2022
YE46120	Quartz	Active	GR	120	12-May-2011	25-May-2011	19-Apr-2022
YE46121	Quartz	Active	GR	121	12-May-2011	25-May-2011	19-Apr-2022
YE46122	Quartz	Active	GR	122	12-May-2011	25-May-2011	19-Apr-2022
YE46141	Quartz	Active	GR	141	12-May-2011	25-May-2011	19-Apr-2022
YE46142	Quartz	Active	GR	142	12-May-2011	25-May-2011	19-Apr-2022
YE46143	Quartz	Active	GR	143	12-May-2011	25-May-2011	19-Apr-2022
YE46144	Quartz	Active	GR	144	12-May-2011	25-May-2011	19-Apr-2022
YE46145	Quartz	Active	GR	145	11-May-2011	25-May-2011	19-Apr-2022
YE46146	Quartz	Active	GR	146	11-May-2011	25-May-2011	19-Apr-2022
YE46147	Quartz	Active	GR	147	11-May-2011	25-May-2011	19-Apr-2022
YE46148	Quartz	Active	GR	148	11-May-2011	25-May-2011	19-Apr-2022
YE46149	Quartz	Active	GR	149	11-May-2011	25-May-2011	19-Apr-2022
YE46150	Quartz	Active	GR	150	11-May-2011	25-May-2011	19-Apr-2022
YE46151	Quartz	Active	GR	151	11-May-2011	25-May-2011	19-Apr-2022
YE46152	Quartz	Active	GR	152	11-May-2011	25-May-2011	19-Apr-2022
YE46154	Quartz	Active	GR	154	11-May-2011	25-May-2011	19-Apr-2022
YE46166	Quartz	Active	GR	166	15-May-2011	25-May-2011	19-Apr-2022
YE46167	Quartz	Active	GR	167	15-May-2011	25-May-2011	19-Apr-2022
YE46168	Quartz	Active	GR	168	14-May-2011	25-May-2011	19-Apr-2023
YE46169	Quartz	Active	GR	169	14-May-2011	25-May-2011	19-Apr-2023
YE46170	Quartz	Active	GR	170	14-May-2011	25-May-2011	19-Apr-2023
YE46171	Quartz	Active	GR	171	14-May-2011	25-May-2011	19-Apr-2023
YE46172	Quartz	Active	GR	172	13-May-2011	25-May-2011	19-Apr-2022
YE46173	Quartz	Active	GR	173	13-May-2011	25-May-2011	19-Apr-2022
YE46174	Quartz	Active	GR	174	13-May-2011	25-May-2011	19-Apr-2022
YE46175	Quartz	Active	GR	175	13-May-2011	25-May-2011	19-Apr-2022
YE46176	Quartz	Active	GR	176	13-May-2011	25-May-2011	19-Apr-2022
YE46177	Quartz	Active	GR	177	13-May-2011	25-May-2011	19-Apr-2022
YE46178	Quartz	Active	GR	178	13-May-2011	25-May-2011	19-Apr-2022
YE46179	Quartz	Active	GR	179	13-May-2011	25-May-2011	19-Apr-2022
YE46180	Quartz	Active	GR	180	13-May-2011	25-May-2011	19-Apr-2022
YE46181	Quartz	Active	GR	181	13-May-2011	25-May-2011	19-Apr-2022
YE46182	Quartz	Active	GR	182	13-May-2011	25-May-2011	19-Apr-2022
YE46183	Quartz	Active	GR	183	13-May-2011	25-May-2011	19-Apr-2022
YE46184	Quartz	Active	GR	184	13-May-2011	25-May-2011	19-Apr-2022

Grant #	Tenure	Status	Claim Name	Claim #	Stake Date	Recorded	Expiry
YE46185	Quartz	Active	GR	185	13-May-2011	25-May-2011	19-Apr-2022
YE46188	Quartz	Active	GR	188	13-May-2011	25-May-2011	19-Apr-2022
YE46190	Quartz	Active	GR	190	13-May-2011	25-May-2011	19-Apr-2022
YE46192	Quartz	Active	GR	192	12-May-2011	25-May-2011	19-Apr-2022
YE46194	Quartz	Active	GR	194	12-May-2011	25-May-2011	19-Apr-2022
YE46186	Quartz	Active	GR	196	13-May-2011	25-May-2011	19-Apr-2022
YE46197	Quartz	Active	GR	197	11-May-2011	25-May-2011	19-Apr-2023
YE46198	Quartz	Active	GR	198	11-May-2011	25-May-2011	19-Apr-2023
YE46199	Quartz	Active	GR	199	11-May-2011	25-May-2011	19-Apr-2023
YE46200	Quartz	Active	GR	200	11-May-2011	25-May-2011	19-Apr-2023
YE24701	Quartz	Active	GR	201	11-May-2011	25-May-2011	19-Apr-2023
YE24702	Quartz	Active	GR	202	11-May-2011	25-May-2011	19-Apr-2023
YE24703	Quartz	Active	GR	203	11-May-2011	25-May-2011	19-Apr-2023
YE24704	Quartz	Active	GR	204	11-May-2011	25-May-2011	19-Apr-2023
YE24705	Quartz	Active	GR	205	11-May-2011	25-May-2011	19-Apr-2023
YE24706	Quartz	Active	GR	206	11-May-2011	25-May-2011	19-Apr-2023
YE24707	Quartz	Active	GR	207	11-May-2011	25-May-2011	19-Apr-2023
YE24708	Quartz	Active	GR	208	11-May-2011	25-May-2011	19-Apr-2023
YE24709	Quartz	Active	GR	209	11-May-2011	25-May-2011	19-Apr-2023
YE24710	Quartz	Active	GR	210	11-May-2011	25-May-2011	19-Apr-2023
YE24711	Quartz	Active	GR	211	11-May-2011	25-May-2011	19-Apr-2023
YE24712	Quartz	Active	GR	212	11-May-2011	25-May-2011	19-Apr-2023
YE24713	Quartz	Active	GR	213	11-May-2011	25-May-2011	19-Apr-2023
YE24714	Quartz	Active	GR	214	11-May-2011	25-May-2011	19-Apr-2023
YE24715	Quartz	Active	GR	215	11-May-2011	25-May-2011	19-Apr-2023
YE24716	Quartz	Active	GR	216	11-May-2011	25-May-2011	19-Apr-2023
YE24717	Quartz	Active	GR	217	11-May-2011	25-May-2011	19-Apr-2023
YE24718	Quartz	Active	GR	218	11-May-2011	25-May-2011	19-Apr-2023
YE24719	Quartz	Active	GR	219	11-May-2011	25-May-2011	19-Apr-2022
YE24720	Quartz	Active	GR	220	11-May-2011	25-May-2011	19-Apr-2022
YE24721	Quartz	Active	GR	221	11-May-2011	25-May-2011	19-Apr-2022
YE24722	Quartz	Active	GR	222	11-May-2011	25-May-2011	19-Apr-2022
YE24723	Quartz	Active	GR	223	11-May-2011	25-May-2011	19-Apr-2022
YE24724	Quartz	Active	GR	224	11-May-2011	25-May-2011	19-Apr-2022
YE24725	Quartz	Active	GR	225	11-May-2011	25-May-2011	19-Apr-2022
YE24726	Quartz	Active	GR	226	11-May-2011	25-May-2011	19-Apr-2022
YE24727	Quartz	Active	GR	227	11-May-2011	25-May-2011	19-Apr-2022
YE24728	Quartz	Active	GR	228	11-May-2011	25-May-2011	19-Apr-2022
YE24729	Quartz	Active	GR	229	11-May-2011	25-May-2011	19-Apr-2022
YE24730	Quartz	Active	GR	230	11-May-2011	25-May-2011	19-Apr-2022

Grant #	Tenure	Status	Claim Name	Claim #	Stake Date	Recorded	Expiry
YE24731	Quartz	Active	GR	231	11-May-2011	25-May-2011	19-Apr-2022
YE24732	Quartz	Active	GR	232	11-May-2011	25-May-2011	19-Apr-2022
YE24733	Quartz	Active	GR	233	13-May-2011	25-May-2011	19-Apr-2022
YE24734	Quartz	Active	GR	234	13-May-2011	25-May-2011	19-Apr-2022
YE24735	Quartz	Active	GR	235	13-May-2011	25-May-2011	19-Apr-2023
YE24736	Quartz	Active	GR	236	13-May-2011	25-May-2011	19-Apr-2023
YE24737	Quartz	Active	GR	237	13-May-2011	25-May-2011	19-Apr-2023
YE24738	Quartz	Active	GR	238	13-May-2011	25-May-2011	19-Apr-2023
YE24739	Quartz	Active	GR	239	13-May-2011	25-May-2011	19-Apr-2023
YE24740	Quartz	Active	GR	240	13-May-2011	25-May-2011	19-Apr-2023
YE24741	Quartz	Active	GR	241	13-May-2011	25-May-2011	19-Apr-2023
YE24742	Quartz	Active	GR	242	13-May-2011	25-May-2011	19-Apr-2023
YE24743	Quartz	Active	GR	243	13-May-2011	25-May-2011	19-Apr-2023
YE24744	Quartz	Active	GR	244	13-May-2011	25-May-2011	19-Apr-2023
YE24745	Quartz	Active	GR	245	13-May-2011	25-May-2011	19-Apr-2023
YE24746	Quartz	Active	GR	246	13-May-2011	25-May-2011	19-Apr-2023
YE24747	Quartz	Active	GR	247	13-May-2011	25-May-2011	19-Apr-2023
YE24748	Quartz	Active	GR	248	13-May-2011	25-May-2011	19-Apr-2023
YE24749	Quartz	Active	GR	249	11-May-2011	25-May-2011	19-Apr-2023
YE24750	Quartz	Active	GR	250	11-May-2011	25-May-2011	19-Apr-2023
YE24751	Quartz	Active	GR	251	11-May-2011	25-May-2011	19-Apr-2023
YE24752	Quartz	Active	GR	252	11-May-2011	25-May-2011	19-Apr-2023
YE24753	Quartz	Active	GR	253	11-May-2011	25-May-2011	19-Apr-2023
YE24754	Quartz	Active	GR	254	11-May-2011	25-May-2011	19-Apr-2023
YE24755	Quartz	Active	GR	255	11-May-2011	25-May-2011	19-Apr-2023
YE24756	Quartz	Active	GR	256	11-May-2011	25-May-2011	19-Apr-2023
YE24757	Quartz	Active	GR	257	11-May-2011	25-May-2011	19-Apr-2023
YE24758	Quartz	Active	GR	258	11-May-2011	25-May-2011	19-Apr-2023
YE24759	Quartz	Active	GR	259	11-May-2011	25-May-2011	19-Apr-2023
YE24760	Quartz	Active	GR	260	11-May-2011	25-May-2011	19-Apr-2023
YE24761	Quartz	Active	GR	261	11-May-2011	25-May-2011	19-Apr-2023
YE24762	Quartz	Active	GR	262	11-May-2011	25-May-2011	19-Apr-2023
YE24763	Quartz	Active	GR	263	11-May-2011	25-May-2011	19-Apr-2023
YE24764	Quartz	Active	GR	264	11-May-2011	25-May-2011	19-Apr-2023
YE24765	Quartz	Active	GR	265	11-May-2011	25-May-2011	19-Apr-2022
YE24766	Quartz	Active	GR	266	11-May-2011	25-May-2011	19-Apr-2022
YE24767	Quartz	Active	GR	267	11-May-2011	25-May-2011	19-Apr-2022
YE24768	Quartz	Active	GR	268	11-May-2011	25-May-2011	19-Apr-2022
YE24769	Quartz	Active	GR	269	13-May-2011	25-May-2011	19-Apr-2022
YE24770	Quartz	Active	GR	270	13-May-2011	25-May-2011	19-Apr-2022

Grant #	Tenure	Status	Claim Name	Claim #	Stake Date	Recorded	Expiry
YE24771	Quartz	Active	GR	271	13-May-2011	25-May-2011	19-Apr-2022
YE24772	Quartz	Active	GR	272	13-May-2011	25-May-2011	19-Apr-2022
YD06690	Quartz	Active	GR	350	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD06691	Quartz	Active	GR	351	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD06692	Quartz	Active	GR	352	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD06693	Quartz	Active	GR	353	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD06694	Quartz	Active	GR	354	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD06695	Quartz	Active	GR	355	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD06696	Quartz	Active	GR	356	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD06697	Quartz	Active	GR	357	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD06698	Quartz	Active	GR	358	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD06699	Quartz	Active	GR	359	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD06700	Quartz	Active	GR	360	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD06701	Quartz	Active	GR	361	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD06702	Quartz	Active	GR	362	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD06703	Quartz	Active	GR	363	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD72664	Quartz	Active	GR	364	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD72665	Quartz	Active	GR	365	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD72666	Quartz	Active	GR	366	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD72667	Quartz	Active	GR	367	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD72668	Quartz	Active	GR	368	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD72669	Quartz	Active	GR	369	08-Feb-2012	14-Feb-2012	19-Apr-2024
YD72670	Quartz	Active	GR	370	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD29091	Quartz	Active	GR	371	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD29092	Quartz	Active	GR	372	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD29093	Quartz	Active	GR	373	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD29094	Quartz	Active	GR	374	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD29095	Quartz	Active	GR	375	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD29096	Quartz	Active	GR	376	08-Feb-2012	14-Feb-2012	19-Apr-2023
YD29097	Quartz	Active	GR	377	08-Feb-2012	14-Feb-2012	19-Apr-2023

# **APPENDIX C DDH 2020 Sample Results**

### Table C1: MLM20-001 DDH Sample Results

Table C1: MLM20-001 DDH Sample Results											
Sample	Wgt (kg)	From (m)	To (m)	Length (m)	Rock Type	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Sb ppm	As ppm
1903301	2.01	18.64	19.60	0.96	Quartzite	0.8	73	20	114	7	242
1903302	2.31	20.50	21.50	1.00	Quartzite	1.5	8	72	276	<5	86
1903303	1.14	21.50	22.00	0.50	Mineral. Breccia	18.3	43	307	4449	18	397
1903304	2.23	22.00	22.95	0.95	Quartzite	<0.5	16	9	146	5	54
1903305	1.39	40.50	41.15	0.65	Quartzite - boudins	1.6	4	23	29	<5	94
1903306	0.94	42.87	43.25	0.38	Quartzite	<0.5	2	<5	9	<5	14
1903307	2.42	57.38	58.32	0.94	Quartzite - boudins	1.0	10	8	70	<5	31
1903308	1.97	58.32	59.28	0.96	Quartzite - boudins	<0.5	9	22	62	<5	7
1903309	2.03	59.28	60.17	0.89	Quartzite + QV	<0.5	13	<5	30	<5	<5
1903310	2.44	60.17	61.15	0.98	Quartzite - boudins	<0.5	9	7	68	<5	6
1903311	2.30	71.30	72.45	1.15	Quartzite - shear	<0.5	6	6	24	<5	<5
1903312	2.63	72.45	73.50	1.05	Quartzite - shear	<0.5	7	<5	21	<5	<5
1903313	1.82	73.50	74.25	0.75	Quartzite - shear	<0.5	9	12	42	<5	30
1903314	2.19	74.25	75.16	0.91	Quartzite - shear	<0.5	57	9	15	<5	<5
1903315	1.95	75.16	75.95	0.79	Quartzite	<0.5	59	8	20	<5	<5
1903316	1.05	77.50	77.95	0.45	Quartzite - sulphide	0.8	28	5	10	<5	<5
1903317	2.42	79.50	80.45	0.95	Quartzite - sulphide	2.9	10	99	93	<5	56
1903318	2.53	80.45	81.45	1.00	Quartzite - sulphide	1.5	17	62	94	<5	19
1903319	2.48	81.45	82.50	1.05	Quartzite - alt zone	3.0	5	85	361	<5	43
1903320	2.44	82.50	83.52	1.02	Quartzite - sulphide	33.0	56	580	1471	40	429
1903321	2.49	83.52	84.52	1.00	Quartzite - shear	2.3	107	68	176	<5	42
1903322	2.28	84.52	85.50	0.98	Quartzite - shear	3.0	53	122	240	<5	27
1903323	2.35	85.50	86.50	1.00	Quartzite	1.0	36	8	25	<5	8
1903324	3.08	86.50	87.75	1.25	Quartzite	<0.5	<2	<5	16	<5	17
1903326	1.97	87.75	88.50	0.75	Quartzite	<0.5	3	<5	6	<5	<5
1903327	2.26	88.50	89.40	0.90	Quartzite	<0.5	5	<5	18	<5	<5
1903328	2.26	89.40	90.30	0.90	Quartzite	<0.5	<2	<5	5	<5	<5
1903329	2.15	90.30	91.20	0.90	Quartzite	<0.5	3	<5	11	<5	<5
1903330	1.24	91.20	91.70	0.50	Quartzite - sulphide	1.3	62	<5	44	<5	<5
1903331	2.12	91.70	92.55	0.85	Quartzite	<0.5	3	<5	19	<5	<5
1903332	1.26	92.55	93.05	0.50	Quartzite	<0.5	30	10	47	<5	9
1903333	2.77	93.05	94.00	0.95	Greenstone	<0.5	108	13	87	7	<5
1903334	2.35	101.91	102.75	0.84	Greenstone	<0.5	208	<5	108	7	<5
1903335	2.53	113.25	114.25	1.00	Greenstone	1.8	288	30	153	<5	60
1903336	2.17	114.25	115.10	0.85	Greenstone - rust	12.8	249	172	452	18	67
1903337	2.73	115.10	116.10	1.00	Greenstone	6.7	53	187	355	16	183
1903338	2.26	116.10	117.00	0.90	Greenstone	2.0	58	21	69	6	<5
1903339	1.12	124.50	124.90	0.40	Greenstone - sulph	<0.5	352	<5	81	<5	<5

Wgt From То Length Ag Cu Pb Sb Zn As Sample (kg) (m) Rock Type (m) (m) ppm ppm ppm ppm ppm ppm Graph Schist -1903340 1.93 6.30 7.50 1.20 2.4 14 22 96 <5 64 block 1903341 2.68 7.50 9.00 1.50 Graph Schist - QV 0.7 20 <5 79 <5 138 Graph Schist -1903342 0.87 9.00 10.00 1.00 5.0 41 37 233 9 53 block 1903343 1.56 10.00 10.70 0.70 Graph Schist - QV <0.5 3 <5 22 <5 <5 1903344 2.10 10.70 11.70 1.00 Graph Schist - QV 2.2 12 11 25 <5 13 1903345 2.39 11.70 12.70 1.00 Quartzite 1.2 16 8 34 <5 56 1903346 2.43 15.05 16.10 1.05 Quartzite - rust <0.5 13 8 301 <5 74 1903347 16.10 17.10 1.00 34.0 1.65 Quartzite - QV 35 752 426 21 174 1903348 1.74 17.10 18.00 0.90 Quartzite - beccia 48.1 20 3737 4695 34 241 1903349 1.97 18.00 18.75 0.75 Mineral Shear 124.4 81 2141 1938 66 586 1903351 2.03 19.60 0.85 0.6 18.75 Quartzite 8 44 289 <5 17 1903352 1.37 24.21 24.75 0.54 Graph Schist <0.5 9 9 42 <5 <5 17 1903353 1.60 24.75 25.40 0.65 Graph Schist 1.4 17 106 <5 <5 0.85 Graph Schist - QV <0.5 14 1903354 2.08 25.40 26.25 12 75 <5 <5 1903355 1.43 26.25 26.80 0.55 Quartzite - QV <0.5 8 <5 30 <5 <5 Quartzite - QV 1903356 2.19 26.80 27.65 0.85 1.4 12 11 64 <5 <5 1903357 2.05 27.65 28.50 0.85 Quartzite - shear 0.8 9 11 232 <5 16 1903358 1.73 28.50 29.25 0.75 1.6 15 12 123 62 Quartzite - shear <5 1903359 2.04 37.16 38.04 0.88 <0.5 3 <5 12 Quartzite 11 <5 1903360 1.90 38.04 38.90 0.86 1.6 15 17 62 <5 53 Quartzite - breccia 1903361 2.33 38.90 39.81 0.91 Quartzite <0.5 2 <5 17 <5 <5 14 1903362 2.16 41.40 42.33 0.93 Quartzite - block <0.5 <2 <5 <5 <5 1903363 7 7 2.05 42.33 43.50 1.17 Quartzite - block <0.5 37 <5 12 1903364 1.49 43.50 44.13 0.63 Quartzite - shear <0.5 9 7 28 <5 <5 1903365 1.91 44.13 44.97 0.84 Quartzite - shear 54 1.4 10 11 <5 <5 1903366 64.05 0.85 2.34 63.20 Quartzite <0.5 <2 <5 8 <5 <5 1903367 2.18 65.08 1.03 1.2 36 64.05 Quartzite 8 6 <5 8 1903368 2.37 65.08 65.90 0.82 Quartzite <0.5 6 6 32 <5 10 1903369 1.29 65.90 66.45 0.55 Quartzite ± sulph <0.5 23 5 17 <5 <5 17 1903370 2.64 66.45 67.50 1.05 1.5 16 57 <5 13 Quartzite ± sulph < 0.5 1903371 2.59 67.50 68.55 1.05 Quartzite ± sulph 10 10 44 <5 17 1.42 1903372 69.17 0.62 Quartzite ± sulph 3 24 68.55 < 0.5 <5 <5 <5 1903373 1.75 69.17 69.90 0.73 Quartzite ± sulph <0.5 <2 6 37 <5 <5 1903374 1.80 69.90 70.66 0.76 Quartzite ± sulph 0.5 39 15 67 <5 <5 1903376 2.53 70.66 71.66 1.00 < 0.5 <2 <5 17 Quartzite ± sulph <5 <5 Quartzite - shear 1903377 2.90 71.66 72.72 1.06 1.1 10 14 42 <5 <5

Table C2: MLM20-002 DDH Sample Results