

**TECHNICAL REPORT ON THE LMS GOLD PROJECT,  
GOODPASTER MINING DISTRICT,  
ALASKA**

**February 19, 2016**

**PREPARED FOR:**

**GOLD RESERVE INC.**

**BY**

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## DATE AND SIGNATURE PAGE

The effective date of this "Technical Report on the LMS Gold Project, Goodpaster Mining District, Alaska", prepared for Gold Reserve Inc. is February 19, 2016.

Dated this 19<sup>th</sup> day of February, 2016.

(signed) *Ed Hunter*

[Sealed]

Ed Hunter, BSc., P.Geo

Geologist

(signed) *Gary H. Giroux*

[Sealed]

Gary H. Giroux, M.A. Sc., P. Eng.

Geological Engineer

## AUTHOR'S CERTIFICATE

Ed Hunter

I, Ed Hunter, of 1324 Demster Road, Lee Creek, British Columbia, Canada do hereby certify that:

- 1) I am a consulting geologist.
- 2) I am a graduate of the University of British Columbia in 1970 with a BSc. in Geology.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have worked as an exploration geologist and exploration manager involved directly in the evaluation of early stage exploration projects for 44 years, in five countries, including 32 years with Inco Ltd., among others.
- 5) I have read the definition of “qualified person” set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects (“**NI 43-101**”) and certify that by reason of my education, past relevant work experience and affiliation with a professional association (as defined in NI 43-101), I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
- 6) I am responsible for the preparation of all items in the technical report titled “Technical Report on the LMS Gold Project, Goodpaster Mining District, Alaska” (the “**Technical Report**”) dated and made effective as of February 19, 2016, prepared for Gold Reserve Inc. (the “**Issuer**”) with the exception of Section 14 and the related portions of Sections 1, 17 and 18. I have visited the property that is the subject of the Technical Report (the “**LMS Property**”) several times between 2004 and 2007, and spent one month on the LMS Property in September 2008, 8 days on the property in 2010 (August 3-10), and one day on April 10, 2014.
- 7) Prior to being retained by the Issuer to prepare the Technical Report, I was previously retained by Corvus Gold Inc. with respect to the preparation of a predecessor NI 43-101 technical report on the LMS Property and I worked on the LMS Property from 2004 to 2007 as a contract geologist for AngloGold Ashanti (USA) Exploration Inc. and International Tower Hill Mines Ltd.
- 8) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the portions of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.
- 9) I am independent of the Issuer and of both the vendor of the LMS Property, Raven Gold Alaska Inc., and its parent company, Corvus Gold Inc., applying all of the tests in section 1.5 of NI 43-101.
- 10) I have read NI 43-101, and the portions of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.

Dated this 19<sup>th</sup> day of February, 2016.

(signed) *Ed Hunter*

[Sealed]

Ed Hunter, P. Geo., BSc.

## AUTHOR'S CERTIFICATE

Gary H. Giroux

I, Gary H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, Canada do hereby certify that:

- 1) I am a consulting geological engineer with an office at #1215 - 675 West Hastings Street, Vancouver, British Columbia.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A. Sc. and in 1984 with a M.A. Sc., both in Geological Engineering.
- 3) I am a member in good standing of the Association of Professional Engineers and Geoscientists of the Province of British Columbia.
- 4) I have practiced my profession continuously since 1970. I have had over 30 years' experience estimating mineral resources. I have previously completed resource estimations on a wide variety of precious metal deposits both in B.C. and around the world, many similar to that found on the property (the "**LMS Property**") that is the subject of the Technical Report (as defined below).
- 5) I have read the definition of "qualified person" set out in National Instrument 43-101 – Standards of Disclosure for Mineral Projects, ("**NI 43-101**") and certify that by reason of my education, past relevant work experience and affiliation with a professional association (as defined in NI 43-101), I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6) I am responsible for the preparation of Section 14, and the relevant portions of Sections 1, 17 and 18, of the technical report titled "Technical Report on the LMS Gold Project, Goodpaster Mining District, Alaska" (the "**Technical Report**"), dated and made effective as of February 11, 2016, prepared for Gold Reserve Inc. (the "**Issuer**"). I have not visited the LMS Property.
- 7) Prior to being retained by the Issuer to prepare the Technical Report, I was and previously retained by Corvus Gold Inc. with respect to the preparation of a predecessor NI 43-101 technical report on the LMS Property and prior to that I was retained by International Tower Hill Mines Ltd. as co-author of the technical report titled "Summary Report on the LMS Gold Project, Goodpaster District, Alaska", dated June 15, 2010.
- 8) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the portions of the Technical Report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the portions of the Technical Report for which I am responsible not misleading.
- 9) I am independent of the Issuer and of both the vendor of the LMS Property, Raven Gold Alaska Inc., and its parent company, Corvus Gold Inc., applying all of the tests in section 1.5 of NI 43-101.
- 10) I have read NI 43-101, and the portions of the Technical Report for which I am responsible have been prepared in compliance with NI 43-101.

Dated this 19th day of February, 2016.

(signed) Gary H. Giroux

[Sealed]

Gary H. Giroux, P. Eng., M.A. Sc.

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## 1.0 Summary

The LMS Property is situated 20 kilometres (“km”) north of Delta Junction, and 150 km southeast of Fairbanks, Alaska at 64° 12'N, 145° 30' W, in the Goodpaster Mining District. Corvus Gold Inc. (“**Corvus**”) currently has a 100% ownership interest in the LMS Property through its Alaska subsidiary, Raven Gold Alaska Inc. (“**Raven**”). However, as announced on January 13, 2016, Raven has entered into a Purchase and Sale Agreement with Gold Reserve Corporation, a wholly-owned subsidiary of Gold Reserve Inc. (the “**Issuer**”) an Alberta corporation listed on the TSX Venture Exchange, dated January 12, 2016 to sell the LMS Property to Gold Reserve Corporation, subject to the approval of the TSX Venture Exchange.

This part of the district has had no known previous exploration prior to regional reconnaissance surface sampling by AngloGold Ashanti (USA) Exploration Inc. (“**AGA**”) in 2004, even though the region has attracted considerable interest following the discovery of the Pogo deposit in 1994, 40 km to the northeast. Discovery of a gold-bearing outcrop (6.2 g/t Au) led to further sampling and drilling in 2005 which delineated two styles of gold mineralization: 1) gold within a folded, stratabound tabular zone consisting of silicified graphitic quartzite breccia; and 2) high grade narrow veins. Mineralization within the graphitic quartzite breccia zone has been defined through drilling to a down plunge depth of 850 m. Along with the high-grade veins, this area of the LMS Property is known as the Camp Zone and is situated at the southeast end of a 6 km long, northwest-trending zone of aligned surface geochemical samples containing anomalous gold, arsenic and lesser silver and copper.

A resource evaluation for gold contained within the Camp Zone of the LMS Property offers a range of grades and tonnages with corresponding contained ounces. **An inferred resource at a cut-off grade of 0.5 g/t Au has been highlighted as a possible open pit cut-off, and defines 8.32 M tonnes of material estimated to contain 267,000 oz. of Au at an average grade of 1.00 g/t Au.** This zone remains open along strike and at depth. An inferred mineral resource is defined by CIM as follows:

*“An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.”*

*“An ‘Inferred Mineral Resource’ is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.”*

*“There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.”*

Rocks within the LMS Property area lie within the Yukon-Tanana Terrane, a structurally complex, composite terrane that was accreted to North America in the mid to Late Cretaceous period. Among the diverse suites of rocks in this terrane, some of those underlying the LMS Property area (schist, gneiss, and quartzite) are similar in composition and structural character to the host rocks at Pogo.

Mineralization in this region, including at Pogo, is believed to be intrusion-related. Mr. Ed Hunter’s (the “**first author**”) observations are consistent with this interpretation, even though no intrusive rocks, except for mafic dikes, have been identified on the LMS Property. Fluids derived from an intrusion at depth or at a distance laterally can migrate along structures to produce the observed veins and gold mineralization.

Exploration of the LMS Property is at a relatively early stage with discovery and identification of the graphitic quartzite breccia and vein zones extending from surface to greater than 850 metres (“**m**”) down plunge.

It is recommended that future exploration of the LMS Property focus on testing for the presence of high grade gold bearing quartz veins controlled by structures paralleling the axial plane of the fold identified in previous drill holes. This exploration should consist of detailed studies of the existing drill core followed by additional core drilling perpendicular to the axial plane of the fold.

## **2.0 Introduction**

### **2.1 Introduction**

Hunter Geo Logic Inc. of Lee Creek, B.C. (“**HGL**”) and Giroux Consultants Ltd. of Vancouver, B.C. (“**GCL**”) have been requested by Gold Reserve Inc. to provide an independent NI 43-101 technical report in respect of the LMS Property in connection with the proposed acquisition of the LMS Property and related personal property (the “**LMS Acquisition**”) by Gold Reserve Corporation, a wholly-owned subsidiary of the Issuer. Much of the information in this report was sourced from previous technical reports titled “Technical Report on the LMS Gold Project, Goodpaster Mining District, Alaska” authored by Ed Hunter of HGL and Gary Giroux of GCL, dated October 22, 2014 and “Summary Report on the LMS Gold Project, Goodpaster District, Alaska” authored by Paul Klipfel of Mineral Resource Services, Inc. (“**MRS**”) and Gary Giroux of GCL, dated June 15, 2010. The 2010 report covers the exploration work

from discovery in 2004 through to the end of 2009. This present report covers the period from discovery in 2004 through to the end of 2015 and includes a resource estimate. The resource estimate portion of this report has been prepared by GCL.

## **2.2 Terms of Reference**

Ed Hunter of HGL, and Gary Giroux of GCL were commissioned by the Issuer to prepare this report to support an initial resource estimate for the LMS Property and to support the LMS Acquisition by Gold Reserve Corporation. Each of Ed Hunter and Gary Giroux are independent consultants and “Qualified Persons” (“QP”) as defined under NI 43-101 for the purposes of this report.

## **2.3 Purpose of Report**

The purpose of this report is to provide an independent evaluation of the LMS Property, the exploration and discovery potential in that area, past exploration, its relevance and adequacy to assess the mineralization potential of the area, and provide recommendations for future work, as well as to support the LMS Acquisition as required by the policies of the TSX Venture Exchange. This report complies with the requirements of NI 43-101 of the Canadian Securities Administrators.

## **2.4 Sources of Information**

Information used in this report was provided to HGL and GCL by Raven in early February, 2016. The first author spent one day on site in 2014 reviewing core and taking core samples to verify original assays, and was also involved as an independent contractor during some of the earlier sampling programs. In addition, general geologic information available to the public through peer review journals, publications by the U.S. Geological Survey, and agencies of the State of Alaska have been used and relied upon.

## **2.5 Field Examination**

The first author visited the LMS Property on many occasions between 2004 and 2006, becoming very familiar with the discovery outcrop, the drill sites and the areas of surface sampling. On April 10, 2014 the first author visited the LMS Property for a day to examine the drill core from the 2010 and 2011 drill programs.

Mr. Gary Giroux (the “**second author**”) is responsible for the resource estimate (section 14), but has not visited the LMS Property.

## **3.0 Reliance on Other Experts**

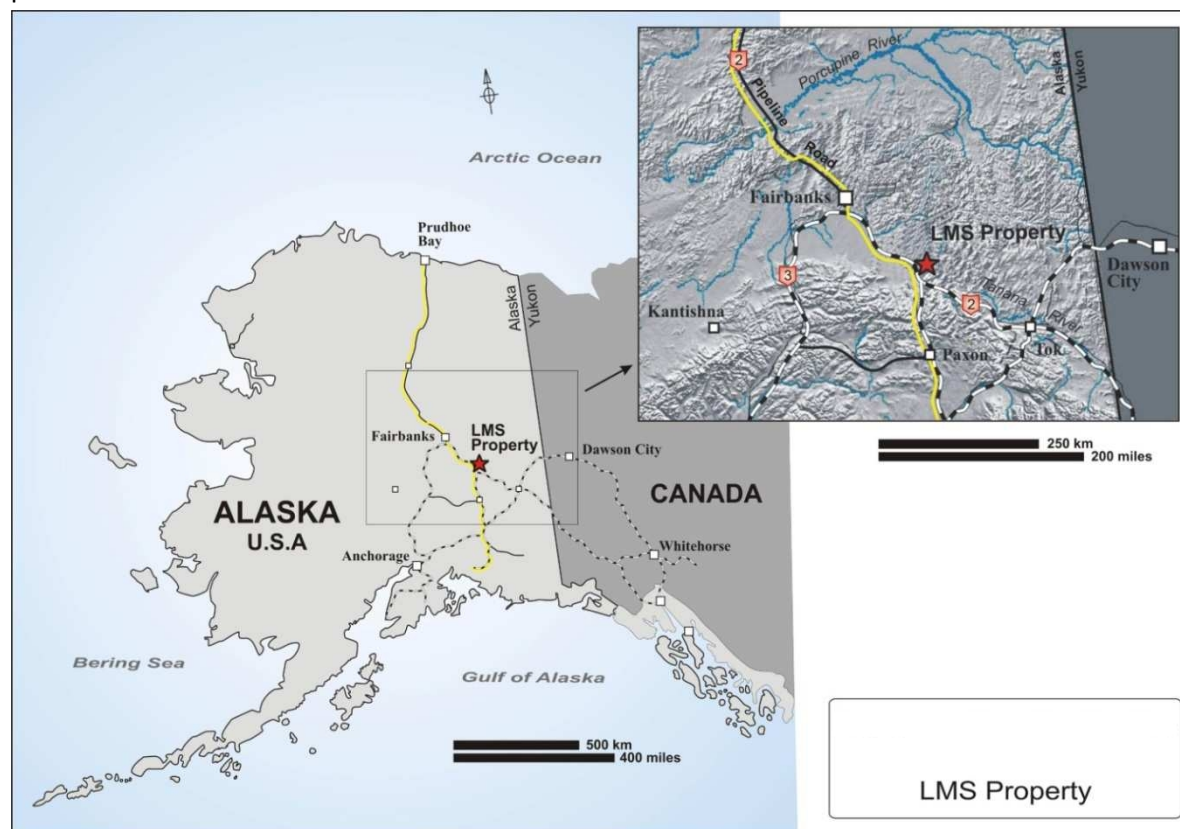
The authors of this report have not relied upon information provided by any relevant experts.

## **4.0 Property Description and Location**

### **4.1 Area and Location**

The LMS Property is located in the Goodpaster Mining District, approximately 20 km north of Delta Junction, and 150 km southeast of Fairbanks, Alaska, at 64° 12' N, 145° 30' W. The LMS Property consists of 36 contiguous State of Alaska mining claims (**Figure 1**). The claims cover an area of 2331 hectares (“ha”) (9 square miles).

The principle area of interest surrounds a gold-bearing outcrop that lies at the top of a hill and along the adjacent ridgeline approximately 1 km south of the center of the claim block. Here, the outcrop and down-plunge drill intercepts lie within a northwest trending, approximately 5 km (3 mile) long zone of anomalous gold in soil samples. Surface geochemical sampling defines anomalous gold and pathfinder elements within six areas, each exceeding 500 m in diameter. Scattered other anomalies are also present.



**Figure 1:** Location map of Alaska showing the LMS Property.

## 4.2 Claims and Agreements

The LMS Property (36 Alaska State mining claims, 2331 ha) is currently owned 100% by Raven (**Figure 2**) and is not subject to any underlying agreements. However, on January 13, 2016, Corvus and the Issuer announced that the Issuer’s wholly-owned subsidiary Gold Reserve Corporation, a company existing under the laws of the State of Montana and qualified to conduct business in Alaska had entered into a Purchase and Sale Agreement dated as of January 12, 2016 with Raven, a wholly-owned subsidiary of Corvus, to acquire from Raven certain wholly-held Alaska mining claims, known as the LMS Property

together with certain personal property (the “**LMS Acquisition**”), subject to the approval of the TSX Venture Exchange for a cash purchase price of US\$ 350,000 payable upon closing of the LMS Acquisition.

Upon the closing of the LMS Acquisition, Raven will retain a royalty interest with respect to (i) “Precious Metals” produced and recovered from the LMS Property equal to 3% of “Net Smelter Returns” on such metals (the “Precious Metals Royalty”) and (ii) “Base Metals” produced and recovered from the LMS Property equal to 1% of Net Smelter Returns on such metals, provided that Gold Reserve Corporation has the option, for a period of 20 years from the date of closing of the LMS Acquisition, to buy back a one-third interest (i.e. 1 %) in the Precious Metals Royalty at a price of US\$ 4 million.

Raven originally acquired the property as a consequence of the August 26, 2010 spin-out of Corvus from International Tower Hill Mines Ltd. (“**ITH**”) whereby Corvus became a separate public company by way of a corporate arrangement under the B.C. *Business Corporation Act*. In connection with the spin-out, the LMS Property was transferred from Talon Gold Alaska Inc. (“**TGA**”), a wholly owned Alaska subsidiary of ITH, to Raven.

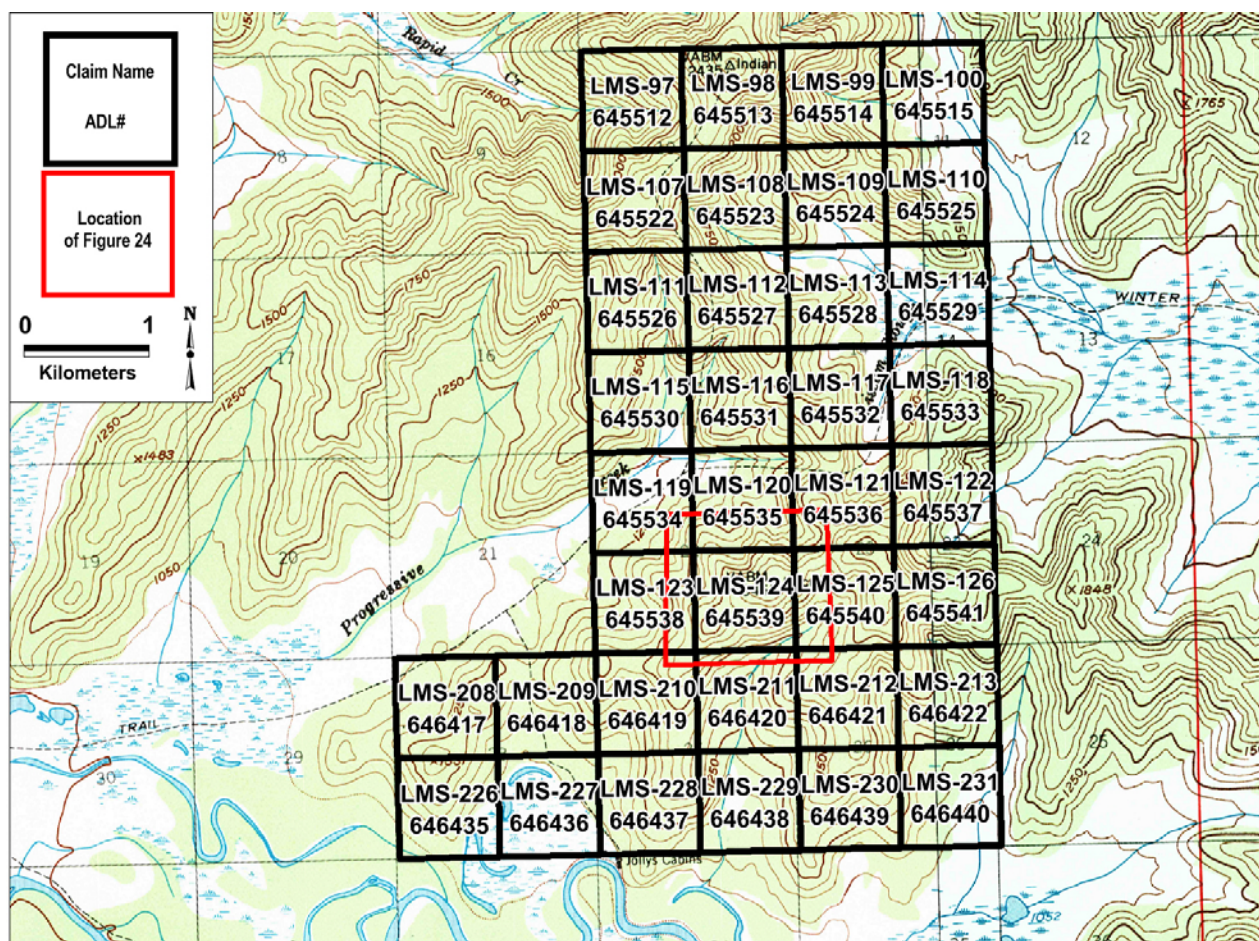
In Alaska the state holds both land surface and subsurface rights. State of Alaska mining claims require an annual rental payment of US\$ 100 per claim to be paid to the state (due on or before noon on September 1 of each year) for the first five years, US\$ 220 per year for the second five years, and US\$ 520 per year thereafter. As a consequence, all Alaska State mining claims have an expiry date of noon on September 1 of each year. In addition, there is a minimum annual work expenditure requirement of US\$ 400 per 160 acre claim (due on or before noon on September 1 in each year) or cash-in-lieu, and an affidavit evidencing that such work has been performed is required to be filed on or before November 29 in each year (excess work can be carried forward for up to four years). If such requirements are met, the claims can be held indefinitely. All annual rent payments and minimum annual work expenditures or cash payments in lieu thereof have been made on the LMS Property. Accordingly, all such claims are in good standing until noon on September 1, 2016.

Holders of Alaska State mining locations are required to pay a production royalty on all revenues received from minerals produced on state land. The production royalty requirement applies to all revenues received from minerals produced from a state mining claim or mining lease during each calendar year. Payment of royalty is in exchange for and to preserve the right to extract and possess the minerals produced. The current rate is three (3%) of net income, as determined under the *Mining License Tax Law* (Alaska).

The claims constituting the LMS Property have been staked using GPS positioning for placement of corner stakes and are filed under the Township and Range system. The claims have not been surveyed. All annual filings have been submitted and the claims are in good standing.

Holders of Alaska State mining claims have the right to the use of land or water included within mining claims only when necessary for mineral prospecting, development, extracting, or basic processing, or for storage of mining equipment. However, the exercise of such rights is subject to the appropriate permits being obtained.





**Figure 2:** Map showing the LMS Property claim block.



### 4.3 Environmental Requirements

Activities at the LMS Property are required to operate within all normal United States of America (“US”) Federal, State, and local environmental rules and regulations. This includes proper and environmentally conscientious protection of operational areas against spills, capture and disposal of any hazardous materials including aviation fuel, etc., reclamation of disturbed ground, plugging or capping drill holes, and removal of all refuse.

All operators have each undertaken a prescribed method of bark scoring of downed timber to help forest managers of the Alaskan Department of Natural Resources (the “DNR”) mitigate forest damage done by the engraver beetle.

There are no known existing environmental liabilities at the LMS Property.

### 4.4 Permits

Operations which cause surface disturbance, such as drilling, are subject to approval and receipt of a permit from the DNR. Past operations conducted during 2004 through to 2006 were permitted by AGA. In 2006, ITH and TGA entered into an option agreement with AGA to acquire an interest in the LMS Property, and TGA took over the permitting for its activities on the LMS Property under the option agreement. In 2008, TGA acquired the residual interest of AGA in the LMS Property. In 2010, First Star USA Inc. (“FSR”), a wholly-owned Alaskan subsidiary of First Star Resources Inc. entered into an earn-in agreement with Raven to acquire an interest in the LMS Property and was responsible for permitting the field operations carried out by FSR in 2010 and 2011. The FSR option agreement was terminated at the end of 2011. Raven has been responsible for permitting field operations at the LMS Property since 2012. Upon closing of the LMS Acquisition, Gold Reserve Corporation will be solely responsible for all permitting requirements.

### 4.5 Other Considerations

There are no known native rights or community issues that concern the LMS Property at this time.

## 5.0 Accessibility, Climate, Local Resources, Infrastructure and Physiography

### 5.1 Accessibility

The LMS Property is approximately 150 km (90 miles) southeast of Fairbanks and 20 km (12 miles) north of Delta Junction.

In the summer, access from Fairbanks is via State Route 2 (Richardson Highway) to the point where the Alaska Pipeline and the highway cross the Tanana River. From here, the LMS Property can be accessed by boat. Travel is approximately 15 km (10 miles) up the Tanana River and then 3 km (2 miles) upstream on the Goodpaster River to a landing with an all-terrain vehicle (“ATV”) trail to camp.

In the winter, between November and March, the LMS Property can be accessed via a well-developed winter trail that runs from Quartz Lake directly to the LMS Property. This trail provides overland access for heavy equipment including bulldozers and track-mounted drills as well as other supply vehicles.

A large helicopter pad has been constructed at the camp which allows ready helicopter access.

Travel within the LMS Property is by ATV. Several trails constructed for the various phases of drilling allow good access within the LMS Property.

## **5.2 Climate**

The climate in this part of Alaska is continental and varies from mild-warm and temperate in the summer to very cold in the winter. Precipitation ranges from approximately 1.1 centimeter (“**cm**”) per month in the winter to about 5.1 cm per month in the summer. Snow accumulation in winter is limited, but is preserved by cold temperatures.

## **5.3 Local Resources**

The LMS Property is serviced from Fairbanks, Alaska. State Route 2 from Fairbanks to Delta Junction provides highway access to within 15 km of the LMS Property. Fairbanks (population 87,000) is serviced by major airlines with numerous daily flights to and from Anchorage, Alaska and other locations. Helicopters and fixed wing aircraft are plentiful in this area. All supplies necessary for the project can be obtained in Fairbanks.

The camp at the LMS Property, which is being acquired by Gold Reserve Corporation in the LMS Acquisition, currently consists of facilities, quarters and work space for approximately 10 people (**Figure 3**).



**Figure 3:** Photo showing the LMS Property camp during FSR's 2010 program.

#### **5.4 Infrastructure and Physiography**

The LMS Property covers an area of rather subdued topography consisting of low to moderate hills rising to an elevation of approximately 800 m (2500 feet). The terrain is covered by deciduous alder, birch, and willow forest with scattered stands of spruce.

The area is drained to the west by Progressive Creek and further north by Rapid Creek and to the east by Liscum Slough. These streams drain into flat valley bottoms near the confluence of the Goodpaster and Tanana Rivers a few kilometres to the west of the LMS Property.

There is no infrastructure in the immediate vicinity of the LMS Property except trails and established camp facilities. To the west is State Route 2 and access to the town of Delta Junction and to Fairbanks to the northwest.

Wildlife in the area includes moose, bears, and smaller animals.

## 6.0 History

The Goodpaster District specifically, and the Yukon-Tanana (“YT”) terrane, in general, has long been considered a prospective region. In the last 20 years, the discovery and development of the Pogo deposit 40 km to the northeast and the Coffee deposit in the Yukon, Canada has led to increased interest in this region.

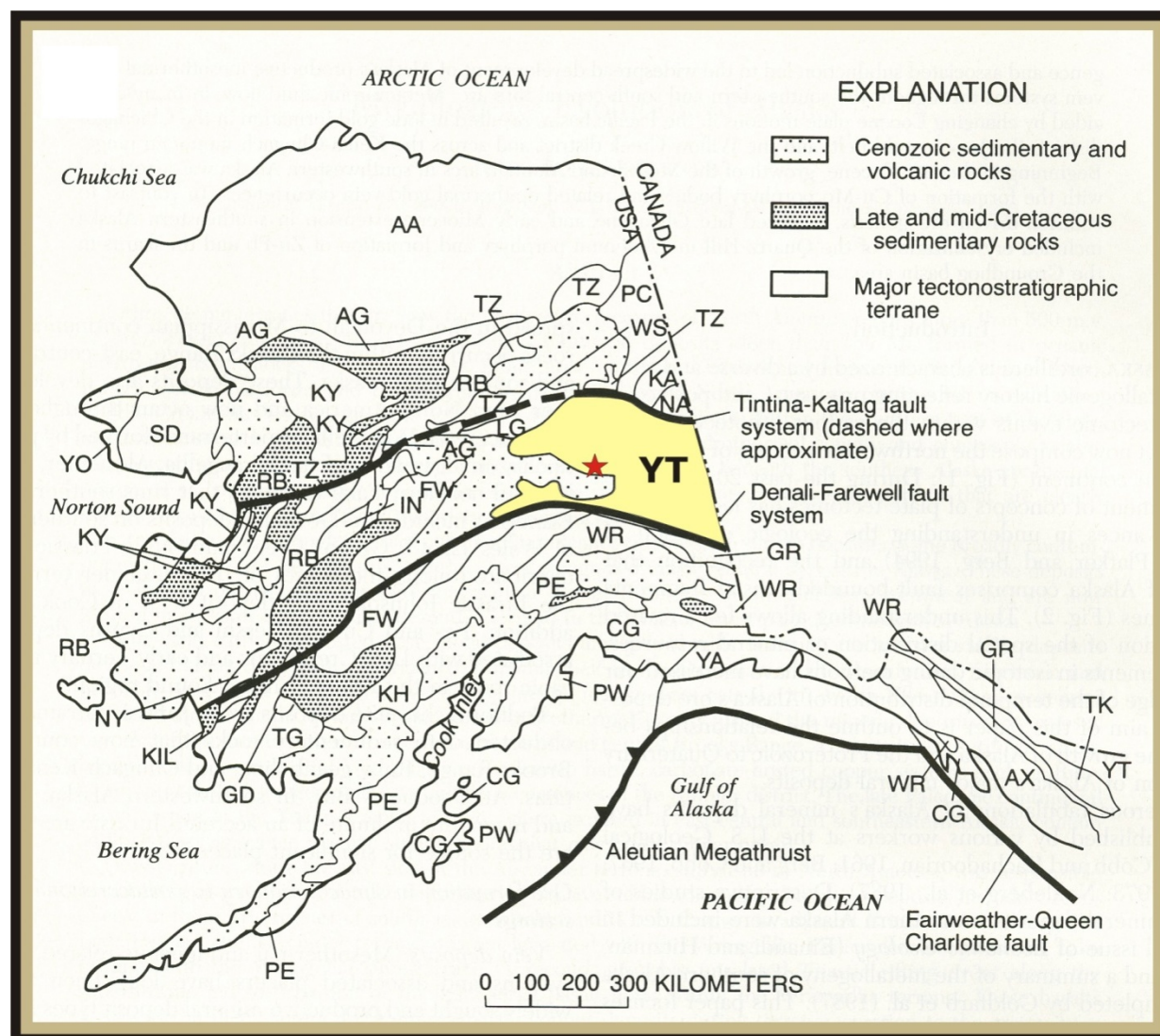
AGA began a regional scale, grassroots exploration program in the Goodpaster Mining District of Alaska in 2001, and in the vicinity of the present LMS Property in 2004. Stream sediment sampling was the primary exploration tool used. In areas of low rolling hills where drainages were not well developed ridge and spur soil sampling was employed. It was during ridge and spur soil sampling that an outcrop of gold-bearing graphitic quartzite was found on a ridge top. Grab samples from the "Discovery" outcrop and adjacent float returned gold values from 0.6 grams per tonne (“g/t”) to 6.2 g/t. AGA followed up these results with a 17 hole (2600 m) discovery drill program in the spring and summer of 2005. This drilling defined a broad, near surface zone of gold mineralization averaging about 1.5 g/t with numerous other narrow higher-grade gold intercepts. These encouraging results were followed up by a further 19 hole drill program by TGA in 2006. Geochemical sampling using shovels and track mounted augers was conducted by AGA in 2005 and by TGA in 2006 and 2007. In 2010, Corvus was spun out of ITH and the LMS Property ownership was transferred from TGA to Raven, a subsidiary of Corvus, as part of the spin-out. The LMS Property was joint-ventured to FSR in 2010 and 2011. FSR drilled 3 holes (1102 m) in 2010 and 8 holes (2365.5 m) in 2011. The FSR/RGA option agreement was terminated in November, 2011. On January 12, 2016, Corvus and the Issuer entered into a Purchase and Sale Agreement in connection with the LMS Acquisition, providing for the sale of the LMS Property from Raven to Gold Reserve Corporation.

## 7.0 Geological Setting and Mineralization

### 7.1 Regional Geologic Setting

The LMS Property is located in rocks of the YT Terrane (**Figure 4**), a regionally extensive accretionary complex of Paleozoic to early Mesozoic volcanic, intrusive, and sedimentary rocks that have been metamorphosed to greenschist and amphibolite facies. Multiple stages of deformation have created complex structural relationships which are poorly understood. The terrane has been intruded by several suites of granitic rocks ranging in age from early Jurassic (212-185 Ma) to early Tertiary (50-70 Ma). Of these, the mid Cretaceous set (110-90 Ma) is the most studied and thought to be related to gold mineralization (Smith, et al., 2000). The YT Terrane is bounded on the north by the Tintina Fault system and on the south by the Denali Fault system (**Figure 4**). These major dextral faults trend west-northwest in this region and movement along them has led to the development of numerous second order and subsidiary faults that trend NE, NNW, and EW.



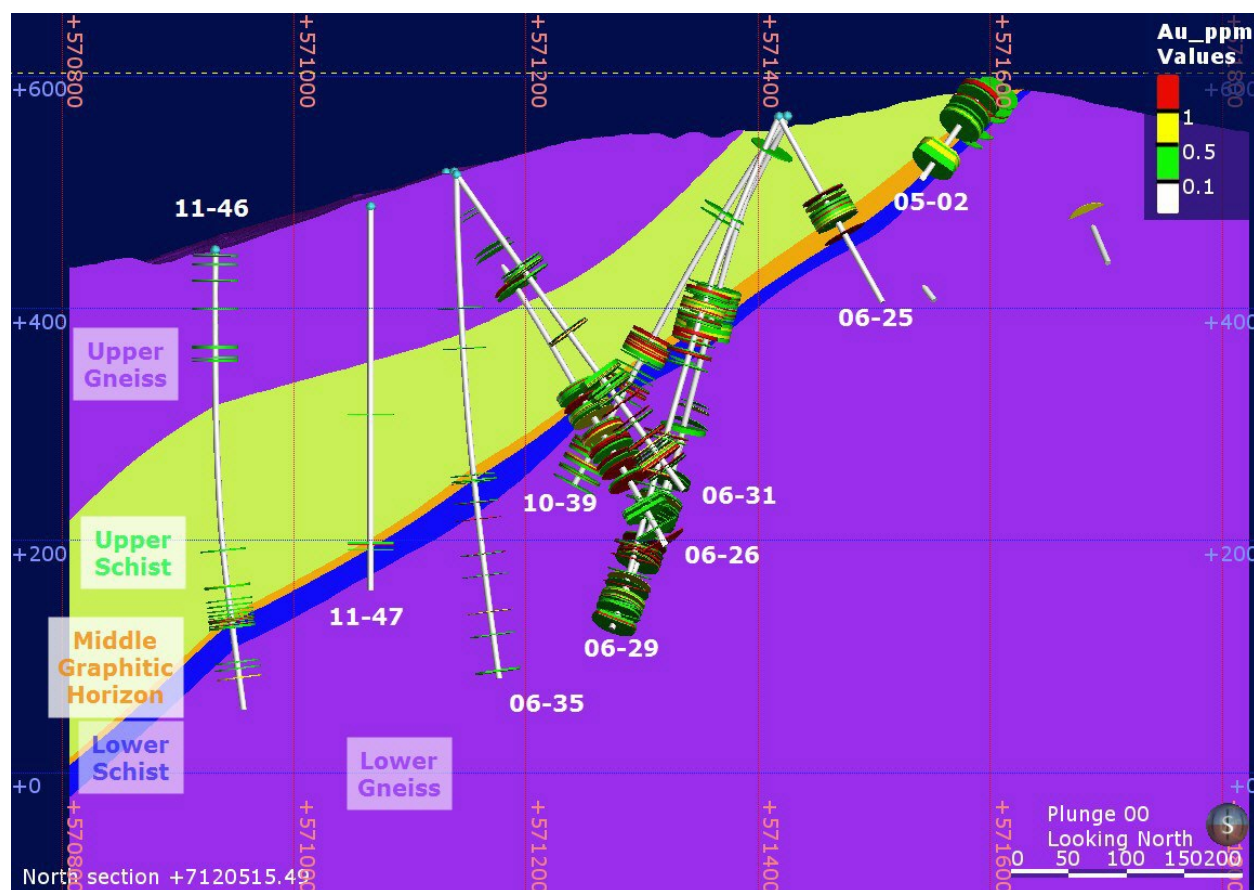


**Figure 4:** Terrane map of Alaska showing the YT Terrane and the location of the LMS Property (red star). Adapted from Goldfarb, (1997)

The regional topography consists of broad, rounded hills and interconnected ridgelines with long slopes weakly to moderately dissected by tributary valleys. Relief is in the order of 300-400 m with main streams at a base level of approximately 300 m. Burial of the terrain by windblown loess and sand contributes to a subdued topographic character. Higher ridge lines offer rare exposures of outcrop making it difficult to understand local geology.

## 7.2 Local Geology

The LMS Property is underlain by folded and metamorphosed Paleozoic schist, gneiss, quartzite, calc-silicate, and amphibolite (**Figure 5**).



**Figure 5:** Cross section of the Camp Zone.

No intrusive rocks, other than mafic dikes, are known to exist within the LMS Property but a mid to late Cretaceous granitic intrusion with gold-bearing stockwork veins has been drilled a few kilometres to the north. Metamorphism is upper greenschist to lower amphibolite rank with an apparent late stage overprinting retrograde or hydrothermal event. The metamorphic rocks generally strike NS to NE and dip or plunge gently to the west. Outcrops are scarce, as Quaternary sand and loess cover most of the LMS Property. Therefore, with the exception of the discovery outcrop, virtually all geologic information is derived from subsurface drill holes or soil pits.

Host rocks have been grouped into two general categories and given field names of "schist" and "gneiss". The "schist" suite consists predominantly of quartzite, quartz psammite, psammopelite, and calcareous (calc-silicate) versions of each (**Figures 6 and 7**). In addition to these major lithologies, graphitic quartzite makes up a minor but highly significant portion of the schist sequence (**Figure 8**). These graphitic quartzites are characterized by elevated concentrations of vanadium, molybdenum and phosphorus indicating that they originated as organic-rich sediments and may represent original cherty horizons. There are multiple zones of graphitic quartzites but only one appears to be continuous at the scale of the drilling to date. Another minor component of the stratigraphy are iron-rich calc-silicate rocks or iron formations. These take the form of actinolite-clinopyroxene-garnet rocks which have locally been retrograded to chlorite and in other places they are more silica rich and form biotite-rich

schists. The presence of both cherts and iron-formations suggests that these sediments accumulated in a relatively distal sediment starved environment.

These rocks have been metamorphosed to highest greenschist- low amphibolite rank as indicated by the presence of biotite and garnet (**Figure 6**). Most host rocks are significantly deformed, strained and recrystallized and exhibit platy schistose fabric to varying degrees. Multiple episodes of deformation are evident. Quartz, in particular, shows multiple stages of deformation and introduction. In the schist, quartz grains have undergone flattening and elongation and now display complex suture boundaries, a product of annealing, all of which occurred prior to at least two episodes of brittle deformation, brecciation, and silica introduction (Klipfel, 2007).



**Figure 6:** Photo of schist unit with garnets; (LM-06-23, 222.2m). HQ Core diameter is 63.5mm.

"Gneiss" consists of massive felsic igneous rock which has undergone considerable deformation and alteration (**Figure 9**). Little primary mineralogy or texture remains. Equigranular to local porphyritic texture is apparent macroscopically and in thin section where ghost crystal outlines are all that remain of primary texture. Gneiss exhibits an elongation fabric with elongation ratios ranging up to 5:1 although a few samples may show higher ratios. It is not clear if "gneiss" is after a primary volcanic or intrusive rock.





**Figure 7:** Photo of calc-silicate band within the schist; (LM-06-35, 265.2m).  
HQ Core diameter is 63.5mm.



**Figure 8:** Photo of banded graphitic quartzite; (LM-05-11, 124.3m). HQ Core diameter is 63.5mm.



**Figure 9:** Photo of lower gneiss unit; (LM-06-21, 300.8m). HQ Core diameter is 63.5mm.

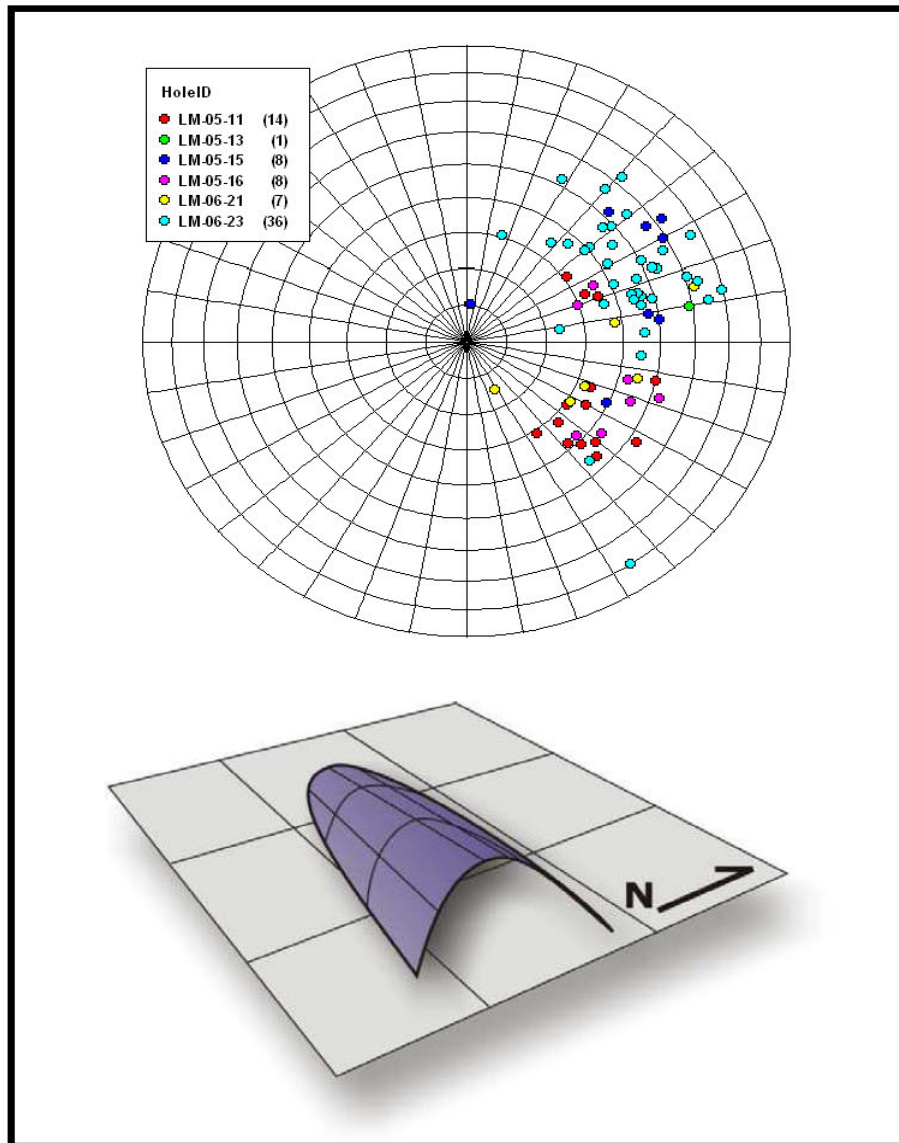
One of the geologic issues to be resolved is the relationship between gneiss and schist. Contacts between these groups of rocks generally appear to be layer parallel, but may be tectonic (breccia,



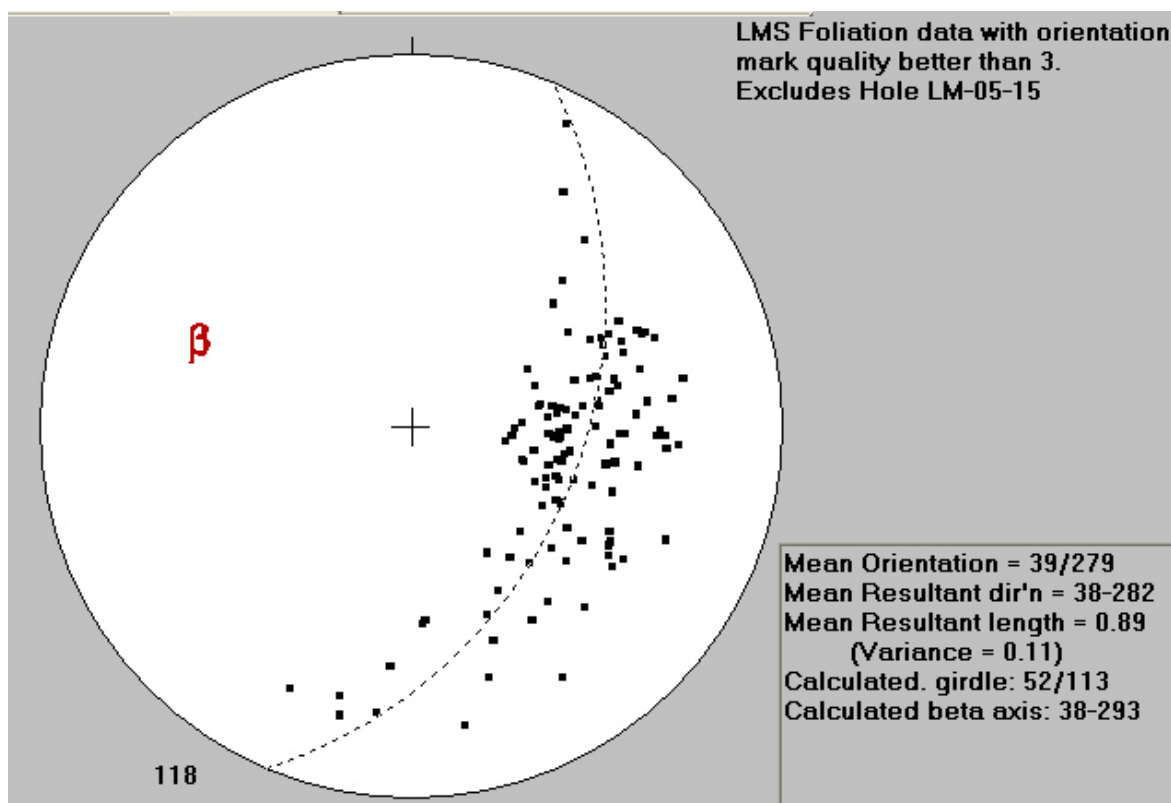
"quartzite breccia"). Importantly, the gneiss and schist may be unrelated packages of rocks. The juxtaposition of a sedimentary package against an igneous package can be explained in many ways and is a subject of spirited debate among geologists involved with the LMS Property. These assemblages may reflect one of the following:

1. be intact but deformed primary volcano-sedimentary stratigraphy,
2. fold repeated primary volcano-sedimentary stratigraphy (e.g. recumbent fold), or
3. the gneiss and schist could be fault juxtaposed (thrust or detachment) from different locations.

Regardless of interpretation, the current identified folds at the LMS Property are multi-stage, with the most recent event producing an open fold gently to moderately plunging to the northwest (**Figures 10 and 11**).



**Figure 10:** A stereonet plot of poles to foliation from ITH holes in the Camp Zone, coded by drill hole (top), reveals a pattern consistent with a west-northwest moderately plunging fold (bottom). The solid black arrow on the bottom diagram indicates north. Diagram from Klipfel and Giroux (2008).



**Figure 11:** A stereonet of poles to foliation showing the solution for the fold axis which plunges 38 degrees on an azimuth of 293 degrees.

Examples of several different styles of folding have been observed in the drill core (**Figure 12**). Additional detailed work on the core is required to interpret the significance of these structures, particularly with respect to the recumbent, potentially isoclinal folds illustrated in **Figures 12D and E**.



**Figure 12:** Examples of fold relations observed in HQ core. **A)** Gneiss (left) - schist (right) contact showing a drag fold along a clear narrow tectonic contact; LM-06-13. **B)** Clear fold nose and apparent folded pyrite clast in graphitic quartzite breccia; contains 5.3 g/t Au; LM-06-29. **C)** tectonic contact between different schist units **D)** fold noses in core indicate the presence of fold axes nearly perpendicular to core axes **E)** This stick of core is correctly oriented in an orienting jig and shows a gently west-dipping nearly sub-horizontal fold axis. *Photos A, B, and C, courtesy of Paul Klipfel.*

Petrographic and fluid inclusion work (Klipfel, 2007; Reynolds, 2007) reveals three general episodes of quartz veining and mineralization. These are designated Q1, Q2, and Q3 (quartz stages 1, 2, and 3). Q1 consists of quartz introduced as local silicification of host rock and as fine to large bull quartz veins. Quartz grains of this group are highly strained, usually elongated, and display complex sutured grain boundaries. This episode of quartz introduction occurred prior to or during early deformation as indicated by the "wispy" style of fluid inclusions, highly strained quartz, shear deformation, elongation, and recrystallization of quartz veins (Reynolds, 2007). This event appears to correlate with the earliest identifiable deformation event, D1.

Q2 marks quartz and quartz-albite introduction along brittle shear fractures which cut orthogonal to obliquely across earlier D1 shear and foliation fabric. This deformation is designated here as D2. Some arsenopyrite, pyrite and possibly other sulfides were introduced with some of these veins. This relationship is clear where there are cross-cutting relationships, however, in isolation Q2 is difficult to distinguish from Q1.

Q3 is the designation for late-stage quartz, generally consisting of open-space filled dog-tooth quartz, but includes a variety of veins and introduced quartz textures which exhibit a complex sequence of individual pulses. Early Q3 quartz contains "wispy" fluid inclusions. These give way progressively outward along crystals to a type of fluid inclusion typical of shallow depths. For this reason, Q3 silica is interpreted as having been introduced into rocks that were being uplifted from the ductile mesothermal environment to a shallower 'epizonal' environment. This episode is designated here as D3 and apparently corresponds with the period of intrusion, uplift and associated mineralization. A final stage of carbonate veining with Pb, Zn and Sb sulfides appears to be introduced after the D3 quartz. Again, without cross-cutting relationships, late base metal sulfides are difficult to distinguish from Q2 or possibly earlier base metal sulfides. These late base metal sulfides may be different from other base metal sulfides which occur with calc-silicate rocks and do not necessarily occur with Q1, Q2 or Q3.

Host rocks were sericitized early, as the sericite exhibits fabric characteristics in common with the surrounding deformed quartz. This is evidence for a hydrothermal event prior to or during early deformation. Locally, sericite has been altered to kaolinite (Zamudio, 2006) and or chlorite during subsequent events.

From these relationships, it is interpreted that fluids associated with regional intrusion of Tintina Belt granite and granodiorite plutons traversed the LMS rocks in several pulses or as a continuous but evolving hydrothermal event. At one stage, fluid caused the formation of kaolinite from pre-existing sericite and/or relatively unaltered feldspar. This is the source of apparent argillic alteration in many samples. Following clay alteration and local leaching along fractures, quartz was introduced along with gold and arsenopyrite+/- stibnite. Some carbonate occurs in phyllosilicate-rich layers and may be primary or introduced during D1 deformation. It follows fabric patterns and defines compositional banding suggesting that it derives from a primary calcareous component in the sediment. Late Q3 carbonate fills open spaces left by Q3 quartz.

### **7.3 Mineralization**

Gold mineralization appears to be of two main types with the possibility of a third type. The first type consists of gold associated with silicified, stratabound graphitic quartzite breccia. The concentration of brecciation in this zone may reflect the original competency contrast between the chert and the surrounding mica-rich lithologies. This breccia also forms the most laterally continuous of the two types of mineralization. Rocks within this zone are generally black, locally graphitic, brecciated, locally sheared, pyritic, and strongly silicified (**Figure 12B**).



The second mineralization type consists of free gold on dog tooth quartz or in open-space-fill vuggy quartz veins. These veins clearly post-date and overprint the stratabound gold occurrence (**Figures 13 and 14**). These open space-filled veins occur preferentially in the quartzite and footwall gneiss presumably because these rocks are more brittle than the schist.



**Figure 13:** Photos of vuggy quartz veins with visible gold in graphitic quartzite breccia (VG in circles). HQ Core diameter is 63.5 millimeters ("mm").



**Figure 14:** Photo of native crystalline gold in vuggy quartz veinlets (LM-06-29, 184.3 m).  
HQ Core diameter is 63.5 mm, photo shows approximately a 40 mm width of core.

A third and possibly significant type of gold mineralization are the quartz sulfide veins found predominantly in the lower gneiss unit beneath the graphitic quartzite breccia horizon. These are possibly "feeder veins" to the overlying mineralization and they may constitute a significant target. Because of the complexity of the multistage veining it is not possible to determine with certainty if the gold present in these quartz sulfide veins is a third type of gold mineralization or if the gold is actually just an overprinting of the "second type", free gold mineralization (**Figure 15**).



**Figure 15:** Photo of high grade quartz sulfide veining in lower gneiss (LM-06-21, 279.5 m).  
HQ Core diameter is 63.5 mm.

The veins, and possibly the gold in the stratabound silicified graphitic quartzite breccia, are interpreted here as shallow mesothermal veins that could be intrusion-related. It is also possible that the mineralizing fluids are metamorphic in origin, in which case mineralization would be considered “orogenic”. An intrusion-related origin for the gold mineralization seems most probable based on regional relations as well as features at LMS such as the metal suite, clay alteration, and creation of vuggy cavities for deposition of quartz and gold. The clay alteration and formation of cavities may be the product of acidic magmatic fluids. The first author has been unable to verify the information available with respect to the Pogo property, and such information is not necessarily indicative of the mineralization at the LMS Property.

Drilling has traced the graphitic quartzite horizon for 850 m down dip from the discovery outcrop and 500 m laterally, its extent is undefined to the north, south and down dip. This horizon daylights and therefore has been eroded to the east of the discovery outcrop. Drill intercepts indicate that the graphitic horizon generally has a true thickness ranging from 10 m to 25 m. Structural thickening and thinning are suspected in intercepts that fall outside of this range. Gold values vary greatly within the graphitic horizon ranging from trace gold to over 100 g/t over 1 m. Gold content is directly related to the degree of brecciation of the quartzite. Brecciation within the quartzite is extensive but highly variable. Insufficient drilling has been done to map out the distribution and intensity of brecciation within the graphitic horizon.

One early suggestion for the origin of the gold in the graphitic quartzite was that it was syngenetic. However, in areas where graphitic quartzite horizons are present and not extensively deformed there is no gold present. This suggests that the gold is introduced either during the deformation or after the rock has been broken and made permeable by the brecciation. Perhaps the graphite helped cause deposition of the gold. Even though the gold in the graphitic quartzite breccia appears to predate vein gold, it is reasonable to think that early silicifying hydrothermal fluids of the same gold event may have permeated laterally along this unit to deposit gold. If true, any structural or stratigraphic zone offering permeability to gold-bearing hydrothermal fluid could be mineralized, particularly if graphitic. As a structural zone, there may be more similar features in the area.

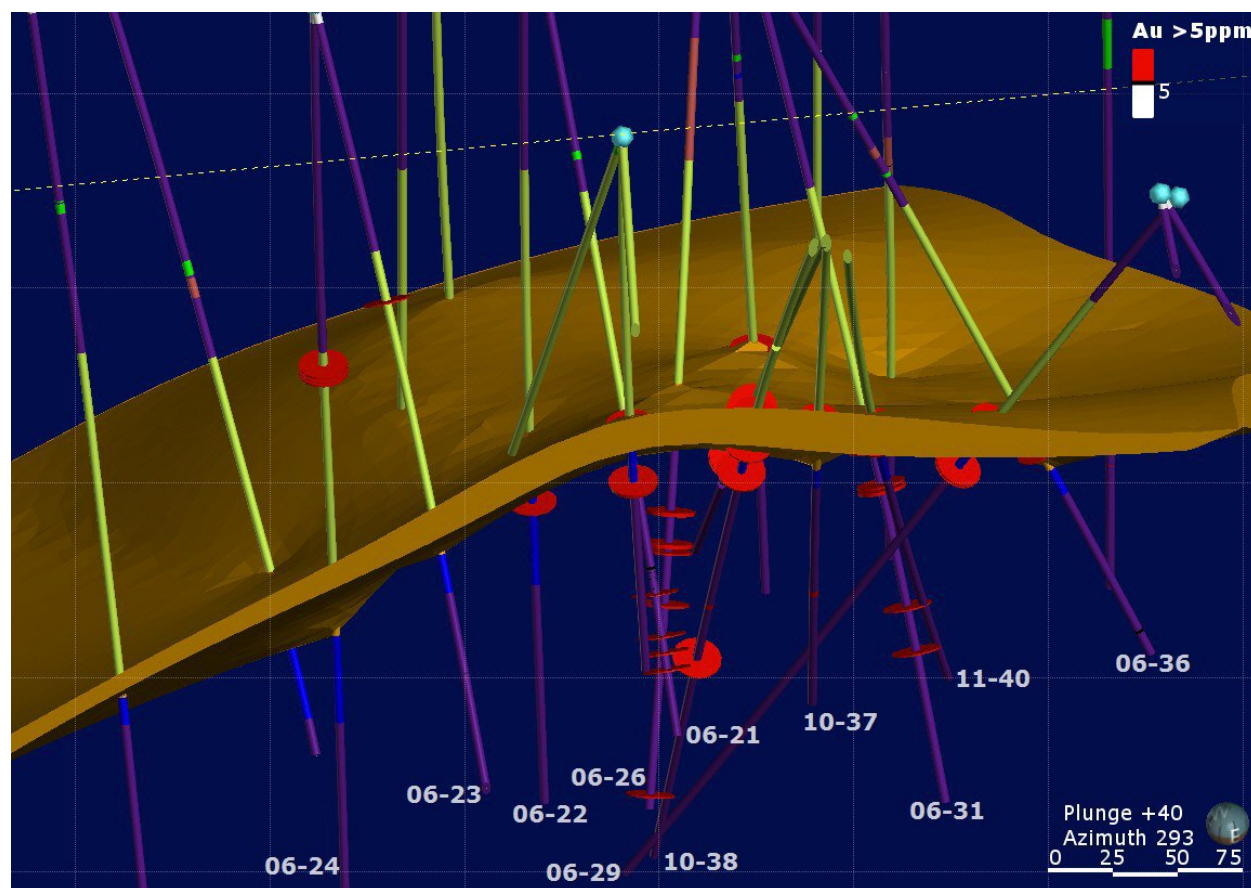
With the help of a 3D model of drill results it can be seen that the majority of the multi-gram gold intersections in the Lower Gneiss appear to fall along several sub vertical zones trending 290 degrees coincident with, and adjacent to, the axial plane of the fold in the Camp Zone (**Figures 16, 17 and 18**). None of the drill holes on the LMS Property were designed to test these structures and, in fact, most of the drilling was sub parallel to these structures and failed to test this potentially significant high grade target.

In addition to gold, there are a myriad of other minor veins with base metal sulfides. The origin and association of these metals with gold is not clear. One interpretation that might explain the variation in metal content is that magmatic and/or metamorphic gold-bearing fluids passed through preexisting weak to very weak massive sulfide-style base-metal mineralization and remobilized these early-stage metals to varying degrees. This possibility is supported by the occurrence of chert, sulfide, and calc-silicate rocks within schist suite stratigraphy. These rock types are typical of settings that host

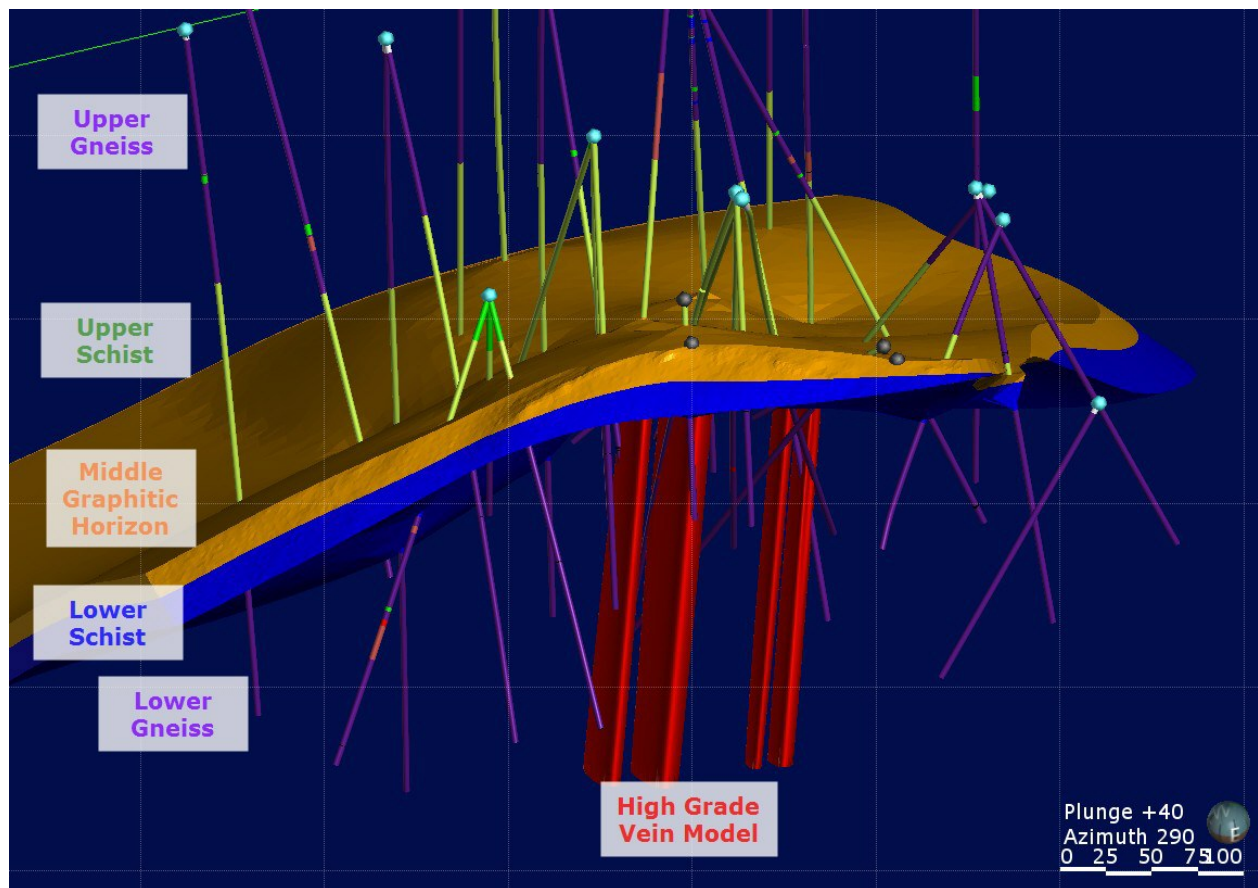


volcanogenic massive sulfide type mineralization. Gold mineralization, however, appears to be later and clearly related to both sub-vertical cross-cutting veins as well as the tabular graphitic quartzite body.

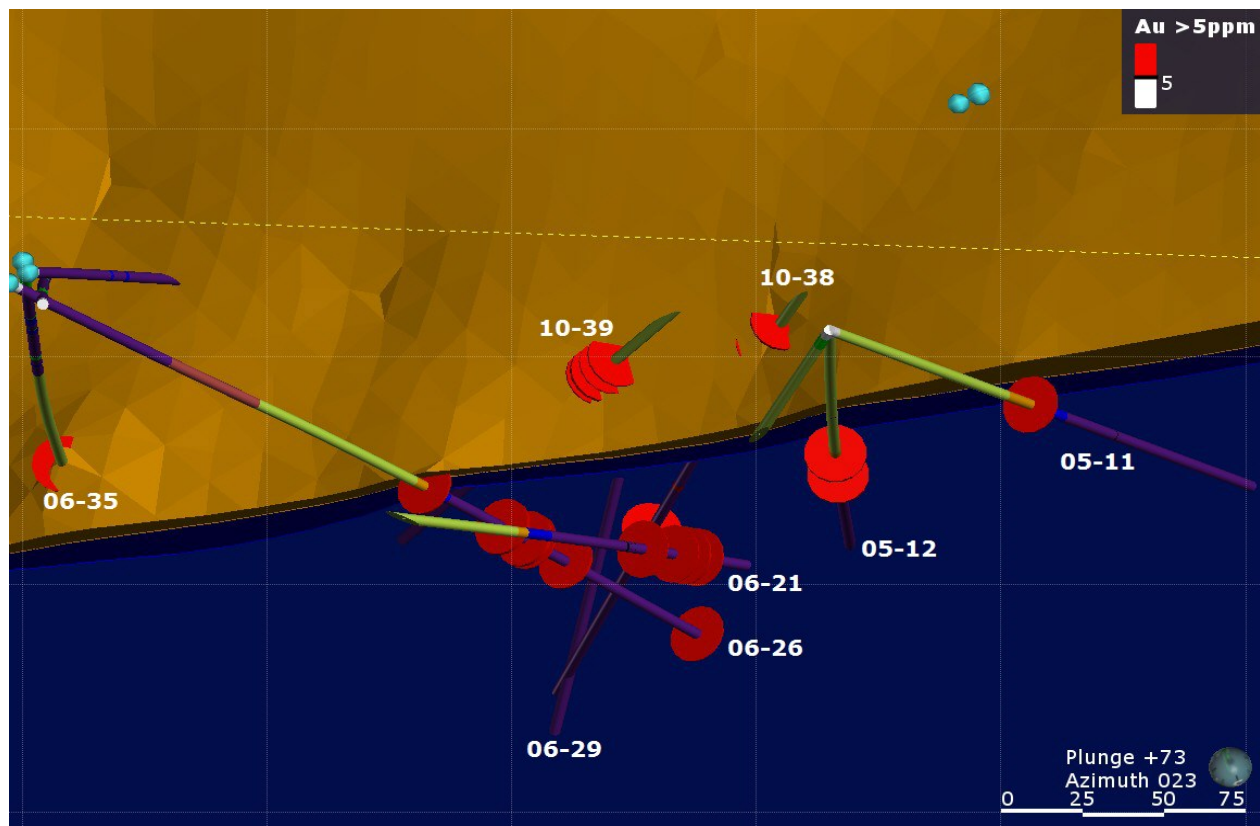
At the LMS Property, all companies drilled oriented core which should have provided invaluable information for analyzing the origin of the veins. However, neither company adequately characterized the veins in such a way that the data can be used to systematically analyze the relationship between the various generations of quartz veins. The data on mineralized veins does show some level of organization (**Figure 19**). However, until this data can be evaluated more systematically any speculation on the kinematic environment in which the veins were formed can only be speculative.



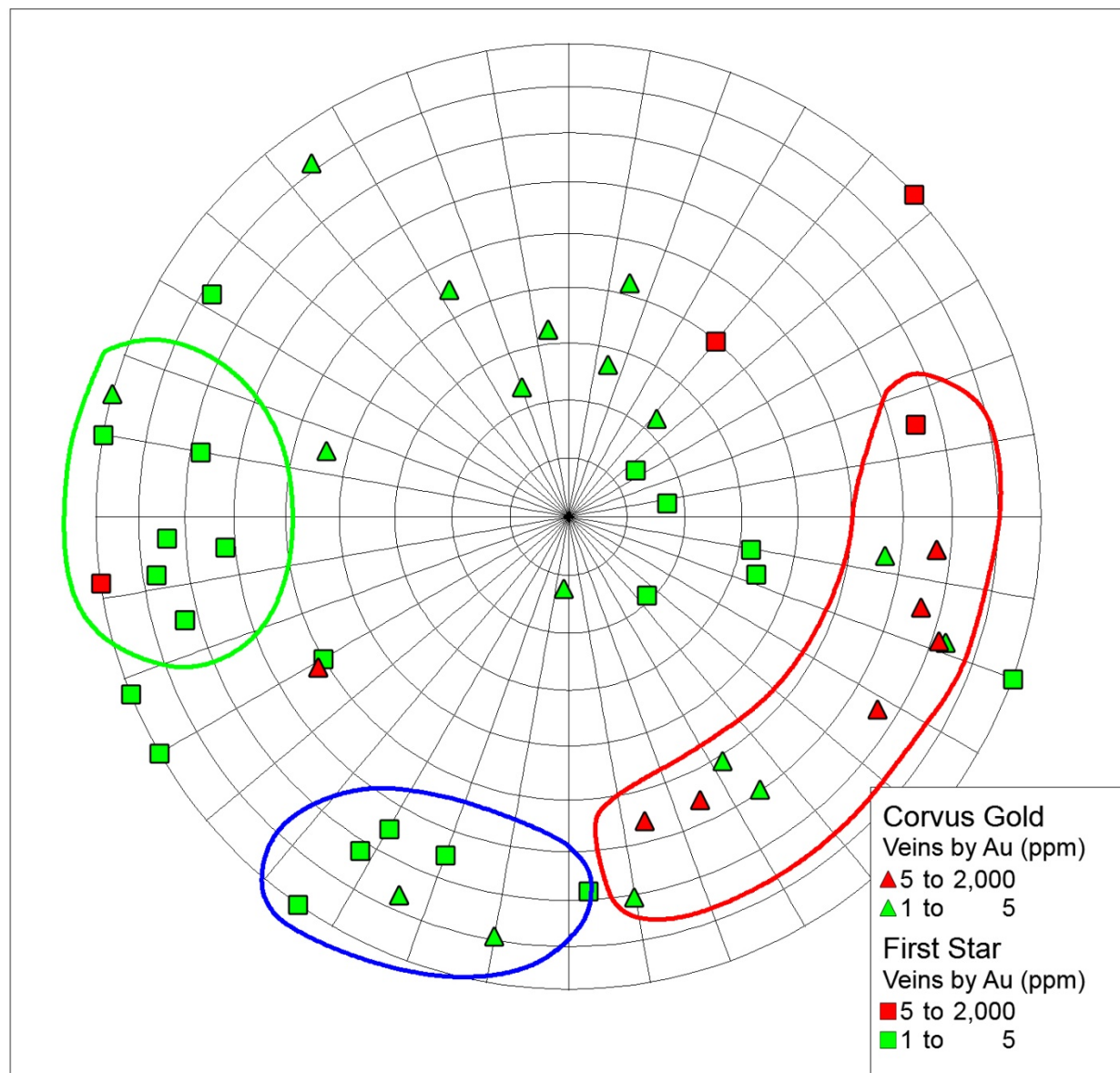
**Figure 16:** A view looking WNW down the fold axis, showing the high grade intercepts in the Lower Gneiss beneath the gently folded graphitic quartzite horizon (in yellow).



**Figure 17:** A view down the fold axis highlighting the zones of high grade (+5 g/t) gold intercepts that parallel the axial plane.



**Figure 18:** A plan view looking down on the axial plan showing the +5 g/t Au intercepts.



**Figure 19:** Stereonet plot of poles to veins showing low grade and high grade. The red outline highlights veins that may potentially have been folded about the same fold axis as the foliation. The veins within the blue outline are essentially axial planar to the larger fold structure. The veins outlined in green define planes that are perpendicular to the fold hinge.

## 8.0 Deposit Types

Mineral exploration was initiated in this part of the Goodpaster district by AGA in 2001 with Pogo-style or intrusive-related (e.g. Ft. Knox, Brewery Creek) type deposits as the exploration target. This was based on the successful development of the Pogo deposit in the area and known widespread geologic and geochemical prospectivity of the district. This target type is valid for the LMS Property as a conceptual model by virtue of the LMS Property being in a geologic environment comparable to Pogo.

There are two important deposit types at the LMS Property. The first is mineralization focused in the Middle graphitic horizon that consists of both mineralized breccia and superimposed veins. The second type of deposit consists of vein zones within the schist and gneiss unit outside of the graphitic zone. However, another possible style of mineralization should not be overlooked. Some of the host rocks (calc-silicate, chert, garnet-biotite schist, etc.) in association with base metal mineralization may suggest that volcanogenic hydrothermal processes were active at the time of sediment deposition and massive sulfide-style deposits could be present in the region.

At present, it is believed that the first two deposit types are most likely either magmatic (intrusion-related) or metamorphic ("orogenic") in origin.

All of the surface work and drilling from discovery to present date has focused on testing the mineral potential of the Middle graphitic horizon as this unit formed the discovery outcrop. From the drilling it became apparent that there were mineralized quartz veins outside of the graphitic horizon but their orientations were not understood therefore they never became a drill target. A three-dimensional ("3D") model was built from the drill data to assist in the preparation of this NI 43-101 report. The model helped identify the orientation of the better mineralized quartz veins so that they now constitute a target for future exploration.

## 9.0 Exploration

AGA initiated a regional grassroots exploration program in 2001 to evaluate the region for intrusive-related gold mineralization. This was done over a broader area in the Goodpaster district and consisted mainly of stream sediment sampling. In 2004, in addition to a broad stream sediment sampling program, AGA conducted ridge and spur soil sampling of the lower hills in the district that could not be evaluated by stream sediment sampling because no streams were developed enough for sampling. During the ridge and spur sampling program grab samples from the only outcrop in the area returned gold values ranging from 0.6 g/t to 6.2 g/t Au (**Figure 20**). This area is now known as the Camp Zone. This work also identified anomalous gold in soil samples over a broad area that extends about 6 km in a WNW direction and surrounds the discovery outcrop. This anomaly is supported by anomalous arsenic and, to a lesser extent, by anomalous Cu and Ag.





**Figure 20:** Photo of original sample containing 6.2 g/t Au taken from discovery outcrop in 2004.

During the 2004 and 2005 AGA field programs a total of 499 soil samples, 3 stream sediment samples and 66 rock samples were taken in the immediate LMS Property area. Results of this work included 30 soil samples containing more than 100 ppb Au.

In 2006 ITH collected 334 soil samples, most of which were done with track-mounted auger, the rest were collected with a shovel (**Figure 21**).

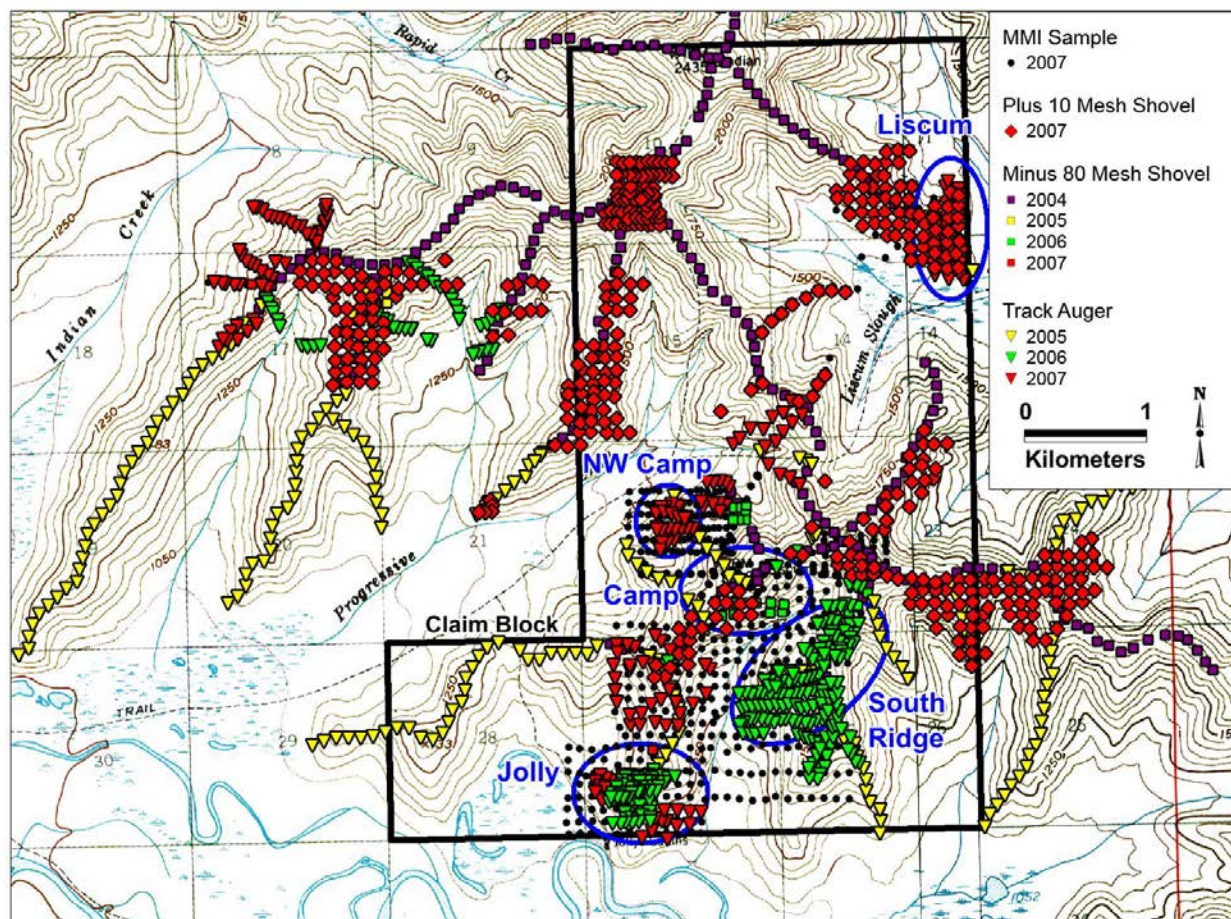


**Figure 21:** Photo of a 2 metre deep soil hole through loess and sand.

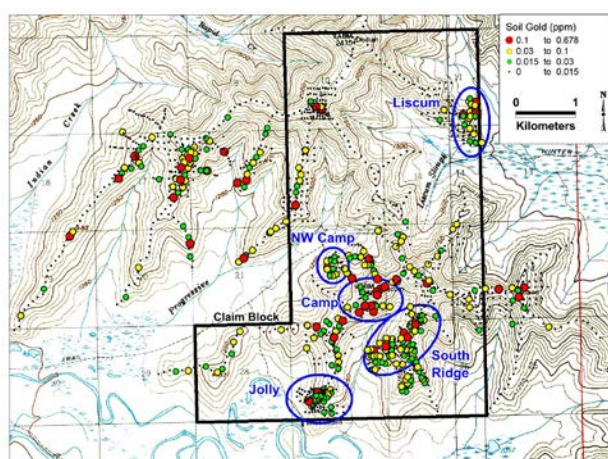
The 2007 ITH exploration program was dedicated largely to surface sampling in an effort to identify trends, extensions and additional surface exposures of mineralization similar to that already discovered. Because of the difficulties in seeing through loess, several techniques were employed. These included,

auger sampling, surface soil sampling and mobil metal ion (“**MMI**”) sampling (**Figure 22**). Each of these techniques revealed anomalous areas of potential mineralization (**Figure 23**). This is an important point because it is often the case that one technique will work when another doesn't. In this case, all techniques show anomalous gold. A total of 1142 MMI samples were collected from areas that had previously been sampled by conventional methods to compare techniques and from areas where the aeolian loess cover is too deep for the auger. The conventional sampling program revealed two new anomalous areas - NW Camp and Liscum. The MMI mapped scattered anomalies in the main target areas that were defined by conventional sampling methods and it highlighted two new areas to the southwest and east of the Camp Zone. These results indicate that the MMI technique shows real promise for identifying mineralized zones beneath deep cover on the LMS Property.

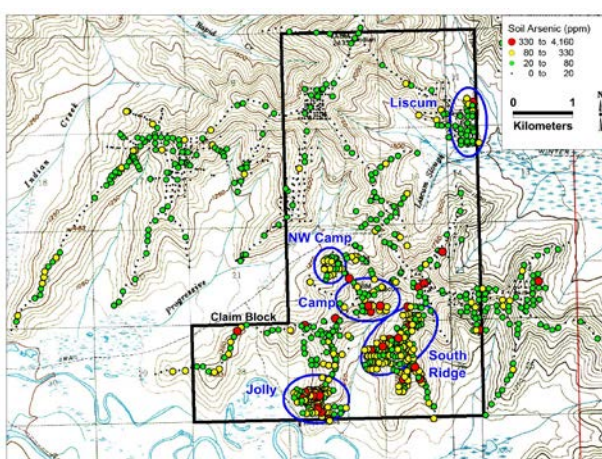




**Figure 22:** A plot showing soil sample locations by sample type and year taken.

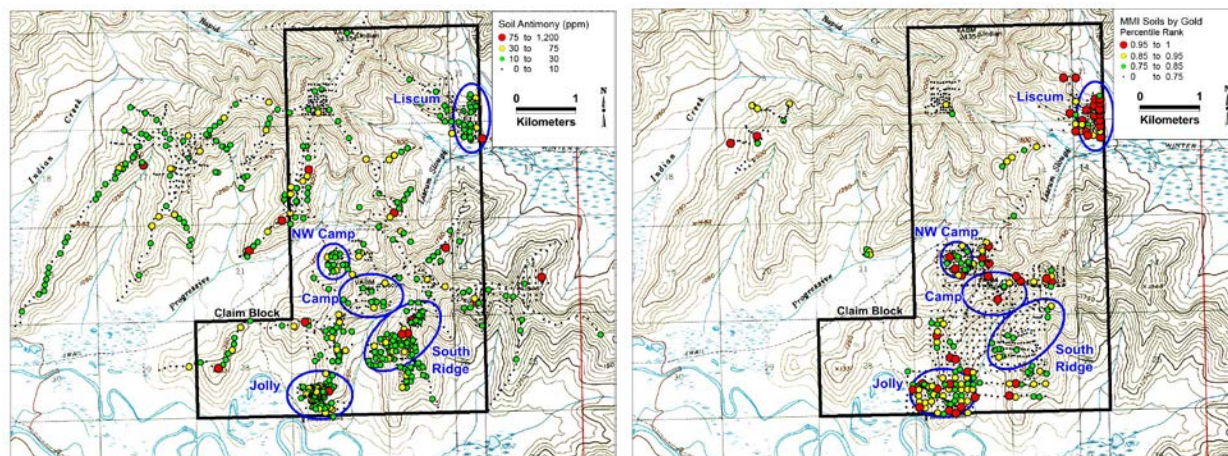


Plot of gold values in soil



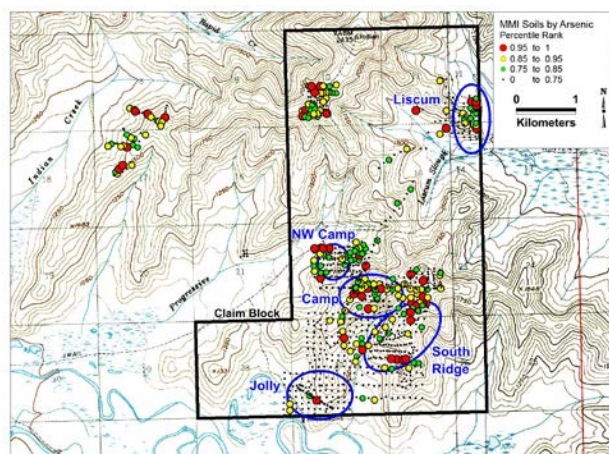
Plot of arsenic values in soil





Plot showing antimony values in soil

Plot showing MMI gold percentile.



Plot showing MMI arsenic percentile

**Figure 23:** Plots of metal values for surface geochemical samples.

Where possible, soil samples were collected with shovels targeting C-horizon material which was sieved to -80 mesh for analysis (710 samples). In areas where bedrock has been scoured prior to deposition of loess, and no weathered bedrock remains, the material at the top of bedrock surface was collected and sieved, retaining only the coarse +10 mesh fraction for analysis (449 samples). This effectively eliminates potential contamination from the overlying sand and loess. These samples represent rock chip composites from the bedrock surface. Track mounted augers which can drill to 15 m were used in areas where loess and sand were deeper than 2 m (711 samples). The auger samples generally consist of ground weathered bedrock and were analysed as rock samples.

Ridge and spur soil sampling was done on 50 m spacing and soil grids were generally 50 m by 50 m spacing where terrain permitted. Due to the locally deep overburden (+ 15 m) only local patches of soil samples were collected. A total of approximately 1 square kilometer was soil sampled within the 36 claim block. A total of 1142 MMI samples were collected on 50 m centers centered on the Camp Zone

(Discovery outcrop), covering approximately 3 square km. The MMI samples were collected from the loess, 15 cm below the organic layer therefore the deep overburden was not an issue.

All soil, stream sediment, rock, and drill samples were collected according to AGA in-house sampling protocols for geochemical sampling. The first author has reviewed these, as well as AGA security procedures, and has verified that they meet or exceed standard industry practices. The first author did not collect any soil samples for verification purposes.

All AGA geochemical samples were secured and shipped to Alaska Assay Laboratories Inc. (“**AALI**”) in Fairbanks. Sample preparation (drying, crushing, sieving, and pulverizing) by AALI was according to AGA protocols. Sample splits (300-500 g for rock material; -80 mesh for soil samples) were then sent to ALS Minerals in Vancouver for analysis. Analytical methods used were 50 g fire assay with AA finish for gold and 4 acid digest multi-element ICP-MS analysis. A gravity finish is used for fire assays with high concentrations of gold. These are standard analytical packages for the exploration industry and are performed to a high standard. Analytical accuracy and precision are monitored by the analysis of reagent blanks, reference material, and replicated samples. Quality control is further assured by the use of international and in-house standards. ALS Minerals is accredited by the Standards Council of Canada, NATA (Australia) and is an ISO 17025 accredited company.

Core and outcrop samples (49) were collected for petrographic and fluid inclusion analyses (Klipfel, 2007; Reynolds, 2007). This work helps constrain the number and relative timing of deformation, hydrothermal, and mineralization events.

No surface sampling was conducted on the property after 2007.

All surface work has been conducted and completed by AGA and ITH during their then ownership of the LMS Property.

## 10.0 Drilling

Forty six holes totalling 12,550.74 m were drilled at the LMS Property between 2005 and 2011 (see **Figure 24** and **Table 1**). Hole numbers in **bold** were used for the resource estimations.

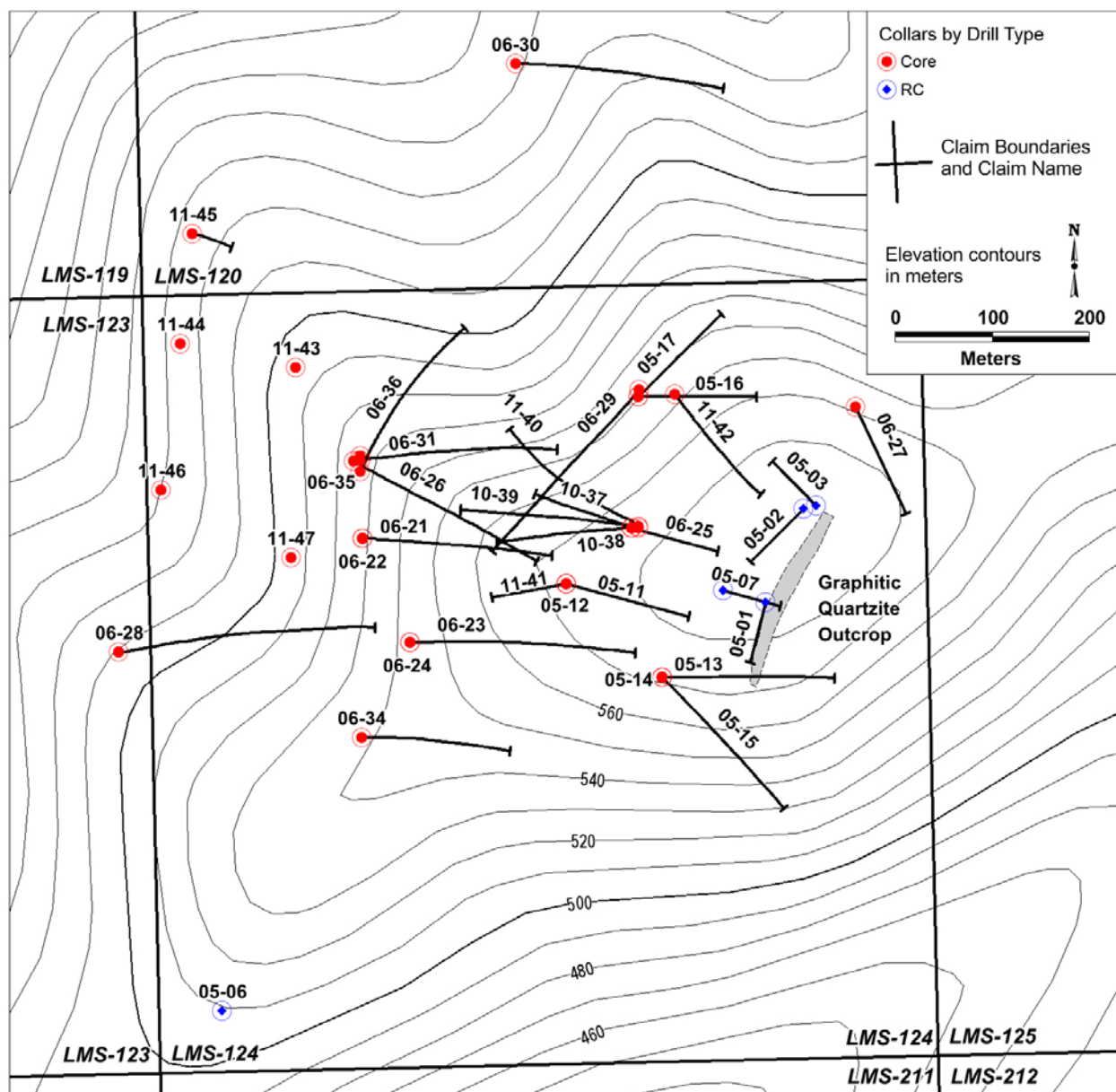
### 10.1 2005 Drill Program

In 2005 AGA drilled 10 reverse circulation rotary (“**RC**”) holes (959 m) in the spring and 7 diamond core holes (1677 m) in the fall to test the area around the discovery outcrop. The drilling was conducted by Layne Christiansen Company. This drilling defines a broad, near surface zone of gold mineralization averaging about 1.5 g/t with numerous other narrow higher-grade gold intercepts. Highlights of this program are shown in **Table 2**.

**Table 1:** Drill hole information

Hole ID	UTM_East (Zone 6, NAD27-Alaska)	UTM_North	Elev_m (from	Depth_m	Azi	Dip	Drill Type	Year
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Hole ID	UTM_East	UTM_North	Elev_m (LIDAR)	Depth_m	Azi	Dip	Drill Type	Year
LM-05-01	571557	7120398	588.4	91.44	195	-45	RC	2005
LM-05-02	571596	7120495	589.0	109.73	225	-45	RC	2005
LM-05-03	571609	7120498	588.8	91.44	315	-45	RC	2005
LM-05-04	570523	7119831	448.2	91.44	45	-45	RC	2005
LM-05-05	570801	7119691	478.0	91.44	135	-55	RC	2005
LM-05-06	570995	7119975	499.5	91.44	185	-55	RC	2005
LM-05-07	571513	7120410	581.7	121.92	105	-60	RC	2005
LM-05-08	572540	7120504	598.0	91.44	115	-45	RC	2005
LM-05-09	571996	7121339	495.5	91.44	45	-45	RC	2005
LM-05-10	572000	7121300	499.2	86.87	225	-45	RC	2005
LM-05-11	571351	7120417	568.5	260.97	105	-60	Core	2005
LM-05-12	571351	7120417	568.5	264.60	360	-90	Core	2005
LM-05-13	571450	7120320	561.3	244.45	90	-45	Core	2005
LM-05-14	571450	7120320	561.3	154.84	360	-90	Core	2005
LM-05-15	571450	7120320	561.3	268.83	135	-45	Core	2005
LM-05-16	571425	7120611	534.2	244.63	90	-60	Core	2005
LM-05-17	571425	7120611	534.2	241.83	45	-60	Core	2005
LM-06-19	572000	7121345	495.2	86.87	360	-90	RC	2006
LM-06-20	571358	7121413	411.7	85.34	360	-90	RC	2006
LM-06-21	571140	7120464	514.7	334.98	90	-55	Core	2006
LM-06-22	571140	7120464	514.7	435.32	360	-90	Core	2006
LM-06-23	571189	7120356	528.4	390.45	90	-55	Core	2006
LM-06-24	571189	7120356	528.4	490.27	360	-90	Core	2006
LM-06-25	571418	7120475	564.8	184.40	105	-60	Core	2006
LM-06-26	571131	7120544	516.5	386.18	120	-55	Core	2006
LM-06-27	571650	7120600	561.0	172.52	155	-45	Core	2006
LM-06-28	570888	7120346	481.4	454.15	80	-55	Core	2006
LM-06-29	571426	7120618	530.8	465.43	220	-60	Core	2006
LM-06-30	571298	7120955	444.5	361.8	90	-55	Core	2006
LM-06-31	571138	7120545	516.9	395.33	80	-60	Core	2006
LM-06-32	570504	7118800	369.4	423.67	120	-45	Core	2006
LM-06-33	570402	7118644	345.4	303.61	120	-45	Core	2006
LM-06-34	571139	7120258	523.7	392.61	90	-70	Core	2006
LM-06-35	571138	7120549	517.0	371.4	360	-90	Core	2006
LM-06-36	571138	7120533	516.9	423.1	20	-65	Core	2006
LM-10-37	571418	7120475	564.8	356.01	290	-65	Core	2010
LM-10-38	571418	7120475	564.8	454.3	260	-65	Core	2010
LM-10-39	571425	7120476	565.2	367.89	275	-55	Core	2010
LM-11-40	571425	7120475	565.3	407.82	315	-60	Core	2011
LM-11-41	571351	7120417	568.5	230.43	260	-70	Core	2011
LM-11-42	571463	7120613	540.8	191.11	135	-45	Core	2011
LM-11-43	571071	7120641	499.0	423.37	360	-90	Core	2011
LM-11-44	570952	7120665	464.4	430.53	360	-90	Core	2011
LM-11-45	570964	7120779	468.5	517.55	360	-90	Core	2011
LM-11-46	570932	7120514	450.0	396.85	360	-90	Core	2011
LM-11-47	571066	7120444	487.5	330.71	360	-90	Core	2011



**Figure 24:** A plan view of the Camp Zone showing drill holes and their traces. See **Figure 2** for location of these claims within the claim group.

**Table 2:** Highlights of 2005 Drilling Program

Hole ID	Total Depth(m)	From (m)	To (m)	Interval* (m)	Au (g/t)	Ag (g/t)
LM-05-01	91.44	1.52	32.00	30.48	1.10	6.4
LM-05-02	109.73	7.62	12.19	4.57	1.12	7.0
LM-05-02		25.91	28.96	3.05	3.76	10.7
LM-05-07	121.92	19.81	45.72	25.91	1.18	8.5
LM-05-11	261.00	109.73	125.12	15.39	3.43	12.2
LM-05-11		140.67	142.65	1.98	1.84	4.6
LM-05-12	265.00	142.95	146.33	3.38	21.52	46.5
LM-05-12		158.83	159.68	0.85	1.70	2.5
LM-05-12		171.75	173.28	1.53	1.84	54.4
LM-05-13	244.00	46.63	51.21	4.58	4.00	64.3
LM-05-13		53.80	56.39	2.59	2.11	11.8
LM-05-14	154.84	96.93	99.82	2.89	1.68	41.1
LM-05-15	266.00	78.00	78.80	0.80	1.95	11.6
LM-05-16	244.00	105.22	109.39	4.17	1.95	9.5
LM-05-17	242.00	57.91	58.58	0.67	1.82	0.2
LM-05-17		95.80	96.32	0.52	1.33	0.2
LM-05-17		137.46	138.99	1.53	2.46	25.0

\* Intervals are not true widths because the orientation of the zones is not sufficiently known to calculate a true thickness.

## 10.2 2006 drill program

In 2006, ITH drilled another 6157 m in 18 diamond core holes and 172 m in 2 RC holes. Sixteen core holes were drilled in the Camp Zone and 2 core holes drilled in the Jolly Zone. These holes were drilled to establish the extent and continuity of mineralization identified by AGA in 2005. All core from core holes was oriented, which enabled collection of structural information. Considerable attention was applied to developing an understanding of the structural relations.

Highlights of the 2006 drilling are shown in **Table 3**.

**Table 3:** Highlights of 2006 Drilling Program

Hole ID	Total Depth(m)	From (m)	To (m)	Interval* (m)	Au (g/t)	Ag (g/t)
LM-06-21	334.98	295.72	297.24	1.52	5.09	1.1
includes		295.72	296.17	0.45	13.00	2.5
LM-06-21		299.92	302.73	2.81	30.08	35.2
includes		302.06	302.73	0.67	121.00	121
LM-06-21		308.76	309.37	0.61	24.00	53.1

Hole ID	Total Depth(m)	From (m)	To (m)	Interval* (m)	Au (g/t)	Ag (g/t)
LM-06-23	390.45	118.57	119.79	1.22	4.33	2.3
LM-06-24	490.27	175.87	178.67	2.80	7.36	1.8
includes		175.87	176.63	0.76	15.40	6.5
includes		177.70	178.46	0.76	9.47	0.8
LM-06-24		178.83	180.29	1.46	5.03	5.5
includes		179.53	180.29	0.76	9.60	7.4
LM-06-25	184.40	116.59	116.89	0.30	68.00	18.9
LM-06-26	386.18	225.86	227.08	1.22	7.45	5.0
LM-06-26		269.75	272.19	2.44	4.94	0.6
LM-06-26		282.24	286.21	3.97	11.81	1.0
includes		282.24	283.68	1.44	27.70	1.8
includes		285.60	286.21	0.61	10.00	1.0
LM-06-26		305.96	306.78	0.82	7.04	39.7
LM-06-26		380.33	380.94	0.61	22.30	3.1
LM-06-29	465.43	156.00	161.15	5.15	10.14	6.8
includes		156.00	157.28	1.28	32.77	8.3
LM-06-29		185.01	186.81	1.80	713.10	83.2
LM-06-31	395.33	240.03	241.74	1.71	12.04	25.2
includes		240.88	241.74	0.86	19.44	8.7
LM-06-31		253.75	256.49	2.74	3.40	1.8
LM-06-31		265.63	270.78	5.15	4.18	1.6
includes		267.68	270.78	3.10	5.69	1.9
LM-06-31		316.96	317.51	0.55	10.70	3.6
LM-06-31		334.79	336.38	1.59	3.99	3.5
LM-06-35	371.40	255.54	257.10	1.56	3.40	22.3
LM-06-36	423.06	314.00	315.13	1.13	4.12	3.0
LM-06-36		319.67	325.37	5.70	2.70	11.4
includes		320.34	323.7	3.36	3.24	8.8

\*intervals are not true widths because the orientation of the zones is not sufficiently known to calculate a true thickness.

### 10.3 2010 drill program

In 2010, FSR drilled 3 diamond core holes (1102 m) in the Camp Zone between September 2 and October 5 under an option-joint venture agreement with RGA. These holes were drilled to the NW to test for a NE trending zone of "feeder" veins beneath the graphitic quartzite breccia. Significant intervals of high grade gold mineralization in quartz veins were encountered in 2 of the holes (LM-10-38, LM-10-39). Highlights of the 2010 drilling are shown in **Table 4**.



**Table 4:** Highlights of 2010 Drilling Program

Hole ID	Total Depth (m)	From (m)	To (m)	Interval* (m)	Au (g/t)	Ag (g/t)
LM-10-37	356.0	158.5	179.5	21.0	0.7	6.2
LM-10-37		195.1	197.5	2.4	0.7	25.3
LM-10-38	454.15	161.5	164.3	2.8	4.7	4.6
LM-10-38		172.5	181.7	9.1	1.6	15.4
including		179.5	181.7	2.1	4.8	6.0
LM-10-38		198.9	201.8	2.9	12.5	6.0
LM-10-38		324.3	325.8	1.5	4.6	2.3
LM-10-39	292.3	221.6	224.8	3.2	3.5	6.0
including		221.6	222.8	1.2	7.8	3.6
LM-10-39		227.2	240.6	13.4	2.5	12.4
including		233.6	238.1	4.4	4.9	19.0
LM-10-39		267.2	268.7	1.5	1.6	65.0
LM-10-39		271.3	274.8	3.5	12.1	2.0

\*intervals are not true widths because the orientation of the zones is not sufficiently known to calculate a true thickness.

#### 10.4 2011 drill program

In 2011, FSR deepened the last hole of the 2010 season (LM-10-39) and drilled 8 additional diamond core holes (2365.5 m). Two holes were drilled in March and the remainder drilled from June 1 to August 1. Hole LM-11-40 was drilled to the NW to test for a feeder zone, the remaining 7 holes were drilled to test for down plunge extension of the graphitic quartzite breccia. Highlights of the 2011 drilling are shown in **Table 5**.

**Table 5:** Highlights of 2011 Drilling Program

Hole ID	Total Depth (m)	From (m)	To (m)	Interval* (m)	Au (g/t)	Ag (g/t)
LM-11-40	407.8	192.3	215.6	23.3	5.2	11.9
including		194.5	203.5	9.0	0.9	4.7
including		204.0	215.6	11.7	9.6	19.3
including		211.2	215.6	4.4	23.8	33.5
LM-11-41	230.4	193.2	195.1	1.9	1.7	3.0
LM-11-42	191.1	99.4	101.2	1.8	2.7	17.7
LM-11-43	423.4	171.8	172.8	1.1	1.0	116.3
LM-11-43		336.6	339.5	2.9	1.8	28.4
including		337.7	339.5	1.8	2.7	41.7

Hole ID	Total Depth (m)	From (m)	To (m)	Interval* (m)	Au (g/t)	Ag (g/t)
LM-11-44	430.5	73.9	77.7	3.8	1.2	0.5
LM-11-44		362.4	367.9	5.5	0.9	29.9
including		362.4	365.1	2.7	1.3	44.8
LM-11-45	517.6		no	significant	intercepts	
LM-11-46	396.9	288.6	290.9	2.3	0.4	17.9
LM-11-47	330.7	289.0	291.7	2.7	0.8	16.5

\*intervals are not true widths because the orientation of the zones is not sufficiently known to calculate a true thickness.

Some fault zones presented some drilling difficulty with occasional poor core recovery over short intervals but not to the extent that it materially impacted the accuracy and reliability of the results.

Neither Corvus nor Raven has conducted drilling on the LMS Property.

## 11.0 Sample Preparation, Analyses and Security

### 11.1 2004 to 2006 Procedures

Soil and drill samples obtained in 2004, 2005, and 2006 were subject to AGA's/ITH's in-house methodology and Quality Assurance Quality Control (QAQC) protocols. All samples are weighed and photographed prior to being sealed in bags and securely transported to the AALI preparation facility in Fairbanks. AALI is independent of all of the companies that were involved in the exploration of the LMS Property and has a fully accredited ISO 170.5 rating. The samples are weighed on receipt and then prepared by sieving or crushing with pulps sent to ALS Minerals laboratory in Vancouver. Samples were analyzed for gold by ALS Minerals by means of their standard 50 g fire assay with an AA finish and multi-element 4-acid digest ICP-MS analysis for other elements. ALS Minerals is independent of all of the companies that were involved in the exploration of the LMS Property and has Canadian Association of Laboratory Accreditation (CALA) as well as ISO/IEC 17025:2005.

Twelve holes were RC drilled with the chips coming off the cyclone going through a splitter and into two equal sample bags. One bag was kept for reference while the other went to the laboratory for analysis.

Twenty three holes were core drilled. The intervals selected for sampling were sawn in half using a diamond saw with one half going to the laboratory for analysis.

In general, all sampling campaigns were subject to insertion of blanks approximately every 25 samples, standards every 25 samples, as well as duplicate samples from pulp splits and coarse reject splits, and sample repeats approximately every 20 samples. Results of AGA's/ITH's QAQC program have been reviewed by the first author. All analyses of sample standards and blanks used as part of the QC during the LMS drill program were reported within standard error envelope. Overall, AGA and ITH have been conscientious in their QAQC program and the first author concludes that sampling and analytical work is accurate and reliable.

Core material was collected at the drill site and placed in core boxes under the supervision of an experienced geologist. It was logged for rock type, alteration, structure, and recorded with detailed descriptions. The first author has examined all of the drill core and core logs from the 2005-2006 drill programs and can verify the reliability of the logging. In general the core was selectively sampled for mineralized intervals only. Core for analysis was sawn in half using a diamond saw and one half sent to the laboratory. The other half is either kept on site at the LMS Property or at a core storage facility in Fairbanks.

### **11.2 2007 Procedures**

ITH maintained a QAQC protocol in which standard and blank control samples were included at a rate of 1 in 10. Duplicate samples of core are prepared from coarse reject material at a rate of 1 for every 20 samples. All samples are weighed and photographed prior to being sealed in bags and securely transported to the ALS Minerals preparation facility in Fairbanks. The samples are weighed on receipt and then prepared by sieving or crushing with pulps sent by ALS Minerals to their laboratory in Vancouver. Soil and rock samples are analysed for gold using a 50 g fire assay with ICP finish with a 1 part per billion (“ppb”) detection. Core samples are analyzed for gold using a 50 g fire assay with AA finish and 10 ppb detection. At the LMS Property, core samples with visible gold are analyzed using screen fire assay, a procedure appropriate for high grade samples. Because screen assay is 1 kilogram (“kg”), the sample length for these intervals is reduced so that the original sample weight is approximately 1 kg. All samples undergo a four-acid digestion, ICPMS multi-element analysis also.

Geochemical data has been processed by ITH staff using ratio and multi-element techniques to understand geochemical signature of veins and gold mineralization.

### **11.3 2010 and 2011 Procedures**

FSR maintained a QAQC protocol in which standard and blank control samples were included approximately every 20 samples. Drill core was only selectively sampled in zones of mineralization. All drill core to be sampled was sawed in half with one half going for analysis. The samples were shipped to the ALS Minerals preparation facility in Fairbanks then sent on to the ALS Minerals laboratory in Vancouver or Sparks, Nevada. All samples were subjected to a gold fire assay technique (Au-ICP22) and a 35 multi-element aqua-regia digestion (ME-MS61). Samples with visible gold, or suspected to contain particulate gold, were analyzed using screen fire assay (Au-SCR24), a procedure appropriate for high grade gold samples. Because the sample size for screen fire assay is one kilogram, the sample length for these intervals was reduced, so that the original sample weight would be approximately one kilogram.

At the end of the 2011 program a problem was found with some of the analytical data in several batches of samples sent to ALS Minerals. The results of some of the control samples were outside of CGI's accepted limits. These batches were re-analysed by ALS Minerals at the request of CGI. The new results were acceptable and revised certificates were issued for the work orders in question.

In the first author's opinion the QAQC of all samples collected on this project met or exceeded industry standards from the sample collection all the way to sample preparation, security and analytical procedures.

## 12.0 Data Verification

The first author was involved as an independent contractor in most of the sampling programs, including the original ridge and spur soil sampling, the discovery outcrop sampling and subsequent -80 mesh soil and MMI sampling. The first author was present on several occasions during the AGA, ITH, and FSR drill programs and observed the adherence to QAQC protocols. AGA, ITH, and FSR have been diligent in their sampling procedures and efforts to maintain accurate and reliable results.

The first author, having closely observed all aspects of the data collection, is confident in the quality of the data for the purposes used in the report.

### 12.1 Assay verification

In 2014, the first author selected six check samples from the LMS Property core for analysis to compare with the original assays, and a rock sample was collected from the discovery outcrop. A comparison between the original assays and the check assays shows that the data reproduce within the range expected for samples containing coarse gold (**Table 6**).

### 12.2 Database Error Checks

The first author reviewed the database by selecting 5% of the nearly 5000 drill core sample assays for comparison with the original laboratory certified assay certificates. This comparison confirmed that the database accurately reflects the values on the original certificates. All the assays in the database are imported directly from csv files generated by ALS Minerals so there is no opportunity for typographic errors.

**Table 6:** Results of re-sampling six drill intercepts and the Discovery outcrop.

<u>HOLE #</u>	<u>FROM - TO</u>	<u>FROM -TO</u>	<u>Sample Number</u>	<u>Sample Number</u>	<u>Au / Ag ppm</u>	<u>Au / Ag ppm</u>	<u>Shipped</u>
	<u>Metres</u>	<u>Feet</u>	<u>Original</u>	<u>Re-sample</u>	<u>Original</u>	<u>Re-sample</u>	<u>weight</u>
BLANK				RK210636		0.002 Au / 0.21 Ag	779
LM-10-38	172.52 - 172.91	566 - 567.3	420839	RK210637	1.32 Au / 21.70 Ag	1.63 Au / 14.1 Ag	1549
LM-10-39	237.44 - 238.05	779 - 781	421033	RK210638	3.02 Au / 11.45 Ag	1.255 Au / 8.97 Ag	2097
LM-10-39	273.1 - 274.02	896 - 899	421057	RK210639	3.75 Au / 1.85 Ag	1.45 Au / 1.86 Ag	2129
LM-11-40	211.23 - 211.84	693 - 695	421358	RK210640	9.32 Au / 2.26 Ag	10.85 Au / 3.54 Ag	1640
LM-11-43	338.33 - 338.88	1110 - 1111.8	421904	RK210641	1.96 Au / 4.51 Ag	2.02 Au / 4.44 Ag	1562
LM-11-44	75.44 - 76.20	247.5 - 250	421984	RK210642	1.82 Au / 0.29 Ag	1.755 Au / 0.28 Ag	2042
Random sample of "Discovery" Outcrop				RK210643		0.317 Au / 1.41 Ag	2268
Standard SH41			170176	RK210644	1.344 Au	1.325 Au / 0.47 Ag	118

### 13.0 Mineral Processing and Metallurgical Testing

Neither ITH, CGI nor Raven have undertaken any mineral processing or metallurgical tests. In 2006 AGA undertook an initial gold characterization study prepared by SGS Mineral Services, Lakefield, Ontario (SGS, 2006). Sample number DC122994 from drill hole LM-05-11, 156.42-156.79m, representing high grade quartz vein mineralization in the footwall gneiss unit, was crushed to liberate gold for the examination. Gold fineness ranges from 445-560 with silver being the complimenting element. Silver is mainly hosted with gold minerals, but is also present as rare Ag-bearing tetrahedrite. Over 95% of the gold (electrum) reported to the gravity concentrate. The report concluded that gravity would be the best method to recover gold from a nominally coarse grind. This information is based on a small sample set but provides some initial information. No metallurgical testing has been conducted on the main siliceous breccia mineralization.

### 14.0 Mineral Resource Estimate

Giroux Consultants Ltd. (GCL) was previously retained by Corvus to produce a mineral resource estimate on the LMS Property in Goodpaster Mining District, Alaska. The effective date for this resource estimate is March 26, 2014, the date the data was received.

Since no further drilling has been completed since March 26, 2014, this resource is still current.

Gary Giroux is the qualified person responsible for the resource estimate. Mr. Giroux is a qualified person by virtue of his education, experience and membership in a professional association. He is independent of the Issuer and of both Raven, the vendor of the LMS Property and its parent company, Corvus applying all of the tests in Section 1.5 of National Instrument 43-101. Mr. Giroux has not visited the LMS Property.

There appears to be no issues or factors that could materially affect the mineral resource estimate. This includes no issue involved with environmental permitting, legal, title, taxation, socio-economic, marketing, political, mining, metallurgical or infrastructure.

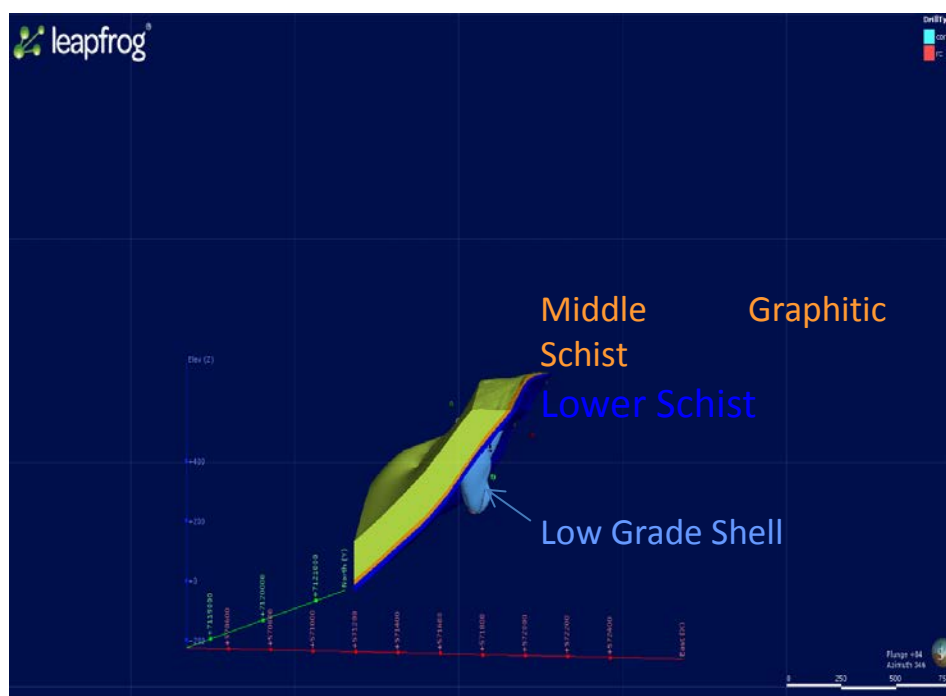
#### 14.1 Geologic Solid Models

A Leapfrog geologic model was first built by creating a surface chronology of the upper and lower contact surfaces between the schist and gneiss packages. The schist package was further subdivided by creating a refined Leapfrog geologic model of the schist-gneiss model. Surfaces were generated for the upper and lower contacts of the middle graphitic horizon. Four volumes were subsequently created to represent the gneiss, lower schist, middle graphitic horizon, and upper schist packages (**Figures 25 and 26**). The model was clipped to the LIDAR based bald-earth topographic surface.

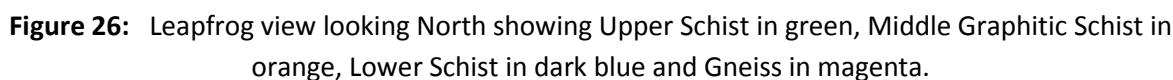


A low-grade ( $>0.05$  g/t) gold-shell was also made around mineralization that occurs predominately in quartz veins within the lower gneiss. This predominately vein-controlled mineralization is difficult to precisely model between drill holes as no systematic control to veining has been identified. In order to provide a representative volume for a resource estimation to be performed, a Leapfrog interpolation shell and volume has been generated and is restricted to only the lower gneiss. A low gold cut-off of 0.05 g/t was used to give reasonable spatial distance from drill hole traces to allow for an adequate volume to be generated for resource modeling. An average trend, based on mineralized vein orientation data from oriented drill core, has been used to bias the interpolation so that it mimics an average strike orientation of NE-SW (060). This volume is further restricted to only holes within the heart of the deposit and to where gold-bearing veining in the lower gneiss was sufficiently present.

Of the 46 supplied drill holes, only 36 holes within the Camp and NW Hillside Prospect were used in this resource estimate. Table 1 shows all holes, with the holes used in the estimate highlighted.



**Figure 25:** Leapfrog view looking North showing Upper Schist in green, Middle Graphitic Schist in orange, Lower Schist in dark blue and Lower Gneiss in light blue.



For un-sampled drill hole intervals a value of 0.001 g/t Au was inserted in 1,352 cases.

**Table 7: Sample Statistics for Gold**

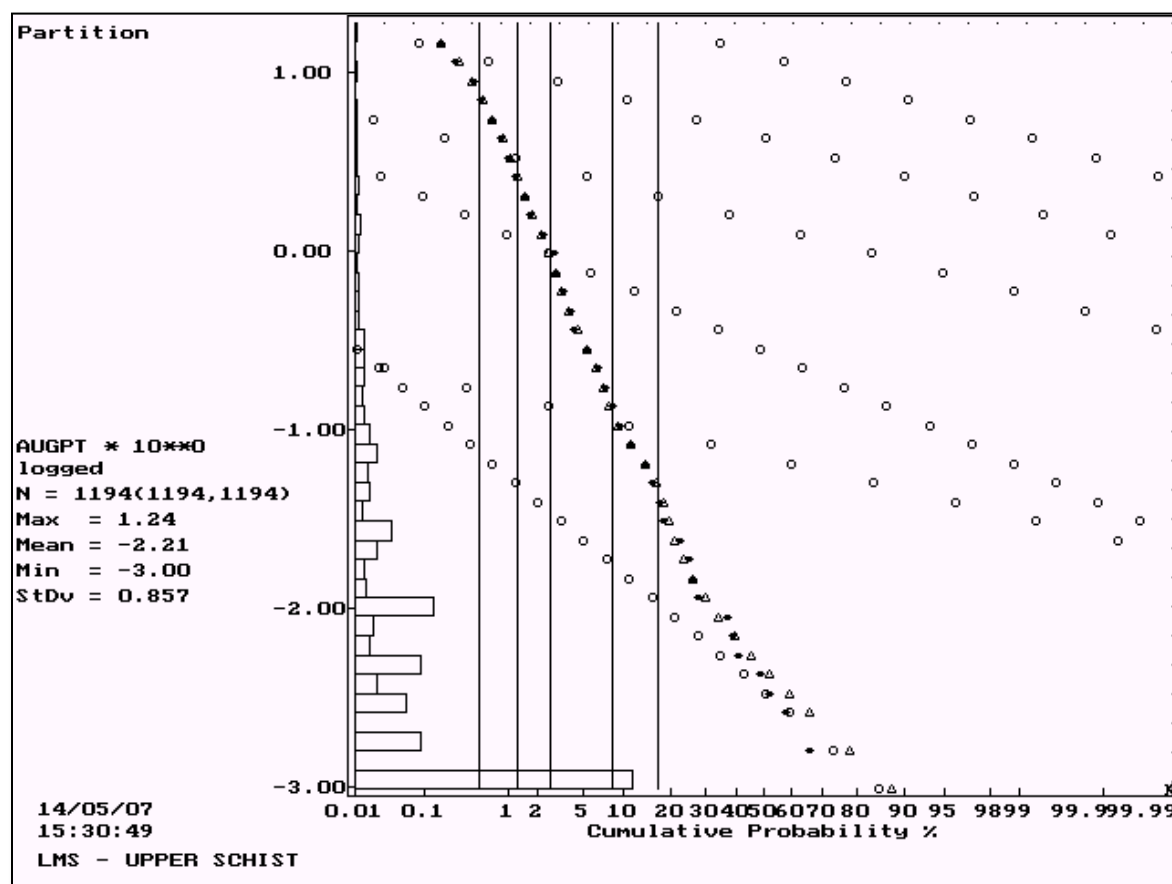
As seen in the maximum value column and the high coefficients of variation there are certainly some erratic high values in the data. Each domain was examined using lognormal cumulative probability plots to determine if capping was necessary and if so, at what level. The plot for gold in the Upper Schist domain is shown below as **Figure 27**. There are 6 overlapping lognormal populations indicated. These populations are tabulated in **Table 8**.

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Population	Mean Au (g/t)	Percentage Of Total	Number of Samples
1	12.28	0.48 %	6
2	4.27	0.77 %	9
3	1.41	1.35 %	16
4	0.28	5.81 %	69
5	0.07	8.37 %	100
6	0.003	83.22 %	994

For the Upper Schist domain population 1 is considered erratic high grade and a cap level of 2 standard deviations above the mean of population 2, a value of 9.3 g/t, would be an effective cap. A total of 4 samples were capped at 9.3 g/t Au.

A similar exercise was completed for gold in the other 4 domains. **Table 9** shows the various cap levels and number of samples capped in each of the domains.



**Figure 27:** Lognormal Cumulative Frequency Plot for Au in Upper Schist Domain.

**Table 9:** Capping Levels for Au

Domain	Cap Level	Number
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		<b>Capped</b>
Upper Schist	9.3 g/t	4
Middle Graphitic Schist	13.6 g/t	7
Lower Schist	9.5 g/t	9
Gneiss	2.2 g/t	5
LG Shell	14.0 g/t	5

The effects of capping a relatively small number of assays are shown in **Table 10** with large reductions in the coefficient of variation.

**Table 10: Sample Statistics for Capped Gold**

Domain	Number	Mean Au (g/t)	Stand. Dev.	Minimum Value	Maximum Value	Coef. Of Variation
Upper Schist	1,194	0.129	0.768	0.001	9.30	5.94
Middle Graphitic Schist	528	0.933	2.155	0.001	13.60	2.31
Lower Schist	534	0.370	1.455	0.001	9.50	3.94
Gneiss	2,765	0.048	0.181	0.001	2.20	3.76
Low Grade Shell (LG)	694	0.420	1.694	0.001	14.00	4.04

### 14.3 Composites

Assay intervals were mostly 1.53 m long and ranged from a low of 0.06 to a high of 6.62 m. A composite length of 2.5 m was selected to fit with a 5 m bench height and the most common assay lengths. Uniform down hole composites 2.5 m in length were formed to honour the domain boundaries. At the domain contacts, samples less than 1.25 m were joined with adjacent samples while those more than 1.25 m in length were left intact. In this manner a uniform support of  $2.5 \pm 1.25$  m was created.

The gold statistics for 2.5 m composites are tabulated below in **Table 11**, sorted by domain.

**Table 11: 2.5 m Composite Statistics for Gold**

Domain	Number	Mean Au (g/t)	Stand. Dev.	Minimum Value	Maximum Value	Coef. Of Variation
Upper Schist	1,299	0.033	0.225	0.001	4.60	6.81
Middle Graphitic Schist	215	0.747	1.390	0.001	11.68	1.86
Lower Schist	303	0.211	0.875	0.001	8.53	4.16
Gneiss	2,381	0.019	0.071	0.001	1.33	3.73
Low Grade Shell (LG)	389	0.227	0.773	0.001	8.42	3.41

The number of 2.5 m composites in Upper Schist actually increased over the number of assays due to the addition of missing intervals at the start and end of many holes. A value of 0.001 g/t Au was inserted in any missing interval.

### 14.4 Variography

Pairwise relative semivariograms were produced for the three domains with sufficient data to model: the upper schist unit, gneiss unit and the low grade shell. In all cases anisotropy was observed and nested spherical models were fit to the data.

For the Upper Schist Domain, the longest continuity in the horizontal plane was observed along azimuth  $95^\circ$  dip  $0^\circ$ . The second longest range was along azimuth  $5^\circ$  dipping  $-85^\circ$ . The nugget to sill ratio within the Upper Schist Domain was 46%.

Within the surrounding Gneiss Domain the direction of longest continuity was along azimuth  $90^\circ$  dip  $0^\circ$ . The second longest range was along azimuth  $0^\circ$  dip  $-83^\circ$ . The nugget to sill ratio for this domain was a higher 53% indicating more variability.

Within the low grade shell that sits underneath the lower schist horizon the direction of longest continuity was along azimuth  $130^\circ$  dip  $0^\circ$  with the next longest range along azimuth  $220^\circ$  dip  $-80^\circ$ . For the low grade shell the nugget to sill ratio was quite high at 60% indicating a lot of short range variability.

There were not enough composites within the Middle Graphitic Schist Domain or the Lower Schist Domain to model these domains separately, but because the gold grades in these units were somewhat similar they were combined for variography analysis. The direction of longest continuity was along azimuth  $15^\circ$  dip  $0^\circ$  with the next longest range along azimuth  $105^\circ$  dip  $-85^\circ$ . The semivariogram parameters are tabulated below (**Table 12**).

**Table 12:** Semivariogram Parameters for Gold

Domain	Az / Dip	$C_0$	$C_1$	$C_2$	Short Range (m)	Long Range (m)
Upper Schist	$95^\circ / 0^\circ$	0.30	0.20	0.15	15.0	90.0
	$05^\circ / -85^\circ$				40.0	85.0
	$185^\circ / -5^\circ$				15.0	25.0
Gneiss	$90^\circ / 0^\circ$	0.42	0.23	0.15	40.0	100.0
	$0^\circ / -83^\circ$				15.0	70.0
	$180^\circ / -7^\circ$				15.0	22.0
Low Grade Shell	$130^\circ / 0^\circ$	0.80	0.20	0.34	40.0	94.0
	$40^\circ / -10^\circ$				20.0	30.0
	$220^\circ / -80^\circ$				15.0	90.0
Middle Graphitic Schist and Lower Schist	$15^\circ / 0^\circ$	0.60	0.25	0.46	40.0	110.0
	$285^\circ / -5^\circ$				20.0	50.0
	$105^\circ / -85^\circ$				15.0	70.0



### 14.5 Block Model

A block model with blocks 10 x 10 x 5 m in dimension was created to cover the mineralized solids (**Figure 28**). Within each block the percentage below surface topography, within overburden and within each mineralized solid was recorded. The origin of the block model was as follows:

Lower left corner

570810 East

Column size = 10 m

101 columns

7120095 North

Row size = 10 m

98 rows

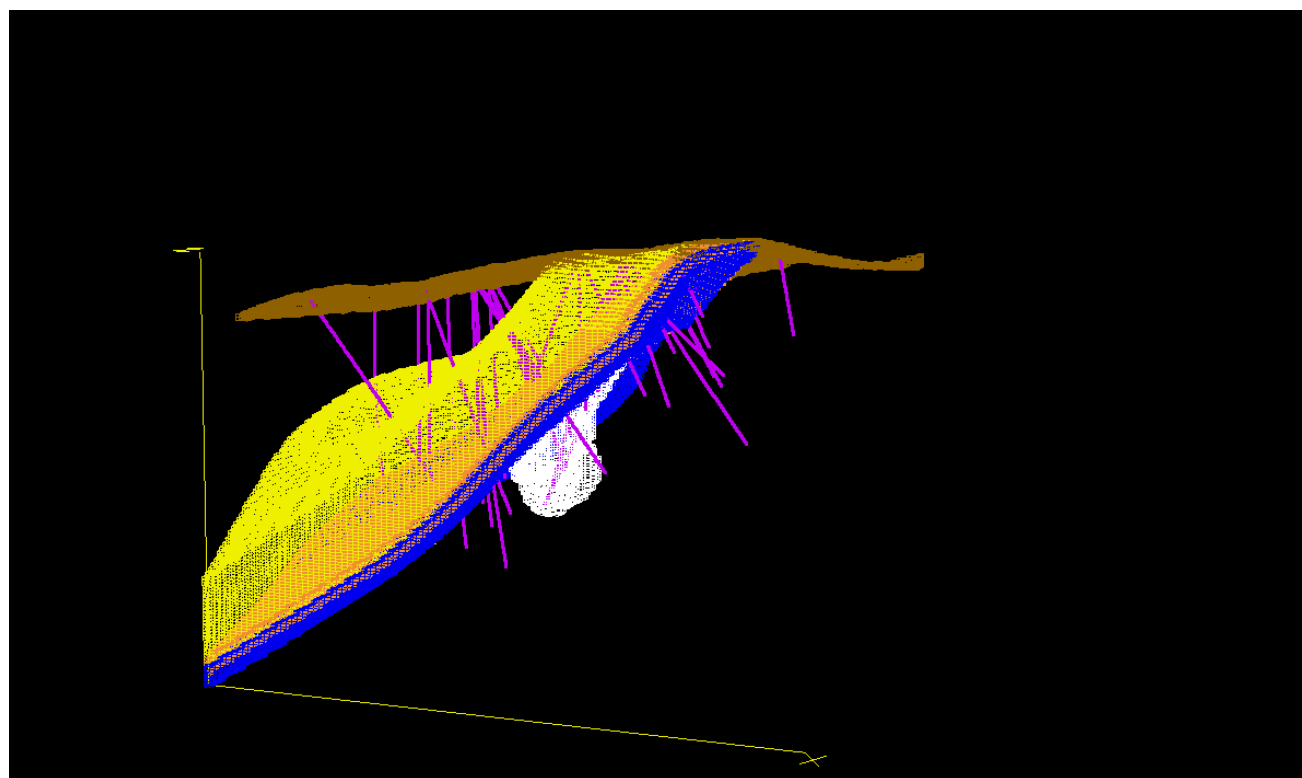
Top of Model

595 Elevation

Level size = 5 m

165 levels

No rotation.



**Figure 28:** Isometric view of block model with Overburden in brown, Upper Schist in Yellow, Middle Graphitic Schist in orange, lower schist in blue and low grade shell in white. Gneiss blocks are not shown.

### 14.6 Bulk Density

Within the volume being estimated a total of 15 specific gravity determinations were made from 2005 and 2006 drill holes (**Table 13**). Measurements for specific gravity were done by ALS Minerals method OA-GRA08 (unsealed sample:  $SG = (Wt\ Dry) / (Wt\ in\ air - Wt\ in\ Water)$ ). The results are shown below sorted by domain.

The average value for each domain was applied to the proportion of each domain within a given block. For the low grade shell the specific gravity for Gneiss was applied while a nominal 1.6 was used for the specific gravity of the overburden. The specific gravity for each block was then a weighted average for all domains present within the block.

During future drill programs, more specific gravity determinations in all domains are recommended.

**Table 13:** Summary of Specific Gravity Determinations

Sample ID	Hole	From (m)	To (m)	Domain	SG
DC148046	LM-05-11	110.95	111.04	Upper Schist	2.61
DC148047	LM-05-11	55.47	55.57	Upper Schist	2.78
				<b>Average</b>	<b>2.70</b>
DC148003	LM-06-29	158.31	158.50	Middle Graph	2.68
DC148004	LM-05-11	117.20	117.35	Middle Graph	2.63
DC148005	LM-05-11	118.17	118.32	Middle Graph	2.64
DC148006	LM-05-11	124.51	124.60	Middle Graph	2.68
DC148041	LM-05-11	124.60	124.69	Middle Graph	2.59
DC148042	LM-05-12	143.87	143.96	Middle Graph	2.59
DC148045	surface			Middle Graph	2.62
				<b>Average</b>	<b>2.63</b>
DC148043	LM-05-13	66.75	66.84	Lower Schist	2.55
DC148049	LM-06-22	326.14	326.23	Lower Schist	2.76
				<b>Average</b>	<b>2.66</b>
DC148001	LM-06-21	300.44	300.56	Gneiss	2.59
DC148002	LM-06-21	309.95	310.04	Gneiss	2.65
DC148048	LM-06-31	361.49	361.58	Gneiss	2.64
DC148050	LM-06-25	157.58	157.67	Gneiss	2.66
				<b>Average</b>	<b>2.64</b>

## 14.7 Grade Interpolation

Gold grades were interpolated into blocks by Ordinary Kriging in a number of passes. The search ellipsoid dimensions and orientation for each pass were a function of the semivariogram range for the domain being estimated (**Table 14**). Blocks with some proportion of each of the 5 domains were estimated separately using the appropriate composites for that domain. The first pass required a minimum of 4 composites, with a maximum of 3 from any given drill hole, within a search ellipsoid with dimensions equal to  $\frac{1}{4}$  of the semivariogram range. For blocks not estimated in pass 1 a second pass was made with search dimensions equal to  $\frac{1}{2}$  the semivariogram range. A third pass using the full range and a fourth pass using twice the range completed the kriging exercise. In all passes a maximum of 12 composites were allowed and if more than this were found the closest 12 were used. Separate kriging runs were made for Upper Schist, Middle Graphitic Schist, Lower Schist, Low Grade Shell and Gneiss domains. The combined Middle Graphitic Schist-Lower Schist model was used to estimate both the Middle Graphitic Schist and the Lower Schist domains. The search directions and distances are tabulated below.

**Table 14:** Kriging Parameters for LMS Gold

Domain	Pass	Number Estimated	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)	Az/Dip	Dist. (m)
Upper Schist	1	156	95° / 0°	22.5	5° / -85°	21.25	185° / -5°	6.25
	2	1,096		45.0		42.50		12.50
	3	8,359		90.0		85.00		25.00
	4	34,595		180.0		170.00		50.00
Middle Graphitic Schist	1	64	15° / 0°	27.5	285° / -5°	12.5	105° / -85°	17.5
	2	750		55.0		25.0		35.0
	3	5,235		110.0		50.0		70.0
	4	5,475		220.0		100.0		140.0
Lower Schist	1	28	15° / 0°	27.5	285° / -5°	12.5	105° / -85°	17.5
	2	860		55.0		25.0		35.0
	3	6,075		110.0		50.0		70.0
	4	7,650		220.0		100.0		140.0
Low Grade Shell	1	155	130° / 0°	23.5	40° / -10°	7.5	220° / -80°	22.5
	2	1,399		47.0		15.0		45.0
	3	3,465		94.0		30.0		90.0
	4	2,046		188.0		60.0		180.0
Gneiss	1	183	90° / 0°	25.0	0° / -83°	17.5	180° / -7°	5.5
	2	1,180		50.0		35.0		11.0
	3	10,449		100.0		70.0		22.0
	4	101,638		200.0		140.0		44.0

## 14.8 Classification

Based on the study herein reported, the delineated mineralization of the LMS Property is classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2014):

*"In this Instrument, the terms "Mineral Resource", "Inferred Mineral Resource", "Indicated Mineral Resource" and "Measured Mineral Resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards (May 2014) on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended."*

The terms Measured, Indicated and Inferred are defined by CIM (2014) as follows:

*"A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling."*

*"The term Mineral Resource covers mineralisation and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of Modifying Factors. The phrase 'reasonable prospects for economic extraction' implies a*

*judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. The Qualified Person should consider and clearly state the basis for determining that the material has reasonable prospects for eventual economic extraction. Assumptions should include estimates of cut-off grade and geological continuity at the selected cut-off, metallurgical recovery, smelter payments, commodity price or product value, mining and processing method and mining, processing and general and administrative costs. The Qualified Person should state if the assessment is based on any direct evidence and testing. Interpretation of the word 'eventual' in this context may vary depending on the commodity or mineral involved. For example, for some coal, iron, potash deposits and other bulk minerals or commodities, it may be reasonable to envisage 'eventual economic extraction' as covering time periods in excess of 50 years. However, for many gold deposits, application of the concept would normally be restricted to perhaps 10 to 15 years, and frequently to much shorter periods of time."*

### **Inferred Mineral Resource**

*"An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration."*

*"An 'Inferred Mineral Resource' is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed Pre-Feasibility or Feasibility Studies, or in the Life of Mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101."*

*"There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a Measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an Indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource."*

### **Indicated Mineral Resource**

*"An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately*

*detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.”*

*“Mineralisation may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralisation. The Qualified Person must recognise the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.”*

### **Measured Mineral Resource**

*“A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.”*

*“Mineralisation or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade or quality of the mineralisation can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.”*

### **Modifying Factors**

*“Modifying Factors are considerations used to convert Mineral Resources to Mineral Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors.”*

Within the mineralized zones at the LMS Property, the geological continuity has been established through surface mapping and drill hole interpretation. Grade continuity can be quantified by semivariogram analysis. By tying the classification to the semivariogram ranges through the use of various search ellipses the resource is classified as follows:

Due to the drill density and relatively small proportion of blocks estimated in Pass 1 and 2, all blocks within the LMS Property are classified as Inferred at this time.



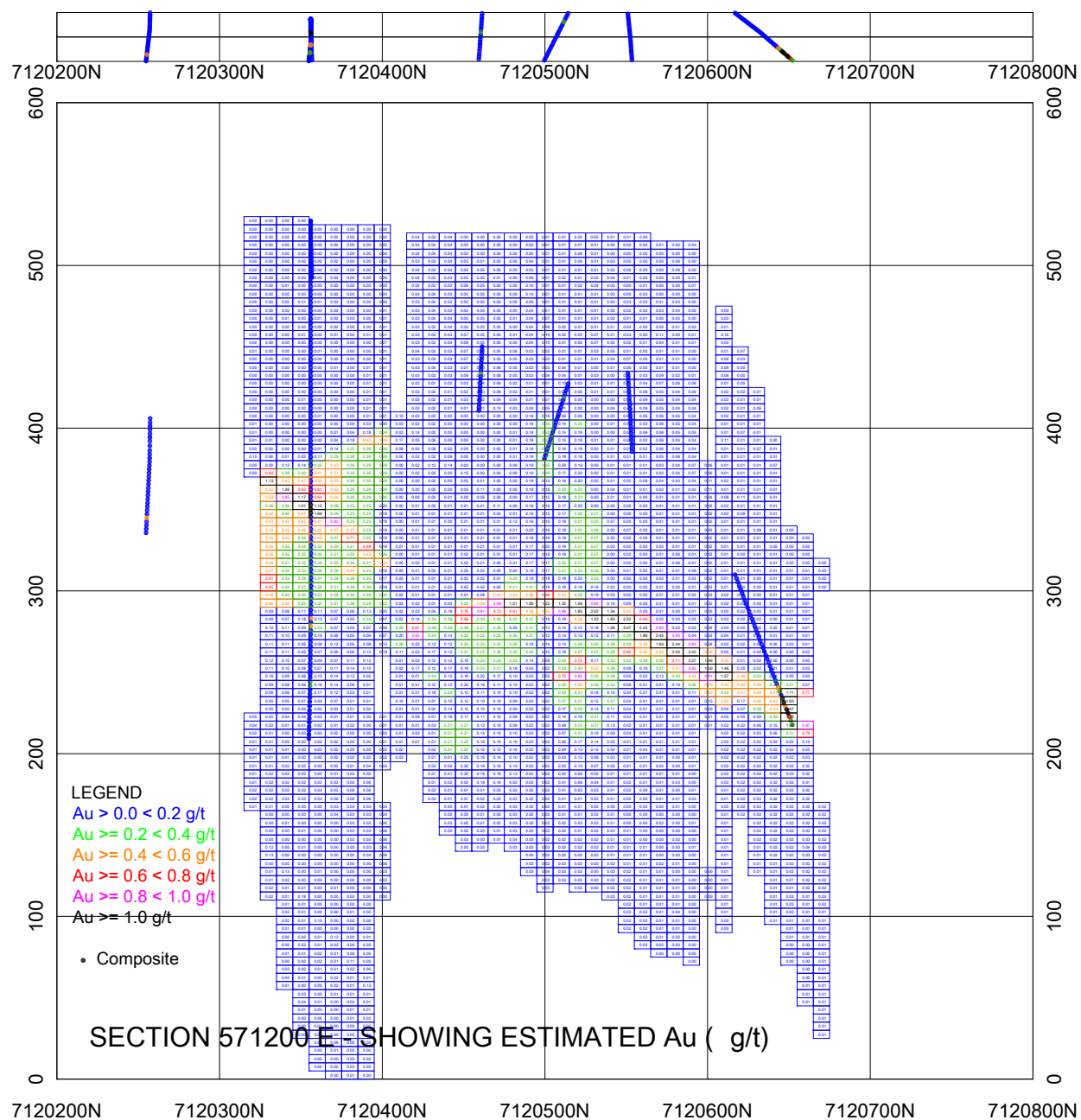
The inferred resource is presented as a grade-tonnage table below at a number of Au cut-offs (**Table 15**). At this time no economic studies have been completed on the LMS deposit. In the author's judgement and experience the resource stated has reasonable prospects of economic extraction. An analogous mine to the LMS might be the Fort Knox mine owned and operated by Kinross Gold Corporation. In their March 31, 2015 Technical Report, Kinross reports the mineral resource at the Gil deposit at a 0.21 g/t Au cut-off within a pit shell based on a US\$1400 Au price (Sims, 2015). A value of 0.5 g/t Au has been highlighted as a possible cut-off for open pit extraction at the LMS

**Table 15: LMS Inferred Resource**

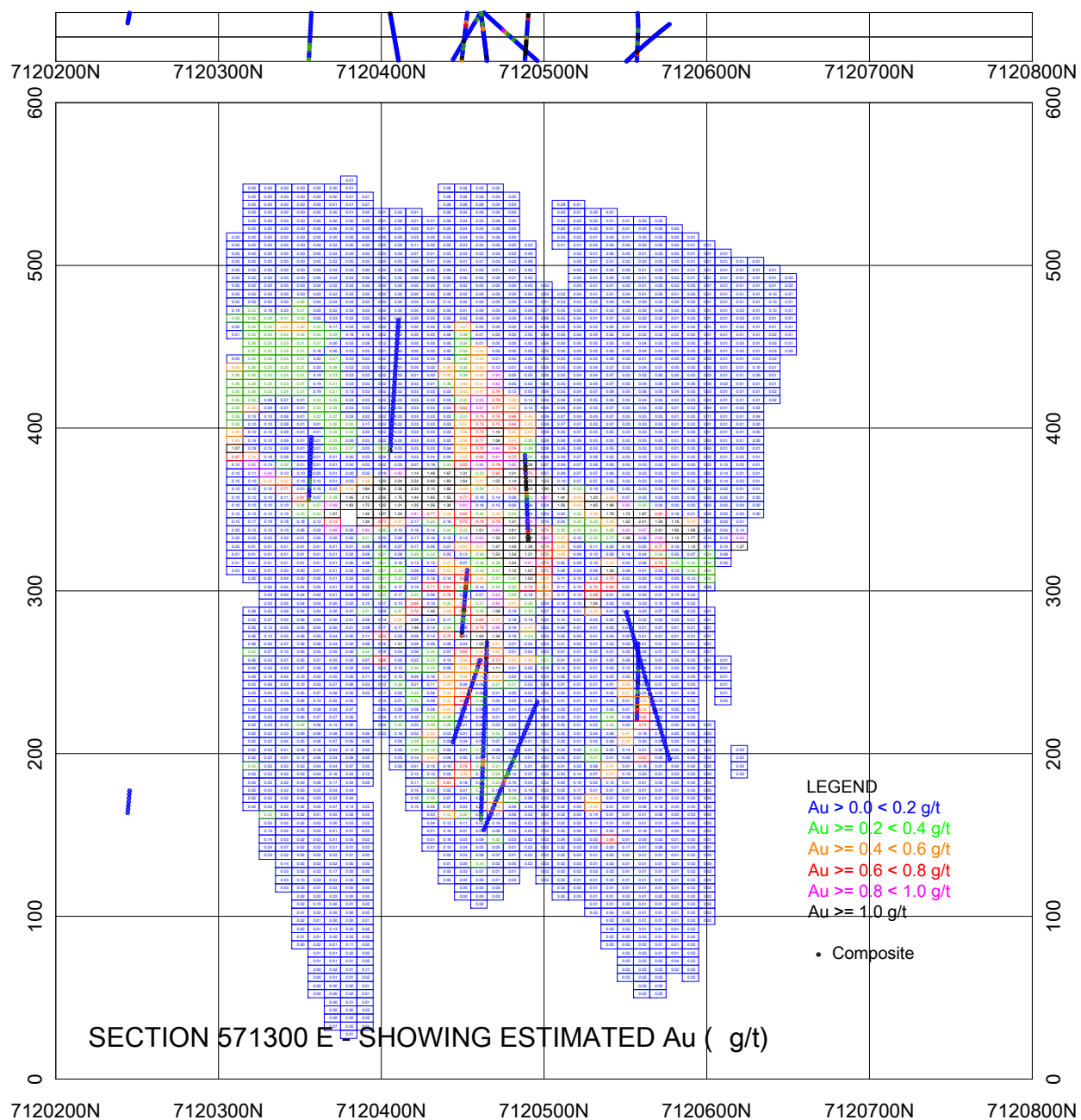
<b>Au Cut-off (g/t)</b>	<b>Tonnes &gt; Cut-off</b>	<b>Grade &gt;Cut-off Au (g/t)</b>	<b>Gold Contained Ounces</b>
0.10	33,560,000	0.42	450,000
0.15	25,120,000	0.52	418,000
0.20	20,440,000	0.60	392,000
0.25	16,890,000	0.67	366,000
0.30	14,650,000	0.74	346,000
0.40	10,900,000	0.87	304,000
<b>0.50</b>	<b>8,320,000</b>	<b>1.00</b>	<b>267,000</b>
0.60	6,640,000	1.11	238,000
0.70	5,460,000	1.21	213,000
0.80	4,490,000	1.31	190,000
0.90	3,750,000	1.41	169,000
1.00	3,180,000	1.49	152,000
1.20	2,120,000	1.68	115,000
1.30	1,750,000	1.78	100,000
1.40	1,470,000	1.86	88,000
1.50	1,200,000	1.95	75,000

## 14.9 Model Verification

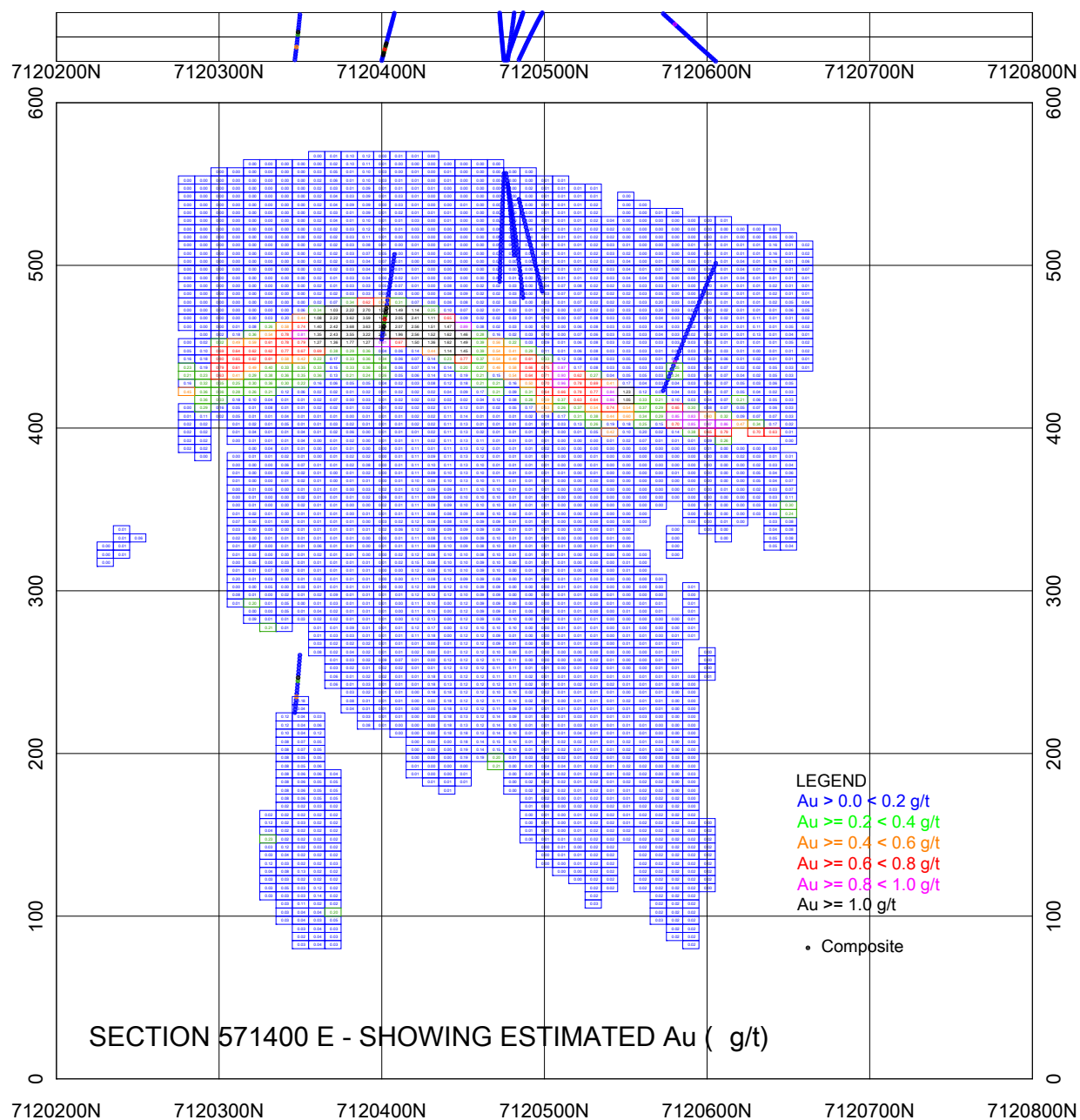
A series of north-south cross sections were produced showing estimated blocks and all composites, both colour coded by gold grades (**Figures 29, 30, 31 and 32**). The estimated blocks matched the composites well with no bias indicated.



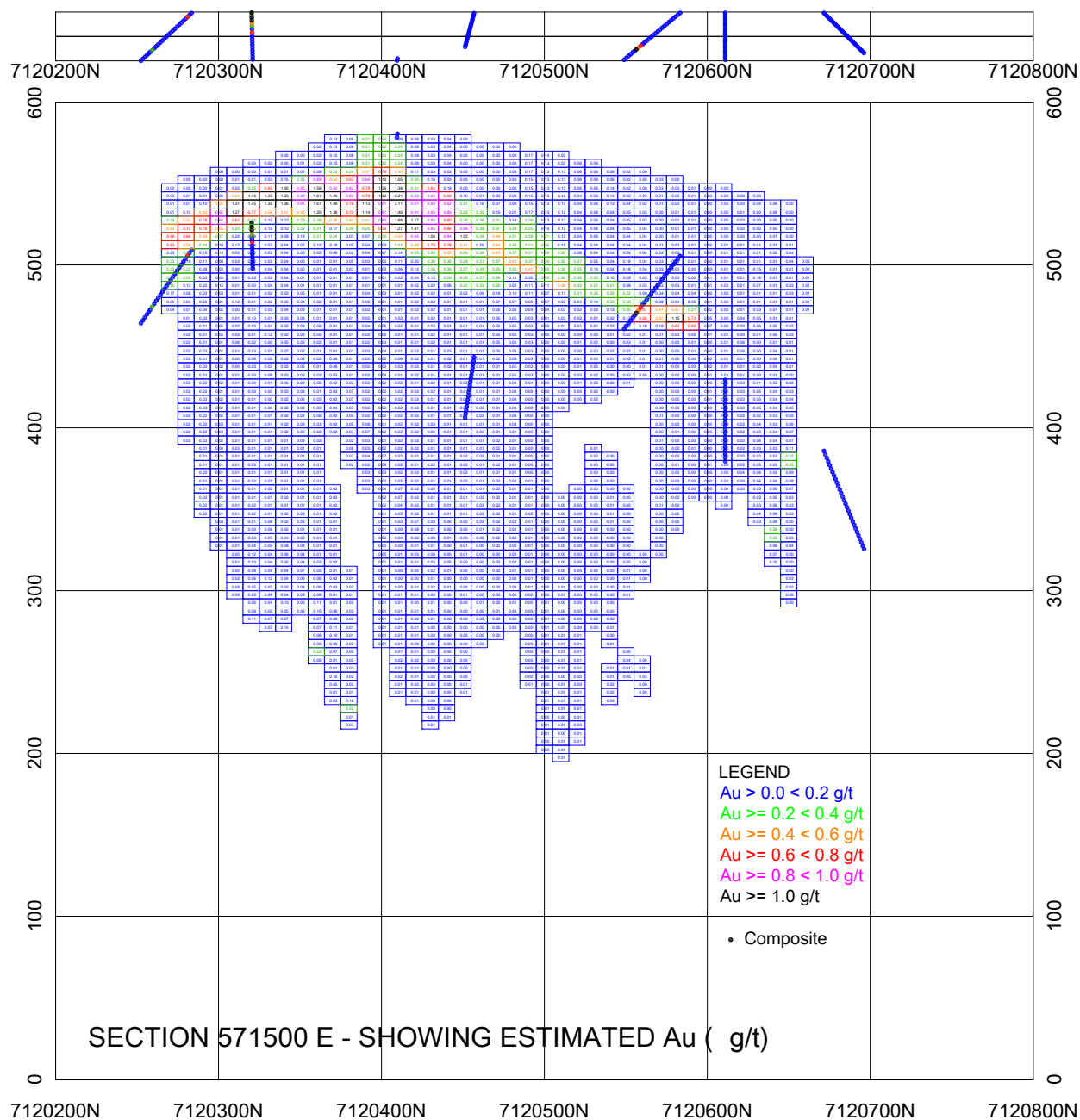
**Figure 29:** Section 571200 E, showing estimated Au (g/t).



**Figure 30:** Section 571300 E, showing estimated Au (g/t).



**Figure 31:** Section 571400 E, showing estimated Au (g/t).

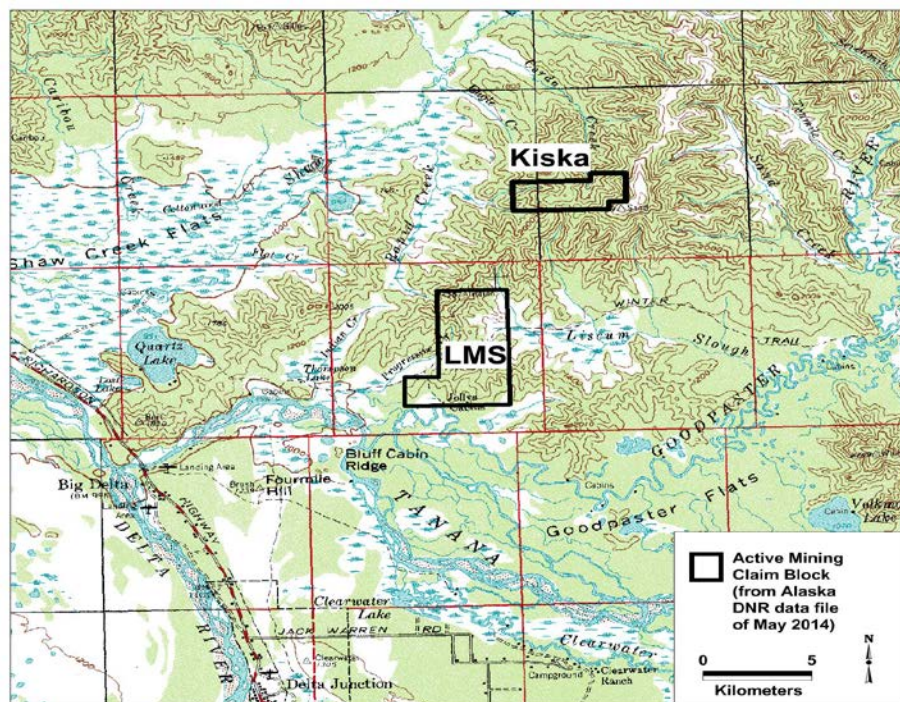


**Figure 32:** Section 571500 E, showing estimated Au (g/t).

## 15.0 Adjacent Properties

DNR records as of May 4, 2014 indicate that there is only one block of claims near the LMS Property. These claims are located approximately 1 km to the northeast of the LMS Property boundary and are registered to Kiska Minerals Corporation (**Figure 33**).





**Figure 33:** Map showing LMS Property and adjacent claims.

## 16.0 Other Relevant Data and Information

No additional information or explanation is known by the authors to be necessary to make the technical report understandable and not misleading.

## 17.0 Interpretation and Conclusions

The LMS Property is situated in a portion of the Goodpaster district which has had no known previous exploration prior to AGA's reconnaissance program in 2004, in spite of the fact that the broader region has attracted considerable interest following the discovery of the Pogo deposit 40 km to the northeast.

Rocks within the LMS project area belong to the Yukon-Tanana Terrane, a complex terrane that was accreted to North America in the mid to Late Cretaceous period. Among the diverse suites of rocks in this terrane, some of those underlying the LMS Property area are similar in composition and structural character to the host rocks at Pogo.

Mineralization in this region, including at Pogo, is believed to be intrusion-related as described by many workers (McCoy, et al., 1997; Newberry, 2000; Smith, 2000; Smith, et al., 2000). The first author's observations are consistent with this interpretation even though no intrusive rocks have been identified on the LMS Property. Fluids derived from intrusions at depth or at distance laterally can migrate along structures to produce the observed gold mineralization at the LMS Property. An alternate possibility is that the gold is sourced from metamorphic fluids, in which case, mineralization would be classified as "orogenic" type. These genetic labels do not affect the architecture or morphology of the deposit

because in both cases gold-bearing hydrothermal fluid, regardless of where it is derived, will migrate through rocks according to structural and lithologic factors.

The authors have been unable to verify the information available with respect to the Pogo property, and such information is not necessarily indicative of the mineralization at LMS.

Outcropping gold mineralization was discovered by AGA as part of a regional exploration program in 2004 and has now become what is referred to as the Camp Zone. AGA followed up with drill testing in 2005 and discovered down-dip continuity of mineralization in an open folded, west-plunging, stratabound zone of graphitic quartzite breccia as well as high grade gold in subvertical veins in hangingwall and footwall rocks above and beneath the breccia zone. In 2006, ITH further tested this feature by drilling and demonstrated its continuity and occurrence over a broader area. FSR did additional drilling in 2010 and 2011 and confirmed an even larger area of mineralization.

In 2014, a resource estimate was made using the AGA, ITH and FSR drill intercepts through the gold-bearing graphitic quartzite breccia and the underlying high grade veins in the Lower gneiss. The estimate offers a range of grades and tonnages with corresponding contained ounces. **At a 0.5 g/t cut-off, 8.32 M tonnes of material are estimated to contain 267,000 oz. of Au at an average grade of 1.00 g/t Au.** In accordance with the definitions in NI 43-101, this estimate should be considered to be an inferred mineral resource.

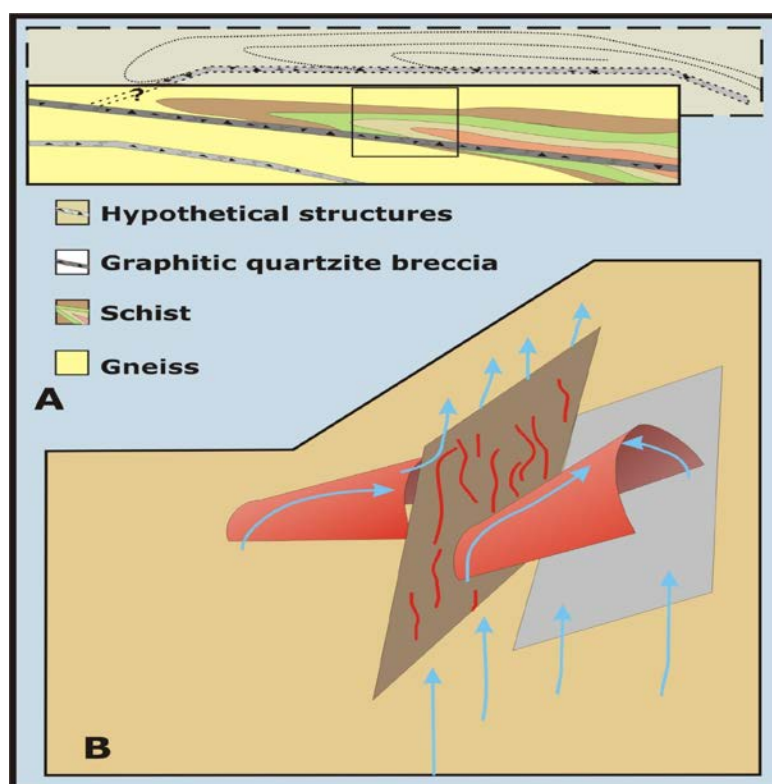
The high grade veins crosscut the graphitic quartzite breccia indicating that they postdate the mineralization that is included in the resource estimate. It is proposed here that gold-bearing hydrothermal fluids traversed upward through rocks of the LMS Property area along steep structures and migrated laterally along particular horizons such as the graphitic quartzite breccia (**Figure 34**). If true, it is unlikely that this is the only such receptive horizon in the area. Any other similar horizon could also be mineralized. Although veins could have formed at a relatively much later time during a separate mineralizing event, it is possible that they are the latest stage of an evolving hydrothermal system. These fluids, at any stage, may have encountered pre-existing weak volcanogenic massive sulfide style mineralization and remobilized minor base metals to form the array of vein types and their respective metal contents.

All drilling to date targeted the graphitic quartzite breccia. The high grade veins in the Lower Gneiss were discovered during this drilling but no consistent vein orientation was determined. The recently constructed 3-D model led to the recognition of a concentration of high grade gold values in veins that appear to parallel the axial plane of the fold in the Camp Zone. These high grade veins, where encountered, have been in the lower gneiss unit and in the graphitic quartzite unit. They have not been identified in the upper gneiss or schist units but this may, in part, be a function of drill hole location. The graphitic quartzite breccia is an enigmatic unit and style of mineralization, but seems unlikely to be unique on the LMS Property. Likewise, current drilling has not defined the limits of this unit or the mineralization. Therefore, it also is deserving of further testing and exploration.

Soil sampling by shovel and track-mounted auger along with MMI sampling has identified the presence of at least five additional sizeable areas of anomalous gold in soil. When considering the extent and

depth to which the LMS Property area is buried beneath wind-blown loess, the fact that these areas are identifiable is encouraging and suggests that the Camp Zone is not a unique mineralized body on the LMS Property. Several of these zones define a northwest-trending corridor of anomalism that is approximately 6 km long at the surface.

It is concluded here that identification of gold mineralization and its extent is at an early stage on the LMS Property. The identification of a small inferred resource based on limited drilling within one of several areas that show gold anomalism at the surface suggests that the LMS Property is host to more extensive gold mineralization.



**Figure 34:** Schematic diagram shows LMS mineralization concept model. **A)** Thrust-faulted volcano-sedimentary stratigraphy produces recumbent folds with axial planar thrust surfaces. There may be parallel structures, duplexes, or related lateral structures which might also host mineralization. The intersection of any of these types of features might explain some of the other surface anomalies at the LMS Property. Boxed area represents the approximate scale of the area investigated so far with respect to the concept area. **B)** The entire package is folded about west-northwest striking and west plunging upright fold axes (red fold). Faults produced during this deformation could be approximately perpendicular (brown-gray plane) or approximately parallel to the fold axial plane (gray plane). Hydrothermal fluid rising through the crust could utilize these structures and infiltrate porous/permeable features such as the graphitic quartzite breccia (thrust fault?). Fluids would likely rise along structures and anticlinal axes. High grade veins ought to lie along the perpendicular faults (brown-

gray) or in parallel zones. This direction is approximately parallel to the principle stress direction that formed the late upright folds.

Due to the considerable variation in the degree of brecciation within the graphitic quartzite, and hence the wide variation in gold content within that unit, much closer spaced drilling is required (25 m centers) before any degree of confidence could be given to any resource or reserve estimates of this target.

The possibility of several high grade quartz veins paralleling the axial plane of the fold, is at this point just a theory. This theory is based on the presence of high grade (+100g/t Au over 1 m) quartz veins in drill core, the spatial distribution of these intercepts as viewed on the 3 D model, and basic geologic principles that identify axial plane structures as favorable loci for mineral emplacement. The first author believes that this is the primary exploration target.

## 18.0 Recommendations

### 18.1 Recommended Exploration

Exploration of the LMS Property is at a relatively early stage, with discovery and identification of the graphitic quartzite breccia extending from the surface to 850 m down dip, and the high grade gold veins in the Lower Gneiss. A two phase exploration program is recommended. Phase 1 would focus on evidence of a zone of high grade gold bearing veins in the Camp Zone, while Phase 2 would be a limited drill program contingent on encouraging results from Phase 1.

**Phase 1)** Re-log the existing core with a focus on axial plane parallel structures and veins. A focus on the metamorphic fabric may help to capture the orientation of the veins and determine if the veining extends into the schist and Upper Gneiss.

Other useful procedures that should be carried out during the re-logging process are:

- some sampling of the core for stratigraphic correlation,
- sampling of any un-sampled intervals that appear to be potentially mineralized,
- collect specific gravity measurements on all lithologies, and
- collect data on the resistivity of the different rock units in the event that it could be useful in any future geophysical surveys that may be considered.

**Phase 2)** If the Phase 1 re-log program is successful in confirming the presence of a zone of high grade gold veins in the Camp Zone, a drill program totaling 2300 m in 4 holes should be conducted to test this zone.

### 18.2 Budget for Recommended Program

A budget to carry out the Phase 1 program is presented below in **Table 16**. This budget assumes that the program will be supported by river transportation and carried out by a 3 person crew; a senior

geologist to do structural analysis on the core, an assistant geologist to handle the thousands of core boxes and assist in data collection, and a handyman to start up, maintain and shut down camp and assist the geologists (water hauling from river, core sawing etc.), drinking water to be brought from town.

Laboratory and equipment rates were provided by local contractors. Total days include mob-demob from Fairbanks with 2 days at the end for report writing by the geologist.

**Table 16:** Phase 1 Budget (*all \$ amounts refer to US\$*)

<b>Expenditure</b>	<b>rate/day or unit</b>	<b>total units</b>	<b>total</b>
General support/expediting	\$100	15	\$1,500
senior geologist	\$550	23	\$12,650
assistant geologist	\$350	21	\$7,350
handyman	\$350	21	\$7,350
boat trip	\$350	6	\$2,100
ATV & trailer rental	\$90	42	\$3,780
misc. equipment rental	\$100	21	\$2,100
food & misc. supplies	\$100	21	\$2,100
camp maintenance & repairs	\$1,000	1	\$1,000
analytical costs	\$40	50	\$2,000
			<b>Total \$41,930</b>

A budget to carry out the Phase 2 is presented below in **Table 17**. This budget assumes mobilization of drill equipment, fuels and drilling supplies will be overland by way of the winter road and camp resupply during drilling will be by jetboat. Mobilization during summer months would have to be by helicopter and drill moves would also be by helicopter rather than with bulldozer that came in over the winter road. The use of a helicopter could add as much as 40% to overall costs.

**Table 17:** Phase 2 Budget (*all \$ amounts refer to US\$*)

<b>Expenditure</b>	<b>rate/day or unit</b>	<b>total units</b>	<b>total</b>
Equipment mobilization/demob	\$25,000	2	\$50,000
Initial camp start-up with labor	\$10,000	1	\$10,000
direct drilling costs	\$100 per metre	2300	\$230,000
drill pad construction	\$2,000	4	\$8,000
fuel	\$2/gal	4000	\$8,000
equipment rental, core saw,	\$200	45	\$9,000



ATV, misc.			
expediting fees	\$1000/week	6	\$6,000
camp maintenance and repairs	\$100/day	45	\$4,500
food and miscellaneous supplies	\$50/man, 9 men with drillers	45	\$20,250
Project Manager	\$850/day	45	\$38,250
Core logger	\$550/day	45	\$24,750
Core cutter	\$350	45	\$15,750
Cook	\$350	45	\$15,750
Handyman	\$350	45	\$15,750
communication, internet and vhf radios	\$50/day	45	\$2,250
Analytical costs	\$35	1000	\$35,000
camp decommissioning	\$2,000	1	\$2,000
Post project report writing	\$850/day	6	\$5,100
General and administration costs			\$25,000
		<b>TOTAL</b>	<b>\$525,350</b>

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