TECHNICAL REPORT

MON GOLD PROPERTY, NORTHWEST TERRITORIES, CANADA

NTS: 85J/16

South Mackenzie Mining District, Northwest Territories, Canada

62° 54' N and 114° 19' W

PREPARED FOR:

Sixty North Gold Mining Ltd.

Effective Date:
September 29, 2017

Prepared by:
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Unless otherwise indicated, the metric system of measure has been used throughout this report, including metric tons (tonnes, t), kilograms (kg) or grams (g) for weight, kilometers (km) or meters (m) for distance, hectares (ha) for area, liters (L) for volume and grams per tonne for gold (g/t Au) and silver (g/t Ag) grades. Geochemical results or precious metal grades may be expressed in parts per million (ppm), parts per billion (ppb) (1 ppm = 1 g/t). Precious metal quantities may also be reported in troy ounces (ounces, oz.), a common practice in the mining industry. In the Imperial System, significant gold concentrations are reported as troy ounces per short ton. In the metric system, gold concentration is now reported in grams per metric tonne. One troy ounce per short ton = 34.2857 grams per metric tonne. Currency values are in Canadian dollars (C$).

Abbreviation	Description
°	Degree
%	percent
amsl	above mean sea level

ARD	**acid rock drainage**
Au	**gold**
C$	**Canadian Dollar**
CIL	**carbon-in-leach**
CoG	**cut-off grade**
CuSO4	**copper sulfate**
FS	**Feasibility Study**
Ft	**feet**
G&A	**General and Administrative**
GAC	**granulated activated carbon**
Ga	**billion years before present**
G	**gram**
g/h	**grams per hour**
g/L	**grams per liter**
g/t	**grams per tonne**
gpm	**gallons per minute**
h	**hour**
ha	**hectare (10,000 m2)**
Hz	**hertz**
I/O	**input and outputs**
K	**thousand**
kg	**kilogram**
kg/t	**kilogram per tonne**
km	**kilometer**
koz	**thousand ounces**
kPa	**kilopascal**
kt	**thousand tonnes**
L	**liter**
LAN	**local area network**
m	**meter**
m2	**square meter**
m3	**cubic meter**
mm	**millimeter**
Mm3	**million cubic meters**
Ma	**million years before present**
Min	**minute**
Mt	**million tonnes**
NI 43-101	**National Instrument 43-101**
NN	**nearest neighbor**
NWT	**Northwest Territories**

Oz	**troy ounce**
PoE	**point-of-entry**
psf	**pounds per square foot**
QA/QC	**Quality Assurance/Quality Control**
RoM	**run-of-mine**
RPM	**revolutions per minute**
SO2	**sulfur dioxide**
st	**short ton**
st/d	**short tons per day**
TCA	**tailings containment area**
t	**metric tonne (dry)**
t/d	**tonnes per day**
t/h	**tonnes per hour**
t/m3	**tonnes per cubic meter**
t/y	**tonnes per year**
µm	**micron**
US$	**United States Dollar**
wt%	**weight percent**

CERTIFICATE OF QUALIFIED PERSON

I, David G. DuPre, P. Geo., HEREBY CERTIFY THAT:

1) I am an independent consulting geologist with a business address at 203-5350 Sayward Hill Crescent. Victoria, BC V8Y 3H9
2) I am a graduate of the University of Calgary with a B.Sc. Honours with a Subject of Specialization in Geology (1969).
3) I am a registered Professional Geologist in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) with member number 19888.
4) I have worked as a geologist for a total of 47 years since graduation from university. I have work experience in Canada, and throughout the world. In particular I have significant experience exploring Archaean gold deposits in the Canadian Shield. I spent two years supervising an exploration program on the Ormsby Property – located 30 km northeast of the Mon Gold Property.
5) I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirement to be a "qualified person" for the purposes of NI 43-101.
6) I visited the property on July 25, 2016 and August 22, 2017. I reviewed the geological and physiographic setting, the previous workings and sampled the “A” Zone. A diamond drill program was completed in October, 2016. The results from the drill program do not alter the geological merits or information of the Mon property. The drill core QA/QC program was run by David White P. Geol., who completed sections 12.2 and 12.3 of the Report under the supervision of the Author. The Author takes responsibility for all sections of the Report and, therefore, the site visit completed on August 22, 2017 should be considered current.
7) I am responsible for the preparation of all sections of the technical report titled “TECHNICAL REPORT ON THE MON GOLD PROPERTY and dated September 29th, 2017 prepared for Sixty North Gold Mining Ltd. (the "Technical Report").
8) I have not had prior involvement with the property that is the subject of the Technical Report.
9) I am fully independent of Sixty North Gold Mining Ltd. and the vendor applying all of the tests in section 1.5 of National Instrument 43-101
10) I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
11) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
12) I consent to the public filing of the Technical Report on SEDAR and with any stock exchange or other Securities Regulatory Authority and any publication by them, including electronic publication in the public company files on their websites accessible to the public, provided that I am given the opportunity to read the written disclose before filed to ensure its authenticity.
13) I have read this the document entitled titled “TECHNICAL REPORT ON THE MON GOLD PROPERTY” and dated this 29th day of September in the year 2017.

Signature of Qualified Person

David G. DuPre P. Geo.

1. Summary

David Dupre, B.Sc., P. Geo. (The "Author") of D.G. Dupre and Associates Inc. was asked to prepare a report by Sixty North Gold Mining Ltd. with offices at 1909 108 West Cordova St., Vancouver, BC V6B 0G5 to provide an independent Qualified Person's Review and Technical Report ("Report") for the Mon Gold Property ("the Project") located in the Northwest Territories. He was asked to prepare this report in accordance with guidelines set out in National Instrument 43-101 (43-101). Mr. David White, (P.Geol.) carried out a QA/QC investigation of the core sampling which was derived from a drilling program carried out in October, 2016.

The Mon Gold Property is located 45 kilometers north of Yellowknife and is covered by 11 Mining Leases and 2 Mineral Claims owned 100% by New Discovery Mines Ltd. subject to a 2.0% NSR held by Giauque Holdings Ltd. Effective September 2, 2016, 1082138 B.C. Ltd. (whose name changed to Sixty North Gold Mining Ltd. on February 20, 2017) entered into an agreement as restated to acquire 80% of the Mon Gold Property by spending C$6.0 million by December 31, 2020. The Mon Gold Property is intended to be the qualifying property for the purposes of meeting the listing requirements of the Canadian Securities Exchange (CSE).

A number of gold-bearing quartz veins occur on the property. Only the A-Zone has seen significant exploration. A five-hole diamond drilling campaign (383 meters) by New Discovery Mines in October 2016 has shown continuity of the A-Zone to a vertical depth of 54 m below the East Stope and to a vertical depth of 63 m below the West Stope. The assay results are similar to those obtained from previous drilling and underground sampling programs. During August 2017, D.R. Webb (geologist) and Wayne Kendrick (prospector) investigated most of the known showings and other areas deemed to have economic potential.

Since September 2, 2016 Sixty North Gold Mining Ltd. has spent approximately C$367,400 on exploration of the Mon Gold Property.

A detailed review of all historical exploration records pertaining to the Mon Gold Property, available through the Northwest Territories Geological Survey (NTGS), has been undertaken. In the preparation of this report, the author has utilized geological maps, geological reports, claim assessment maps and claim maps prepared by the Northwest Territories Mining Recorder's Office (NTMRO), Geological Survey of Canada (GSC) and the Northwest Territories Geological Survey (NTGS). Most of this information is available online.

In addition to the findings of the site visit, the author also used the following materials to develop this report:

- A review of available geological and exploration information;
- The mineralization models which are relevant to the areas covered by the Mon;
- Historical exploration carried out in the vicinity of the Mon and the results of this exploration;
- The work carried out by the property holder (New Discovery Mines) on behalf of Sixty North Gold Mining Ltd. to date, with verification;
- The drilling program carried out by New Discovery Mines on behalf of Sixty North Gold Mining Ltd. to date, with verification.
- Maps and rock descriptions observed during recent site visit

The Mon Gold Property is underlain by igneous rocks assigned to the Banting Group, and clastic sedimentary rocks assigned to the Burwash Group. Early mafic and felsic igneous rocks intrude all rocks, and late felsic intrusions occur to the west of the property. All rocks have been metamorphosed to,

between, greenschist and amphibolite facies.

Structural/hydrothermal corridors transect all rocks, altering the Burwash Group greywacke argillite assemblages. Greywackes commonly alter to deformed chlorite +/- feldspar units that macroscopically resemble gabbro, and the argillites are albitized to appear as silicified, chert or rhyolite - like rocks. In the A-Zone, adjacent to mineralization, the albitized argillites are hematized and display a pink colouration or salmon-coloured siliceous rock. Some of the felsic intrusion that host the mineralization are, in fact, hydrothermally altered argillites, and some of the mineralization described as associated with gabbro margins are in fact associated with hydrothermally altered greywackes.

The Mon deposit is an Archean, turbidite-hosted, stratabound, non-stratiform quartz shear/vein deposit and as such has substantial potential. The deposit is described as an anticlinally-folded quartz vein, plunging to the south at around 20 to 40 degrees. The higher gold grades at the fold nose are consistent over the mined length of 75 meters (open to south), with lower grade gold values being found in the limbs of the structure. Fundamentally, the production records show that the previous operators were able to successfully follow the interpreted mineralized structure and obtain gold grades that are representative of the sampling done.

It is the author's opinion that the data, when taken in whole, provide a reasonable indication of the tenor of the gold mineralization and controls. A test audit of the NDM database did not reveal any discrepancies with the original material filed by the original lease holders for assessment purposes.

A five-hole diamond drilling campaign by Sixty North Gold Mining Ltd. in October 2016 has shown continuity of the A-Zone to a vertical depth of 54 m below the East Stope and to a vertical depth of 63 m below the West Stope. The assay results are similar to those obtained from previous drilling and underground sampling programs.

In conclusion, the overall size, grade and form of the mineralization as well as its host rock assemblage is similar to the Discovery Mine (located 50 km to the north) where 1 million tons of ore were mined and 1 million ounces of gold were recovered between 1949 and 1969. There are no known resources or reserves on the Mon Gold Property and the presence of mineral deposits on properties adjacent to or in close proximity to the Mon Gold Property is not necessarily indicative of mineralization on the Mon Gold Property. The mineralization identified in the A-Zone appears to be a viable exploration target for a "Discovery Mine" type of deposit.

It is recommended that a surface prospecting, trenching and chip/panel sampling program be initiated to confirm and qualify old showings that haven't be reviewed in several decades as well as identify new showings. This work should be focused on mineralized zones that returned high gold values during the 2017 prospecting program. Also, a new type of gold deposit has been identified in the Yellowknife Gold Belt where gold mineralization is not associated with significant quartz mineralization. This typically occurs in sheared, but not schistose rock (Ormsby Zone, Goodwin Lake Zone, and Clan Zone (Formerly Tyhee Gold Corp). The Monument Zone appears to be of this style and lies 200 meters north of the "A" Zone.

Additionally, recent drilling (this report) has confirmed mineralization below the mined-out stopes on the A-Zone. Erratic gold values, sometimes very high (nugget effect) limit the reliability of small samples. This area should be bulk sampled in 2018 with a view to confirming and/or establishing similar grades and tonnages as that which occurred and was extracted from the A-Zone during the 1990's.

The proposed program and budget is $266,500 for 2017 and for 2018 would range from $1.2 to $2.9 million depending on the level of underground work desired as tabulated in Recommendations - Section

17.

1.1 Terms of Reference and Purpose of the Report

The author was asked by Sixty North Gold Mining Ltd. and New Discovery Mines Ltd. ("NDM") to prepare this report in accordance with the guidelines enumerated in NI 43-101. The quality of information, conclusions, and estimates contained herein is based on: i) information available at the time of preparation, ii) It is also based on discussions and data supplied to the author by Mr. David R. Webb, the President of NDM who has a long history of work on this project, data supplied by outside sources, iii) the assumptions, conditions, and qualifications set forth in this report. This report is intended for use by Sixty North Gold Mining Ltd., subject to the terms and conditions of its contract with D.G. Dupre and Associates Inc. (DGD) and relevant securities legislation. The author's review of all the available data indicates that there has been no material change to the scientific and technical information about this property since the 2016 drilling program and, therefore this technical report is considered current. The author is an independent mining consultant and holds no interest in New Discovery Mines "their partners or affiliated companies". As an independent geologist, the author was asked to undertake a review of the available data, visit and assess the gold and silver potential of the Mon Gold Property. The mandate also called for the Author to recommend specific areas (if warranted) for further exploration. The identification of these areas would be based on his observations and interpretations. Five rock samples were collected by the author and analyzed by Bureau Veritas Laboratories in Vancouver. The analyses were consistent with previous analytical results. In December of 2016, Mr. David White, (P.Geol.) of Aurora Geosciences Ltd. was contracted by NDM to independently validate the results of the 2016 diamond drill program. A total of 20 core samples were logged, collected, and re-analyzed. Deviation between individual samples is not considered statistically significant in the context of this small sample population and the habit of the Au mineralization. Results from this QA/QC program support the quality and objective sampling by NDM, as well as the analysis completed by Bureau Veritas.

The Author has no reason to doubt the reliability of the information provided by Mr. Webb, New Discovery Mines and Sixty North Gold Mining Ltd. The Author has not independently reviewed legal title to the mineral properties described in this report. A legal title opinion dated September 26, 2017 states that the Mon Gold Property is in good standing. The contract permits Sixty North Gold Mining Ltd. to file this report as a Technical Report with Canadian securities regulatory authorities pursuant to NI 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other uses of this report by any third party is at that party's sole risk. This report provides a geological interpretation of the controls of the gold mineralization on the Mon Gold Property and a proposal for future work.

1.2 Qualifications of Author (DGD)

The Author preparing this technical report is a specialist in the fields of geology, exploration, and mineral economics. The Author, nor any associates employed in the preparation of this report, does not have any beneficial interest in New Discovery Mines Ltd., Sixty North Gold Mining Ltd., Giauque Holdings Ltd., nor the Mon Gold Property. The Author is not an insider, associate, or affiliate of New Discovery Mines Ltd., Sixty North Gold Mining Ltd., Giauque Holdings Ltd., nor the Mon Gold Property. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between New Discovery Mines and the Author. The Author is being paid a fee for his work in accordance with normal professional consulting practice. Mr. David Dupre P. Geo., by virtue of his education, experience and professional association, is considered a Qualified Person (QP) as defined in the NI 43-101 guidelines, for this report, and is a member in good standing of the British Columbia Association of Engineers and

Geoscientists. In addition, The Author has spent many years supervising exploration projects in the Southern Slave Province. In particular, The Author was involved with the exploration of the Ormsby Zone at the Discovery Mine – located 45 km north of the Mon Gold Property.

1.3 Details of Inspection

Mr. Dupre visited the Mon Property on July 25, 2016 and August 22, 2017. During the initial site visits, Mr. Dupre carefully studied the structural geology and mineralization of the A Zone deposit, toured and reviewed drill core and surface geology. Four continuous chip samples were collected from the crown pillar near the portal of the Central Portal. The most recent visit was intended to provide an overall update of the exploration progress and to review several of the other known showings.

1.4 Sources of Information

The author referenced previous reports on the property as well as digital data provided by NDM. The Author's opinion contained herein is based on information provided to him by NDM throughout the course of the investigations. The Author relied upon the work of other consultants in the project areas in support of this Technical Report. The sources of information include data and reports, as well as documents referenced in Section 26 (References). The Author used his experience to determine if the information from previous reports was suitable for inclusion in this technical report and adjusted information that required amending. The reader should be aware that some of the work was carried out D. R. Webb – the current President and an owner of NDM.

1.5 Effective Date

The effective date of this report is September 29, 2017.

1.6 Units of Measure

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. Gold content is presented as grams per tonne (gpt). Gold content originally expressed as ounces per ton (opt) have been converted to grams per tonne (gpt) by using a multiplication factor of 34.28. All currency is in Canadian dollars (CAD$) unless otherwise stated.

2. Reliance on Other Experts

The author has confirmed the tenure information supplied in this report by conducting a search of tenure data on the Northwest Territories website (http://apps.geomatics.gov.nt.ca). The author has also relied on a title opinion dated September 26, 2017 carried out by the legal firm of Salley Bowes Harwardt Law Corp.

The material in Section 10 (Mineral Processing and Metallurgical Testing) was excerpted from the relevant technical reports. Mr. David White P.Geol. prepared (under the supervision of the Author) Sections 12.2 and 12.3 relating to the drilling program and QA/QC matters.

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

Political, financial or other similar issues are all deemed to be outside the scope of this report. The Author's commission permits NDM to file this report with any stock exchange or other Regulatory Authority and any publication by them for regulatory purposes, including electronic publication in the public company files or their websites.

3. Property Location and Description

3.1 Location

The Mon Gold Property is located approximately 45 kilometers north of Yellowknife near Discovery Lake (fig. 1). A winter road route from Yellowknife to the Mon Gold Property passes within three kilometers to the east of the Mon Mine. An abandoned power line lies approximately two kilometers east of the property. Access to the property from Yellowknife is by helicopter or float/ski-equipped fixed wing aircraft to Discovery Lake. All of the necessary infrastructure to support exploration or development of a minesite is available in Yellowknife.

NDM owns 100% of all the mineral tenures and has obtained a Land Use Permit and Water License from the Mackenzie Valley Land and Water Board ("MVLWB") Land Use Permit MV2015C0015 and Water License MV2015L2-004. These licenses grant the legal right to conduct exploration (both surface and underground) and to use water and discharge waste. The Mon Gold Property has been reclaimed and accepted for abandonment. The underground mine workings have been fenced and/or sealed. Substantial work must be completed to reestablish the infrastructure. A reclaimed, lined and capped tailings pond has been filed for abandonment. No other infrastructure exists on the property.

Location Parameters

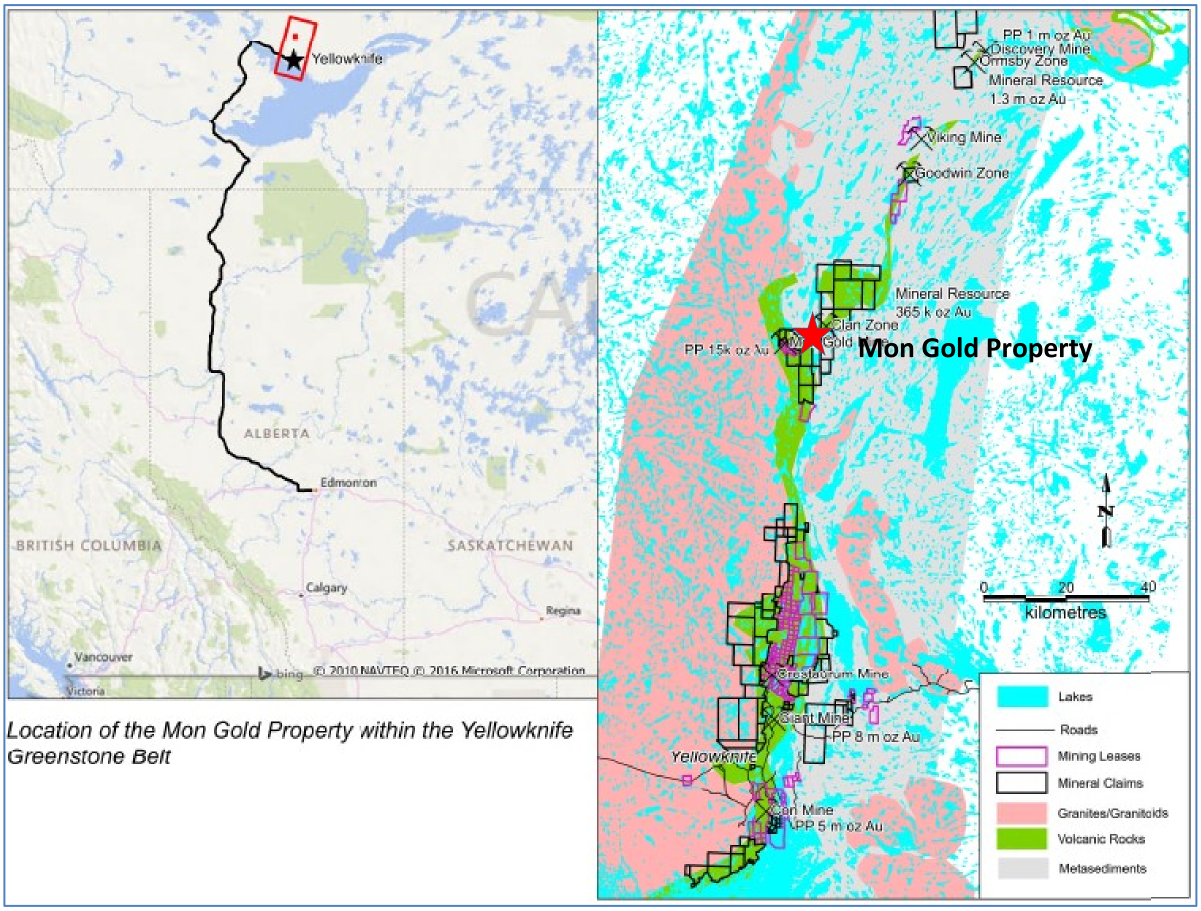
Latitude	**62.8972^{0}N**
Longitude	**114.3283^{0}E**
UTM NAD 27	**697650N**
Zone 11	**636850E**

There are no known environmental liabilities relating to the Mon Gold Property, or formally designated parks, or special management zones within the Property, other than a land withdrawal order dated effective April 1, 2014 for a limited area within one mile of the shoreline of Graham Lake and within one mile of the shoreline of Greentree Lake and Upper Carp Lake, and the streams and water joining these lakes, wherein a licensee for water power development does not have to give notice of or provide compensation to the holder of mineral claims granted on or after April 1, 2014 for any alleged loss or damage caused by the water power development. Apart from seasonal use by hunters, the area has little recreational appeal.

The MVLWB land use and water Licenses grant access to the property and the right to carry out all of the required exploration and mining activities.

The surface rights on the Mon Gold Property are held by the Crown.

Figure 1. Location of Mon Gold Property



3.2 Mineral Titles

A title opinion dated September 26, 2017 was prepared by the legal firm of Salley Bowes Harwardt Law Corp. pertaining to the Mon Gold Property states that New Discovery Mines Ltd. is the holder of a 100% interest in all of claims and leases. NDM is the recorded holder of all the mineral tenures, holds land use permits and water licenses that allow the company to conduct exploration (both surface and underground) and to use water and discharge waste. The Mon Gold Property consists of 11 Mining Leases and two Mineral Claims that total 1,221.24 acres, located north of the city of Yellowknife in the South Mackenzie Mining District of the NWT, Canada. Public lands where the Mon Gold is located are part of the aboriginal land claims process in Canada, wherein the Government of Canada is responding to the certain rights being asserted by the aboriginal people. It is uncertain how and when this process will come to a conclusion and what impact it may have on the Mon Gold Property. In Canada, surface rights and mineral rights came with the purchase of land until sometime in the early 1900's. Since then, mineral rights have been government-owned and cannot be purchased, but only leased. As a result, the mineral rights on more than 90% of Canada's land are currently owned by governments. Where mineral rights are privately owned, they can be sold independently of surface rights, so that surface and mineral rights on the same property can be held by different owners. As per the Canadian Constitution, the regulation of mining activities on publicly owned mineral leases falls under provincial/territorial government jurisdiction. Except for oil and gas, which are subject to different laws and regulations, there is no competitive bidding for mineral exploration rights in Canada. Land locations are selected by persons according to their wants, provided the claim area is not held by somebody else or reserved for another purpose. In the NWT, a person must obtain a prospector's license before engaging in exploration for minerals. The prospector may then stake mineral claims, generally in rectangular forms. While there is limit of 1,250 hectares per claim, units are normally 16 to 25 square hectares. A mineral claim only remains valid if a certain amount of "work" is done on the claim. The amount of work is measured by the cost per hectare. Once recorded, a mineral claim is valid for a period of two years. The claim can be renewed if the holder does work valued at $10 per full or partial hectare during the first two year period and can be held up to ten years, with work valued at $5.00 per full or partial hectare during each subsequent one-year period. Generally, after ten years, mineral claim may be converted into a mining lease after the subject area has been surveyed by a Registered Land Surveyor, the proper map and related fee are filed. The mining lease is granted for a term of 21 years and renewable thereafter. In general, annual lease fees of $2.50 per hectare during the first 21 year term, and $5.00 per hectare during each renewal term, are payable to the Mining Recorder of the Northwest Territories. In the NWT, the Territorial Lands Act (R.S.C., 1985, c.T-7) is the enabling legislation, accessible at the Department of Justice website http://laws-lois.justice.gc.ca/eng/acts/T-7/FullText.html. Pursuant to the enabling act, Northwest Territories and Nunavut Mining Regulations govern all mineral tenure matters, these are accessible at Department of Justice website http://lawslois.justice.gc.ca/eng/regulations/C.R.C.,_c._1516/page-1.html authorizing the Minister of Indian Affairs and Northern Development, as the competent authority with regards to mineral tenure in the NWT, Canada. Until 2007, the regulations were cited as Canada Mining Regulations. From May 2011, usage of 'Indian Affairs' was replaced by 'Aboriginal Affairs' and the working title has been adopted as the Minister of Aboriginal Affairs and Northern Development and the Department of Indian Affairs and Northern Development also been rebranded as Aboriginal Affairs and Northern Development Canada. To the extent known, there are no significant risks or factors that may affect access, title, or the right to perform work on the property. Surface rights are owned by the Government of the Northwest Territories pursuant to the eleven mining leases and two mineral claims comprising the Property, and the operator must apply for mining and milling surface leases before commencing operations. All current workings and mine facilities for the Mon Gold Property are located on the mining leases.

The permits allow NDM to install and operate a 100 tpd gravity plus flotation mill, related infrastructure, roads and tailings containment facility on a limited total volume of material moved basis before renewal of the permit is required.

NDM completed three years of community consultations and environmental in preparation for filing for Land Use Permits and Water Licenses to restart the mine at 100 tpd. The process resulted in NDM obtaining Land Use Permit MV2015C0015 and Water License MV2015L2-004 to permit all listed exploration and development work including the installation of camp and related infrastructure, mine shops and related mine infrastructure to allow for diamond drilling and underground development and mining. In addition, these permit NDM to install and operate a 100 tpd gravity plus flotation mill, related infrastructure, roads and tailings containment facility.

The Mon could provide additional employment and business opportunities to the residents of the NWT and to the affected First Nations business organizations and their people within whose territory the Mon is located. This will give them the opportunity to participate in the mineral sector while providing a high standard of living for them and their families. Typically, a Social Responsibility Statement is prepared to provide the foundation for working with the affected First Nations and all stakeholders in a socially responsible manner.

Risks related to the YGP could be related to the following:

- NDM must recognize the involvement of the First Nations groups within whose territory the Mon is located and must accommodate their participation in the Project by not only employment opportunities but also by meaningful business opportunities.
- NDM has reached an agreement with the affected First Nations. This is seen to be critical to the

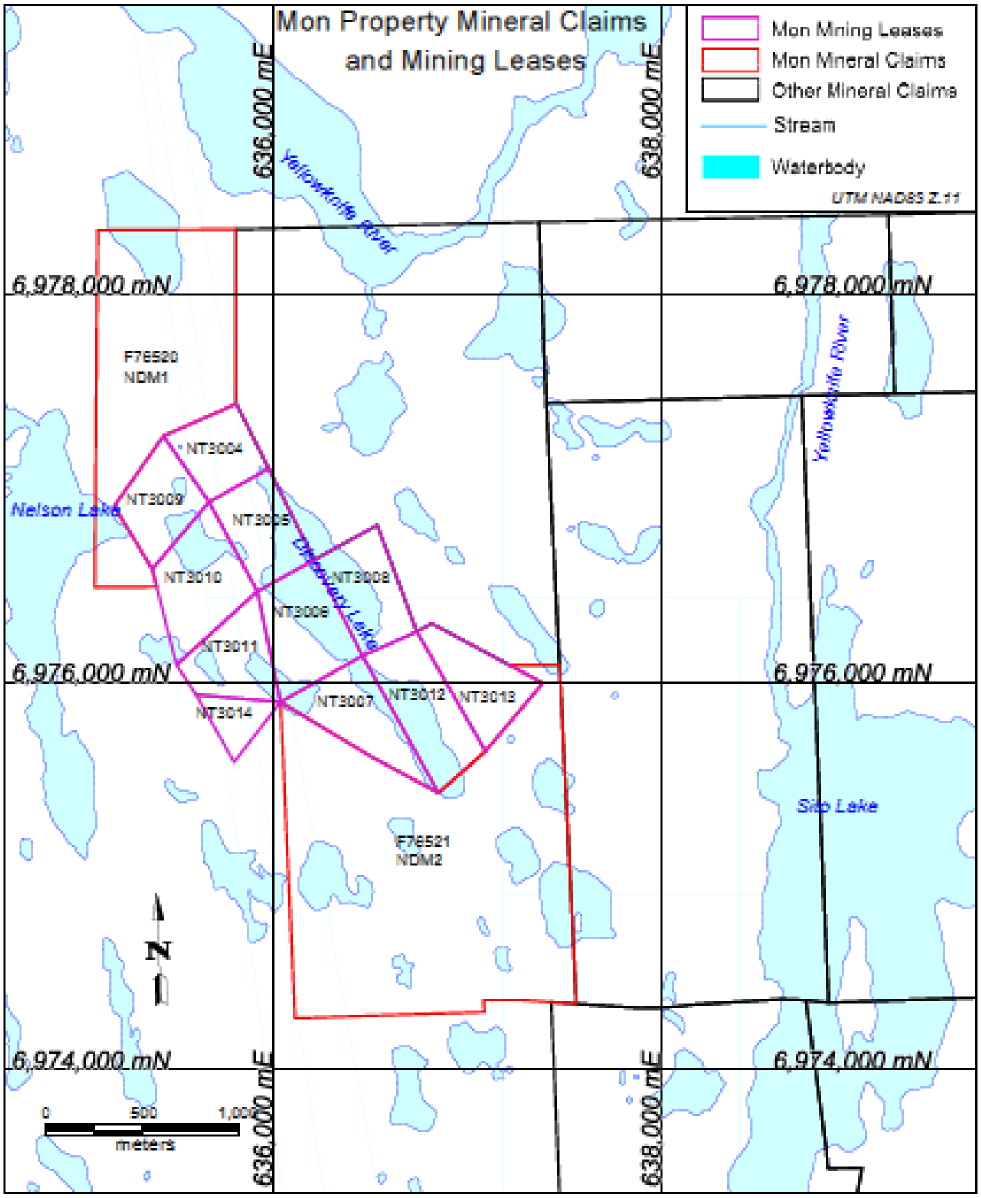
success of the Mon as failure to reach such an agreement in a timely manner would have been a risk to the Mon meeting its goals.

Table 1. Tenure Information

MON GOLD PROPERTY – TENURE TABLE					
Mon Gold Property – LEASE INFORMATION					
LEASE NUMBER	**LEASE NTS**	**LEASE ISSUED**	**LEASE EXPIRES**	**LEASE ACRE**	**OWNER[1]** [1] **see Section 4.3**
3004	085J16	12/11/1959	12/10/2022	36.87	New Discovery Mines Ltd.
3005	085J16	12/11/1959	12/10/2022	44.66	New Discovery Mines Ltd.
3006	085J16	12/11/1959	12/10/2022	56.28	New Discovery Mines Ltd.
3007	085J16	12/11/1959	12/10/2022	49.72	New Discovery Mines Ltd.
3008	085J16	12/11/1959	12/10/2022	47.54	New Discovery Mines Ltd.
3009	085J16	12/11/1959	12/10/2022	41.39	New Discovery Mines Ltd.
3010	085J16	12/11/1959	12/10/2022	58.64	New Discovery Mines Ltd.
3011	085J16	12/11/1959	12/10/2022	42.8	New Discovery Mines Ltd.
3012	085J16	12/11/1959	12/10/2022	58.57	New Discovery Mines Ltd.
3013	085J16	12/11/1959	12/10/2022	43.87	New Discovery Mines Ltd.
3014	085J16	12/11/1959	12/10/2022	17.8	New Discovery Mines Ltd.
			TOTAL AREA	498.14	
MON GOLD PROPERTY – CLAIM INFORMATION					
CLAIM TAG NUMBER	**CLAIM NTS**	**CLAIM ISSUED**	**CLAIM EXPIRES**	**CLAIM ACRE**	**OWNER[1]** [1] **see Section 4.3**
F76520	085J16	03/19/2013	03/18/2023	258.25	New Discovery Mines Ltd.
F76521	085J16	03/19/2013	03/18/2022	464.85	New Discovery Mines Ltd.

NDM is grandfathered in that they operate the Mon Gold Property under leases signed with Her Majesty the Queen in right of Canada, with a lease payment of $2.00 per acre, or $996.28 per year, and must continue to make this payment to keep the leases in good standing. In order to keep the two Mon Gold Property claims in good standing, at least $ 1,463.14 of work must be done on them annually.

Figure 2. Map of the Mon Gold Property Tenures



3.3 Royalties, Agreements and Encumbrances

The Mon Gold Property is located on public lands in the NWT, Canada. Mining Leases were obtained by converting pre-existing Mineral Claims. An annual lease fee is payable to the Northwest Territories, and in each instance, the fees are up to date and mineral rights are in good standing.

NDM holds a 100% interest in the Mon Gold Property, subject to a 2.0% NSR payable to Giauque Holdings Ltd. An advanced NSR payment of US$20,000 commenced in January, 2017 (which was paid by Sixty North Gold Mining Ltd.), and will be payable within 30 days of each subsequent year end. Up to twenty percent (20%) of any advanced royalty payments may be deducted from the first year's NSR royalty payment after commercial production. Thereafter, the balance of the advanced royalty payments may be further deducted from future NSR payments, until fully recovered by Sixty North Gold Mining Ltd.

Sixty North Gold Mining Ltd. has an agreement to earn into an 80% participating, 100% working interest (with NDM retaining a 20% carried interest in the property). Sixty North Gold Mining Ltd. must:

I. incur expenditures of $2.0 million before December 30, 2017; and
II. incur minimum expenditures of $6.0 million (inclusive of an initial $2.0 million above) on or before December 31, 2020.

However, notwithstanding the deadline in sub-paragraph I above, Sixty North Gold Mining Ltd. may elect at any time prior to December 31, 2017, to extend the date to December 31, 2018 upon payment of $20,000 to NDM.

4. Accessibility, Climate, Local Resources, Infrastructure, and Physiography

4.1 Physiography

Photo 1. Mon Gold Property - Typical Physiography

The physiography is typical of the Canadian Shield - of the northern boreal forest. Elongate rounded rocky hills and ridges with abundant outcrop exposures are separated by numerous lakes, ponds, rivers, creeks and swamps. Cliffs and steep bluffs up to a few tens of meters in height commonly occur along the side or end of these hills. Strong linear features several kilometers long defined by depressions between ridges are common. Topographic relief ranges up to 90 m to broad flat hills over 350 meters (m) above mean sea level (amsl). Overburden is typically a thin sandy layer of till. Small sandy eskers occur locally. The upland areas are generally moss and lichen-covered rounded rock outcrops with scattered to dense pine, birch, tamarack and spruce trees. The many low-lying areas are covered with a combination of water and muskeg swamp with local spruce trees and deciduous underbrush. Drainages are generally slow moving being clogged with glacial debris and vegetation.

4.2 Access to the Property

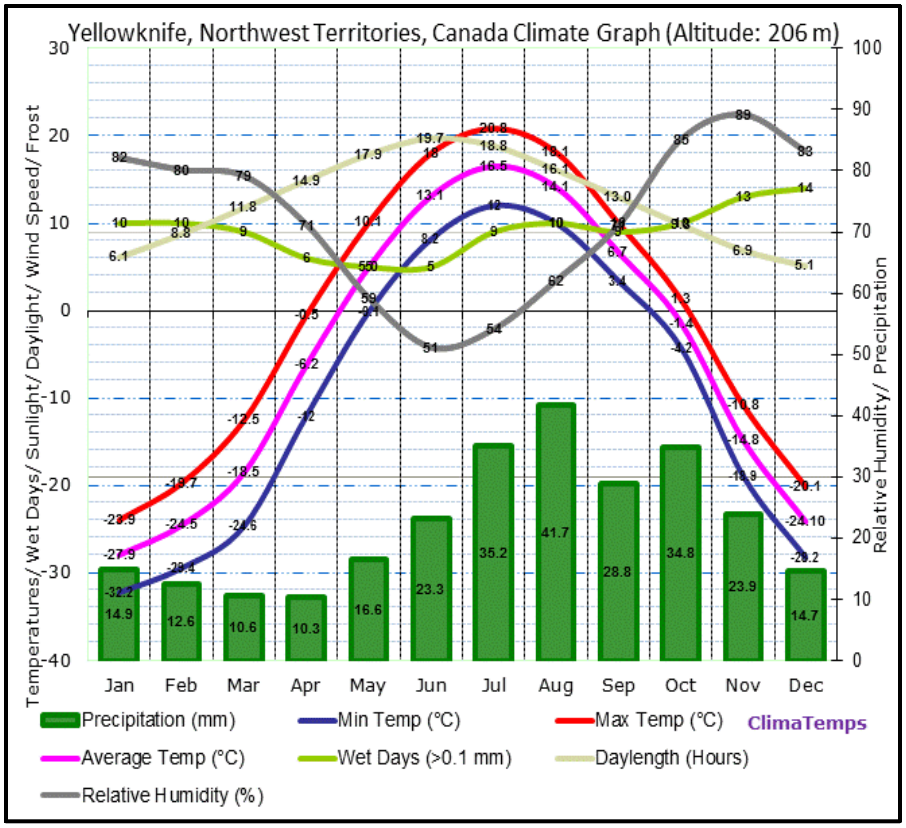
Personnel, food and materials are provided through the combination of float or ski – equipped aircraft and helicopter from the City of Yellowknife, about one-half hour flying time south. A winter road provides access for fuel and other heavy or bulky materials from Yellowknife via the Bluefish Hydro-Electric Dam, 20 km south of the property.

4.3 Climate and Length of Operating Season

The climate of the region is typical sub-arctic with precipitation chiefly in the form of snow. Cold winters with moderate snowfalls and short warm summers with modest amounts of rain characterize the region. Lakes are frozen from October until June. Daily average temperatures range over the year from approximately +30ºC to -50ºC.

The exploration operating season is all-year except break-up and freeze-up. Any work over lakes must be done off the ice in winter. Geological mapping and prospecting can only be done during the summer months.

Figure 3. Weather Chart for Yellowknife



5. Exploration History of the Yellowknife Gold Belt and the Mon Gold Project

Yellowknife has had a long, illustrious and sometimes notorious history of mining. The town has seen staking rushes, booms, strikes, busts and scams, during the more than 60 years of exploration. The Yellowknife camp hosts two of Canada's longest lived mines, which at times were also amongst the most productive. Although all the gold mines are now shut down, the gold grades averaged near 0.5 oz./ton. The mineralogical collections in major museums are filled with spectacular gold samples from Giant, Con, Discovery and other mines in the district. These samples should serve as a good reminder that both in grade and in tonnage, this camp hosted world class deposits.

Gold was first discovered in the Yellowknife area in the late 1890's when men stopped to prospect here, en route to the Yukon and the Klondike gold rush. In an early Geological Survey of Canada volume (Vol/XI, Part R, page 33), reference is made to a sample collected by E. A. Blakeney in 1896, which assayed 2.158 ounces of gold per ton. But it was not until the development of the bush plane and the onset of the depression that exploration of the area truly began.

The staking rush at Great Bear Lake following Gilbert Labine's discovery of pitchblende and silver, renewed interest in the Yellowknife area. In 1928 and 1929, a few claims were staked around Yellowknife Bay and some trenching was carried out on mineral showings. C.H. Stockwell studied the Great Slave Lake-Coppermine River area from 1929 to 1932. He reported that the large area of sedimentary and volcanic rocks was similar to those of other areas of the Canadian Shield such as near Timmins, in which valuable ores had been found (GSC Summary Report 1932C, pp. 37-63).

In September 1934, C.J."Johnny" Baker and Hughie Muir staked the Rich group of claims on the east side of Yellowknife Bay for Yellowknife Gold Mines Ltd., following their discovery of a high-grade quartz vein in the turbidites. This discovery aroused interest in the mining possibilities of the area and initiated exploration and development. Burwash Yellowknife Mines Limited, under the direction of Major Burwash, was formed to take over the Rich property and 16 tons of ore were shipped to Trail BC for smelting.

By 1935 several prospecting parties were in the field and the Geological Survey of Canada began a geological mapping program under the supervision of A.W. Jolliffe. The favorable geology of the west side of the bay was recognized by the Survey and was brought to the attention of prospectors in the area. Visible gold was found in September of 1935. This spurred a staking rush and subsequent discovery and development of showings in what would prove to be one of the major gold-bearing belts in Canada. Vic Stevens, Don MacLaren and Ed McLellan staked the A.Y.E. Claims, which became part of the Con mine (a contraction of the company's name at the time, Consolidated Mining and Smelting Ltd.), while Johnny Baker and Hugh Muir staked the Giant Claims (Jolliffe, 1987; Lord, 1951).

5.1 Mon Gold Property History

A high-grade quartz vein was discovered in 1937 by prospectors working for Cominco during an aerial reconnaissance flight north of Yellowknife. Initial sampling determined that a number of gold-bearing quartz veins occurred on the property, most notably the A-Zone.

The A-Zone was exposed in trenches blasted into the east-side of a north-northwest-striking ridge, yielding the results shown on Table 1.

Table 2. Trench results from Cominco Ltd., 1937

Trench	Distance from Fold Nose (metres)	Sample width (metres)	Au Grade (gpt)
1	Fold Nose	3.43	121.14
1-2	5.0	3.65	56.42
2	9.8	1.52	71.93
2-5	23.8	2.13	7.42
5	37.2	3.20	6.66

7	46.3	0.61	18.00
8	60.0	0.46	24.00
10	93.5	0.15	85.75

In 1937 Cominco sunk a 19.51 m deep shaft adjacent to the surface showing and in 1938 they completed 47.5 m of lateral development, failing to encounter the interpreted down dip extension of the surface showings.

In 1947 Cominco recognized the similarity to the Discovery Mine and completed three short drill holes totaling 58 meters to trace the A-Zone to depth, and encountered the results shown on Table 3.

Table 3. Results from Cominco Ltd. drill program, 1947.

Drill hole	Intersection (metres)	Au Grade (gpt)
M1	0.61	35.66
M2	0.52	62.40
M3	2.01	94.97

These results led Cominco to estimate the A-Zone to be:

Table 4. Cominco estimate of A-Zone size.

Depth	Length (metres)	Ave. Width (metres)	Au Grade (gpt)
A Zone Surface	15.24	1.55	121.71
A Zone North Surface	27.43	0.70	14.40
A Zone (-9.14 m)	30.48	1.13	63.77
This historic size determination of the A Zone is an estimate and should be considered with caution.			

In 1950 Cominco completed 364 meters of diamond drilling to test a lineament east of the A-Zone.
In 1961 a detailed magnetometer survey failed to trace the contact between the greywacke and gabbro where the A-Zone was determined to be situated.

A third drill campaign in the 1963 (493.5 meters in ten diamond drill holes) failed to expand the A-Zone. Cominco considered there to be reasonable potential that the A-Zone be similar to the Discovery Mine, where a folded quartz vein (system) was of a similar size and grade.

Table 5. Results from Cominco Ltd. drill program, 1963

Drill hole	Intersection (metres)	Au Grade (gpt)
M101	0.94	16.52
M102	0.67	6.17
M105	1.80	8.16
M108	0.61	2.67

M109	0.55	1.37

In 1965 Cominco determined that there was limited potential to expand the A-Zone, and so agreed to allow Jack Stevens, a local prospector who retained an interest on the property to mine the A-Zone. Between 1965 and 1975 Jack extracted approximately 200 tonnes of high-grade material which he crushed, ground, and processed on site.

In 1986 the claims were optioned to Troymin Resources Ltd. and 11 holes were drilled into the A-Zone in January, 1987 totaling 489 meters with mixed results.
Coronado Resources Inc. farmed in on that option in 1987, and completed additional mapping, sampling, and later 886 meters of diamond drilling in 12 holes, all of which confirmed Cominco's work. Additional intercepts of mineralization could not be correlated to the known extent of the A-Zone.

In 1988 the property was optioned by D.R. Webb, who brought Can-Mac Exploration into the agreement later in 1988. Webb determined that the mineralization had short dip extent but raked shallowly to the south. Diamond drilling intersected the mineralization in the A-Zone at shallow depths south of the surface showings.

Table 6. Drill results used to define east-limb stope, 1988.

DDH	Elevation	True Thickness (metres)	Au Grade (gpt)
M-3 (Cominco)	198.1	0.61	35.66
M-2 (Cominco)	185.9	0.52	62.40
89-3 (Can-Mac)	189.6	4.54	15.09
And	192.0	1.16	20.91
89-4 (Can-Mac)	185.9	1.52	35.31
89-7 (Can-Mac)	177.4	2.77	50.74

It was recommended by Robin E. Goad, consultant, that a 2,000 ton bulk sample be extracted in order to confirm the continuity and grade of the deposit (McDougall and Goad, 1989). In 1989 an underground program was established involving 49 meters of decline and 15.5 meters of raising. A total of 2,300 tonnes of material was stoped from a vein that outcropped 7 meters southeast of the surface showings. Breast samples were collected during mining every lift and for each breast (2.5 x 3 meters). An average diluted mined grade of 18.3 gpt gold was calculated.

In 1990 the property was leased by Can-Mac to Ger Mac Construction Ltd, subject to an NSR to Webb. It was determined that Can-Mac had mined a separate east-dipping vein, not connected to the surface exposure of the A-Zone. A new portal was collared and a crosscut was driven 37 meters to intersect the west-dipping portion of the A-Zone at the 192 meter elevation. Other development consisted of a 58m drift and two raises totaling 15m within the ore zone. A third raise, started at a distance of 30m in from the adit portal, was driven 10m to break through to the surface for ventilation purposes. Five hundred and sixty-three tons of ore were removed and stockpiled. Total amount of development waste removed was 2,133 tons. The mining method was conventional drilling with rock removal performed by a 2 yard scoop tram. Other equipment consisted of 850 cubic feet per minute air compressor and a 125 kilowatt generator. Gerry Hess was in charge of operations in 1991-1992 (Webb, 1991). In 1992 Can-Mac defaulted on the lease payments and returned the property to David Webb.

Between 1991 and 1997 the mine was in operation on a summer only basis, with a total reported production of 3,100 ounces of gold from 10,000 tons of ore for a calculated recovered grade of 10.63 gpt for royalty purposes.

In total, it is estimated that 15,000 ounces of gold were recovered from 15,000 tonnes of ore contained in 15 m of elevation from the west limb (West Stope) and 15 m of elevation from 15 to 20 m of strike-length on the east limb (East Stope). There was insufficient back from the first level to mine most of the east limb. Since the Mon Mine closure in 1997, no surface exploration work has been done on the Mon Gold Property until October 2016.

Webb (personal communication) reports that: "In 2012, all available data was digitized, and a three dimensional model was constructed, showing the deposit to be an anticlinally-folded quartz vein, plunging to the south at around 20 to 40 degrees. The higher gold grades at the fold nose are consistent over the mined length of 75 meters (open to south), with lower grade gold values being found in the limbs of the structure."

Also in 2012, Met-Solve Labs carried out preliminary metallurgical testing on 46 samples of tailings collected by D. Webb from the Mon Gold Property. The objectives of the float tests were to produce a >150 g/t gold concentrate and to monitor the deportment of other elements via ICP assays, to determine if it was possible to produce a marketable flotation concentrate from the existing tailings.

Systematic auger sampling of the tailings by Webb (2013) reveals consistent grades averaging 3.5 gpt from an estimated 10,000 tonnes. This indicates that the average head grade (at 87% recovery) would be 27 gpt (Silke, 2009). Additional tailings (approximately 3,000 tonnes) were deposited underground in old stopes.

A laboratory testing program in 2014 by Inspectorate (2014) was conducted on a composite ore sample collected by D. Webb from the Mon Gold Property to determine its amenability to gold recovery via centrifugal gravity concentration followed by a comparison between direct cyanide leaching and sulphide flotation processes on the gravity tailings.

5.2 Historic Mineral Resource and Reserve Estimates

Several mineral resource calculations have been made in the past but they are poorly documented. They were, however, sufficient for the work that was being done at the time. The Author considers that it would be inappropriate to include these crude estimates in this report because of their lack of documentation.

5.3 Historic Production

The following information was obtained from a Detailed Showing Report in the Northwest Territories Geological Database: ***NORMIN.DB*** ***(http://www.nwtgeoscience.ca)*** and Silke, R. (2010)
The 'Mon' claims were staked in September 1937 by George Moberly and L. W. Nelson on behalf of Cominco Limited. A short shaft was sunk to 64 feet, but lateral work on this level did not intersect any interesting gold values. In the early 1970s, Jack Stevens operated the claims and put 200 tons of stockpiled ore through a small improvised mill. A second development program got underway in 1989 when Can-Mac Explorations Limited drove a decline and extracted a bulk sample. Ger-Mac Contracting Limited acquired the property in 1991 and installed a milling plant. Gold production continued on a seasonal basis from 1992 until 1997.

Cominco Limited (1938) located free gold in surface exposures of the A-zone veins in 1937, and immediately it was decided to explore the gold deposit from the underground. Early in 1938 a small prospect shaft (2m x 3m) was sunk the A-zone to a vertical depth of 20 meters, and a level was started at 20 m depth. Development included a 9 m crosscut heading west, followed by a north-westerly 15m drift, then a 6 m crosscut and a 17m drift heading directly north. Lateral work was carried out in dimensions of 2mt x 1.8 m. This limited underground investigation encountered only a few quartz stringers carrying low gold values. Work ceased at the end of the 1938 season. P. M. McLaughlin was in charge of a 16-man crew in September 1938 (McDougall and Goad, 1989).

Jack Stevens (1960s-1970s) in a 1963 report, indicated that probably no more than 1000 tons of ore were within the A-zone between the underground workings and the surface, and that up to 500 tons could be extracted by high-grading surface methods. Average grade was reported as 3.53 ounces per ton gold (Rupert, 1963). Jack Stevens purchased a 12.5% equity interest in the claims from G. Moberly, and under a lease agreement with Cominco Limited began to stockpile ore from surface pits starting in 1966. 200 tons of material was stockpiled by 1971. This was essentially a high-grade operation focused on mining selective portions of the A-zone (McDougall and Goad, 1989).

In his 1971 report on operations (submitted to Cominco), Jack Stevens reported milling 48 tons of ore and shipping a 7-pound 7-ounce gold bar to the Royal Canadian Mint. Actual gold content based on Mint returns is unknown (Stevens, 1971). Stevens' mill consisted of a small jaw crusher, cement mixer (used as a ball mill), and a Wilfley table or jig. The use of a cement mixer as a mill proved unreliable, so Mr. Stevens bought a small ball mill. . That was powered by a six horsepower Lister diesel generator. Air for pit work was supplied by a 75 cubic feet per minute Canadian Ingersoll-Rand air compressor powered by a Wisconsin VF4 gas engine (Knud Rasmussen, pers. comm.).

Jack Stevens continued milling operations in 1972 and it is believed that the remainder of the outlined ore was treated. Total ore milled was probably 200 tons, with grades of 0.10 to 0.20 ounces per ton gold. There is no record of work done after 1972 (Dave Webb, pers. comm.).

The property was optioned to Dave Webb by Cominco Limited in 1988; Webb then assigned the agreement to Can Mac Explorations Limited, subject to an NSR. Exploration that began in 1987 resulted in a new ore reserve figure for the A-zone. It was recommended by Robin E. Goad, consultant, that a 2,000 ton bulk sample be extracted in order to confirm the continuity and grade of the deposit (McDougall and Goad, 1989).

The program to collect this sample via an underground decline drive began July 25th 1989 by crews from Extender Minerals Limited, contract miners from Ontario. A crew of five men were employed, including one camp cook. Camp facilities were provided by Can-Mac Explorations Limited and consisted of a number of small tents on wood frames. The camp was powered by a 125 kilowatts Cat diesel generator (McDougall and Goad, 1989).

Underground development equipment consisted of a Wagner ST-213 2 yard scooptram, three jackleg drills, and three stoper drills. Air was supplied by a portable 850 cubic feet per minute Joy compressor (McDougall and Goad, 1989).

Development access to the vein at a depth of about 24m was through a 60m decline ramp, 3 m x 3 m in dimensions and driven at a grade of -15%. The decline was collared at 170m Above Mean Sea Level (AMSL) elevation. Crosscuts totaling 17m were driven from the decline to intersect the vein and were used as draw points to extract the ore. The vein was then followed by a 24m drift. A 24m raise, 1.7m x 1.7m in dimensions, was driven to the surface through the vein, surfacing near the old shaft. Stoping operations were based from the raise area, and the bulk sample was mined to within 4.6m of the surface through shrinkage stoping methods. Total rock extraction amounted to 4,450 tons. Cost of the 1989 program, ending on October 2nd 1989, amounted to $595,000. About 2,300 tons of ore grading 0.74 ounces per ton gold were stockpiled to await shipment for custom milling (McDougall and Goad, 1989).

Early in 1990, negotiations to truck this ore to the Ptarmigan Mine for milling were completed. In March and May of 1990, a total of 2,206 tons were milled through flotation process to recover 268 ounces of gold (Treminco Resources Ltd., 1990).

Ger-Mac Contracting Limited (1991-1997) had an agreement which resulted in the acquisition of a lease to mine the Mon Gold Property by Ger-Mac Contracting Limited, operated by Gerry Hess and Dave Webb, subject to an NSR to Webb. From June to September 15th 1991, a new adit was driven 46m west, north of the 1989 portal, to intersect the A-zone at 192m elevation, approximately 17m below the surface exposures of the A Zone. Other development consisted of a 58m drift and two raises totaling 15m within the ore zone. A third raise, started at a distance of 30m in from the adit portal, was driven 10m to break through to the surface for ventilation purposes. Five hundred and sixty-three tons of ore were removed and stockpiled. Total amount of development waste removed was 2,133 tons. The mining method was conventional drilling with rock removal performed by a 2 yard scooptram. Other equipment consisted of 850 cubic feet per minute air compressor and a 125 kilowatt generator. Gerry Hess was in charge of operations in 1991-1992 (Webb, 1991).

An application for the use of a small gravity mill was submitted to the regulatory officials in August 1991 with the hope to install this plant for the following season of work. Approval for this project was granted by year-end. The plant was trucked to the site in the winter of 1991-1992 and production operations commenced in June 1992, lasting throughout the summer months until September 14th 1992 (Mackenzie Land and Valley Water Board - Water License N1L2-1598).

Milling operations involved the emplacement of mineralized material into a 6 ton capacity steel bin was delivered into a 10 inch x 24 inch Ross Kinetic jaw crusher via a 25 foot feed conveyor. Discharge product from the crusher was ¾ inch size. A fine ore-bin received crushed feed prior to grinding in a 6 foot x 6 foot Marcy ball mill. Gold was then caught by jigs, and a Knelson centrifugal concentrator. Gold was refined in Yellowknife, NWT. Tailings were pumped into the stoped-out section of the old Can-Mac decline workings (Mackenzie Land and Valley Water Board - Water License N1L2-1598).

In 1993, the operation and lease to mine was purchased by Albert Eggenberger of Yellowknife and operations continued under the direction of Ger-Mac Contracting Limited. Tailings were deposited into the North stope, accessed from the North portal. Operations ceased for the season in September 1993 (Mackenzie Land and Valley Water Board - Water License N1L2-1598).

In 1994, the period of operation was extended to 6 months between May and October using winterized camps and increased fuel storage. The mill operated at a capacity of 100 tons per day with 87% recovery. This recovery rate was achieved through the installation of a new Knelson concentrator unit in 1995. A new 10,000 ton capacity surface tailings pond was also cleared in early 1994 (Mackenzie Land and Valley Water Board - Water License N1L2-1598). About 10 people were employed onsite, most of whom were friends or family of Albert Eggenberger. Son Ed Eggenberger was in charge of onsite operations, and Garth Eggenberger did the refining operations in Yellowknife and also hauled the winter freight. Don Helfrick worked as Eggenberger's agent (Don Helfrick, pers. comm.).

During 1994-1995, the north decline was extended through about 140m of advance. The central portal was re-mined to recover the crown-pillar in the old stoped sections. Underground drilling extended the known vein structure of the A-zone, and mining operations worked upwards from the bottom level towards the old stopes. There was very little milling accomplished in 1995; the mill operated for nine days in October 1995 only (Mackenzie Land and Valley Water Board - Water License N1L2-1598).

In 1996, the mine operated between July 24th and September 24th except for 15 days downtime. In 1997, the last summer of operations, the mine operated for 44 days between July and September. No underground mining or development was conducted in 1997. Mill feed was drawn from a small open cut on the hill near the old surface workings. Some tailings were also re-processed in 1996 and 1997 (Mackenzie Land and Valley Water Board - Water License N1L2-1598).

Table 7. Mon Mine Gold Production, 1992 -1997 Source: Mackenzie Valley Land and Water Board - Water License N112-1598

Year	Ore Milled	Gold Produced
1992	2,072 tons	6.2 kg.
1993	2,912 tons	43 kg.
1994	1,598 tons	20kg.
1995	465 tons	6.2 kg.
1996	2,242 tons	17.5 kg.
1997	1,808 tons	?
Total	**11,097 tons**	**~100 kg**

At the end of the operating season of 1997, no work was contemplated for the following year. No known underground reserves existed. The price of gold steadily dropped in the winter of 1997-1998 and continued operations at the Mon Mine were not seen as feasible. No further production has been done since. The lease to mine was returned to Webb. Total production is listed in Table 7 above.

Five diamond drilling campaigns were carried out on the Mon Gold Property prior to 1997.

Table 8. Table Showing Pre-1997 Drill Programs

Year	Number of Drill Holes	Meterage Drilled (m)
1947	3	58
1963	10	493.4
1950		364
1987	12	886
1988	?	?
Total	**?**	**?**

Very little factual information is available from these drill programs. The data are incomplete and the author has decided not to present any data from the 1997 program. The meterage and number of holes are presented to provide a measure of the amount of surface done in the past.

Since the Mon Mine closure in 1997, no surface exploration or mining has been done at the Mon Gold Property until October, 2016.

Between 1997 and the drilling campaign of October, 2016, work on the Mon Gold Property has consisted of data consolidation, metallurgical testing of ores and tailings, preliminary engineering, cultural and a UAV topographic Survey.

5.4 Historic Metallurgical Testing

5.4.1 Metsolve, 2012 Program

In 2012, Met-Solve Labs carried out preliminary metallurgical testing on 46 samples of tailings collected by D. Webb from the Mon Gold Property. The objectives of the float tests were to produce a >150 g/t gold concentrate and to monitor the deportment of other elements via ICP assays, to assess the potential to used flotation to produce a marketable concentrate, and to assess the environmental aspects of these tailings.

All samples that were identified as having a grade of <3 g/t of gold were mixed to produce one composite, while the remaining samples, >3 g/t of gold, were mixed to produce a second composite. Each composite was screened at 850 µm (20 mesh) to remove the coarse material that could have interfered with the flotation tests. The undersized material underwent kinetic flotation tests. Two bulk density tests were also done on each composite.

The summary Flotation results of this work are presented below:

Table 9. Flotation results

Test Number	Sample	Mass Yield (%)	Gold Recovery (%)	Gold Grade (g/t)	
DR 204	**Composite 1**	**11.04**	**86.4**	**19.18**	**99.3**
DR 205	**Composite 1**	**14.13**	**89.3**	**16.72**	**95.6**
DR202	**Composite 2**	**8.25**	**87.7**	**44.78**	**236.0**
DR206	**Composite 2**	**10.97**	**87.1**	**36.24**	**221.0**

The objectives of the float tests were to produce a >150 g/t gold concentrate and to monitor the deportment of other elements via ICP assays to determine if the tailings could be reprocessed through a flotation plant to produce a marketable concentrate.

The overall results are presented in Table 10.

Table 10. Overall Flotation Results

Sample ID	**Head Grade Au** (g/t)	Mass Yield (%)	Gold Recovery (%)	**Gold Grade (g/t)**	
				Total Concentrate	**Conc. 1**
Composite 1	**2.29**	**11.04**	**86.4**	**19.18**	**99.3**
		14.13	**89.3**	**16.72**	**95.6**
Composite 2	**3.61**	**8.25**	**87.7**	**44.78**	**236.0**
		10.97	**87.1**	**36.24**	**221.0**

The oversize (+850 µm) containing 8-12% of the gold in 10-17% of the mass with a grade of approximately 2 g/t, was not included in the mass balances presented above.

A 150 g/t gold concentrate could be produced in the higher grade Composite 2 but recovery would be reduced to ~60% from 87%.

Despite the differences in head grade and mass yield, all four tests produced similar gold recoveries of about 87%.

Although the two flotation tests on each material show some initial variation in gold grade, the final concentrates were similar. Despite the different head grades, both composites had similar response to flotation as illustrated by their similar mass-recovery curves.

Two grinds were performed from the gravity separation and flotation test work at 57% and 67% minus 200 mesh. Each sample was passed over the Wilfley 1/8 shaking table with the gravity concentrate upgraded on a Mozley Mineral Separator. The combined gravity tailings were split into 2 kg charges and each was used for a bulk sulphide flotation test. A total of two flotation tests were done at each individual grind.

Metsolve concluded that, although the two flotation tests on each material show some initial variation in gold grade, the final concentrates were similar. Despite the different head grades, both composites had similar response to flotation as illustrated by their similar mass-recovery curves. They recommended that additional flotation tests should be conducted on ground samples to improve recovery and concentrate grade. As the oversized material, +850 µm, contains 8-12% of the gold at approximately 2 g/t, these should be ground and floated with the undersize. Grinding may also improve liberation of the undersize fractions.
This report refers to the samples as received. The information contained in this report is provided 'as is' without warranty of any kind with respect to the interpretation and use**.**

5.4.2 Inspectorate 2014 Program

A laboratory testing program was conducted on a composite ore sample collected by Dave Webb from the Mon project to determine its amenability to gold recovery via centrifugal gravity concentration followed by a comparison between direct cyanide leaching and sulphide flotation processes on the gravity tails.

The study covered the following major topics: head assay, gravity concentration at three grind sizes followed by:

- cyanide leaching on one half of the gravity tailings;
- rougher flotation kinetic assessment on the other half of the gravity tailings and;
- Intensive cyanide leaching of the flotation concentrate. Environmental tests including ABA and SWEP tests were also run on the tailings products to evaluate their potential for acid generation and leaching of metal species.

The study concluded that:

- The Mon Gold Property composite sample responded very well to gravity concentration, recovering 52.8% of the total gold in a single pass, in a concentrate Au grade of 11.5%.
- The bottle-roll leach of the gravity test tails indicated gold extraction was 98.0% after 24hrs.
- The gravity tails also responded very well to sulphide flotation, recovering 98.0% of the remaining

gold in a concentrate representing 7.5% of the feed.

- The intensive leaching of the combined rougher flotation concentrates resulted in a gold extraction of 99.1% in just 7 hours of leaching.
- The combined results of both gravity-flotation-intensive leaching and gravity-cyanidation process routes proved that >99% of the gold can be recovered in either case.

The tails grades from the cyanidation and flotation tests were 1.12 and 1.26 g/t Au, respectively. With the addition of the intensive leach residues to the flotation tails, it is expected that the combined tails grade from these tests to be about 2.0 g/t Au.

The environmental tests suggest that the gravity-flotation process route will produce tailings that are unlikely to generate acid due to the removal of the majority of the sulphides, and produce lower levels of dissolved species in tails leachate when compared to the gravity-cyanidation method.

The intensive leaching of the combined rougher flotation concentrates resulted in a gold extraction of 99.1% in just 7 hours of leaching. The combined results of both gravity-flotation-intensive leaching and gravity cyanidation process routes proved that >99% of the gold can be recovered in either case.

This process also has the advantage of greatly reduced solids contact with cyanide, which can significantly reduce the capital and operating costs involved with destroying cyanide in the final tails.

It is recommended to pursue variability testing on samples from various areas of the Mon Gold Deposit to gauge their metallurgical response to the chosen processing method.

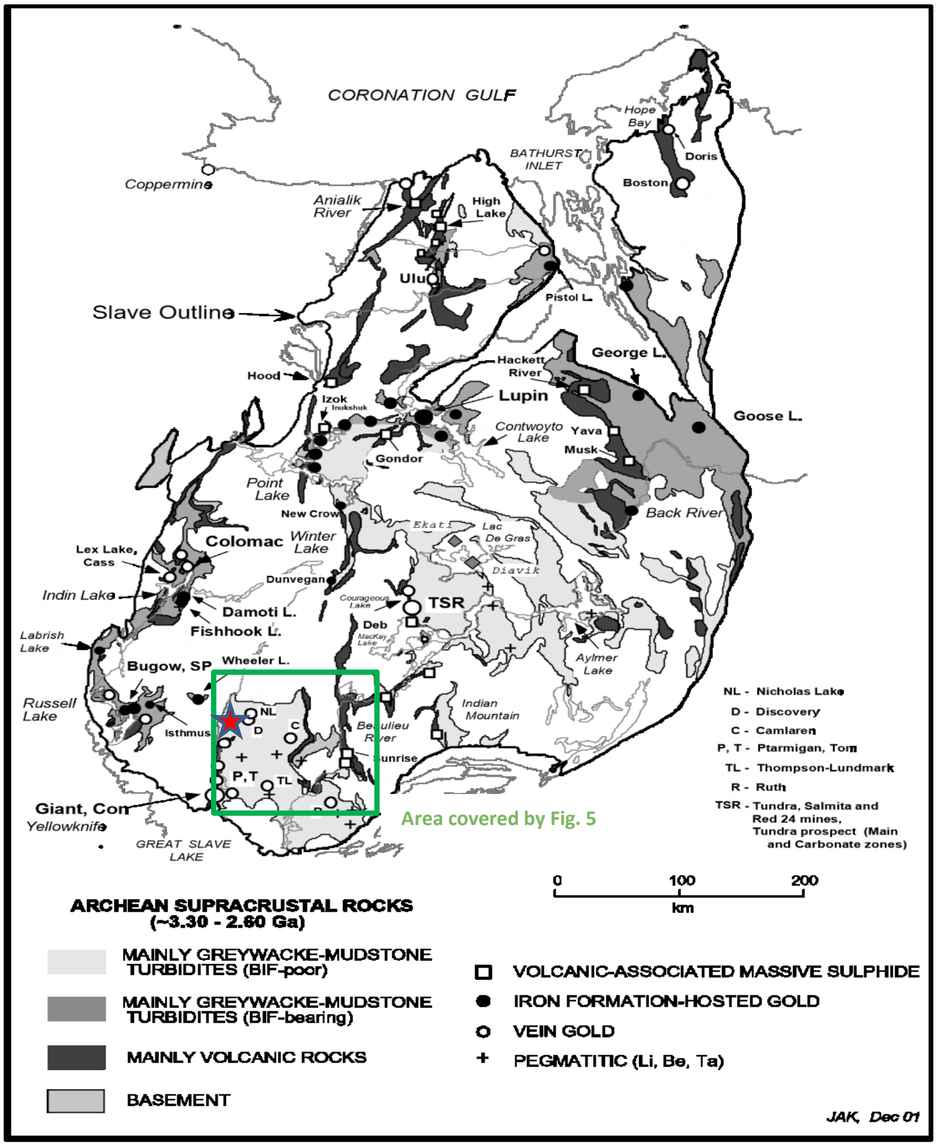
6. Geological Setting and Mineralization

6.1 Regional Geology

6.1.1 Slave Craton Geology

The Archean Slave craton is a preserved fragment of a once larger continental land mass (Bleeker, 2003) comprising Mesoarchean gneissic basement covered by a Neoarchean supracrustal assemblage (the 2800–2600 Ma Yellowknife Supergroup; Fig. 1; Bleeker, 2002). Deposition of the supra- crustal assemblage was protracted and occurred during several chronologically and tectonically distinct phases, including ca. 2730 to 2700 Ma rifting and mafic volcanism (greenstone belt formation; Isachsen et al., 1991; Isachsen and Bowring, 1997; Cousens, 2000; Bleeker, 2002; Cousens et al., 2006a; Bleeker and Hall, 2007), ca. 2690 and 2670 bimodal arc volcanism (Isachsen et al., 1991; van Breemen et al., 1992; Pehrsson and Villeneuve, 1999; Cousens et al., 2006a; Bleeker and Hall, 2007), ca. 2660 Ma arc-rifting and turbidite deposition (Ferguson et al., 2005), and ca. 2630 Ma arc-plutonism-volcanism and turbidite deposition in a back-arc basin (Davis et al., 2003; Ootes et al., 2009). The ca. 2660 and <2630 Ma greywacke-mudstone turbidites are dominated by detritus from the older volcanic rocks and, to a lesser degree, Mesoarchean basement rocks (Yamashita and Creaser, 1999; Ootes et al., 2009) and now account for >70 percent of the preserved supracrustal sequences. These supracrustal units were deformed, then exhumed and uncomfortably overlain by late orogenic molasses-type conglomerates (<2600 Ma; Isachsen et al., 1991; Bleeker and Hall, 2007) that were deposited upon the incised paleosurface and subsequently deformed along first order, crustal-scale fault zones (Martel and Lin, 2006).

Figure 4. Simplified Geology of the Slave Province showing mines and significant Prospects



Extensive Neoarchean plutons were emplaced during several pulses at ca. 2700, 2670, 2635 to 2620, and 2610 to 2602 Ma, with a final bloom of granitoids at 2600 to 2580 Ma (van Breemen et al., 1992; Davis and Bleeker, 1999; Pehrsson and Villeneuve, 1999; Ketchum et al., 2004; Bennett et al., 2005; Ootes et al., 2005, 2007; Bleeker and Hall, 2007). These latter plutons, ubiquitous throughout the southern part of the craton, range from two-mica granite (S-type) to hornblende biotite granite (I-type) and have well-established crystallization ages (van Breemen et al., 1992; Davis and Bleeker, 1999; Pehrsson and Villeneuve, 1999; Henderson, 2004; Bennett et al., 2005; Ootes et al., 2005; Bleeker et al., 2007). Collectively these plutons represent melts derived from pre-existing crust with minor mantle contributions, and in particular the S-type granites were derived from melting sedimentary rocks (migmatites-anatexis) at much deeper levels in the crust.

Relevant to this study is the S-type Prosperous pluton, the crystallization of which has previously been dated at 2596 ± 2 Ma (monazite; Davis and Bleeker, 1999; Fig. 8) and 2592 ± 3 Ma (SHRIMP U-Pb zircon; see figure 69e in Bleeker et al., 2007). Multiple episodes of metamorphism and deformation are recorded in the supracrustal and older granitic rocks, and are temporally well constrained using crosscutting relationships exhibited by precisely dated plutonic rocks (e.g., Davis and Bleeker, 1999; Bleeker, 2002; Ootes et al., 2005). In the immediate Yellowknife area, metamorphic grade is generally greenschist facies, with local amphibolite hornfels related to intrusion of 2630 to 260 Ma Defeat Suite plutons and ca. 2592 Ma S-type plutons (Bethuneet Metal endowment is variable across the Slave

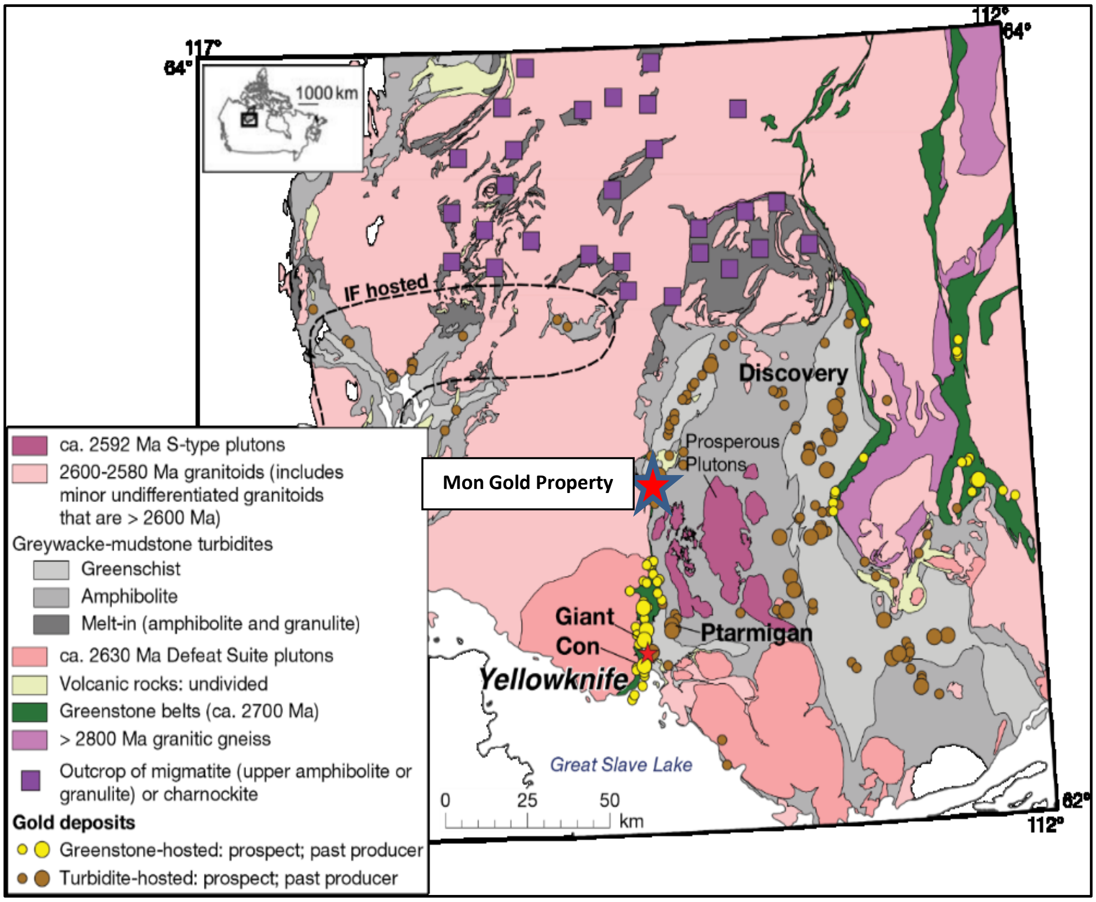
Province. Most of the approximately sixteen greenstone belt domains contain at least one important deposit; some domains contain several major deposits of different types. For example, the Contwoyto and Back River domains contain large VMS deposits as well as notable BIF-hosted gold deposits, but lack economic vein gold deposits. On the other hand, the High Lake belt lacks BIF-hosted deposits, but contains significant VMS and vein-gold deposits. The Yellowknife Domain contains a large number of vein gold deposits in the volcanic and sedimentary rocks in addition to REE pegmatites in the sedimentary rocks, but major VMS and BIF-hosted deposits have not been discovered. The Hope Bay Domain appears similar to the Yellowknife Domain in that numerous large vein gold deposits occur within a mixed mafic and felsic volcanic sequence that is dominated by pillowed and/or variolitic flows.

Across the Slave Province, significant gold and base metal deposits are hosted by supracrustal rocks that have been dated at circa 2700 Ma, 2660 Ma and 2615 Ma. In some domains (Contwoyto and Back River), individual supracrustal sequences host both gold and base metal deposits, but in other domains there appears to be a marked spatial separation between different deposit types. In the Courageous Lake and High Lake belts, VMS deposits occur within the oldest supracrustal sequence, whereas the gold deposits are hosted by the youngest sequences. Supracrustal sequences older than about 2720 Ma appear to be largely barren including the Winter Lake greenstone belt containing the oldest supracrustal rocks identified in Slave Province (circa 3200 Ma), and the circa 2820 Ma Central Slave Cover Group consisting of quartzite, felsic volcanic rocks, BIF and an ultramafic component (Bleeker et al., 1999).

The Yellowknife greenstone belt (YGB) is in the south-western part of the Slave Province. The stratigraphy and geological setting of the Yellowknife Greenstone Belt (YGB) are described in Henderson (1985), Helmstaedt and Padgham (1986), Kusky (1990), Bleeker (1996), Bleeker et al., (1997, 1999a, 1999b), and Isachsen and Bowring (1997). The YGB is regarded as the western margin of an Archean sedimentary basin (Burwash and the Cameron River and Beaulieu greenstone belts in the east (Henderson, 1970; Lambert, 1988). The basement on which these greenstone belts developed, or were thrust onto, is preserved along the eastern margin of the Cameron River belt, and in the Bell Lake area north of Yellowknife. Location of gold prospects and past producing mines are derived from the Northern Minerals database available from www.nwtgeoscience.ca.

Figure 5. Generalized geology of the southern Slave craton

(modified after Stubley, 2005.) Yellowknife (Bleeker et al. 1999a, Isachsen and Bowering 1997).



The YGB consists of four major components: a NE striking, steeply SE-dipping homocline of mafic volcanic and intrusive rocks of the Kam Group (2.72-2.70 Ga., Isachsen & Bowring, 1997), underlain by the Central Slave Basement Complex and Central Slave Cover Group (Bleeker et al., 1999a), and uncomfortably overlain by NE striking intermediate and felsic volcanic rocks of the Banting Group (2.66 Ga., Isachsen & Bowring, 1997) and the 2.6 Ga**.**

All of the supracrustal and the majority of the granitoids rocks within the Yellowknife area have been metamorphosed to greenschist or amphibolite facies (Figures 4 and 5). This high-grade metamorphic and plutonic event is concomitant with the second stage of regional deformation (D2; Bleeker and Beaumont-Smith, 1995; Davis and Bleeker, 1999), which is interpreted to have developed after accretion or collision to the south of the preserved craton between ca. 2630 to 2600 Ma (Davis et al., 1994; Isachsen and Bowring, 1994; Bleeker and Hall, 2007; Bleeker et al., 2007; Ootes et al., 2009).

6.1.2 Central Slave Basement Complex (CSBC)

Deformed granitoids rocks and gneisses exposed at the northern end of the YGB are referred to as a part of the CSBC and locally as the Anton Complex (Bleeker et al. 1999a, Henderson, 1985). It has been proposed that the oldest gneisses within this complex represent a basement to the YGB (Henderson, 1985). The Anton Complex is composed of heterogeneous granodiorite to quartz diorite gneiss, which is in faulted contact with the northwestern margin of the YGB, and is intruded by younger granitoids of the Defeat and Prosperous suites (Henderson, 1985).

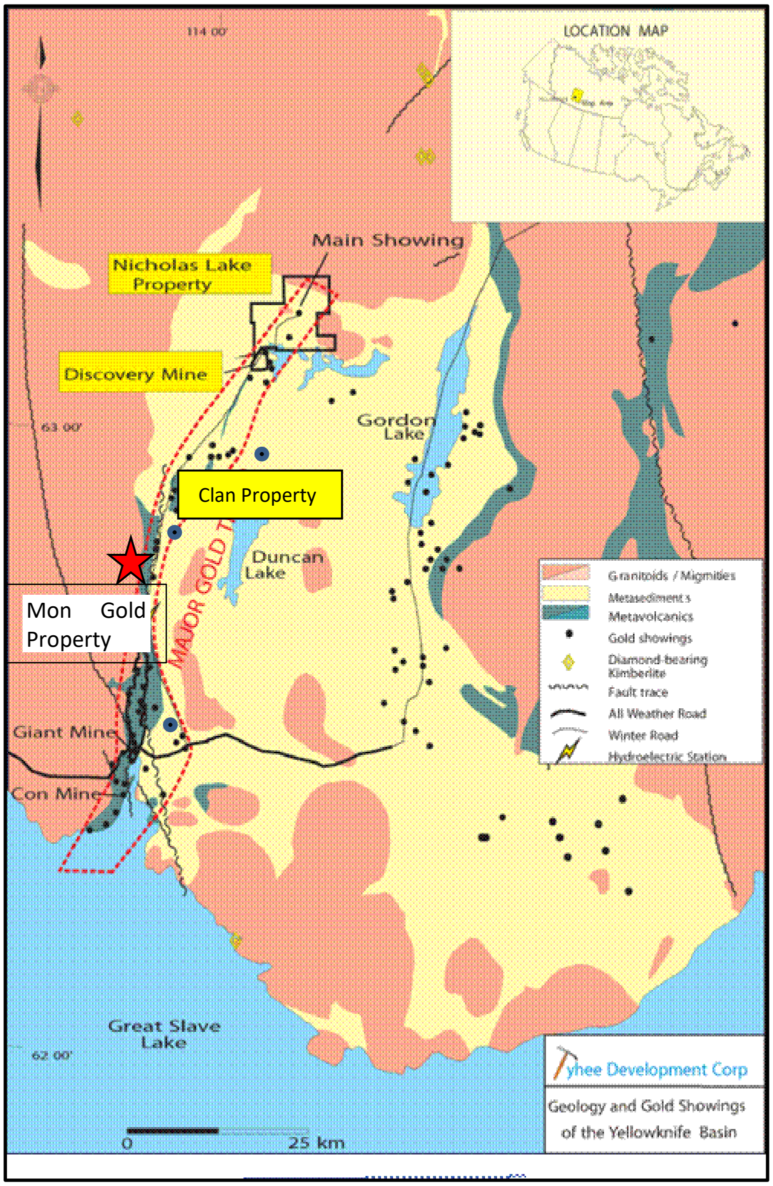
6.1.3 Central Slave Cover Group

The Central Slave Cover Group (CSCG) has been proposed to overly the CSBC and together the basement and cover sequence form a basement to the supracrustal rocks of the YGB (Bleeker et al., 1999a). The CSCG is characterized by a thin, generally highly deformed and locally imbricated, volcanic and clastic cover sequence (Padgham, 1992). The typical stratigraphy of this cover sequence as defined by Bleeker et al., (1999a) consists of mafic and ultramafic volcanic rocks at or near its base, overlain by a succession of conglomerates, immature quartz-rich grits, fuchsitic quartzites, and silicate or oxide facies banded iron formation (BIF). In the YGB, the CSCG is exposed at Bell Lake and Dwyer Lake in the northern parts of the belts and is represented by Bell Lake Formation and the lithologically comparable Dwyer Lake Formation. The Bell Lake Formation consists of basal fuchsitic quartzite which grade upward into semi-pelitic schist. BIF overlies, but is interbedded with the quartzites and the covering mafic sequence (Jackson, 1999). At Bell Lake, a 3 m-wide layer of quartz-porphyritic felsic tuff within banded iron formation (BIF) has been dated at 2826 +/- 1.5 Ma (Ketchum et al. 2000). The base of the overlying Kam Group consists of massive flows, sills, and dykes, Figure 7 Stratigraphy of the Yellowknife Greenstone Belt with pillows becoming conspicuous higher up in the section.

The Dwyer Lake Formation consists of a basal arkose that grades upward into fuchsitic quartzite, which is in turn overlain by a felsic tuff and volcaniclastic rocks and capped by a 50 metre thick sequence of BIF. A quartz-porphyritic felsic tuff overlying cross-bedded fuchsitic quartzite at Dwyer Lake has been dated at 2853 +2/-1 Ma (Ketchum et al. 2000). The contact with the overlying Kam Group has been obscured by the intrusion of a post volcanic gabbro sill. At both Bell Lake and Dwyer Lake, the contact between the CSCG and the underlying granitoids of the CSBC is interpreted as a sheared contact.

Rocks of the Bell Lake and Dwyer Lake formations and the underlying deformed granitoids have the highly negative eNd2700 values typical of the continental basement to the greenstone belts of the central Slave Province (Cousens, 2000). Gneissic granitoids >2.9 Ga. in age, found at the base of the Kam Group, have dated between -6 and –9 Ga.

Figure 6. Simplified Geology of the Yellowknife Greenstone Belt



Kam Group

The predominately mafic volcanic Kam Group has been divided into four formations (Chan, Crestaurum, Town site, Yellowknife Bay) by Helmstaedt and Padgham (1986) representing volcanism spanning 2.72 – 2.7 Ga. (Isachsen and Bowring, 1997). The basal Chan Formation is composed of tholeiitic, pillowed and massive mafic flows intruded by numerous mafic dykes and sills. The overlying Crestaurum Formation is distinguished by the appearance of laterally continuous, calc-alkaline felsic tuffs, and siliceous cherts. These are overlain by calcalkaline rhyodacite flows and breccias interbedded with felsic tuffs and pillowed dacites of the Townsite Formation. The stratigraphically higher Yellowknife Bay Formation comprises massive and pillowed tholeiitic basaltic flows, pillow breccias and interflow sediments and calc-alkaline tuffs that grade into coarse turbiditic sandstones at the top of the formation. Near the top of this formation is a distinctive reverse graded, conglomeratic, interflow sediment named the Bode Tuff, which includes rounded clasts of rhyodacite porphyry (Henderson and Brown, 1966). The Yellowknife Bay

Formation hosts the majority of gold deposits in the Kam group (Giant and Con deposits; Helmstaedt and Padgham, 1986).

Banting Group

The Banting Group (~2.65 Ga.; Isachsen, 1992) is subdivided into massive and brecciated felsic flows interlayered with lesser calc-alkaline mafic flows and minor conglomeratic, turbiditic sandstones (Ingraham Formation) overlain by massive to bedded felsic tuffs, with minor interbedded mafic flows and tuffs, and clastic sedimentary rocks (Prosperous Formation; Helmstaedt & Padgham, 1986). Separating the two formations within the Banting Group is a fine-grained, thinly- bedded argillaceous sequence of turbidites referred to as the Walsh Formation. The Banting Group includes a much higher proportion of felsic volcanic and volcaniclastic rocks than the Kam Group, but mafic to intermediate volcanic rocks are common.

Duncan Lake Group (Burwash Turbidites)

The Duncan Lake Group conformably overlies the Banting Group, and consists of turbiditic sedimentary rocks of the Burwash and Walsh formations, that were partially contemporaneous with the upper Banting Group. The Burwash and Walsh formations are composed of interbedded greywackes and mudstones with many features characteristic of turbidites (Henderson, 1972). Internal sedimentary structures, paleocurrent data, and clast composition suggest the sediments were derived by erosion of granites and supracrustal rocks of the Kam Group to the west, and were deposited in a submarine fan complex (Henderson, 1972).

Jackson Lake Formation

The Jackson Lake Formation is a late-kinematic sedimentary panel that consists of a basal breccia overlain sequentially by a polymictic conglomerate containing a wide variety of clasts (e.g. mafic and felsic volcanic, granite, quartz-vein, jasper and fuchsitic clasts), parallel bedded to cross-bedded sandstone, and argillite (Figure 4). Microscopic chloritic grains indicate that the formation has been metamorphosed under greenschist grade conditions (Fig. 1d). It is the youngest formation of the YGB (<2605 Ma; Isachsen et al. 1991). Based on similarities with Timiskaming-type conglomerates in the Abitibi greenstone belt of the Superior Province, and comparison with modern depositional environments, the Jackson Lake Formation has been interpreted as a fluvial alluvial fan deposit (Henderson, 1975), possibly deposited in a tectonically-controlled basin (e.g. Helmstaedt and Padgham, 1986; Mueller and Donaldson, 1994; Bleeker et al., 1999).

The Jackson Lake Formation occurs between two older volcanic sequences. On its western margin, it unconformably overlies mafic volcanic of the Kam Group (2720-2700 Ma; Isachsen and Bowring, 1997). From south to north, along the length of the YGB, the angular unconformity (Figure 5) consistently cuts through lower sections of the stratigraphy. On its eastern margin, the Jackson Lake Formation is in shear contact with the mainly felsic volcanic rocks of the Banting Group. In locations where the Jackson Lake Formation is absent, the shear zone follows the Kam-Banting contact.
The presence of such a fault zone was suggested by Helmstaedt and Padgham, 1986; Bailey, 1987; Mueller and Donaldson, 1994 and has recently been termed the Yellowknife River Fault Zone by Bleeker et al., 1998. This important structural zone is defined by a 10 to 30 m wide mylonite zone, but the extent of deformation cover a much wider area (~300-400 m). The north-south trending structure can be traced from over 50 km is narrowly exposed in the Banting Lake area but it is especially well exposed north of the main portion of the volcanic belt along the western shore of Quyta Lake.

The angular unconformity between the well-preserved, east-facing pillow lava of the Kam Group and the carbonate-rich basal breccia of the Jackson Lake Formation. Pencil (parallel to S_2 foliation in the centre for scale. B) Photomicrograph of a mylonite from the Yellowknife River Fault Zone. Looking north. The porphyroclasts are altered feldspars and their rotation, with the shear bands, indicate an east-side-up motion (PPL).

Dyke Swarms

The Kam Group is intruded by a series of gabbroic and quartz-feldspar porphyry dykes. The both sets of dykes also intrude the Banting Group, but not the Jackson Lake Formation. The quartz-feldspar porphyry dykes (2.67 Ga.) radiate from the early porphyritic member of the Western Plutonic Complex (Defeat Suite) (Helmstaedt and Padgham, 1986). The quartz-feldspar porphyry dykes also contain anomalous gold values (Boyle, 1961). Late stage NNW-trending Proterozoic diabase dykes (ca. 2150 Ma; Le Cheminant, 1997) of the Indin Lake swarm intrude every rock formation in the YGB.

Defeat Suite Granites

The Defeat Suite of the Western Plutonic Complex, represents a major, post-Burwash Formation plutonic event in the Yellowknife Domain. The western portion is characterized by coarse-grained moderately to strongly deformed, heterogeneous, variably contaminated tonalite-granodiorite, layered hornblende gabbro and diorite (Atkinson and Van Breeman, 1990). Small fine- to medium-grained, massive to foliated, homogeneous, porphyritic biotite trondhjemite-granodiorite-granite plutons are concentrated along the eastern edge of the Western Plutonic Complex and locally intrude the YGB. These plutons represent the youngest plutonic event of the Defeat Suite (Atkinson and Van Breeman, 1990).

Prosperous Suite Granites

The Prosperous Suite comprises a number of discrete medium to coarse-grained muscovite-biotite granite plutons, which mostly intrude the Burwash Formation turbidites east of Yellowknife. Plutons of this suite are typically two-mica leucogranite with extensive associated pegmatites. According to Davis and Bleeker (1999) the pan-Slave Prosperous Suite plutonism is restricted to 2596-2586 Ma. in the Yellowknife Domain.

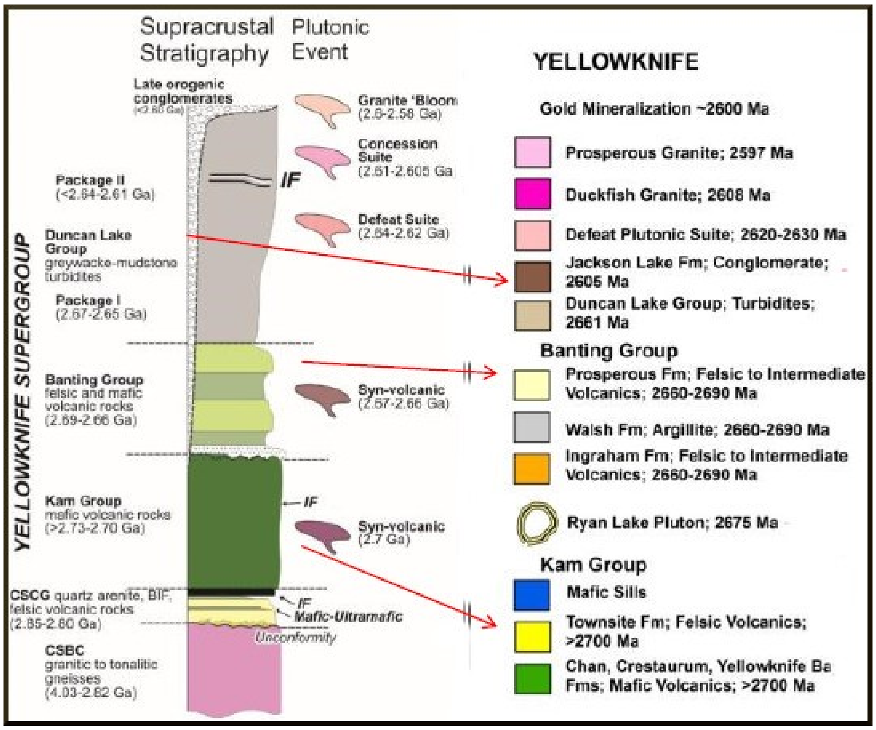
6.2 Deformation of the Yellowknife Greenstone Belt

U-Pb zircon, titanite, and monazite ages of plutonic rocks have been used to constrain the timing of post-2660 Ma deformation and metamorphic events in the Yellowknife Domain (Davis and Bleeker, 1999). The earliest recorded deformation in the YGB is represented by localized F_1 folds and associated S_1 foliation, the formation of D_1 faults, now represented by the Giant and Con deformation zones, and the tilting of stratigraphy. Defeat Suite plutons crosscut and postdate upright F_1 folds in the 2680-2660 Ma Burwash Formation. D_1 deformation is therefore bracketed between 2660 and 2630 Ma (Davis and Bleeker, 1999). The D_1 event significantly predates deposition of the Jackson Lake Formation at 2600 Ma. A second folding event (F_2), represented by northwest- to north-trending steeply plunging folds of bedding and D_1 structures, affected the Yellowknife Domain synchronously with intrusion of the 2596 ±2 Ma Sparrow Lake pluton, a member of the two-mica granite Prosperous Suite (Davis and Bleeker, 1999). The time of initiation and the duration of D_2 deformation is not well defined, although an S_2 foliation is documented in the ca. 2605 Ma Jackson Lake Formation (Martel et al., 2000). The S_2 foliation is a regional feature described throughout the Kam and Banting groups, and Jackson Lake Formation. (Boyle, 1953; Helmstaedt and Padgham, 1986).

A younger post-D_2 deformation event is also recognized and consists of rare steeply plunging folds (F_3) with an associated crenulation cleavage (S_3) (Bleeker and Beaumont-Smith, 1995; Martel et al., 2001).

Late stage Proterozoic faulting offsets all of the YGB stratigraphy and associated gold deposits. The NNW trending sinisterly Proterozoic faults resulted in north-south alignment of fault bound blocks in the YGB, and an offset of the Giant and Con gold deposits by the West Bay fault. A relative age for the West Bay-Indin Lake fault system is 1.96 Ga., based on crosscutting relationships with the Milt diabase sheets, Great Slave Supergroup, Compton Intrusive Suite, and Mackenzie dykes to the NW of Yellowknife (Kusky et al., 1993).

Figure 7. Stratigraphic Column – Yellowknife Greenstone Belt



In a detailed study of deformation associated with the Jackson Lake Formation (Martel et al. 2001) four generations of ductile structures (D_1 to D_4) have been recognized in the Kam and Banting Groups in proximity to the Jackson Lake Formation and the Yellowknife River Fault Zone, based on fold and foliation overprinting relationships (Martel et al., 2001; Figure 5). D_1 produced a locally preserved, bedding parallel S_1 foliation defined by the crenulated alignment of micas preserved in the mica-rich domain of the S_2 differentiation layering. S_2 is oriented parallel to the shear zone boundary and is axial planar to S-shaped F_2 folds. Along the steeply plunging L_2 stretching lineation, shear sense indicators consistently show east-side-up movement. D_2 structures are overprinted by an S_3 differentiated crenulation cleavage oriented counterclockwise to the shear zone boundary. S_3 is commonly folded, forming S-shaped F_4 fold displaying an S_4 axial planar foliation. Within the shear zone boundary, S_4 is strongly developed and sinisterly "C" shear bands are common. In brief, D_1 is poorly constrained. D_2 is best explained by oblique reverse-minor sinisterly shear and is correlated with the regional D_2 of Davis and Bleeker (1999); D_3 and D_4 are both spatially associated with the Yellowknife River Fault Zone, and are best explained as dextral and sinisterly shear respectively.

Although D_1 is recognized in all Kam, Banting, Walsh and Burwash units, there is no evidence for this generation of structures within the Jackson Lake Formation. It is possible that D_1 was responsible for the tilting of the Kam strata prior to the deposition of the Jackson Lake Formation and thus the angular unconformity at the base of the Jackson Lake Formation.

In the Jackson Lake Formation, three generations of ductile structures are observed (Martel et al., 2001). The earliest generation of structures (D_2) is represented by a penetrative foliation (S_2). S_2 is defined by flattening of clasts in conglomerate and by deformed quartz grains in sandstone.

It is axial planar to F_2 folds and is, in general, parallel or slightly clockwise to the unconformity and/or bedding. D_2 structures include a steeply plunging stretching lineation. The D_3 event is recorded by the overprinting of the S_2 foliation by a differentiated crenulation cleavage (S_3) oriented counterclockwise to bedding. This foliation is best developed in the pelitic beds of the Jackson Lake Formation. D_4 in the Jackson Lake Formation produced a spaced foliation (S_4) defined by the preferred alignment of micas. S_4 is axial planar to F_4 folds and is generally oriented clockwise to bedding.

The metamorphic grade of the YGB decreases from amphibolite facies close to the contact with the Western Plutonic Complex to greenschist facies close to the shore of Yellowknife Bay (Boyle, 1953). Metamorphic isograd in the YGB are spatially related to Defeat Suite Western Plutonic Complex, and therefore formed during the 2620-2630 Ma plutonism. The amphibolite facies aureole of the WPC contains an S_2 foliation that is subparallel to the granodiorite contact, and locally a steep to vertical lineation defined by stretched pillows and amygdules (Helmstaedt & Padgham, 1986). This fabric is also observed in amphibolite grade deformation zones in the YGB (Trapper Lake, Fox Lake), where the alignment of amphibole and biotite preserve an S_2 foliation. This suggests that D_2 deformation began in the YGB prior to the cessation of Defeat Suite related metamorphism (Armstrong, 2000; Siddorn and Cruden, 2000).

6.3 Regional Mineralization

The Yellowknife greenstone belt is in the south-western part of the Slave Province. The Slave Province is a late Archean granite-greenstone terrain, occupying approximately 190,000 km^2 of the northwestern part of the Canadian Shield (Henderson, 1981). The Slave Province is bordered by the 1.94 – 1.86 Ga. Wopmay Orogen to the west, by the 2.02 – 1.91 Thelon Tectonic Zone to the east, and by the Great Slave Lake Shear Zone to the south (Hoffman, 1989).

The metal-rich Archean craton forming the Slave Province (Figure 7) contains a variety of significant mineral deposits including volcanic-associated massive sulphide (Izok, Hackett River, Gondor, and High Lake), iron-formation-hosted gold (Lupin, George Lake, Goose Lake, and Damoti Lake), vein gold (Giant, Con, Boston, Doris, Tundra Joint Venture, Colomac, Tundra, Discovery, and Salimita) and diamonds (Ekati, Diavik). Pegmatites enriched in REE are widespread in the Yellowknife region and occur within the Aylmer Lake area. Current exploration is directed towards gold and diamonds in the northern portion of the Slave Province lying within the new territory of Nunavut and towards diamonds and tantalum in the NWT portion.

Metal endowment is variable across the Slave Province. Most of the approximately sixteen greenstone belt domains contain at least one important deposit; some domains contain several major deposits of different types. For example, the Contwoyto and Back River domains contain large VMS deposits as well as notable BIF-hosted gold deposits, but lack economic vein gold deposits. On the other hand, the High Lake belt lacks BIF-hosted deposits, but contains significant VMS and vein-gold deposits. The Yellowknife Domain contains a large number of vein gold deposits in the volcanic and sedimentary rocks in addition to REE pegmatites in the sedimentary rocks, but major VMS and BIF-hosted deposits have not been discovered. The Hope Bay Domain appears similar to the Yellowknife Domain in that numerous large vein gold deposits occur within a mixed mafic and felsic volcanic sequence that is dominated by pillowed and/or variolitic flows.

Across the Slave Province, significant gold and base metal deposits are hosted by supracrustal rocks that have been dated at circa 2700 Ma, 2660 Ma and 2615 Ma. In some domains (Contwoyto and Back River), individual supracrustal sequences host both gold and base metal deposits, but in other domains there appears to be a marked spatial separation between different deposit types. In the Courageous Lake and High Lake belts, VMS deposits occur within the oldest supracrustal sequence, whereas the gold deposits are hosted by the youngest sequences. Supracrustal sequences older than about 2720 Ma appear to be largely barren including the Winter Lake greenstone belt containing the oldest supracrustal rocks identified in Slave Province (circa 3200 Ma), and the circa 2820 Ma Central Slave Cover Group consisting of quartzite, felsic volcanic rocks, BIF and an ultramafic component (Bleeker et al., 1999).

The Yellowknife gold deposits in the southern Slave craton, gold mineralization is hosted primarily in second order quartz-carbonate–bearing shear zones that crosscut the ca. 2700 Ma mafic volcanic-dominated rocks of the Yellowknife greenstone belt (Fig. 1; Siddorn et al., 2006). Gold deposits are not restricted to the greenstone belt however, as numerous prospects and past producing mines occur as quartz lodes hosted by 2660 Ma greywacke-mudstone turbidites to the east of the greenstone belt (Fig. 6; Stokes et al., 1990; van Hees et al., 2006).

There are also numerous structurally hosted gold prospects associated with banded iron formation that is interbedded with <2630 Ma greywacke-mudstone turbidites (Fig. 1; Ootes et al., 2009). Within 50 km of Yellowknife (Fig. 1), turbidite-hosted deposits are spatially related to ca. 2592 Ma S type Prosperous plutons and associated contact metamorphic aureoles. Using mineralization-related trace-element data and ore-related fluid inclusions, van Hees et al. (2006) concluded that the hydrothermal fluids responsible for at least some of these turbidite-hosted gold deposits originated from contact metamorphism of, and fluid exsolution from, the turbiditic host and also directly from the intrusions responsible for these metamorphic reactions, including the ca. 2592 Ma Prosperous plutons and associated pegmatites. In contrast, the strictly greenstone-hosted deposits lack a spatial relationship with the S-type plutons (Ootes et al., 2007), though the metal budgets (e.g., arsenic and antimony) and radiogenic isotopic signatures of the ore do indicate some sedimentary or plutonic component (Coleman, 1957; van Hees et al., 1999, 2006; Ootes et al., 2007). Gold mineralization in the greenstone belt is localized near the ca. 2630 Ma amphibolite-greenschist isograd (Thompson, 2006), but the mineralization postdates this plutonic-metamorphic event (MacLachlan and Davis, 2002).

Gold mineralization in the Yellowknife area was not restricted to one specific event, but was part of an evolving continuum of mineralization (e.g., Armstrong, 1997; Siddorn et al., 2006) that on the regional scale is suggested to be linked (Cousens et al., 2006b). Gold in the Yellowknife greenstone belt is intimately associated with sulfide mineralization, in both visible and refractory forms, the latter being substituted in the crystal lattice of sulfide minerals (Armstrong, 1997; van Hees et al., 1999).

6.4 Mon Gold Property Geology

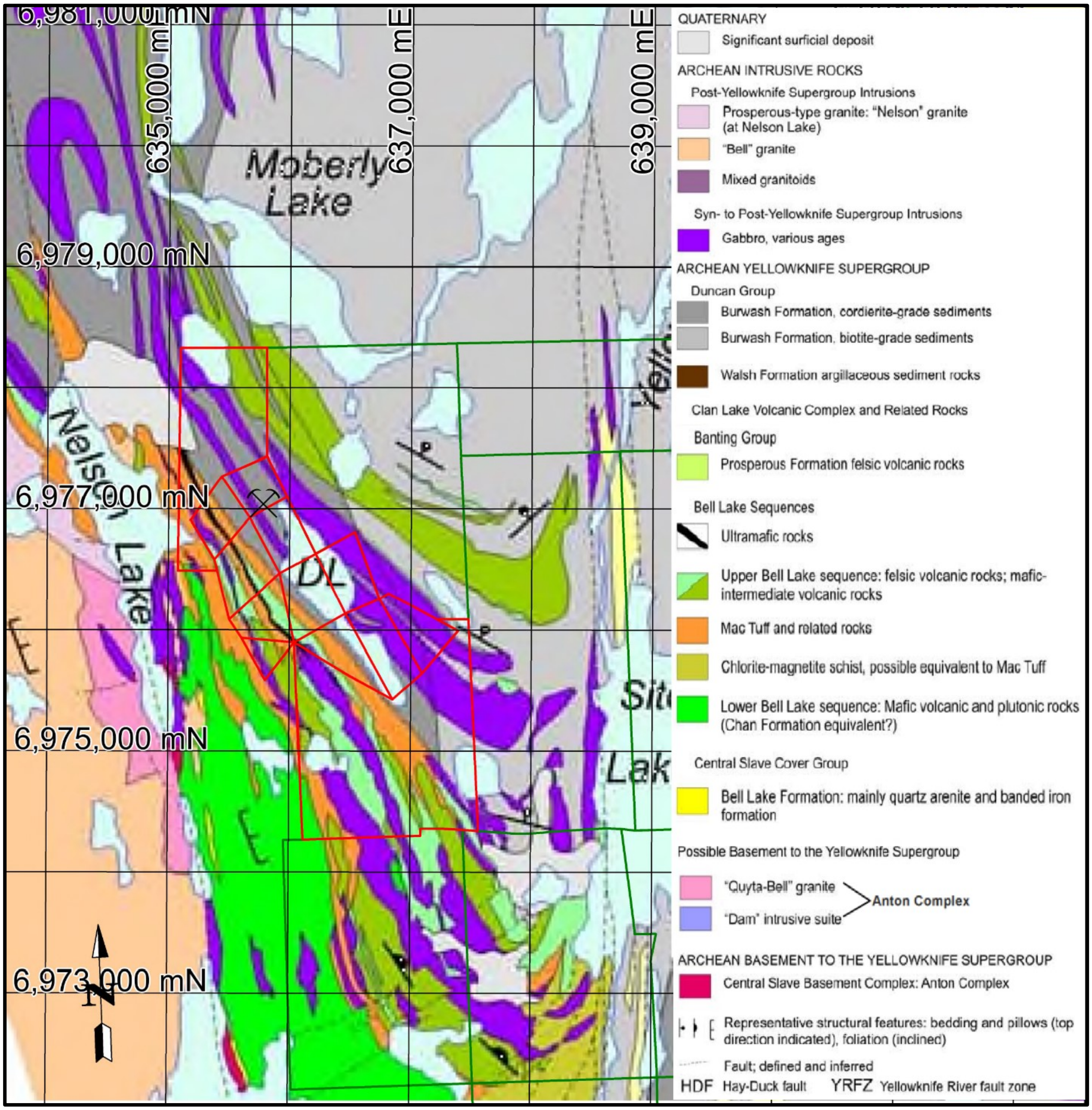
The property is underlain by a portion of the Sito Lake Complex (Fig. 8), a part of the Yellowknife Supergroup consisting of mafic and felsic and mafic-intermediate intrusive rocks of the Kam and Banting Groups and the overlying sediments of the Burwash Group. (Helmstaedt et al, 1985). These plunge steeply to the north (Helmstaedt et al, 1985). The Mon Gold Property lies on the west limb of the Sito Lake fold. An isograd transects the eastern part of the Mon Gold Property, separating cordierite grade rocks to the west from lower grade tocks to the east. Rocks of the Dwyer Lake Succession lie in a major isoclinal anticline (?) immediately to the west of the Mon Gold Property (fig 9). The volcanic complex which lies to the east, separated by a splay of the Yellowknife River Fault, a north trending left lateral strike slip fault, along the western edge of Sito Lake. The Sito Lake complex is deformed into a major north-northwest facing, open syncline, the Sito Lake Fold.

McDougall and Goad (1989) report that the A Zone is hosted by metagraywackes and metamudstones to the east and metagabbro and metamudstone to the west. Foliation is well developed in the metasediments and is parallel to the bedding, striking 150^0 – 160^0 and dipping steeply to the west. Two separate units of mafic metavolcanics are present near the west side of the property. They are dominantly massive to pillowed flows with minor intercalated metasedimentary rocks. A number of gabbroic intrusions occur as sills concordant to the stratigraphy. These sills are, generally, quite massive with little evidence of differentiation or layering.

A substantial shear zone forms the contact between felsic and mafic metavolcanic rocks west of Discovery Lake. It is concordant to stratigraphy – striking at 155^0 and dipping steeply to the east. This shear zone contains noticeable amounts of arsenopyrite resulting in gossanous surface exposures.

Small-scale faulting has been observed in a few localities towards the southwestern side of the Mon Gold Property. They are typically present within metasediments and are characterized by displacements of up to 20cm.

Figure 8. Geology of the Mon Gold Property



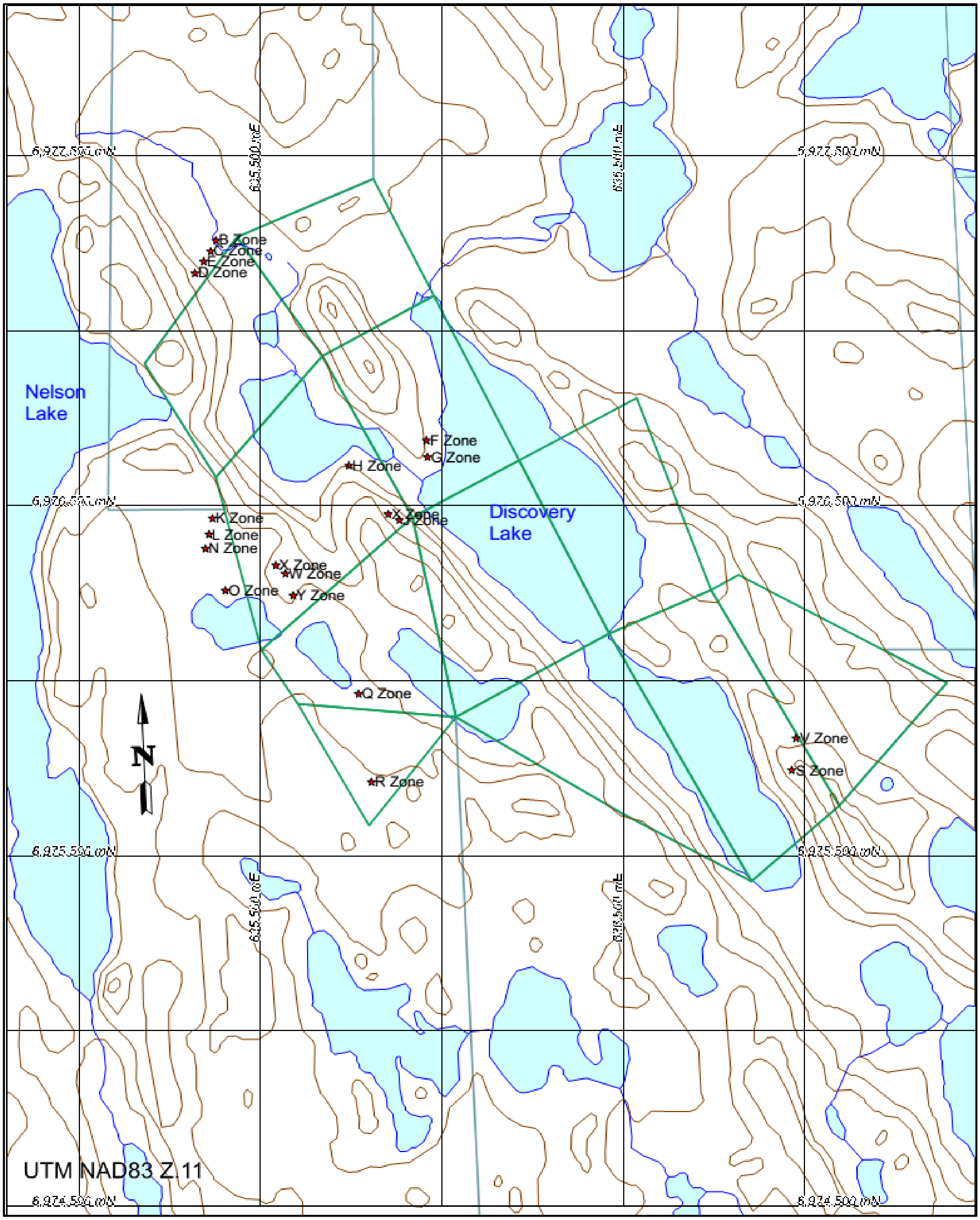
6.5 Mon Gold Property Mineralization

There are five principal areas of gold mineralization on the Mon Gold Property, including the A-Zone.

Only the A-Zone has seen significant exploration. The quartz bearing ore veins lie near the contacts of a mixed sedimentary - volcanic sequence and thick gabbro sills. The vein system mostly follows the north-northwest striking contact between sills and sedimentary-volcanic rocks, but locally splays out into one or the other rock type. Individual quartz veins are typically lens-shaped, glassy in texture and vary in colour from white to gray. The vein system has been traced approximately 210 meters along strike and to depths generally less than 30 meters. Gold grades are erratic but appear to be correlative with the sulphide content of the veins which averages less than 1%. Interest has been focused primarily on an S-shaped quartz lens known as the A-zone, a

0.7 to 2meter wide semi-continuous vein with a strike length of 90m. Gold concentrations are greatest within the hinge of the folded vein (Lord, 1951).

Figure 9 Map of Known Showings on the Mon Gold Property

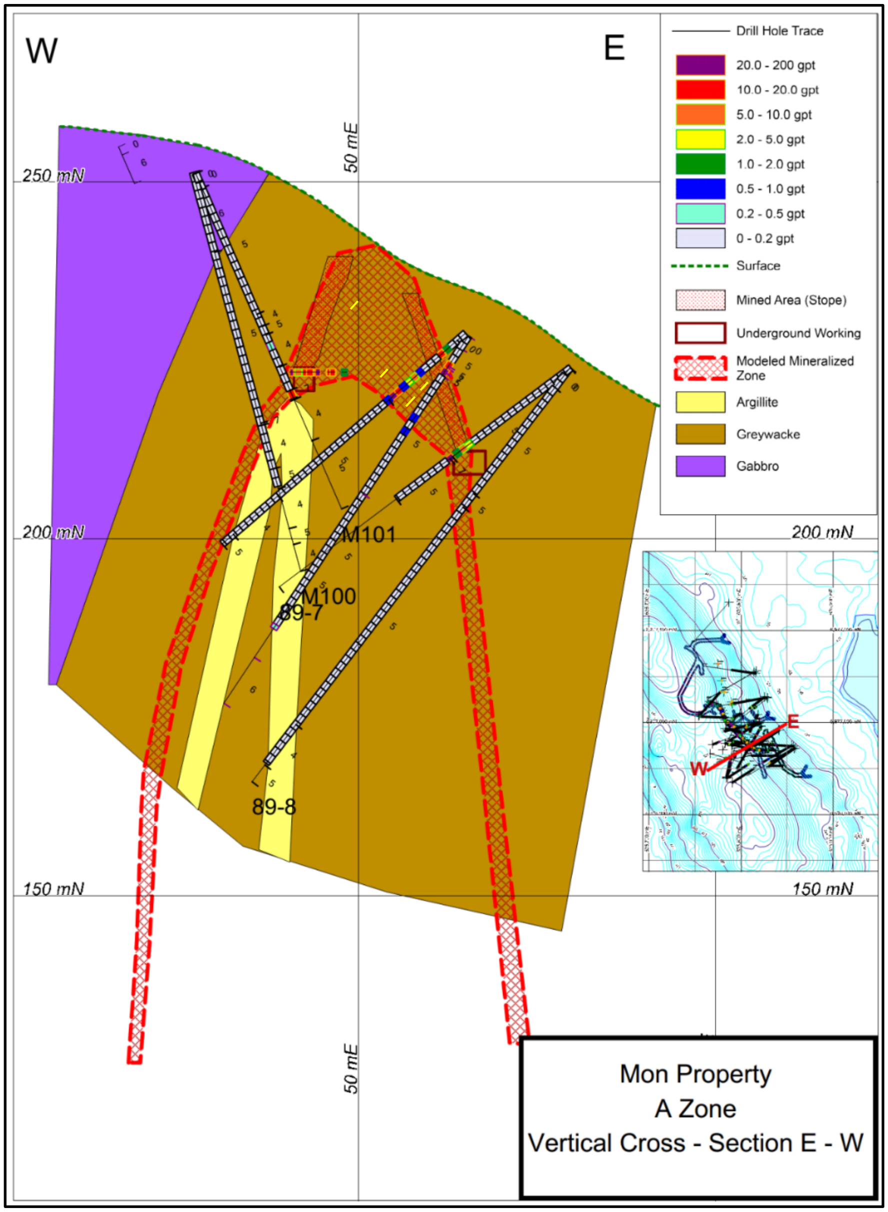


Several of the mineralized showings are hosted by shear zones and are observed as gossanous schists proximal to the contact between felsic and mafic metavolcanics as well. Typically, the shears are strongly chloritic or hematitic and host small quartz veins. The mineralized shear zones generally display a salmon-pink colouration which is imparted by albitization/hematite. The shears commonly contain trace amounts of fine grained disseminated pyrite and arsenopyrite. The auriferous shear zones and vary in width from 10 cm to 4 m in thickness. They can only be traced over lengths up 50 m. Grades ranging in grade from 0.5 g/t to 5 g/t gold were obtained from chip samples (McDougal and Goad, 1989).

The Monument Zone is not well exposed, but strikes north-northwesterly on the west-side of the hill that hosts the A-Zone. It is characterized by quartz sericite schist, considered to be a quartz-eye bearing rhyolite to dacite tuff. It is 200 m wide and is topped to the east by a sulphide-rich zone (Showings H, I, and J). Where the QSS is exposed it is always shot full of narrow quartz veins, in shear-zone geometries cross-cutting S2, commonly containing black tourmaline (short) and in places, arsenopyrite.

The "A" zone is the most significant prospect on the Mon Gold Property and has been described by Lord (1941). Generally, the quartz vein system strikes parallel to the north-northwest trending contact of a gabbro sill and sedimentary-volcanic rocks but, locally, the vein or a splay extends 3m into the enclosing wedge of volcanic and sedimentary rock. Veins within the system have a podiform or lenticular shape. Quartz is glassy and varies in colour from white to grey. The vein system has been traced 220m along strike and by drilling to depth of less than 40m. Vein width varies from less than 10cm to about 4m and averages 75 cm. Gold content is erratic, ranging from trace up to 274 g/t and averaging about 34 gpt. Veins host ore shoots that plunge moderately south. Quartz veins may contain as much as 10-15% silicified fragments, which are locally sulphide-rich. Quartz veins contain generally workings less than 1% sulphides and rarely up to 5% sulphides which are, in order of decreasing abundance, galena, sphalerite, pyrite, arsenopyrite, pyrrhotite and chalcopyrite. Visible gold is common and there is a direct correlation between gold grade and sulphide content. The gold mineralization is entirely within a broad envelope of albitization and associated hematization that is up to 25 m in width. Alteration is present as: Fracture – related metasomatism within the gabbro and greywacke and, pervasive bleaching of the dark grey-black pervasive bleaching of the light grey-pink aphanitic rock previously thought to be flow-banded rhyolite of quartz latite.

Figure 10 Vertical Cross-Section E-W Mon Gold Property, A-Zone



Where tested, the vein is thickest near the point where it outcrops (figure 11). Here, an “S” shaped fold plunges shallowly (approximately 30^0) to the southwest. The hinge of this fold appears to be coincident with a fault system striking north-south and dipping steeply to the west (McDougall and Goad, 1989). The author observed north-south trending and steeply plunging lineaments. Visible gold is common, particularly in Trenches 1 and 2 and the underground workings where the fold hinge is revealed. McDougall and Goad (1989) report that gold appears to be associated with inclusions and wall rock contacts. The host rocks of the A zone mineralization are metasediments to the east and metagabbro and metamudstone to the west. Pervasive alteration of the metasediments occurs up to 2 meters from the veins. An outer zone of alteration is characterized by ubiquitous weak chloritization and local silicification and albitization along fine cross-cutting fractures. An inner alteration zone is defined by more intense silicification and albitization. Metasediments within this zone are generally bleached to a buff grey-pink colour and contain finely disseminated pyrite, biotite, chlorite and, locally, strong oxidation of pre-existing sulphide minerals.

This zone is irregular; varying in thickness from less than 1 meter to more than 5 meters from the veins, contains finely disseminated pyrite. McDougall and Goad (1989) report that, during the course of the underground exploration program, channel and chip samples were collected across every face exposing the Main A Zone. Assays of these samples varied from 0.03 gpt and 663.76 gpt and indicate the heterogonous distribution or nugget effect of the gold. It is noteworthy that a 115 kg sample from the lower grade portion of the A Zone Main Vein returned a gold value of 10.97 gpt gold.

McDougall and Goad (1989) also report assays of chip samples collected from the A Zone on surface. Ten trenches were sampled as well as several areas between the trenches.

There are no significant historical mineral resource or reserve estimates from the Mon Gold Property.

Figure 11 Map Showing Location of Drill Holes and Underground Workings at the A-Zone

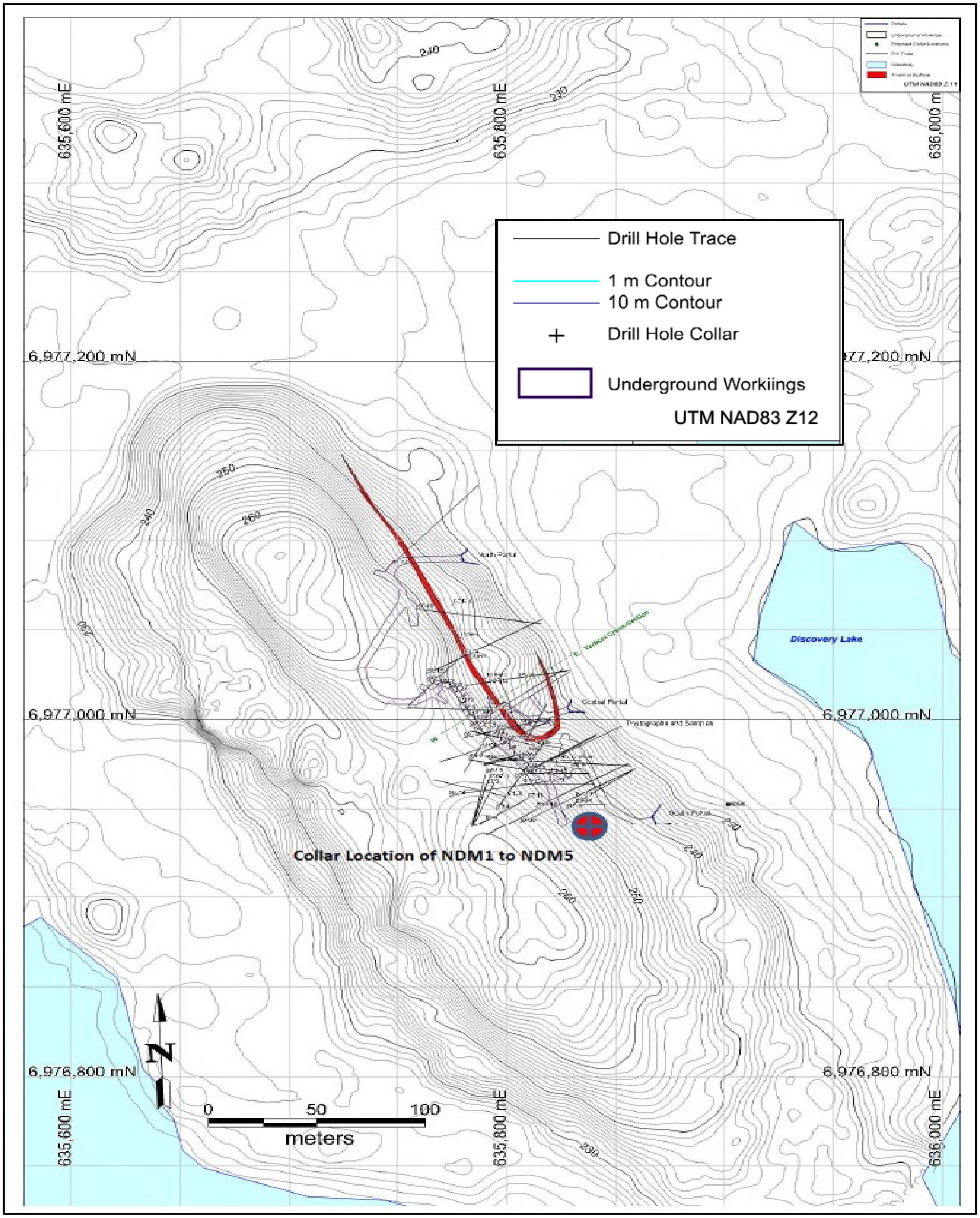


Table 11. Gold Assay Results from 13 Cominco Trenches

Trench Number	Width (m)	Au (gpt)*
2	1.52	31.74
2.5◦	0.61	40.96
6	0.38	1.47
6	1.39	13.37
7	0.61	18.79
8	0.56	4.18
8.5◦	0.31	0.58
9	0.3	5.48
10	0.15	3.22
10.5◦	0.47	0.17
11	1.04	0.034
11	0.61	0.021
12	1.04	123.27

The weighted (by width) average grade of these 13 samples is 26.34 g/t gold. The average sample width is 70 cm. The gold assays are principally in accord with those obtained by Cominco Ltd. and Coronado Resources Inc. The results shown in Table 11 are very erratic – indicative of the gold nugget effect.

In 1989, Can-Mac extracted 4,037 tonnes of rock from the A Zone underground workings, including 2,096 tonnes of mineralized rock with a weighted average grade of 25.47 g/t. The grade is considerably lower at 11.14 gpt gold if the grade is cut to 69 gpt (2.0 opt). Consequently, the final grade of the bulk sample is suspect because more than half of the grams of gold are carried by only a few high grade samples.

◦ Samples collected between trenches
* These assays were converted from the original "oz./t" using a conversion factor of 34.28 gpt = 1 oz./t

6.6 Statistical Analysis

Two probability plots, one of the logs of the raw data, and one of the logs of length x grade were prepared. The idea of the second plot is that higher-grade samples tend to be small samples whereas lower grade samples tend to be larger (longer) samples. By plotting just assay grade, we are ignoring the inherent size component, or "one degree of freedom" that affects all statistical analysis. By incorporating the length of the sample, we're are adjusting for that. Compositing the data would be better, but this is a good estimate of accommodating length into the equation and, therefore, we are just looking at the amount of gold in a sample, and not just its concentration. Plots of "n" scores which correspond to number of standard deviations from the mean. Therefor 0 is the 50% mark, 1 is 1 standard deviation above the mean or about 84% of the population and 2 is 2 sd above the mean or about 97.7% of the population.

Figure 12. Log Probability of Raw Gold Assays

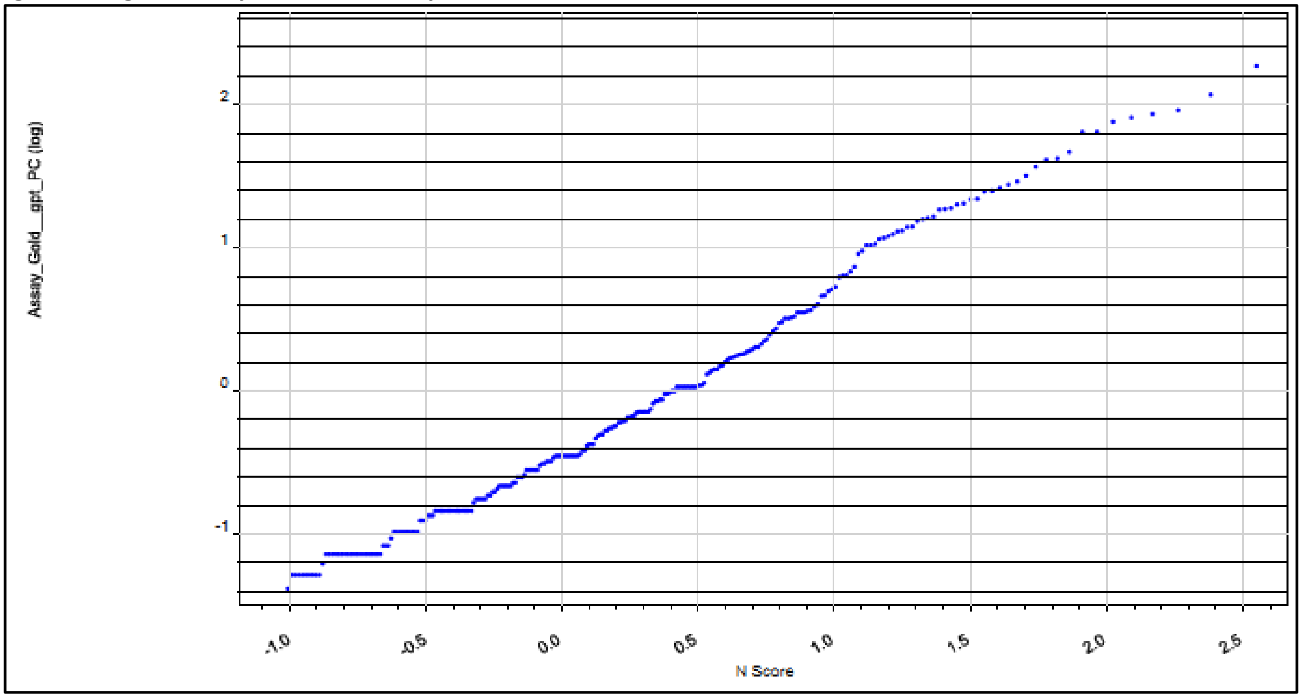
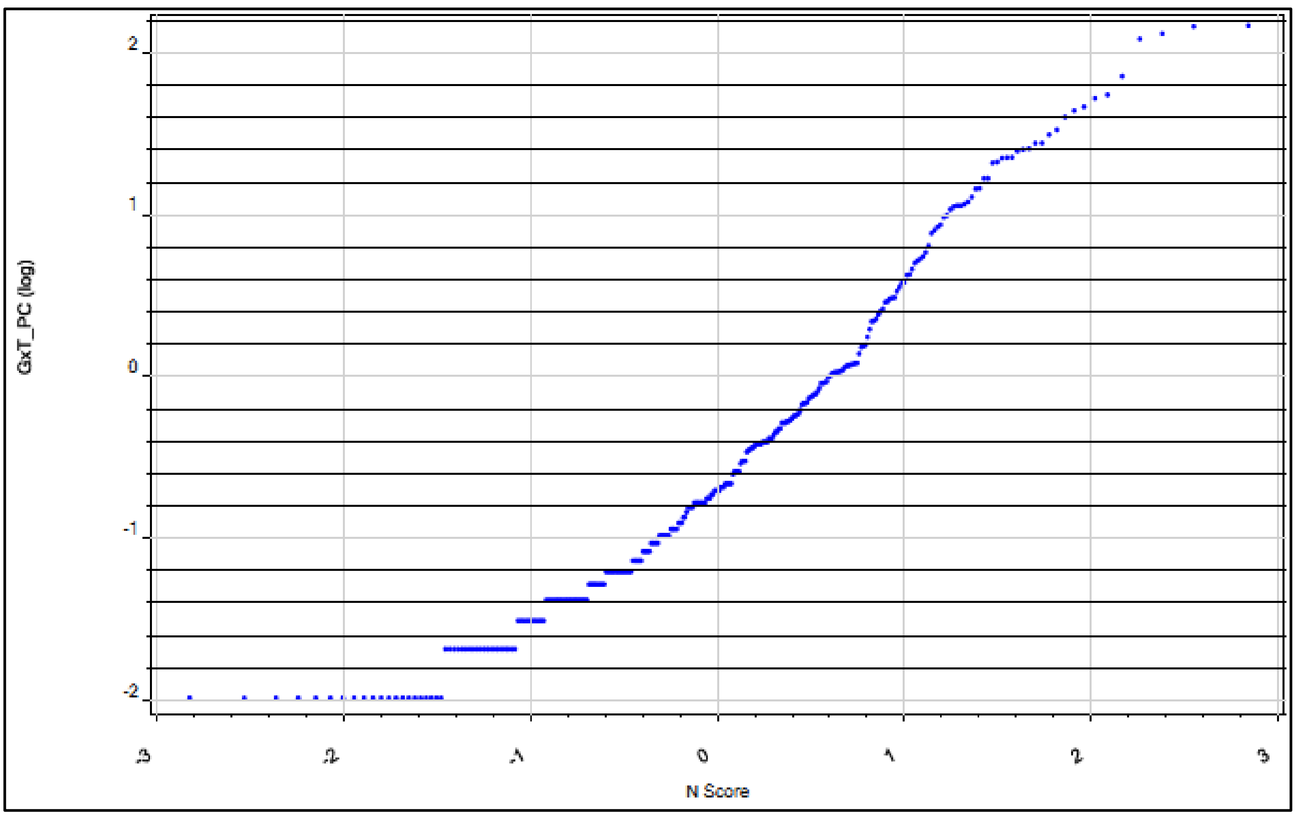


Figure 13 Log Probability Plot of Gold x Width



The raw data shows a straight line distribution up to about log 0.75 gpt Au. The deviation upwards to the next straight line is short and shows an inflection around an n score of about 1.0 (84% of the population). It then deviates to a second population for the balance with some odd distribution between n=1.8 and n= 2.2.

The Lx Au data is maybe simpler, showing the large low-grade population accounting for n=1.1 or slightly more than 90% of the population with a mean LxAu of log -0.8 or 0.15 gpt meters. With an average width of around 0.7, this would be close to 0.2 gpt, or the old detection limits. This is to be expected. The next population is difficult to model, but looks to have an average LxAu of around log 1.6 or 40 gpt - meters or again dividing by 0.7m, gives 56 gpt Au. There looks to be a deviation of the LxAu graph above n=2.2 which is less than 1% of the population. It can't be modelled as it appears to have hit a limit in the assays or sample lengths.

7. Deposit Type

The Mon Gold deposits belong to a class which is widespread throughout the world and have produced a large amount of gold and silver; they are often referred to as "Bendigo Type". Examples include Yellowknife, Northwest Territories, Canada; Red Lake and Timmins, Ontario, Canada; Kolar goldfield, India; Kalgoorlie goldfield, Western Australia; and the Cam and Motor, Dalny, and other similar mines in Zimbabwe. Younger representatives are the Mother Lode system of California (Mesozoic); Comstock Lode, Nevada (Tertiary); Goldfield, Nevada (Tertiary); Cripple Creek, Colorado (Tertiary); Coromandel gold belt, New Zealand (Tertiary); Emperor mine, Fiji (Tertiary); Lebong and other auriferous districts, Indonesia (Tertiary); Lepanto mine, Philippines (Tertiary); Kasuga mine, Japan (Tertiary), and the Belaya Gora and other similar deposits in the far eastern Russia (Tertiary).

The Yellowknife Greenstone Belt deposits can be considered Archean Lode Gold deposits within an orogenic gold environment. These deposit types are well documented throughout the Canadian Shield. Gold deposition typically post-dates peak metamorphism and can be accompanied by retrograde metamorphism in the greenschist to amphibolite grade lithologies. Favorable structural settings include areas of contrasting lithological competency which result in brittle and ductile shearing as well as quartz-carbonate veining as stockwork and lode gold quartz veining.

The structure of vein-type gold deposits is defined by the shapes and geometrical relationships of mineralized bodies, the form of the mineralization making up these bodies, and the sequence of vein-forming events. Most mineralized zones occur within, or are spatially associated with shear zones, especially shear zones in larger systems of intersecting shear zone sets. They range in shape from tabular to linear, and in form from disseminated, to breccia, to stockwork or sheeted veinlet zones, to single veins. There typically is a complex history of mineral deposition which overlaps, and is genetically related to, the deformation that generated the host structural zone. The purpose of this paper is to consider the structural features of vein-type deposits in relation to the geometrical properties and evolution of vein hosting fractures, particularly shear zones. The evidence indicates that veins are localized by tectonically-generated dilatancy in an environment of low mean stress caused by high fluid pressure. It is proposed that a major cause of tectonic dilation of shear zones is the interference between intersecting shears during bulk, inhomogeneous flattening by movement on systems of intersecting shear zone sets.

The deposits are developed predominantly in sequences of shale, sandstone, and greywacke dominantly of marine origin. Such sequences are invariably folded, generally in a complex manner, metamorphosed, granitized, and invaded by granitic rocks, forming extensive areas of slate, argillite, quartzite, greywacke, and their metamorphic equivalents. Near the granitic bodies, various types (kyanite, andalusite, and cordierite) of quartz-mica schists and hornfels are developed and grade imperceptibly into relatively unmetamorphosed slates, argillites, quartzites and greywacke marked by the development of sericite, chlorite and other low-grade metamorphic minerals. Most of the gold deposits are developed in the lower-grade facies. A few economic deposits occur in the granitic batholiths and stocks that invade the greywacke-slate sequences.

The principal gangue mineral in these deposits is quartz; feldspar, mica, chlorite, and minerals such as rutile are subordinate. Among the metallic minerals, pyrite and arsenopyrite are most common, but galena, chalcopyrite, sphalerite, and pyrrhotite also occur. Molybdenite, bismuth minerals, and tungsten minerals are local. Stibnite occurs in abundance in a few deposits, but is relatively rare in most deposits. Acanthite, tetrahedrite-tennantite, and other sulfosalts are not common in these deposits. Carbonate minerals, mainly calcite and ankerite, are common but not abundant. The valuable ore minerals are native gold, generally low in silver, auriferous pyrite, and auriferous arsenopyrite. Telluride minerals are relatively rare, and aurostibite is an uncommon mineral in these deposits.

A few deposits in this category are tabular or irregular replacement (disseminated) bodies developed in carbonate rocks or calcareous argillites and shales. The principal minerals in these deposits are quartz, fluorite, pyrrhotite, pyrite, arsenopyrite, sphalerite, galena, chalcopyrite, and stibnite.

As a general rule, wall rock alteration associated with these deposits is minimal, and the quartz veins, saddle reefs, and irregular masses are frozen against the slate, argillite or greywacke wall rocks. In places, thin zones of mild chloritization, sericitization, and carbonatization are present. Some veins are marked by thick black zones (up to 15 cm wide) of tourmalinized rock. Disseminated pyrite and arsenopyrite are common in the wall rocks of most of these deposits. This pyrite and arsenopyrite is usually auriferous.

The elements exhibiting a high frequency of occurrence in this type of gold deposit include Cu, Ag, Mg, Ca, Zn, Cd, (Hg), B, (In), (Ti), Si, Pb, As, Sb, (Bi), S, (Se), (Te), (Mo), W, (F), Mn, Fe, (Co), and (Ni). Elements in parentheses have a low to very low frequency of occurrence. The Au/Ag ratio in the ores is generally greater than 1.

The Mon deposit belongs to a sub-class termed Discordant Stratabound Gold Deposits (DSGD) and is hosted within a thickly bedded amphibolite-facies belonging to the Burwash Formation meta-argillite adjacent to a stratiform amphibolite unit. Gold mineralization occurs within and adjacent to a 1 to 3 meter wide zone comprising quartz veins and silicified argillite disposed in a horseshoe-shaped antiform with a 20 meter interlimb distance plunging moderately to the southeast. Gold is associated with sulphides that typically occur proximal to inclusions and quartz vein margins and include. The gold is hosted by veins, lodes, sheeted zones, and saddle reefs in faults, fractures, bedding-plane discontinuities and shears, drag folds, crushed zones, and openings on anticlines essentially in sedimentary terrains; also replacement tabular and irregular bodies developed near faults and fractures in chemically favourable beds. The mineralization of these particular deposits is characterized essentially by quartz; carbonate minerals, pyrite, arsenopyrite, base-metal sulfide minerals, and a variety of sulfosalt minerals. The principal gold minerals are the native metal and various tellurides; aurostibite occurs in some deposits. Characteristic types of wall rock alteration are generally developed adjacent to and in the vicinity of nearly all deposits in this class. In the old Precambrian rocks, the most common types of alteration are chloritization, carbonatization, sericitization, pyritization, arsenopyritization, and silicification. In the younger rocks, propylitization (chloritization and pyritization) is especially characteristic, and there may also be a development of adularization, silicification, kaolinization, sericitization, and more rarely alunitization.

The Mon gold deposit is quite similar to the Discovery Mine, located 40 km to the north. The Discovery Mine is exposed on surface as a 170 meter-long quartz vein folded into a vertically plunging antiform (75m long limbs, 20m apart). It was traced to a depth of 1,220 meters. Between 1949 and 1969, 1 million ounces of gold were recovered from 1 million tons of ore.

8. Exploration by Sixty North Gold Mining Ltd.

Exploration of the Mon Gold Property by Sixty North Gold Mining Ltd. has comprised data compilation, diamond drilling (378.9 m from 5 holes) and prospecting. The drilling is discussed Section 9.

The 2017 exploration program consisted of up to two prospectors covering the entire property, reviewing all previously identified showings and assessing the potential for 'low quartz" or "Ormsby-style" mineralization. The latter target refers to the gold mineralization associated with potassic-altered, sulphide-rich, structurally-hosted gold mineralization that characteristically has low quartz content (often <5% qtz). Disseminated sulphides were commonly noted in the wall rocks around the known showings and elsewhere and will need to be assessed if the sampling supports the low-quartz model. A geological review of selected targets was conducted at the end of this program. No assays have been received as of the date of this report.

The tent camp was reactivated July 8th and two prospectors started July 17th. The diamond drill was demobed during this period. One prospector returned to town on July 27th while the other remained in camp. Dr. D.R. Webb, P.Eng., P.Geol. moved onto the property August 20 for five days. A total of 232 grabs samples were collected by prospectors and 21 samples were collected by Webb. These were delivered by the Company's expeditor to Maaxam Labs in Yellowknife for processing by PRP 70-250, AQ251 and FA550 procedures on samples with gold values >1 gpt (by AQ251) by Bureau Veritas Minerals in Vancouver. No results have been received as of the date of this report. Three areas that had previously been trenched by Cominco Ltd in the 1940's were reviewed by Webb, and included in the sampling.

9. Drilling

Five drill holes were completed in October, 2016. A total of 378.9 m of NQ coring was completed with >99% recoveries. The summary details are presented in Table 13 and Table 14. The 2016 drilling program was carried out by New Discovery Mines Ltd. on behalf of Sixty North Gold Mining

Core was collected at the diamond drill by Foraco personnel and delivered to camp daily where the sealed boxed were received by Webb. Boxed core was stacked in a heated tent to warm prior to logging, opened by Webb logged and marked for sampling. Marked core was stacked outside prior to being sawn in half by an independent contractor supervised by Webb. Blanks and standards were inserted into the sample stream during sampling. Samples were bagged, tied and consolidated into rice bags. These were flown into Yellowknife by a charter airline, received by Webb and delivered to Maxxam Analytics in Yellowknife, a subsidiary of Bureau Veritas Laboratories ("BVI") an ISO 9001:2015 certified laboratory for shipment to Vancouver for analysis. Maxxam and BVI are independent of Webb, Sixty North Gold Mining Ltd.

Samples were received by BVI, weighed and dried. Samples were crushed to 70% passing -2mm and 250 gms were pulverized to >= 85% passing 75 microns using PRP 70-250. Samples were analyzed using ICP methods with a MS finish (AQ250), fire assayed on 30 gm aliquots using an ICP ES finish (FA330 Au), and for samples greater than 10 gpt, fire assayed on a 30 gm aliquot with a gravimetric finish (FA530 Au).

Table 12. Summary of 2016 Diamond Drilling Program

Drill Hole	UTM 83 Z.11 East	UTM NAD83 Z.11 North	Elevation AMSL	Azimuth	Inclination	Total Depth (m)
NDM-1	635835.9	6976944	247.16	330	-50	67.1
NDM-2	635835.9	6976944	247.16	330	-65	80.8
NDM-3	635835.9	6976944	247.1613	330	-80	81
NDM-4	635835.9	6976944	247.16	300	-90	81.1
NDM-5	635835.9	6976944	247.16	300	-60	68.9
Total						**378.9**

All drill holes intersected the A-Zone at target depths.

Table 13. Significant Results from 2016 Drilling Program

Drill Hole	From (m)	To (m)	Gold (gpt) BVI	Gold (gpt) ALS	
NDM1	27.8	28.4	0.088	0.06	
NDM1	28.4	28.9	1.442	1.52	A-Zone
NDM1	28.9	29.7	0.178	0.06	
NDM1	29.7	30	0.096	0.08	
NDM2	33.8	34.3	0.008	<0.05	
NDM2	34.3	35.2	4.971	5.22	A-Zone
NDM2	35.2	35.7	0.084	<0.05	
NDM2	57.6	58.2	0.065	NA	
NDM3	24.6	25.1	0.049	NA	
NDM3	49.5	50.3	0.014	<0.05	
NDM3	50.3	51	14.9	15.1	A-Zone
NDM3	51	51.9	15.6	10.1	
NDM3	51.9	52.5	0.101	.06	
NDM4	69	70.3	0.048	<0.05	
NDM4	70.3	71	0.029	<0.05	
NDM4	71	71.9	0.051	<0.05	A-Zone
NDM4	71.9	72.9	0.084	0.12	
NDM4	72.9	73.6	0.078	0.10	
NDM4	77.9	78.5	0.928	NA	
NDM5	31	31.6	0.012	<0.05	
NDM5	31.6	32.7	0.643	1.87	A-Zone

Table 14 Cost Breakdown for 2016 Drilling Campaign

Item	Cost
Bonding	$88,000
Mobilization/demobilization	$11,800
Foraco Drilling	$79,100
Diesel and drums	$5,700
Propane	$1,500
Fixed Wing Flights	$10,600
Helicopter Flights	$62,300
Camp	$35,800
Jet A	$900
Assays	$5,900
Food	$4,300
Medic	$4,300
Camp Labour	$5,100
Miscellaneous (travel to camp, geo supervision)	$20,600
Total	**$335,900**

9.1 Interpretation

The October 2016 drill program intersected a gold-bearing quartz vein considered to be the downward extension of the A-Zone. The intersected gold grades are similar to those grades encountered in the past. Because of the "nugget effect", grades are expected to vary widely. According to the logs, the quartz vein contact with host rock ranged from 15 to 70 degrees, and so the true width would range from a low of 25 to 94% of the core length.

Drilling has shown continuity of the A-Zone to a vertical depth of 54 m below the East Stope and to a vertical depth of 63 m below the West Stope.

Figure 14. Vertical Section at Az. 153

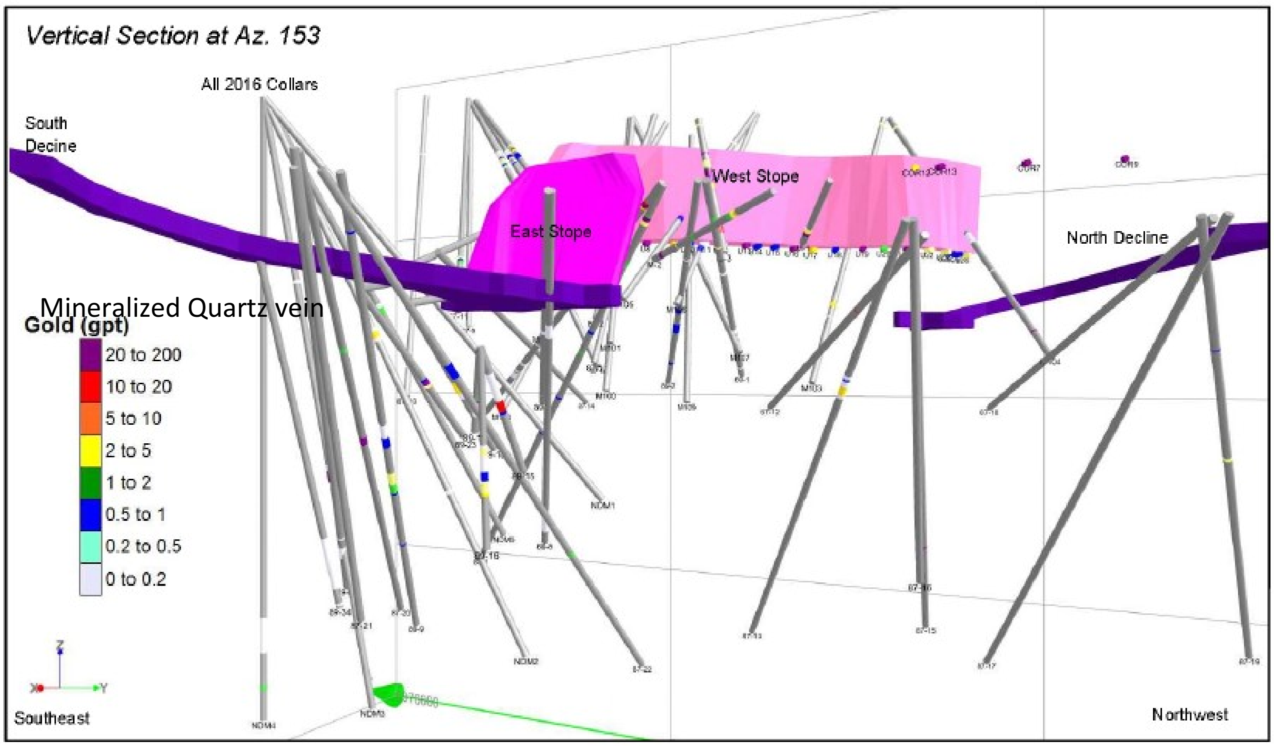


Figure 15. Inclined Section at -60 viewed up to Az. 311

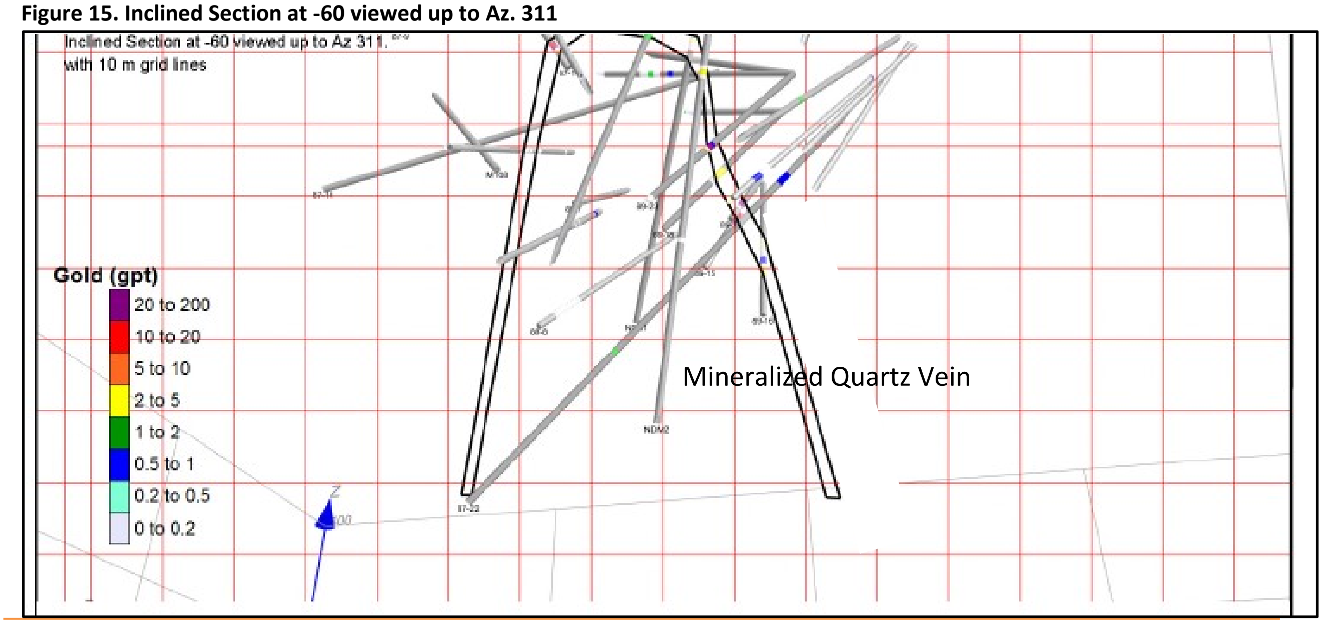
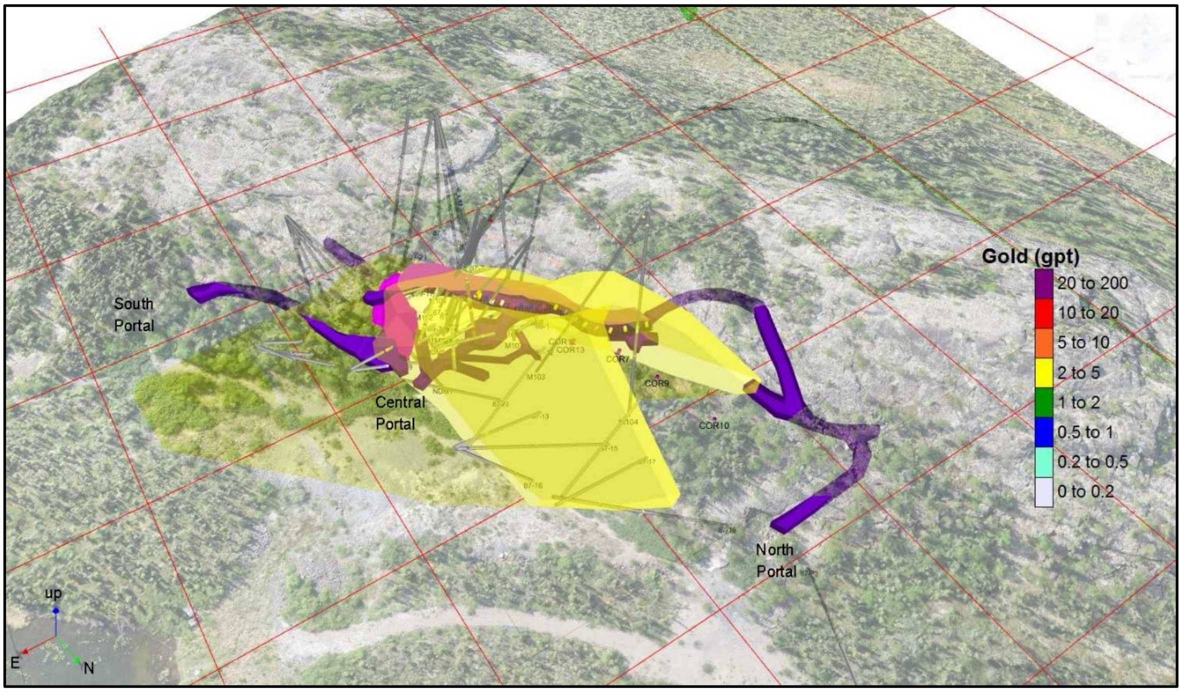


Figure 16. View of a 3D Model of the A-Zone viewed down to the SW



An inclined vertical section viewed upwards to Az 311 at the southern limits of drilling on the A-Zone shows a 20 m thick slice, confirming continuity of the folded vein structure with mineralization in the east limb showing good grades. Minor inflections in the vein may be due to projection of the intersections onto a plan, or survey issues.

10. Sample Preparation, Analysis and Security

10.1 July 2016 Outcrop Chip Sample Preparation

On July 26, 2016, the author collected four continuous chip samples at the mouth of the central adit (fig. 9). The chip sample transect was not quite perpendicular to the mineralized quartz. As such, the true width of the mineralized zone is thinner than the sampled width. Each sample was collected over one-meter lengths and were quite large (2.18 – 3.50 kg.). The samples were placed in plastic sample bags, an ID tag emplaced, tied and then placed in large rice bags. These large bags remained in the author's possession in Yellowknife, then accompanied him as personal baggage to his office in Victoria, BC. Subsequently, they were shipped by Canada Post to the Veritas Laboratory in Vancouver. There is no relationship between the laboratory and the issuer (Sixty North Gold Mining Ltd.).

10.2 Analytical Procedures

Procedure Code	# Samples	Code Description	Test Wt. (g)
PRP70-250	4	Crush, split and pulverize 250 g rock to 200 mesh	
SLBHP	3	Sort, label and box pulps	30
FA530	7	Lead collection fire assay fusion - gravimetric finish	
AQ202	7	1:1:1 Aqua Regia digestion ICP-MS analysis	30

10.3 Analytical Results

Table 15 Analytical Results of Author's June Site Visit

	Sample Description	Method	WGHT	FA530	FA530	AQ202	AQ202
		Analyte	Wgt	Ag	Au	Ag	Au
		Unit	KG	GM/T	GM/T	PPM	PPB
		MDL	0.01	20	0.9	0.1	0.5
Sample #		Type					
Mon A	1.0 meter continuous chip sample. Quartz vein - massive, smokey, milky crypto-crystalline. 1% pyrite fine grained disseminations and small blebs	Rock	3.02	35	122	23.7	>100000
Mon B	1.0m continuous chip sample. Continuation of sample trace. Same as above.	Rock	2.01	77	320.5	41.2	>100000
Mon C	1.0m continuous chip sample. Continuation of sample trace. Same as above except several small inclusions of country rock	Rock	3.5	<20	1.2	0.7	2031
Mon D	1.0 Continuous chip sample. Footwall medium grained, brown, siliceous, sugary. Trace to 1% disseminated fine grained pyrite. Minor pinkish colouration probably due to hematite alteration	Rock	2.18	<20	<0.9	1.2	1690.7
Pulp Duplicates							
Mon D	Original Analysis of sample Mon D	Rock	2.18	<20	<0.9	1.2	1690.7
Mon D	Repeat analyses of chip sample Mon D	REP				1.2	1418.6

Note: Gold Fire Assay Results are expressed as grams per tonne (GM/T). ICP analyses are reported as parts per billion. Divide ppb by 1000 to produce GM/T.

10.4 December 2016 Core Sample Preparation

One certified blank (CDN Labs GS BL-10, expected <0.01 ppm) returned a value of 8 ppb gold by AQ250 and one certified standard (CDN Labs GS-5T, expected 4.86 gpt (+/- 0.26) by gravimetric and 4.76 (+/- 0.21) by Instrumentation) returned a value of 4.643 gpt gold and 4.770 gpt by FA330 and AQ250 respectively. All results are considered acceptable.

Internal repeats by reject and pulp checks tested three samples that returned the following gold values:

Table 14. Repeat analysis of samples

Sample	Initial Gold Analysis (ppb)	Repeat Gold Analysis (ppb)	Method
2585216	48	55	FA330
2585206	5.7	3.9	AQ251
2585210	216.7	55	AQ251

Although this is a very small sample population, these are considered acceptable results.

10.5 Analytical Procedures

The drill core was logged and sampled in the field, with sawed half core samples bagged and delivered to Bureau Veritas Laboratories in Vancouver for AQ250 (aqua regia digestion and ICP-MS determination), FA330 (fire assay and ICP-ES determination), or FA530-Au (fire assay gravimetric). All gold values >0.5 gpt were determined by fire assay. Bureau Veritas is certified to ISO 9001:2008 standards.

It is the author's opinion that the sample preparation, security and analytical procedures are considered adequate and acceptable.

11. Data Verification

The author has carried out the following data verification procedures to validate information about the property:

- Visited the Mon Property on July 25, 2016 and August 22, 2017. Reviewed copies of the title opinion.
- Inspected the property on the ground and from the air. The four continuous chip samples were collected and analyzed at the Bureau Veritas Laboratories in Vancouver. The results are consistent with the previously reported results.
- Independently reviewed the geological setting of the property by reference to maps and information on the mineral occurrences of the property, as well as other sources.
- Inspected all of the reports on samples taken and assayed in the last 60 years.

The author cannot confirm the adequacy of the sample preparation, security, analytical procedures and assay results of the previously reported work because these items are not consistent with modern practices. Some credence should be given to the reported assay results because they are similar to those generated by several independent operators and the author's verification sampling. The observation that the last operators were able to mine the high grade zone by using their drill whole data, assay results and geological interpretation is a testament to their competence.

11.1 Outcrop Chip Sampling

Assays

One Standard sample and two blank samples were inserted into the lab stream in order to verify the analyses of the four submitted property chip samples. In addition, the lab repeated the analysis of sample MON D. They also analyzed four of their own standard samples. All of these results are included as Appendix B.

One Standard sample and two blank samples were inserted into the lab stream in order to verify the analyses of the four submitted property chip samples. In addition, the lab repeated the analysis of sample MON D. They also analyzed four of their own standard samples. All of these results are included as Appendix B.

Standards

Two standards prepared by CDN Laboratories were submitted with the sample stream and reported below:

Table 15. Gold Standard Samples

Standard	Assayed Value	Expected Value
CDN-GS-1M (gpt)	1.007	1.07 +/- 0.09
CDN-GS-P5C (ppb)	590.9	0.571 +/- 0.048

These are acceptable results.

Repeat Samples

A single sample was re-run by the laboratory as a duplicate (from crushed rejects) and as a repeat (from pulps) and is reported below.

Table 16. Repeat and duplicate analysis

Sample	Assayed Value	Duplicate Value	Repeat Value
NDM D (ppb)	1690.7	1690.7	1418.6

These are acceptable results.

Blank Sample Analysis

Table 19. Blank analysis

Blanks Sample Number	Assayed Value	Expected Value
CDN-BL-10 (gpt) This is an acceptable value.	0.0039	<0.01

11.2 Core Re-sampling Methodology

In order to independently verify the results of the diamond drilling program, Mr. David White P. Geol. visited the Mon Gold Property on December 15, 2016. He retrieved the mineralized intervals from five diamond drill holes that were drilled in 2016. The five holes are labelled NDM 1-5 and were logged by Mr. Dave Webb. The intervals of interest were transported by helicopter from the property to the Aurora warehouse in Yellowknife under the direct supervision of Dave White. The mineralized core was then logged and sampled by Gary Vivian, P. Geol. at Aurora's warehouse. The samples were analyzed by ALS Mineral in Vancouver. There is no relationship between the laboratory and Sixty North Gold Mining Ltd.

The sampling required the ½ core retained from sampling during the field program be quartered. Half of the quartered core was submitted to ALS; the remaining quarter was retained in-place in the core box. The sample intervals of the QA/QC sampling directly match the original intervals to facilitate a one-to-one comparison. Gold mineralization at the Mon Gold Property is quartz-hosted lode (visible gold) and mostly very fine-grained (pin head sized grains), which may result in an inhomogeneous mineralization. Spot analysis resulting in very small sample populations may appear to affect statistical validity of any QA/QC sampling. This effect is compounded by the habit of the Au mineralization and a good correlation between the initial sample and the confirmation sample results may not be expected. A total of 20 core samples were analyzed to provide the most robust statistical dataset possible for such a small sample population (Appendix 1). All mineralized intervals in holes NDM 1-5 were re-analyzed.

11.3 Core Assay Methodology

Quarter – core samples collected by Aurora in 2016 were analyzed by up to three methods to accurately determine the Au content (Appendix II). Samples were initially analyzed by Aqua Regia multi-element (AQ250). Analysis that returned over limit Au were re-analyzed as required by FA330 and FA530-Au to determine the total Au content of each sample. Samples collected during this program were analyzed by Au-GRA22. The details of this assaying program are presented in Appendix II.

The mineralized intervals were checked by Aurora Geosciences Ltd. of Yellowknife by re-logging and re-assaying the mineralized sections of all five drill holes. Half of the remaining core (1/4 core) was submitted to ALS Chemex Laboratories for Au-GRA22 (fire assay gravimetric determination) of gold.

12. Mineral Processing and Metallurgical Testing

No mineral processing or metallurgical testing has been completed by Sixty North Gold Mining Ltd. Previous mineral Processing and Metallurgical Testing can be found in the Historical Metallurgical Testing - Section 6.4 of this report.

13. Mineral Resource and Mineral Reserve Estimates

No mineral resource nor mineral reserve estimations have been completed by Sixty North Gold Mining Ltd.

14. Adjacent Properties

Although they are not adjacent to the Mon Gold Property, there are several nearby properties with reserves and resources. Five gold deposits formerly owned by Tyhee Gold Corp, are all located within 50 kilometers of the Mon (fig. 8). The Clan Lake deposit is the closest – being 5 km northeast of the Mon Gold Property. The author has been unable to verify the information and that the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report.

In 2012 SRK conducted a mineral resource estimate of Yellowknife Gold Project (formerly owned by Tyhee Gold Corp.), which comprises the Ormsby, Bruce, Nicholas Lake, Clan Lake and Goodwin Lake deposits using the data from both the historic drilling and Tyhee's drilling from 2003 to 2011. A database was compiled using data from 980 core holes, with collar, survey, geological and assay information, containing a total of 134,033 m of non-zero assayed intervals. In the process of completing the resource estimate update, SRK validated and verified the database, interpretation and available data. The block dimensions selected for the open pit models were 3.0 m x 3.0 m x 3.0 m, and are based on the existing drilling pattern, spatial distribution and mine planning considerations. The Nicholas Lake model, which is considered amenable to underground mining, was constructed using a block size of 1.5 m x 1.5 m x 1.5 m. The resource estimate was interpolated using Maptek Vulcan™ (Vulcan™) software, the inverse distance weighting method (ID2) and nearest neighbor (NN) methods for model validation. No significant discrepancies exist between the methods and values obtained from ID2 have been used for the resource tabulation. The ID2 block models for Ormsby, Bruce, Clan Lake, and Goodwin Lake were exported to Gemcom Whittle™ (Whittle™) software for pit optimization, based on the Lerchs-Grossman 3D algorithm. The optimized pit shells were generated by SRK using Measured, Indicated and Inferred resources. Various economic parameters, such as mining and processing, general and Administrative (G&A) costs, gold recovery and pit slope angle, were used as input parameters for the resource pit shells. All open pit resources are stated above a 0.50 grams per tonne (g/t) gold cut-off. Additional potentially mineable resources are also stated at the Ormsby, Bruce, Clan Lake and Nicholas Lake deposits. The underground resources are stated above a 1.50 g/t gold cut-off. The mineral resources for the Tyhee YGP, formerly owned by Tyhee Gold Corp., have been estimated by SRK at 27,115 thousand tonnes (kt) grading an average of 1.97 g/t gold classified as Measured and Indicated mineral resources; with an additional 5,744 kt grading an average of 2.62 g/t gold classified as Inferred mineral resources. The mineral resources stated above are at a 26.0 g/t silver equivalent cut-off and contained within a potentially economically mineable open pit. The mineral resources are reported in accordance with CSA, NI 43-101 guidelines and have been estimated in conformity with generally accepted CIM "Estimation of Mineral Resource and Mineral Reserves Best Practices".

The author has been unable to verify the information and that the information is not necessarily indicative of the mineralization on the property that is the subject of this technical report.

Table 20: Mineral Resource Statement for the Yellowknife Gold Project, Northwest Territories, Canada: SRK Consulting (U.S.), Inc., July 1, 2012

Deposit Type	Resource Category	Deposit Area	Quantity 000's	Average Grade	Contained Metal 000's
			Tonnes	Au g/t	Au (Oz)
Open Pit	Measured	Ormsby	7,339	1.59	376
	Indicated	Ormsby	13,295	1.68	718
		Bruce	749	1.59	38
		Clan	1266	1.68	69
	Inferred	Ormsby	218	1.23	**9**
		Bruce	60	1.56	3
		Clan	1964	2.46	155
		Goodwin Lake	875	1.15	32
Underground	Indicated	Ormsby	1662	3.3	176
		Bruce	440	3.17	45
		Clan	110	2.77	10
		Nicholas Lake	2255	3.91	283
	Inferred	Ormsby	113	2.89	11
		Bruce	71	2.47	6
		Clan Lake	1784	2.8	161
		Nicholas Lake	689	5	111

. (1) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
(2) Open pit resources stated as contained within a potentially economically minable open pit above a 0.50 g/t Au cut-off.
(3) Pit optimization is based on an assumed gold price of US$1,500/oz., metallurgical recovery of 90%, mining cost of US$2.00/t and processing and G&A cost of US$23.00/t.
(4) Underground resources stated as contained within potentially economically minable gold grade shapes above a 1.50 g/t Au cut-off.
(5) Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
(6) Mineral resource tonnage and grade are reported as undiluted and reflect a potentially minable bench height of 3.0 m.
(7) Contained Au ounces are in-situ and do not include metallurgical recovery losses.
(8) Mineral Resources are inclusive of Mineral Reserves

Much of the land around the Mon Gold Property has been staked by third parties.

Terra-X Minerals Inc. is exploring its Yellowknife City Project, the northern-most property lies 25 km to the south. There are no known resources or reserves on the Terra-X Minerals' properties and the presence of mineral deposits on properties adjacent to or in close proximity to the Mon Gold Property is not necessarily indicative of mineralization on the Mon Gold Property.

There are no known resources or reserves on the Mon Gold Property, and the presence of mineral deposits on properties adjacent to or in close proximity to Mon Gold Property is not necessarily indicative of mineralization on the Mon Gold Property.

15. Other Relevant Data and Information

Changes to the regulatory regime in the Northwest Territories are making the development process easier. A potential all weather road development is being considered to extend to within a few kilometers of the Mon Mine. This is part of the infrastructure development being considered to benefit resource development in general, and the diamond mines in particular.

16. Interpretation and Conclusions

The overall style of gold mineralization is consistent with many aspects of the orogenic gold deposit model of Groves et al. (1998).

The orogenic gold mineralizing system in the southern Slave craton was active in the Late Archean, at ca. 2590 Ma. The mineralization postdates the host-rock formation by ca. 60 to 100 m.y., and the tectonic events responsible for the host-rock formation were not directly responsible for the mineralization, at least in the southern part of the Slave craton. The mineralization is, however, synchronous with high temperature metamorphism, which is reflected as S-type plutons in now-preserved upper crust and migmatites and charnockites preserved in middle-crust. This granite bloom, the metamorphic event, and orogenic gold deposit formation are likely the result of accretion or collision on the craton margin prior to gold deposit formation.

The A-Zone appears to be a viable exploration target for a "Discovery Mine" type of deposit. This is best described as a stratabound non-stratiform quartz vein system. At the Mon Gold Property, the author confirmed that the best grade mineralization is hosted by thick (1-3m) quartz veins that pinch and swell within a shear/vein complex. These are generally hosted within fine-grained clastic metasedimentary rocks, are typically folded and accompanied by substantial alkali metasomatism. The drill, trench and underground sampling indicate that the mineralization is subject to the "nugget effect.

A review of the mine workings clearly shows the shallow south-plunging antiformal nature of this mineralization, confirmed by diamond drilling. The size, form and grade of the A-Zone is remarkably similar to the Discovery Mine, except for a much shallower plunge. The benefit of its shallow plunge allows for the identification of significant tonnage (for this type of deposit) from relatively shallow drilling. The easily identified and unique alteration package expands the target for exploration purposes.

The author has determined that there is no significant risk nor uncertainties that could reasonably be expected to affect the reliability or confidence in the exploration information. The observation that the last operators were able to mine the high grade zone by using their drill hole data, assay results and geological interpretation is a testament to their competence.

17. Recommendations

It is recommended that a surface prospecting and sampling program be initiated to confirm and qualify old showings that have not been reviewed in several decades, as well as identify new showings. Three considerations drive this work, including 1) the price of gold has moved up substantially, enabling lower grade rocks to be potentially economic, 2) a new type of gold deposit has been identified in the Yellowknife Gold Belt where gold mineralization is not associated with significant quartz mineralization. This typically occurs in sheared, but not schistose rock (Ormsby Zone, Goodwin Lake Zone, and Clan Zone (formerly Tyhee Gold Corp), and 3) prospecting on adjacent properties has identified this new form of mineralization.

Additionally, the October 2016 drilling has confirmed mineralization below the mined-out stopes on the A-Zone. Erratic gold values, sometimes very high (nugget effect) limit the reliability of small samples. This area should be bulk sampled with a view to confirming and/or establishing similar grades and tonnages as that which occurred and was extracted from the A-Zone during the 1990's.

17.1 Reopen and resupply the camp.

The camp also needs to be reopened, and new stoves need to be installed. High-efficiency oil stoves will cost would save fuel over than used in a standard drip stoves.

- An incinerator should be acquired to meet permit requirements.
- A 6 kw generator or larger should be purchased, providing enough power to operate the camp as well as a diamond saw for core cutting.
- A minimum of 1 RTV or Quad should be purchased to assist in moving camp supplies and fuel, and for carrying core, and other samples.
- A 14' +/- aluminum boat and 15 hp +/- outboard should be acquired to provide access to the south end of the property. All ancillary supplies for the boat should be obtained.
- A water supply pump should be acquired, including 200 m of water line.
- A cache of diesel and Jet A fuel should be flown in to support summer exploration.

17.2 Sampling

Three areas of sampling should be carried out, including

- large / detailed sample of A-Zone exposures,
- Samples of other showings (T, V, S, etc.), and, where encouraging gold results are obtained, chip or panel sampling.

17.3 Proposed 2017 Budget

Capital Budget

Items	Cost
Flights	11,000
Fuel	2,000

Boat and 15 hp	7,000
Generator	6,000
First Food	1,000
Tent repairs	1,000
Labour	6,000
Subtotal	$34,000

Surface Exploration (Field Component)

Item	Cost
Geology (2)	52,000
Assistant /Prospector (2)	34,500
Analyses (23 showings x20 samples x$50)	23,000
Trenching	50,000
Supplies (food, bags, tags)	8,000
Flights	15,000
Contingency	50,000
Subtotal	$232,500

Reports, maps, general and administration, plus contingencies would increase the costs by 25% or about $50,000 bringing the project total to around $270,000. Trenching would be contingent upon targets being defined during prospecting.

17.4 Proposed Program for 2018

Note: the 2018 Program is not contingent on the results of the 2017 Program
In addition to ongoing exploration and development away from the A-Zone, it is recommended that an underground exploration/development program be carried out in 2018, accessing the vein at depth for bulk sampling and the development of diamond drill platforms. The large sample of the vein by sub-drifting will allow for a most definitive assessment of grade, width, and continuity which is critical in high-grade vein deposits.

A base expenditure would allow for all mining equipment and heavy consumables to be brought in on a winter road, but not allow for the labour and operations costs to complete the underground work. This is provided as once the equipment and heavy consumables (fuel, explosives) are on the property, operations could commence at two levels at a later date. A minimum program would allow for ramp development to 20 m elevation below the old stopes and access to the vein at 3 to 4 locations, and a larger expenditure would allow for stope development to extract >1,000 tonne bulk sample. These are shown on table as base, minimum, and full.

Item	Full	Minimum	Base
Capital equipment	421,500	421,500	421,500
Operating Costs	2,461,000	1,598,000	710,000
Total	$2,882,500	$2,019,500	$1,131,500

Operations during mining will cost around $30,000 per day in capital, fuel, explosives, labour and support. Initially, development should advance at a rate of 8 to 10 m per day (2 x 12 hr. shifts) 80% of the time after the portal and support is installed. Development should continue as warranted, but 60 to 90 days could be considered appropriate, for a total additional expenditure of $2 million to $2.9 million. Approximately 250 to 300m would be planned on the main ramp, with additional development as scram drives, raises and sub drifts to collect vein material.

References

17.5 Mine Production Reports for Mon Gold Property – on file with NT Mining Recorder

Type	**Assessment Report**			Number	**082621**		
	Production From		**01/01 /1965**		To	**31/12/1 975**	
	Non-GEM:						
	Comments		Between 1965 and 1975 approximately 200 tons of vein material was mined by open cut from the A Zone. A small onsite mill produced gold bearing bulk sulphide floatation concentrate.				
Type	**YKGSF Abstracts and Exploration Overview**			Number	**1990**		
	Production From		**01/01 /1989**		To	**31/12/1 989**	
	Non-GEM:						
	Total Rock Milled:		**2,300.00 t**				
	Comments		A 2300 tonne bulk sample with an estimated grade of 18.4 g/t gold was shipped to the Ptarmigan mill for processing.				
Type	**YKGSF Abstracts and Explore Overview**			Number	**1993**		
	Production From		**01/01 /192**		To	**31/12/1 992**	
	Non-GEM:						
	Total Rock Milled:		**1,500.00 t**				
	Gold	**6.20**	**kg**		**6.20**	**kg**	
	Comments						
Type	**YKGSF Abstracts and Explore Overview**			Number	**1994**		
	Production From		**01/05 /1994**		To	**31/10/1 994**	
	Non-GEM:						
	Total Rock Milled:		**2,642.00 t**				
	Go	**43**	**kg**		**43**	**kg**	

	l d	**. 0 0**			**. 0 0**		
	Comments	The MON Mine operated between the months of May and October, 1994.					
Type	**YKGSF Abstracts and Explore Overview**		Number	**1 9 9 5**			
	Production From	**15/ 06/ 199 5**		T o	**30/ 11/ 199 5**		
	Total Rock Milled:	**475.00 t**					
	Co m mo dit	Ra w Qu ant	Un it	Raw Grade Unit	M etr ic Qu	Un it	Metric Grade Unit
	Comments	The MON Mine produced from mid-June until November in 1995. An estimated 6.2 kg of gold was expected to be recovered from 475 tonnes of milled ore.					

Type	**Assessment Report**		
Number	**015085**	Date	**20/03/1943**
Title	**Mon Group Discovery Lake Diamond Drilling**		
Author	**Unknown**		
Owner	**Consolidated Mining and Smelting Ltd.**		
Operator	**Consolidated Mining and Smelting Ltd.**		
Number	**082621**	Date	**03/08/1988**
Title	**Coronado Resources Incorporated, Yellowknife Area, Mackenzie**		
Author	**Dircks, N J**		
Owner	**Coronado Resources Incorporated & Troymin Resources Ltd.**		
Operator	**Coronado Resources Incorporated**		
Number	**082922**	Date	**16/03/1992**
Title	**A Report on the Geology, VLF-EM and Bulk Sampling Program on the MON Gold Pro**		
Author	**Mcdougall JH, Goad RE**		
Owner	**Can-Mac Exploration Ltd, Cominco Ltd, C Clouter, DR Webb**		
Operator	**Can-Mac Exploration Ltd, Cominco Ltd, Taiga Consultants, C Clouter, DR Webb**		
Type	**DIAND NWT, Economic Geology Series, Open File, 2001 or earlier**		
Number	**1996-11**	Date	**01/01/1996**
Title	**NWT Current and Past Producing Mines Database**		
Author	**Strand PD**		
Type	**DIAND NWT, Yellowknife Geoscience Forum Collected Abstracts and Exploration Ov**		
Number	**1990**	Date	**01/01/1991**
Title	**Mining, Exploration and Geological Investigations, Northwest Territories, 1990**		
Author	**Goff SP ed**		
Type	**DIAND NWT, Yellowknife Geoscience Forum Collected Abstracts and Exploration Ov**		
Number	**1993**	Date	**01/02/1994**
Title	**Mining, Exploration and Geological Investigations, Northwest Territories, 1993**		
Author	**Goff SP, ed**		
Type	**DIAND NWT, Yellowknife Geoscience Forum Collected Abstracts and Exploration Ov**		
Number	**1994**	Date	**01/02/1995**
Title	**Mining, Exploration and Geological Investigations, Northwest Territories, 1994**		
Author	**Kusick R, Goff SP, ed.**		
Type	**DIAND NWT, Yellowknife Geoscience Forum Collected Abstracts and Exploration Ov**		
Number	**1995**	Date	**01/03/1996**
Title	**Mining, Exploration and Geological Investigations, Northwest Territories, 1995**		
Author	**Igboji, IE**		

Type	**Geological Survey of Canada, Memoir**		
Number	**261**	Date	**01/01/1951**
Title	**Mineral Industry Of District Of Mackenzie NWT**		
Author	**Lord CS**		
Type	**Geological Survey of Canada, Open File**		
Number	**353**	Date	**01/01/1976**
Title	**Yellowknife [85J] and Hearne Lake [85I] Map-Areas,**		
Author	**Henderson, JB**		
Type	**Geological Survey of Canada, Paper**		
Number	**64-22**	Date	**01/01/1964**
Title	**Mineral Industry Of District Of Mackenzie 1963**		
Author	**Schiller E A;Hornbroo E H**		
Comment	Reference shows location of showing.		

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18. Definitions

Adit — Common mining term for a horizontal to sub–horizontal tunnel driven into a hillside to access an ore body.

Agitator (agitation) — Tanks in a milling plant which stirs a solution to aid in the separation of minerals from waste, usually with the introduction of compressed air.

Alkaline — A term applied to igneous rocks which are characterized by relatively high concentrations of sodium and potassium.

Alluvial — Deposits of sediment, usually sand and gravel, transported and deposited by a river.

Amphibolite — Metamorphic rock that contains amphibole, especially the species hornblende and actinolite, as well as plagioclase.

Anomaly — Any departure of the norm which may indicate (in geophysical analysis or surface prospecting) the presence of a mineralized area.

Anticline — An upward fold or arch of rock strata.

Archean — A period of geological time that is the older of the two main *Precambrian* divisions. Ends 2 billion

	years ago.
Argillaceous rocks	A group of detrital, fine grained, sedimentary rocks subdivided into silt grade (particle size range 1/16 to 1/256 mm) and clay grade (particle size < 1/256 mm).
Arsenide	A mineral formed by the combination of arsenic with another chemical.
Assay	A chemical test performed on a sample of ore to determine its mineral content.
Assessment Work	The amount of work, specified by laws of mining, which will keep a claim or property in good legal standing.
Autoclave	A high pressure and temperature vessel for oxidizing refractory ore. Ore concentrate is fed into the strong vessel and placed under high pressure and temperature conditions with elevated oxygen levels to liberate the gold or base metals.
Back	The roof or upper part in any underground mining cavity.
Backfill	Mine waste rock or tailing sands used to support the stope roof after ore removal.
Ball Mill	A steel cylinder filled with steel balls that is rotated at great speeds. Mine ore is added into the mill and the balls are used as a crushing and grinding medium. See also: Rod Mill
Banded Iron Formation	A bedded deposit of iron minerals.
Barren	Rock or vein material containing no minerals of value, and of strata without coal, or containing coal in seams too thin to be workable. Barren solution in the milling circuit is the clear solution left over after the gold has been precipitated or filtered out**.**
Basic	Describes an igneous rock with a relatively low silica content (between 45–52% SiO_2). Basic rocks are relatively rich in iron, magnesium and calcium and thus include most mafic rocks.
Beneficiation	The process of concentration of the valuable components of an ore or other mineral commodity. Commonly includes multiple stages such as crushing, grinding, washing, screening, flotation, roasting, etc.
Box Hole	A short raise driven up into a stope from a drift to permit the removal of ore from a stope. See also: Draw Point
Break	A large scale regional structural fault or regional shear zone**.**
Breast	The working face of the stope.
Breccia	A rock that has been mechanically, hydraulically or pneumatically broken into angular fragments and re–cemented.
Broken Reserve	Ore already blasted from a stope and is ready to be removed and milled.
Extractable Gold	More commonly shortened to BLEG is a geochemical sampling/analysis tool during exploration for gold. It was developed in the early 1980s to address concerns relating to the accurately measuring fine grained gold, and dealing with problems associated with sample heterogeneity.
Bulk Sample	A large tonnage of ore that is sent to be processed for the purposes of testing its metallurgical characteristics and to determine if recovery of the desired minerals is economic or feasible.
Bullion	Metal (gold, silver, lead, zinc, copper) which has been formed into refined bars or ingots.
Bunkhouse	Crew quarters for the employees of a mine when private accommodations are not available (usually in an isolated mining camp).
Byproduct	Other minerals which are produced from an ore and are not the primary mineral of interest.
Cage	In a mine shaft, the device, similar to an elevator car, that is used for hoisting.
Calcine	Concentrate that is ready for smelting (typically arsenic - rich ores which have had arsenic and sulphur minerals roasted off.

Calcite A very common mineral comprising calcium, carbon and oxygen ($CaCO_3$).

Cambrian A period of geological time from 545 to 495 million years ago. Marks the beginning of the *Paleozoic Era*.

Carbonate A mineral characterized by a fundamental structure of CO_3. Common examples include calcite, dolomite, magnesite and siderite.

Carbon-In-Pulp (CIP) A method of recovering gold and silver from a pregnant cyanide solution by adsorbing the precious metals to granules of activated carbon.

Chalcopyrite A sulphide mineral of copper and iron.

Channel Sample A sample composed of pieces of vein or mineral deposit that have been cut out of a small trench or channel.

Chert A sedimentary rock that is ultra–fine grained and composed almost entirely of silica. May be of organic or inorganic origin.

Chip Sample A method of rock sampling whereby a continuous series of small chips and chunks are broken off along a line across the face.

Chlorite A **chlorite** (compound) is a compound that contains this group, with chlorine in oxidation state +3. Chlorites are also known as salts of chlorous acid.

Chute A chute structure through which ore is drawn. Chutes are constructed below stopes to load ore cars, and they are also used to transport ores between bins in the milling circuit.

Claim A portion of land held by a prospector or mining company under the authority of Federal or provincial laws.

Clarification (Clarifier) Process of clearing dirty water from gold-bearing solution by removing suspended material.

Classification (Classifier) Process of separating minerals and ore material according to size and density.

Clear fluid overflows from the tank and rock particles sink to the bottom.

Closed Circuit A loop in the milling process wherein a selected portion of the product of a machine is returned to the head of the machine for further processing because it does not meet the required finishing specification.

Collar A timber or concrete structure built around the top of a mine shaft for structural support.

Concentrate A rich mixture of minerals (in the form of a fine powder) that is produced from the milling process. This material requires further processing in the form of smelting or roasting to recover the desired mineral content.

Concentrating Plant A processing plant that uses a variety of chemical and mechanical techniques to breakdown ore from a mine and recover its mineral content. Products from a mill usually require further treatment (refining or smelting) to fully recover the desired metals. Mills produce concentrates or precipitates, and tailing wastes. Processing plants at diamond mines do not require any further treatment to recover the rough diamond products, although diamond cutting is required to market a diamond much like specialized refining is necessary to market gold bars.

Cone Crusher See: Crusher

Conglomerate Clastic sedimentary rock that contains large (greater than two millimeters in diameter) rounded clasts. The space between the clasts is generally filled with smaller particles and/or a chemical cement that binds the rock together

Conglomerate A sedimentary rock consisting of rounded, water worn pebbles or boulders

Contact The contact between two different rock formations. The heat from the intrusive rock meeting the existing rock forms a metamorphic reaction which often creates mineralization within the contact area, usually radioactive minerals.

Core (Drill Core) A long, cylindrical piece of rock brought to surface by diamond drilling.

Core strategy: Sets out the long-term spatial vision for the local planning authority area, the spatial objectives and strategic policies to deliver that vision. The core strategy will have the status of a development plan document.

Crosscut A horizontal mine tunnel that is driven perpendicular to the strike of a vein or deposit. Crosscuts are typically driven to cut across to another deposit.

Crusher A machine for crushing rock or other materials. Jaw Crusher: Rock is crushed by steel plates pounded against one another. Cone Crusher: Rock is crushed between a gyrating crushing head and a truncated cone.

Custom (or toll) Milling An agreement where a company with a milling plant agrees to process ores from another company's mine at a negotiated price.

Cut-and-Fill (Stoping) A method of stope mining where ore is mined in slices, or lifts. The ore is then removed completely from the stope. In order to reach the next slice in the stope, the excavation is filled with waste rock or backfill and formed with a cement floor to support heavy machinery. The next slice is mined and the process is repeated until the stope is completely mined to the above level.

Cyanidation A method of extracting gold grains from crushed ores by dissolving it in a weak cyanide solution.

Decline An underground ramp that spirals down to a depth, usually with a –10% grade. Declines are a cheaper method to developing an underground deposit than vertical shafts. Also called a ramp.

Deposit A mineralized body which has been intersected by sufficient closely spaced drill holes and/or sampling to support sufficient tonnage and average grade of metal(s) to warrant further exploration-development work. Does not necessarily qualify as a commercially mineable ore body**.**

Development The type of work performed to access and mine a deposit, either underground or on surface. Includes shaft sinking, crosscutting, drifting, and raising.

Diabase A common basic igneous rock usually occurring as dykes or sills.

Diamond Drill A rotary machine that drills into a deposit to recover a core sample. A diamond drill effectively allows geologists to probe a deposit and determine its size and mineral content.

Dilution Waste rock from unmineralized walls outside of a vein or shear zone, which is, by necessity, removed along with the mineralized ore during the mining process, subsequently lowering the grade of the ore.

Diorite An intrusive igneous rock composed chiefly of sodic plagioclase, hornblende, feldspar or other mafic materials

Dip The inclination of a geologic structure (bed, vein, fault, etc.) from the horizontal; dip is always measured downwards at right angles to the strike.

Dividend Cash or stock awarded to the shareholders of a company. Companies which are financially well off and whose operations show a modest profit will usually declare a dividend in a show of appreciation to the shareholders for their original investments.

Dolomite A common rock forming mineral comprising calcium, carbon, magnesium and oxygen (CA Mg $(CO_3)_2$.

Dore Bars Unrefined gold bars that have been poured in the final stages of a gold mining operation. These bars contain many impurities that require additional refining to recover 99.9999% gold. Dore bars are the final product of a gold mine and are shipped in Canada, usually to the Royal Canadian Mint, to become gold bullion.

Drag Fold The result of a plastic deformation of a rock unit where it has been folded or bent back on itself.

Draw point An underground opening at the bottom of a stope through which broken ore from the stope is extracted. See also: Box Hole

Drift A horizontal mine tunnel that follows the strike of a vein or deposit. See also: Crosscut

Drill Bit The hardened and strengthened device at the end of a drill rod that transmits the energy of breakage to the rock. The size of the bit determines the size of the hole. A bit may be either detachable from or integral with its supporting drill rod.

Dry (Mine Dry)	The mine facility where workers change into work clothes. Clothes are hanged up on hooks and baskets to dry.
Dump	A pile of broken rock on the surface.
Dyke	A long and thin body of igneous rock that intruded a fissure in older rock. Can contain pegmatite minerals or kimberlite (diamond bearing) ore.
Electrolytic	The process of extracting metal based on passing an electric current through a solution containing dissolved metals, causing the metals to be deposited on the cathode.
Exploration	The work performed before mining is undertaken which establishes a deposit's size, character, and grade.
Extrusive	Describes igneous rocks that have been formed by solidification of magma on or above the Earth's surface.
Extrusive	A body of igneous rock formed by lavas extruding onto surface through volcanoes.
Face	The end of a drift, crosscut or stope in which work is taking place.
Fault	A break in the crust caused by tectonic forces which has moved the rock apart**.**
Feldspar	A group of common rock-forming minerals that includes microcline, orthoclase, plagioclase and others.
Felsic	In modern usage, the term felsic rock, although sometimes used as a synonym, refers to a high-silica-content (greater than 63% SiO_2 by weight) volcanic rock, such as rhyolite. In order to be classified as felsic, it generally needs to contain >75% felsic minerals; namely quartz, orthoclase and plagioclase. Rocks with greater than 90% felsic minerals can also be called *leucocratic*, meaning 'light-colored'.
Ferromagnesian	Describes rock–forming silicate minerals which contain essential iron (Fe) and/or magnesium (Mg). The most common ferromagnesian minerals include olivine, pyroxene, amphibole and mica.
Flotation	A milling process in which valuable mineral particles are induced to become attached to bubbles and float, and others sink.
Flowsheet	An illustration or description which outlines the sequence of operations, step by step, by which ore is treated in a milling plant**.**
Flux	A chemical substance that reacts with gangue minerals to form slags, which are liquid at furnace temperature and low enough in density to float on the molten bath of metal or matte.
Fold	Any bending or folding of a rock strata.
Footwall	The rock on the underside of a vein or ore structure. See also: Hangingwall
Free-Milling	Ores of gold and silver from which the metals can be recovered by concentrating or cyanidation methods without resorting to pressure leaching or roasting treatment**.**
Gabbro	A dark, coarse-grained igneous rock consisting of plagioclase feldspar and pyroxene. Olivine may also be a major constituent, while hornblende, biotite, quartz, magnetite and ilmenite are common minor phases.
Galena	Lead sulphide, the most common ore mineral of lead.
Gangue	The undesirable or unwanted minerals in an ore deposit.
Geophysics	The study of the physical properties of rocks and minerals. Types of geophysical surveying include magnetism, specific gravity, induced polarization, electrical conductivity, and radioactivity.
Gossan	The rust-coloured staining of a mineral deposit, generally formed by the oxidation or alteration of iron sulphide.
Grab Sample	A sample from a rock outcrop, usually picked from the best looking material and is not intended to be a representative sample of the deposit.

Graben An elongated block of the earth's crust lying between two faults and displaced downward relative to the blocks on either side, as in a rift valley.

Grade A calculation of average mineral content in a single unit of ore (calculated as ounces per ton, or grams per tonne).

Greenschist Metamorphic rocks that formed under the lowest temperatures and pressures usually produced by regional metamorphism,

Gold or Silver Bricks Unrefined gold bars that have been poured in the final stages of a gold mining. These bars contain many impurities that require additional refining to recover 99.9999% gold. Dore bars are the final product of a gold mine and are shipped usually, in Canada, to the Royal Canadian Mint, to become gold bullion.

Granite A coarse-grained intrusive igneous rock consisting of quartz, feldspar, and mica.

Greenstone Belt An area underlain by metamorphosed volcanic and sedimentary rocks.

Grizzly A steel grate placed over top of a chute or ore pass for the purpose of stopping large pieces of rock or ore that will jam the ore pass or crusher. The large pieces are broken down by hammer or drill.

Grouting The process of sealing off a water flow in rocks by forcing a thin slurry of cement into crevices through diamond drill holes**.**

Hangingwall The rock on the upper side of a vein or ore deposit. See also: Footwall

Head Grade The average grade of ore fed into a milling plant.

Headframe A structure built over-top of a shaft that functions as part of the hoisting system.

Hematite An oxide of iron**.**

High Grade Rich ore.

Highwall mining Mining method used to maximize the output of an open–pit coal mine. Remotely operated cutting or boring machines are used to penetrate the coal seam at the foot of the highwall (the final wall in an open–pit) to extract coal.

Hoist An item of machinery that is used primarily to service a mine shaft with an elevator type of function for man-cage and skip handling.

Horst A raised elongated block of the earth's crust lying between two faults.

Host Rock The rock surrounding an ore deposit.

Hydrometallurgy The treatment of ores by wet processes, resulting in the dissolution of a particular component and its subsequent recovery by precipitation, adsorption or electrolysis.

Igneous Rock Rocks formed by the solidification of molten material from far below the Earth's surface**.** They have a crystalline texture and appear to have consolidated from a silicate melt (magma).

Induced Polarization A method of geophysical exploration employing an electrical current to determine indications of mineralization**.**

Inductively coupled plasma mass spectrometry (ICP-MS)

A type of mass spectrometry that is highly sensitive and capable of the determination of a range of metals and several non-metals at concentrations below one part in 10^{12} (part per trillion). It is based on coupling together an inductively coupled plasma as a method of producing ions (ionization) with a mass spectrometer as a method of separating and detecting the ions. ICP-MS is also capable of monitoring isotopic speciation for the ions of choice.

Intrusion A body of *igneous* rock emplaced into pre–existing rocks, either along some structural feature such as a fault or by deformation and rupturing of the invaded rocks. (intrusive, *adj*). This is opposite of Extrusive**.**

Ion Exchange An exchange of ions in a crystal with irons in a solution. Used as a method for recovering valuable

	metals, such as uranium, from a solution.
Iron Formation	Iron-rich sedimentary rocks, mostly of Precambrian age, containing at least 15% iron. The iron occurs as an oxide, silicate, carbonate, or sulphide, deposited as laminated, deep-water, shelf-sea, and lagoonal sediments, often associated with cherts (see also banded iron formation). Other iron formations contain iron-rich ooids, pellets, and intraclasts, representing deposits comparable to shallow marine limestones.
Jaw Crusher	See: Crusher
Jig (Mineral Jig)	Milling equipment used to concentrate ore on a screen submerged in water, either by the reciprocating motion of the screen or by the pulsation of water through it.
Lagging	Increasing the diameter of a hoist drum by coiling the drum surface with wood. Also a method of support the ceiling of drifts, crosscuts, and the roof of a stope by using wood timbers as a crib structure.
Launder	A chute or trough for conveying pulp, water, or powdered ore in a milling plant.
Leaching	A chemical process for the extraction of valuable minerals from ore.
Lens	A body of ore that is thick in the middle and tapers towards the ends**.**
Lenticular	Lens shaped body of rock.
Level	A horizontal opening underground consisting of drifts and crosscuts. They are driven off of shafts or decline ramps and are spaced at regular intervals
Limestone	Any sedimentary rock consisting mostly of carbonates (calcite and/or *dolomite*).
Lode	A mining term for a mineralized *vein* (used irrespective of whether the *vein* can be economically extracted).
Mafic	Rock composed of one or more *ferromagnesian* (iron–magnesium), dark–coloured minerals, such as olivine and pyroxene, in combination with quartz, feldspar or feldspathoid minerals.
Metallurgy	The study of extracting minerals from rocks**.**
Metamorphic Rocks	Rocks which have undergone a change in texture or composition as the result of heat and/or pressure.
Mill (Processing Plant)	A processing plant that uses a variety of chemical and mechanical techniques to mine**.**
Mineable Reserves	Ore reserves that are known to be economically extractable using a given mining plan**.**
Mineralization	A mineralized body which has been intersected by sufficient closely spaced drill holes and/or sampling to support sufficient tonnage and average grade of metal(s) to warrant further exploration-development work. This deposit does not qualify as a commercially mineable ore body.
Mineralized Zone	An area of distinct mineralization**.**
Minerals	A naturally occurring substance having definite physical properties and chemical composition and, if formed under favourable conditions, a definite crystal form.
Muck	Ore or rock that has been broken by blasting.
Mudstone	fine grained sedimentary rocks that are similar to *shales* in their non–plasticity, cohesion and low water content but lack fissility.
Net Smelter Return	A share of the net revenues generated from the sale of metal produced from a mine. NSR agreements are often negotiated between the original vendors of a mineral claim and the company that purchases the right to the property.
Option	An agreement to purchase a property between the property vendor and a party or company who wishes to explore the property.

Ore	A mixture of ore minerals from which at least one of the metals can be extracted at a profit.
Ore Car	A railway car adapted to carrying coal, ore, and waste underground.
Ore Pass	Vertical or inclined raise opening underground for the downward transfer of ore connecting a level with the lower level where the ore can be loaded onto skip for hoisting to surface.
Ore Reserves	The calculated tonnage and grade of mineralization which can be extracted economically.
Ore Shoot	The portion, or length, of a vein or other structure, that carries sufficient valuable mineral to be extracted profitably.
Orebody	A natural concentration of valuable material that can be extracted and sold at a profit.
Outcrop	An exposure of rock that can be seen on surface and is not covered by soil or water.
Oxidization	A chemical reaction caused by exposure to oxygen that results in a change in the chemical composition of a mineral.
Pegmatite	A coarse-grained, igneous rock, generally coarse but irregular in texture and similar to a granite in composition. Usually occurs in dykes or veins.
Pillar	A block of solid ore or other rock left in place to structurally support the shaft, walls or roof of a mine.
Plant	The operational facilities of a mine. (Milling Plant, Power Plant)
Porphyry	An igneous rock in which large crystals are set in a fine-grained groundmass.
Portal	A mine tunnel opening that identifies the start of an adit or a decline.
Precambrian -	An informal name for the span of time before the current *Phanerozoic* Eon, and is divided into several eons of the geologic time scale. It spans from the formation of Earth around 4600 Ma (million years ago) to the beginning of the Cambrian Period, about 542 Ma, when macroscopic hard-shelled animals first appeared in abundance. Accounts for 90% of all geological time and ends approximately 545 million years ago.
Precipitate	A rich mixture of minerals that is produced from the milling process. This material requires further processing in the form of smelting or roasting to recover the desired mineral content. See also: Concentrate
Production	The amount of ore milled and the amount of minerals recovered from a mining operation. Commercial production is the stage in which a mine enters once operations achieve a fluent state.
Project	A mining property in the stage of exploration and development.
Prospect	A mining property, the value of which has not been determined by exploration.
Pulp	In a milling circuit, the pulverized or ground ore in solution.
Pyrite	A yellow iron sulphide mineral, normally of little value. Also known as "Fool's Gold".
Pyroclastic	Fragmental volcanic material that has been blown into the atmosphere by an explosive eruption.
Pyrometallurgical	The treatment of ores by processes involving heating.
Quarrying (mining)	The extraction of rock from an open pit site.
Quartz	Common rock-forming mineral consisting of silicon and oxygen.
Quartzite	A metamorphic rock formed by the transformation of a sandstone by heat and pressure.
Raise	A vertical or incline mine tunnel that is driven up from a mine working to tap into a deposit in preparation for certain types of stope mining. Raises are commonly driven to connect mine levels, to break-through to the surface for ventilation, or as escape-routes, man-ways, or ore passes.

Rake	The trend of an orebody along the direction of its strike.
Reclamation	The restoration of a mining site after mining or exploration activity has ceased. To return the site to a natural state as it was before mining disturbance.
Reconnaissance	A preliminary survey of ground.
Recovery	The percentage of valuable metal in the ore that is recovered by metallurgical treatment.
Refinery	The plant in which precipitate or concentrates from the gold milling process are smelted and poured into the form of rough gold dore bars.
Refractory	A general term for a material that resists chemical or physical change.
Refractory Ore	Ore that resists the action of chemical reagents in the normal treatment processes and which may require pressure leaching or other means to affect the full recovery of the valuable minerals.
Resuing	A method of stoping in narrow-vein deposits whereby the wall rock on one side of the vein is blasted first and then the ore.
Roaster	A plant designed to heat a refractory ore to drive off volatile substances or oxidize the ore. The oxidation of the ore liberates the gold. Typically produces poisonous gases and arsenical wastes that must be disposed of properly or treated.
Rock bolting	The act of supporting openings in rock with steel bolts anchored in holes drilled especially for this purpose.
Rock burst	A violent release of energy resulting in the sudden failure of walls or pillars in a mine.
Rod Mill	A rotating steel cylinder that uses steel rods as a means of grinding ore. See also: Ball Mill
Room and Pillar	A method of mining flat-lying ore deposits in which the mined-out area, or rooms, are separated by pillars of the same size.
Sample / Sampling	A small portion of rock from a mineral deposit, taken so that the metal content can be determined by assaying.
Scaling	The act of removing loose rock from the backs and walls of an underground opening using a hand-held scaling bar or mechanized hammers.
Scarp/ Escarpment	A cliff or steep slope along the margin of a plateau or hill.
Schist	A foliated metamorphic rock, the grains of which have a roughly parallel arrangement, generally developed by shearing.
Sedimentary Rocks	Rocks formed from material derived from other rocks and laid down under water or air and cemented over time.
Shaft	A vertical or inclined mine opening that is used as a hoisting compartment to service the underground workings of a mine. Headframes are built over-top of a shaft as a function of the hoisting operation.
Shear Zone	A domain across which differential displacement occurred.
Shearing	The deformation of rocks by lateral movement along innumerable parallel planes, generally resulting from pressure and producing such metamorphic structures as cleavage and schistosity.
Sheave Wheel	A large, grooved wheel in the top of a headframe over which the hoisting rope passes
Shrinkage Stoping	A stoping method which uses part of the broken ore as a working platform and as support for the walls of the stope.
Silica	Silicon dioxide. Quartz is a type of silica.
Sill	An intrusive sheet of igneous rock of roughly uniform thickness that has been forced between the bedding planes of existing rock.

Skip	A self-dumping bucket used in a shaft for the hoisting of ore.
Slag	The mass separated from the fused metals in the smelting and refining process.
Slashing	The method of enlarging or widening a lateral underground working so that larger machinery can be used in the tunnels.
Station (Shaft Station)	An enlarged opening at the start of a mine level, blasted off a shaft for the storage and handling of equipment on that level.
Stockpile	Broken ore stored on surface in preparation for milling.
Stope	A mining term for the underground void left after ore extraction has taken place.
Stope	An excavation in a mine from which ore is extracted. See also: Shrinkage, Cut-and-Fill, and Room-and-Pillar Stoping.
Stratabound	An ore deposit that is confined to a single stratigraphical bed or horizon but which does not constitute the entire bed.
Stratiform	an ore deposit that occurs as a specific stratigraphic (i.e. sedimentary) bed.
Strike	The direction or bearing (measured by angle on the horizontal surface from true north) of a vein or rock formation.
Stringer	A narrow vein or irregular filament of a mineral traversing a rock mass.
Strip	To remove the overburden or waste rock overlying an orebody in preparation for mining by open pit methods.
Sub Level	A level or working horizon in a mine between main working levels.
Sulphide	A mineral formed by the combination of sulphur with another chemical element. Most deposits of non–ferrous metals occur as sulphide minerals e.g. galena, PbS; sphalerite, ZnS; chalcopyrite, $CuFeS_2$.
Sump	An underground excavation where water accumulates before being pumped to surface.
Syncline	A down-arching fold in bedded rocks.
Tailings (Tailings Ponds)	Material rejected from a mill after most of the recoverable minerals have been collected. These wastes are impounded in protective ponds, which are blocked off by dams and dikes to prevent the (sometimes) hazardous material from entering the natural watershed. Sometimes tailings will contain a small mineral content that may be economical to re-process to recover the previously un-recovered metals.
Thickener	A large, round tank used in milling operations to separate solids from liquids; clear fluid overflows from the tank and rock particles sink to the bottom.
Tram	To haul cars of ore or waste in a mine using a line of ore cars hauled by locomotive.
Trench	A long, narrow excavation dug through overburden, or blasted out of rock, to expose a vein or ore structure.
Tuff	(from the Italian *tufo*) is a type of rock consisting of consolidated volcanic ash ejected from vents during a volcanic eruption.
Turbidite	The geologic deposit of a turbidity current, which is a type of sediment gravity flow responsible for distributing vast amounts of clastic sediment into the deep ocean
Ultrabasic	Describes an igneous rock containing less than 45% silica (SiO_2), including most ultramafic rocks.
Ultramafic	Composed chiefly of *ferromagnesian* (Fe–Mg) minerals, such as olivine and pyroxene.
Uncut Assay Value	The actual assay value of a core sample as opposed to a cut value which has been reduced by some arbitrary formula.

Vein	A tabular or sheet–like assemblage of minerals that has been intruded into a joint or fissure in rocks.
Vein	A fissure, fault or crack in a rock filled by minerals that have traveled upwards from some deep source.
Visible Gold	Native gold which is visible to the naked eye.
Volcanic Rocks	Igneous rocks formed from magma that has flowed out or has been violently expelled from volcanoes**.**
Volcanogenic massive	An ore deposit typically comprising a lens of massive sulphide minerals (>60% sulphide) formed by volcanic processes sulphide, VMS normally on the sea–floor. VMS deposits are important sources of copper, lead and zinc.
Vug	A small cavity in a rock, frequently lined with well-formed crystals. Amethyst commonly forms in these cavities.
Wall Rocks	Rock units on either side of an orebody. An economic geology term used to describe the rock adjacent to an accumulation of ore minerals (veins, layers, disseminations, etc.).
Waste	Unmineralized rock. Also mineralized rock that cannot be mined at a profit.
Winze	An internal shaft which is collared from an underground heading rather than on surface**.**
Workings	The current or past underground or surface openings and tunnels of a mine. More specifically, the area where the ore has been extracted.
Xenolith	A discrete and recognizable fragment of country rock in an igneous intrusion.
Zoning	In economic geology, the spatial distribution of distinct mineral assemblages or chemical elements associated with an ore–forming process.

Figure 17. Diagram showing terminology for fold

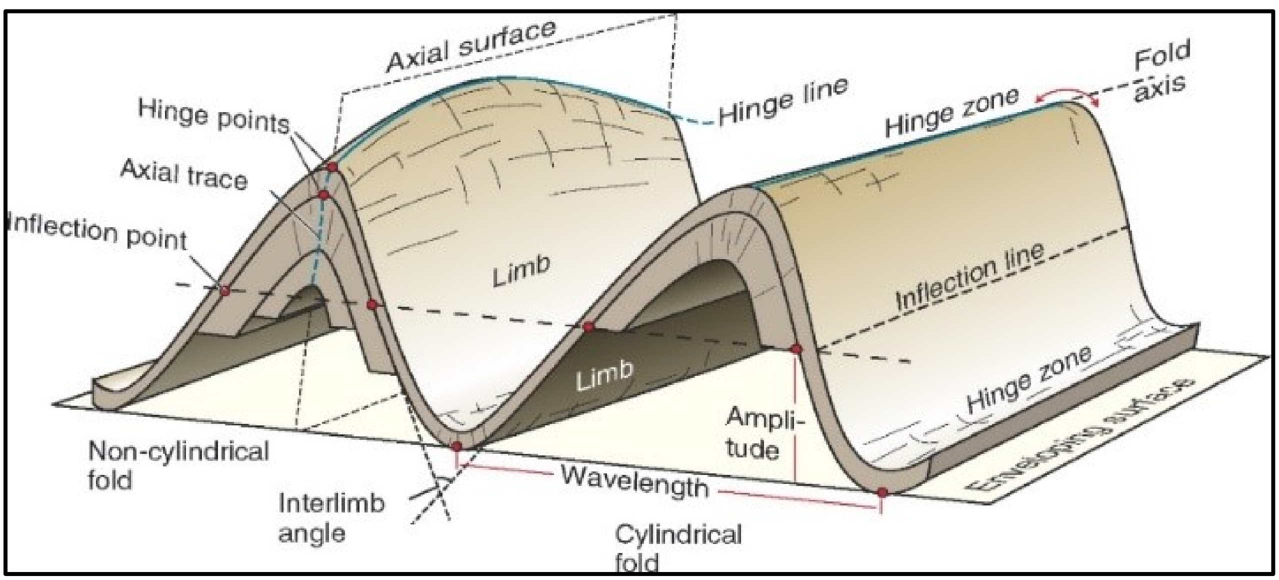
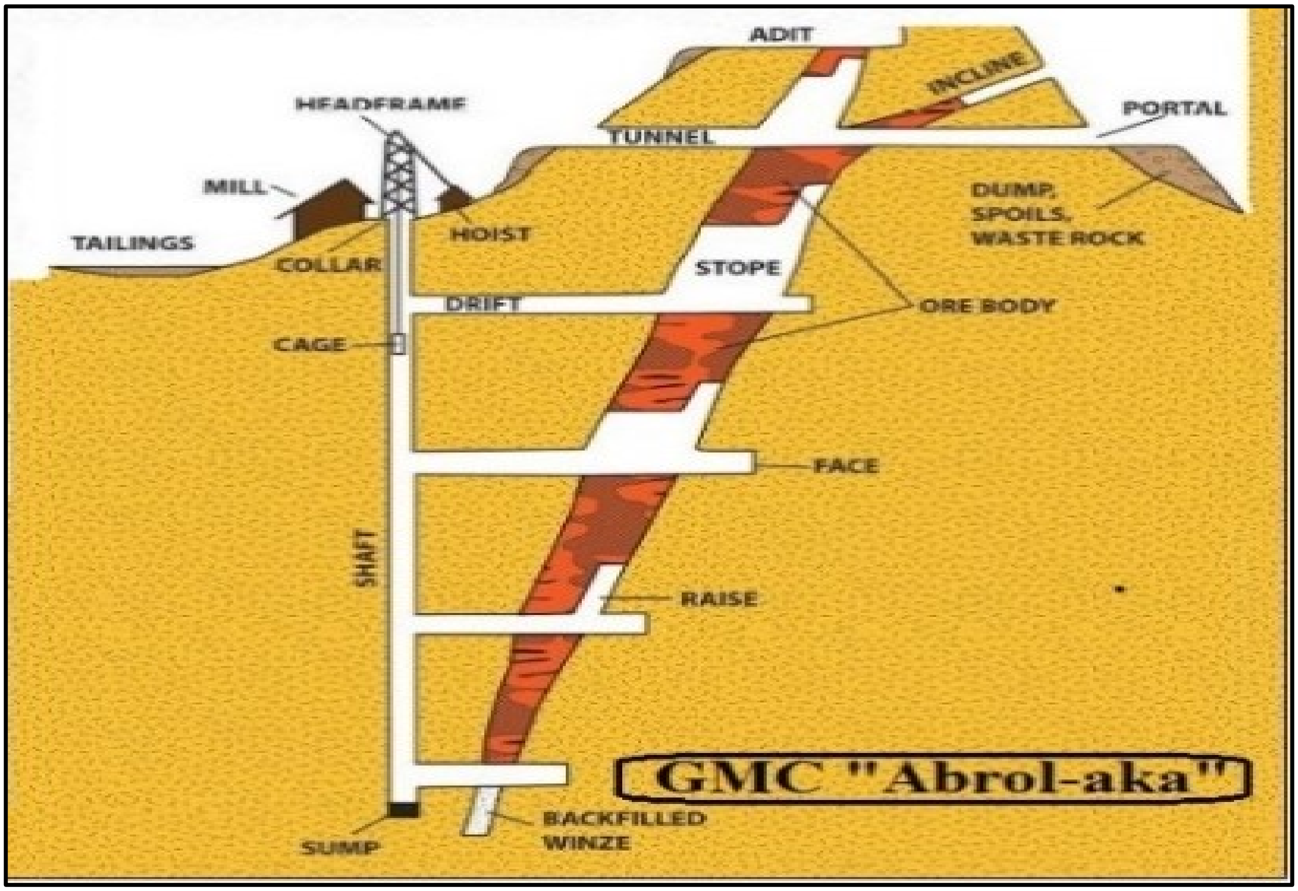


Figure 18. Diagram showing terminology for underground mining



19. APPENDICES

APPENDIX 20.1 (CERTIFICATE OF ANALYSES FROM 2016 DGD ROCK SAMPLING PROGRAM)

CLIENT JOB INFORMATION

Project:	None Given
Shipment ID:	NMD 1a
P.O. Number	7
Number of Samples:	

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT	Dispose of Reject After 90 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
BAT01	1	Batch charge of <20 samples			VAN
PRP70-250	4	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	3	Sort, label and box pulps			VAN
FA530	7	Lead collection fire assay fusion - gravimetric finish	30	Completed	VAN
AQ202	7	1:1:1 Aqua Regia digestion ICP-MS analysis	30	Completed	VAN
DRPLP	7	Warehouse handling / disposition of pulps			VAN
DRRJT	4	Warehouse handling / Disposition of reject			VAN

ADDITIONAL COMMENTS

Invoice To: New Discovery Mines Ltd.
6120 185A St.
Surrey BC V3S 7P9
CANADA

CC: Dave G. Dupre

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. "*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

CERTIFICATE OF ANALYSIS VAN16001274.1

Method		WGHT	FA530	FA530	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte		Wgt	Ag	Au	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	Au	Th	Sr	Cd	Sb	Bi	V
Unit		kg	gm/t	gm/t	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm
MDL		0.01	20	0.9	0.1	0.1	0.1	1	0.1	0.1	0.1	1	0.01	0.5	0.5	0.1	1	0.1	0.1	0.1	2
Mon A	Rock	3.02	35	122.0	0.4	198.9	5749.0	2032	23.7	21.0	26.9	89	2.31	48.0	>100000	0.1	3	8.6	0.7	26.8	13
Mon B	Rock	2.01	77	320.5	0.4	218.6	2242.0	118	41.2	33.3	33.8	105	2.83	106.3	>100000	0.2	3	0.7	0.8	36.6	21
Mon C	Rock	3.50	<20	1.2	0.2	114.0	257.4	290	0.7	20.2	6.4	147	1.90	4.8	2031.0	0.2	6	1.2	<0.1	2.4	25
Mon D	Rock	2.18	<20	<0.9	0.3	136.3	728.0	388	1.2	34.2	10.6	131	1.76	24.5	1690.7	0.7	15	1.7	0.2	1.7	19
NDM A	Rock Pulp		<20	<0.9	2.7	61.4	4.5	34	<0.1	6.6	7.6	313	2.70	1.1	3.9	2.5	64	<0.1	<0.1	<0.1	102
NDM B	Rock Pulp		<20	<0.9	4.4	111.3	140.4	236	1.1	13.9	10.4	485	3.31	233.5	590.9	2.9	88	1.9	3.7	0.3	87
NDM C	Rock Pulp		<20	1.0	9.5	56.2	8.3	51	0.9	35.8	9.1	477	3.30	31.0	1007.0	1.4	58	0.1	1.6	0.2	66

Bureau Veritas Commodities Canada Ltd.

9050 Shaughnessy St Vancouver BC V6P 6E5 CANADA

PHONE (604) 253-3158

Page: 2 of 2 Part: 2 of 2

CERTIFICATE OF ANALYSIS VAN16001274.1

Method		AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202	AQ202
Analyte		Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Hg	Sc	Tl	S	Ga	Se	Te
Unit		%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm
MDL		0.01	0.001	1	1	0.01	1	0.001	1	0.01	0.001	0.01	0.1	0.01	0.1	0.1	0.05	1	0.5	0.2
Mon A	Rock	0.20	<0.001	1	13	0.40	4	0.025	4	0.23	0.013	0.02	5.5	0.07	1.7	0.2	1.74	<1	13.3	18.8
Mon B	Rock	0.37	<0.001	2	21	0.60	4	0.037	11	0.28	0.018	0.02	0.6	0.17	2.6	0.2	2.20	1	13.8	22.8
Mon C	Rock	0.54	0.012	3	31	1.06	3	0.035	3	0.56	0.021	0.03	1.6	<0.01	4.3	<0.1	0.49	2	0.6	1.5
Mon D	Rock	0.51	0.009	5	17	0.78	7	0.063	4	0.36	0.042	0.03	0.6	<0.01	2.6	<0.1	0.55	2	0.9	1.2
NDM A	Rock Pulp	0.75	0.067	7	15	0.59	124	0.102	<1	1.27	0.141	0.20	6.1	<0.01	1.9	<0.1	<0.05	4	<0.5	<0.2
NDM B	Rock Pulp	0.98	0.053	7	18	0.90	159	0.150	<1	1.80	0.202	0.26	4.1	0.07	3.0	0.2	0.16	5	<0.5	<0.2
NDM C	Rock Pulp	1.09	0.055	5	36	0.82	111	0.144	3	1.71	0.120	0.18	0.6	0.09	5.0	0.1	0.05	5	<0.5	<0.2

	Sample Description	Method	WGHT	FA530	FA530	AQ202	AQ202
		Analyte	Wgt	Ag	Au	Ag	Au
		Unit	KG	GM/T	GM/T	PPM	PPB
		MDL	0.01	20	0.9	0.1	0.5
Sample #		Type					
Mon A	1.0 meter continuous chip sample. Quartz vein - massive, smokey, milky crypto-crystalline. 1% pyrite fine grained disseminations and small blebs	Rock	3.02	35	122	23.7	>100000
Mon B	1.0m continuous chip sample. Continuation of sample trace. Same as above.	Rock	2.01	77	320.5	41.2	>100000
Mon C	1.0m continuous chip sample. Continuation of sample trace. Same as above except several small inclusions of country rock	Rock	3.5	<20	1.2	0.7	2031
Mon D	1.0 Continuous chip sample. Footwall medium grained, brown, siliceous, sugary. Trace to 1% disseminated fine grained pyrite. Minor pinkish colouration probably due to hematite alteration	Rock	2.18	<20	<0.9	1.2	1690.7
Pulp Duplicates							
Mon D	Original Analysis of sample Mon D	Rock	2.18	<20	<0.9	1.2	1690.7
Mon D	Repeat analyses of chip sample Mon D	REP				1.2	1418.6

Note: Gold Fire Assay Results are expressed as grams per tonne (GM/T). ICP analyses are reported as parts per billion. Divide ppb by 1000 t0 produce GM/T.

20.2 Appendix 2 (Certificate of Analyses from 2016 Drill Core Sampling Program)

Invoice To: New Discovery Mines Ltd.
6120 185A St.
Surrey British Columbia V3S 7P9
Canada

CC:

This report supersedes all previous preliminary and final reports with this file number dated prior to the date on this certificate. Signature indicates final approval; preliminary reports are unsigned and should be used for reference only. All results are considered the confidential property of the client. Bureau Veritas assumes the liabilities for actual cost of analysis only. Results apply to samples as submitted. "*" asterisk indicates that an analytical result could not be provided due to unusually high levels of interference from other elements.

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

CERTIFICATE OF ANALYSIS VAN16002214.1

CLIENT JOB INFORMATION

Project:	MON
Shipment ID:	NDM-1
P.O. Number	
Number of Samples:	26

SAMPLE DISPOSAL

DISP-PLP	Dispose of Pulp After 90 days
DISP-RJT	Dispose of Reject After 90 days

Bureau Veritas does not accept responsibility for samples left at the laboratory after 90 days without prior written instructions for sample storage or return.

SAMPLE PREPARATION AND ANALYTICAL PROCEDURES

Procedure Code	Number of Samples	Code Description	Test Wgt (g)	Report Status	Lab
PRP70-250	23	Crush, split and pulverize 250 g rock to 200 mesh			VAN
SLBHP	2	Sort, label and box pulps			VAN
FA330-Au	25	Fire assay fusion Au by ICP-ES	30	Completed	VAN
EN002	26	Environmental fee - lead waste disposal			VAN
AQ251	25	1:1:1 Aqua Regia digestion Ultratrace ICP-MS analysis	15	Completed	VAN
FA530	2	Lead collection fire assay 30G fusion - Grav finish	30	Completed	VAN

ADDITIONAL COMMENTS

CERTIFICATE OF ANALYSIS VAN16002214.1

Method		WGHT	FA330	AQ251		AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251
Analyte		Wgt	Au	Mo	Cu	Pb	Zn	Ag ppb	Ni	Co	Mn	Fe %	As	U ppm	Au	Th	Sr	Cd	Sb	Bi	V
Unit		kg	ppb 2	ppm	ppm	ppm	ppm	2	ppm	ppm	ppm 1	0.01	ppm	0.1	ppb	ppm	ppm	ppm	ppm	ppm	ppm
MDL		0.01		0.01	0.01	0.01	0.1		0.1	0.1			0.1		0.2	0.1	0.5	0.01	0.02	0.02	2
2585201	Drill Core	0.99	88	0.21	37.69	10.64	50.3	123	106.4	31.2	377	3.12	101.1	0.1	64.1	0.7	20.6	0.07	0.32	0.02	54
2585202	Drill Core	0.99	1442	0.17	8.94	635.40	974.4	1299	6.0	2.3	64	0.38	8.6	<0.1	3463.0	<0.1	3.2	3.62	0.24	1.45	3
2585203	Drill Core	1.73	178	0.29	27.46	120.71	96.8	508	10.0	4.6	171	0.91	9.7	0.5	1363.5	0.6	8.1	0.22	0.35	0.58	13
2585204	Drill Core	0.73	96	1.12	49.39	26.81	60.1	346	24.2	15.4	73	2.24	79.9	1.3	79.8	8.6	16.4	0.24	0.42	0.07	25
2585205	Rock Pulp	0.04	8	2.77	68.61	3.64	37.6	56	7.4	8.7	327	2.71	<0.1	0.8	1.4	2.4	60.7	0.09	0.12	0.14	105
2585206	Drill Core	1.43	8	0.19	106.75	19.52	34.5	172	134.0	35.5	308	2.96	127.4	0.1	5.7	0.9	46.1	0.03	0.46	0.04	49
2585207	Drill Core	1.77	4971	0.21	27.60	222.82	85.1	1703	17.3	5.4	115	0.64	20.2	<0.1	9709.7	0.1	8.7	0.41	0.37	1.29	8
2585208	Drill Core	1.09	84	1.06	48.06	31.84	54.4	158	34.7	10.9	77	1.13	15.3	0.2	97.6	1.2	23.1	0.16	0.39	0.10	7
2585209	Drill Core	0.91	65	0.39	124.76	5.51	32.9	175	47.7	16.5	228	2.11	28.0	0.3	16.9	1.8	30.9	0.06	0.33	0.10	39
2585210	Drill Core	1.02	49	0.54	264.23	7.58	20.1	378	19.4	5.2	132	0.84	23.9	<0.1	216.7	0.2	22.1	0.07	0.27	<0.02	13
2585211	Drill Core	1.86	14	0.24	67.26	45.30	101.0	141	117.0	36.7	185	1.58	264.5	0.2	10.3	1.2	28.8	0.26	1.10	0.09	24
2585212	Drill Core	1.50	>10000	1.65	52.94	3253.16	497.0	6084	6.7	2.8	35	0.62	20.0	<0.1	15451.5	0.2	4.5	2.35	0.56	8.96	<2
2585213	Drill Core	1.77	>10000	0.44	27.10	722.73	2133.5	2516	5.7	3.2	80	0.81	60.4	0.3	11477.4	2.0	5.6	7.97	0.34	0.54	8
2585214	Drill Core	1.39	101	1.08	28.43	34.11	105.8	140	19.6	11.7	325	2.28	42.4	1.9	108.8	11.6	13.3	0.25	0.15	0.10	47
2585215	Rock Pulp	0.04	4634	6.63	97.43	5307.29	732.4	>100000	8.8	2.6	2040	1.98	50.9	0.6	4770.0	2.1	285.2	10.06	37.50	0.88	23
2585216	Drill Core	2.96	48	0.15	144.01	19.34	45.0	291	32.7	24.2	161	2.59	7.0	0.1	137.8	0.9	24.3	0.08	0.16	0.04	37
2585217	Drill Core	1.38	29	0.16	156.58	21.13	28.4	285	45.7	28.4	143	2.60	6.5	0.2	23.9	1.2	30.8	0.08	0.23	0.04	30
2585218	Drill Core	2.35	51	0.15	142.24	27.27	50.1	279	74.3	35.5	200	3.32	10.0	0.1	21.4	1.0	28.2	0.13	0.18	0.06	42
2585219	Drill Core	1.95	84	0.51	61.29	174.27	56.9	634	26.1	11.3	86	1.61	50.8	0.6	200.5	4.2	15.4	0.52	0.37	0.64	17
2585220	Drill Core	1.49	78	1.15	49.10	8.58	16.5	172	29.7	14.8	68	1.95	9.4	1.2	78.1	9.7	20.6	0.02	0.08	<0.02	21
2585221	Drill Core	1.16	928	0.97	49.58	187.97	141.4	1023	14.2	8.7	47	1.56	254.9	1.0	2507.6	6.4	11.0	0.74	0.47	0.50	10
2585222	Drill Core	1.34	12	0.17	104.28	27.78	121.2	189	111.0	31.6	332	2.90	62.9	0.1	8.0	0.8	17.1	0.30	0.33	0.06	48
2585223	Drill Core	2.01	643	0.21	25.15	30.55	599.2	404	13.3	3.6	157	0.65	10.5	0.2	1220.4	<0.1	6.5	2.14	0.47	0.18	6
2585224	Drill Core	1.28	6	0.13	50.66	28.59	46.8	64	45.7	10.1	56	0.66	12.0	<0.1	2.4	0.3	16.6	0.19	0.14	<0.02	3
2585225	Drill Core	1.89	9	0.17	118.61	50.09	130.8	172	75.3	21.8	102	1.53	21.7	0.1	2.6	0.7	27.0	0.38	0.19	0.06	10
2585226	Drill Core	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.

CERTIFICATE OF ANALYSIS VAN16002214.1

	Method	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	FA530
	Analyte	Ca %	P %	La	Cr	Mg %	Ba	Ti %	B	Al %	Na %	K %	W	Sc	Tl	S %	Hg	Se	Te	Ga	Au
	Unit	0.01	0.001	ppm	ppm	0.01	ppm	0.001	ppm	0.01	0.001	0.01	ppm	ppm	ppm	0.02	ppb	ppm	ppm	ppm	gm/t
	MDL			0.5	0.5		0.5		1				0.1	0.1	0.02		5	0.1	0.02	0.1	0.9
2585201	Drill Core	0.90	0.023	3.1	92.7	1.68	71.3	0.099	4	1.84	0.151	0.30	0.1	5.3	0.12	0.05	<5	<0.1	0.02	5.3	
2585202	Drill Core	0.23	<0.001	1.0	5.4	0.15	1.1	0.008	2	0.08	0.008	<0.01	0.1	0.4	0.02	0.09	25	0.4	0.92	0.4	
2585203	Drill Core	0.70	0.003	4.4	12.2	0.44	1.7	0.016	2	0.28	0.018	0.02	0.3	1.4	<0.02	0.19	<5	0.1	0.33	1.2	
2585204	Drill Core	0.36	0.064	34.4	11.6	0.49	8.4	0.101	2	0.42	0.092	0.02	1.0	2.7	0.05	1.18	<5	0.7	0.19	2.1	
2585205	Rock Pulp	0.79	0.067	6.8	16.0	0.60	116.0	0.098	3	1.37	0.159	0.20	5.6	1.6	0.04	<0.02	12	<0.1	<0.02	3.4	
2585206	Drill Core	1.16	0.012	4.4	81.6	1.18	172.4	0.152	5	1.44	0.143	0.42	0.4	4.3	0.35	0.51	<5	0.3	0.03	5.2	
2585207	Drill Core	0.58	0.039	2.4	12.4	0.31	3.4	0.019	2	0.16	0.022	0.02	0.2	1.0	0.04	0.15	12	0.1	0.39	0.7	
2585208	Drill Core	0.45	0.011	5.3	11.5	0.28	6.6	0.078	3	0.26	0.056	0.03	1.1	1.2	<0.02	0.47	<5	0.1	0.06	1.3	
2585209	Drill Core	1.25	0.037	13.2	35.7	0.80	47.3	0.080	8	1.48	0.137	0.11	0.7	3.9	0.04	0.21	<5	<0.1	0.05	3.9	
2585210	Drill Core	1.36	0.028	2.9	12.4	0.64	8.4	0.012	8	0.89	0.082	0.06	>100	1.9	0.02	0.04	<5	<0.1	0.09	2.3	
2585211	Drill Core	0.81	0.007	5.5	52.5	0.68	30.8	0.097	4	0.60	0.079	0.12	3.3	2.8	0.06	0.28	<5	0.1	0.03	2.1	
2585212	Drill Core	0.13	<0.001	0.9	4.3	0.07	1.2	0.013	<1	0.05	0.012	<0.01	5.6	0.2	0.14	0.43	20	2.2	3.58	0.3	14.9
2585213	Drill Core	0.28	0.006	7.0	5.5	0.22	2.9	0.028	2	0.19	0.030	0.02	0.8	0.9	0.03	0.39	56	0.7	1.11	1.1	15.6
2585214	Drill Core	0.60	0.067	38.3	18.0	0.87	59.4	0.119	3	1.13	0.097	0.52	4.9	3.2	0.24	0.22	<5	<0.1	0.03	6.0	
2585215	Rock Pulp	9.33	0.011	4.9	14.8	0.08	87.0	0.006	4	0.39	0.004	0.19	2.3	0.9	0.15	0.25	221	0.8	0.67	1.2	
2585216	Drill Core	0.69	0.051	4.9	36.8	0.51	27.8	0.119	4	0.47	0.080	0.10	1.7	3.5	0.03	1.02	<5	0.6	0.03	2.0	
2585217	Drill Core	0.94	0.014	6.6	36.4	0.45	12.2	0.190	5	0.41	0.084	0.07	3.0	4.1	<0.02	1.15	<5	0.6	0.03	1.7	
2585218	Drill Core	0.83	0.015	5.9	51.8	0.71	20.6	0.155	4	0.62	0.087	0.11	2.3	5.2	0.04	1.27	<5	0.7	0.04	2.5	
2585219	Drill Core	0.35	0.012	15.4	16.1	0.29	5.0	0.072	2	0.27	0.074	0.03	2.0	1.6	0.02	0.75	<5	0.4	0.29	1.5	
2585220	Drill Core	0.52	0.081	43.1	10.3	0.24	9.7	0.124	1	0.45	0.181	0.09	4.5	2.0	0.03	0.99	<5	<0.1	0.04	1.6	
2585221	Drill Core	0.25	0.034	20.1	5.9	0.20	3.7	0.068	1	0.19	0.066	0.03	1.5	1.0	<0.02	0.80	<5	0.3	0.57	1.2	
2585222	Drill Core	1.01	0.032	6.7	67.1	1.09	22.0	0.116	3	1.13	0.081	0.09	0.7	4.1	0.05	0.47	<5	0.2	0.03	4.7	
2585223	Drill Core	0.58	<0.001	1.3	12.8	0.44	2.0	0.024	1	0.21	0.018	0.01	0.3	1.0	<0.02	0.14	11	<0.1	0.07	1.0	
2585224	Drill Core	0.32	0.002	1.6	8.5	0.19	3.8	0.051	2	0.15	0.037	0.02	0.7	0.6	<0.02	0.25	<5	<0.1	<0.02	0.7	
2585225	Drill Core	0.90	0.004	3.8	18.2	0.35	8.4	0.111	4	0.31	0.080	0.05	1.2	1.5	<0.02	0.69	<5	0.3	0.02	1.3	
2585226	Drill Core	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	

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	Method	WGHT	FA330	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ25
	Analyte	Wgt	Au ppb	Mo	Cu	Pb	Zn	Ag ppb	Ni	Co	Mn	Fe %	As	U	Au	Th	Sr	Cd	Sb	Bi	1 V
	Unit	kg	2	ppm	ppm	ppm	ppm	2	ppm	ppm	ppm 1	0.01	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm 2
	MDL	0.01		0.01	0.01	0.01	0.1		0.1	0.1			0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	
Pulp Duplicates																					
2585206	Drill Core	1.43	8	0.19	106.75	19.52	34.5	172	134.0	35.5	308	2.96	127.4	0.1	5.7	0.9	46.1	0.03	0.46	0.04	49
REP 2585206	QC			0.20	111.33	19.55	34.4	179	137.1	36.4	305	2.96	125.1	0.1	3.9	0.9	46.0	0.04	0.45	0.04	49
2585210	Drill Core	1.02	49	0.54	264.23	7.58	20.1	378	19.4	5.2	132	0.84	23.9	<0.1	216.7	0.2	22.1	0.07	0.27	<0.02	13
REP 2585210	QC			0.53	257.46	7.44	20.0	334	21.2	4.8	130	0.82	24.3	<0.1	55.0	0.2	22.0	0.08	0.25	<0.02	12
2585212	Drill Core	1.50	>10000	1.65	52.94	3253.16	497.0	6084	6.7	2.8	35	0.62	20.0	<0.1	15451.5	0.2	4.5	2.35	0.56	8.96	<2
REP 2585212	QC																				
2585216	Drill Core	2.96	48	0.15	144.01	19.34	45.0	291	32.7	24.2	161	2.59	7.0	0.1	137.8	0.9	24.3	0.08	0.16	0.04	37
REP 2585216	QC		55																		
Reference Materials																					
STD AGPROOF	Standard																				
STD AGPROOF	Standard																				
STD DS10	Standard			15.63	157.72	157.91	368.7	1946	74.1	13.5	879	2.81	45.4	2.8	75.8	7.8	66.8	2.66	10.19	12.61	44
STD DS10	Standard			14.91	156.72	153.95	366.3	1734	72.7	13.1	859	2.75	43.9	2.7	74.9	7.6	67.1	2.34	8.75	11.82	43
STD OXC129	Standard			1.36	26.45	6.29	41.3	13	76.2	20.5	409	3.02	0.6	0.7	184.2	1.8	184.2	0.02	0.03	<0.02	53
STD OXC129	Standard			1.30	27.24	6.57	37.0	12	82.0	21.1	418	3.02	0.3	0.7	193.4	1.9	189.5	<0.01	0.04	0.03	51
STD OXC145	Standard		204																		
STD OXH122	Standard		1268																		
STD SP49	Standard																				
STD SP49	Standard																				
STD SQ70	Standard																				
STD SQ70	Standard																				
STD OXC145 Expected			212																		
STD OXH122 Expected			1247																		
STD AGPROOF Expected																					
STD SP49 Expected																					
STD SQ70 Expected																					
STD DS10 Expected				15.1	154.61	150.55	370	2020	74.6	12.9	875	2.7188	46.2	2.59	91.9	7.5	67.1	2.62	9	11.65	43
STD OXC129 Expected				1.3	28	6.3	42.9	28	79.5	20.3	421	3.065	0.6	0.72	195	1.9		0.03	0.04		51

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Method		AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	AQ251	FA530
Analyte		Ca %	P %	La	Cr	Mg %	Ba	Ti %	B	Al %	Na %	K %	W	Sc	Tl	S %	Hg ppb	Se	Te	Ga	Au
Unit		0.01	0.001	ppm	ppm	0.01	ppm	0.001	ppm	0.01	0.001	0.01	ppm	ppm	ppm	0.02	5	ppm	ppm	ppm	gm/t
MDL				0.5	0.5		0.5		1				0.1	0.1	0.02			0.1	0.02	0.1	0.9
Pulp Duplicates																					
2585206	Drill Core	1.16	0.012	4.4	81.6	1.18	172.4	0.152	5	1.44	0.143	0.42	0.4	4.3	0.35	0.51	<5	0.3	0.03	5.2	
REP 2585206	QC	1.19	0.011	4.3	80.8	1.16	171.3	0.152	5	1.42	0.140	0.42	0.4	4.3	0.34	0.52	<5	0.3	0.04	5.3	
2585210	Drill Core	1.36	0.028	2.9	12.4	0.64	8.4	0.012	8	0.89	0.082	0.06	>100	1.9	0.02	0.04	<5	<0.1	0.09	2.3	
REP 2585210	QC	1.33	0.027	2.7	11.8	0.63	8.2	0.012	9	0.89	0.080	0.06	>100	1.9	<0.02	0.04	<5	<0.1	0.07	2.1	
2585212	Drill Core	0.13	<0.001	0.9	4.3	0.07	1.2	0.013	<1	0.05	0.012	<0.01	5.6	0.2	0.14	0.43	20	2.2	3.58	0.3	14.9
REP 2585212	QC																				20.1
2585216	Drill Core	0.69	0.051	4.9	36.8	0.51	27.8	0.119	4	0.47	0.080	0.10	1.7	3.5	0.03	1.02	<5	0.6	0.03	2.0	
REP 2585216	QC																				
Reference Materials																					
STD AGPROOF	Standard																				<0.9
STD AGPROOF	Standard																				<0.9
STD DS10	Standard	1.09	0.078	18.9	55.8	0.77	373.1	0.077	7	1.03	0.069	0.34	3.6	2.8	5.39	0.29	303	2.4	5.13	4.5	
STD DS10	Standard	1.11	0.070	17.0	57.0	0.79	345.3	0.078	7	1.10	0.077	0.35	3.4	2.6	5.13	0.28	281	2.1	4.94	4.3	
STD OXC129	Standard	0.65	0.104	12.1	51.8	1.53	48.3	0.391	<1	1.60	0.589	0.37	0.1	1.0	0.04	<0.02	<5	<0.1	<0.02	5.4	
STD OXC129	Standard	0.67	0.104	12.6	53.5	1.53	50.5	0.405	2	1.63	0.625	0.40	0.1	0.8	0.04	<0.02	<5	<0.1	<0.02	5.4	
STD OXC145	Standard																				
STD OXH122	Standard																				
STD SP49	Standard																				18.5
STD SP49	Standard																				18.2
STD SQ70	Standard																				40.0
STD SQ70	Standard																				40.0
STD OXC145 Expected																					
STD OXH122 Expected																					
STD AGPROOF Expected																					0
STD SP49 Expected																					18.34
STD SQ70 Expected																					39.62
STD DS10 Expected		1.0625	0.0765	17.5	54.6	0.775	359	0.0817		1.0259	0.067	0.338	3.32	3	5.1	0.29	300	2.3	5.01	4.5	
STD OXC129 Expected		0.665	0.102	13	52	1.545	50	0.4	1	1.58	0.6	0.37	0.08	1.1	0.03					5.6	

Client: **New Discovery Mines Ltd.**
6120 185A St.
Surrey British Columbia V3S 7P9 Canada

Bureau Veritas Commodities Canada Ltd.
9050 Shaughnessy St Vancouver British Columbia V6P 6E5 Canada
PHONE (604) 253-3158

Project: MON
Report Date: December 20, 2016

		WGHT Wgt kg 0.01	FA330 Au ppb 2	AQ251 Mo ppm 0.01	AQ251 Cu ppm 0.01	AQ251 Pb ppm 0.01	AQ251 Zn ppm 0.1	AQ251 Ag ppb 2	AQ251 Ni ppm 0.1	AQ251 Co ppm 0.1	AQ251 Mn ppm 1	AQ251 Fe % 0.01	AQ251 As ppm 0.1	AQ251 U ppm 0.1	AQ251 Au ppb 0.2	AQ251 Th ppm 0.1	AQ251 Sr ppm 0.5	AQ251 Cd ppm 0.01	AQ251 Sb ppm 0.02	AQ251 Bi ppm 0.02
BLK	Blank		<2																	

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		AQ251 Ca % 0.01	AQ251 P % 0.001	AQ251 La ppm 0.5	AQ251 Cr ppm 0.5	AQ251 Mg % 0.01	AQ251 Ba ppm 0.5	AQ251 Ti % 0.001	AQ251 B ppm 1	AQ251 Al % 0.01	AQ251 Na % 0.001	AQ251 K % 0.01	AQ251 W ppm 0.1	AQ251 Sc ppm 0.1	AQ251 Tl ppm 0.02	AQ251 S % 0.02	AQ251 Hg ppb 5	AQ251 Se ppm 0.1	AQ251 Te ppm 0.02	AQ251 Ga ppm 0.1	FA530 Au gm/t 0.9
BLK	Blank																				
BLK	Blank																				
BLK	Blank																				<0.9
BLK	Blank																				<0.9
BLK	Blank	<0.01	<0.001	<0.5	<0.5	<0.01	<0.5	<0.001	<1	<0.01	<0.001	<0.01	<0.1	<0.1	<0.02	<0.02	<5	<0.1	<0.02	<0.1	
Prep Wash																					
ROCK-VAN	Prep Blank	0.57	0.044	7.1	3.1	0.41	56.3	0.074	3	0.80	0.099	0.11	0.1	2.9	<0.02	<0.02	<5	<0.1	<0.02	3.8	
ROCK-VAN	Prep Blank	0.58	0.042	7.0	3.1	0.42	56.4	0.071	2	0.76	0.094	0.10	0.1	2.9	<0.02	<0.02	<5	<0.1	<0.02	3.8	

20.3 Refined 2018 Additional Budget

Operations	Full	Minimum	Base
Winter road construction maintenance and haul	350000	350000	350000
Camp Operations	260000	130000	
Decline labour	380000	190000	
Subdrift labour	242000	121000	
Raise labour	25000		
Supervision/support	794000	397000	
Fuel	200000	200000	200000
Explosives	160000	160000	160000
Local Flights	50000	50000	
	2461000	1598000	710000
Capital			
Tanks	75000	75000	75000
Genset (camp)	30000	30000	30000
Genset (mine)	42500	42500	42500
Compressor	18000	18000	18000
Miscellaneous mine	213000	213000	213000
Shop Supplies	43000	43000	43000
Subtotal	421500	421500	421500
Total	2882500	2019500	1131500