

# Marg Project Mineral Resource Statement Update

- MinQuest refers to the ASX announcement of March 17, 2015
- In accordance with the requirements of Listing Rule 5.8.1 and clause 50 of the 2012 JORC Code, a Mineral Resource Statement has been completed below.
- Further information on the Marg Project can be found on MinQuest's website (www.minquest.com.au)

# 7 May 2015

#### **DIRECTORS**

David Deloub Chairman

Jeremy Read Managing Director

Paul Niardone Non-Executive Director

Adam Davey Non-Executive Director

Kim Clark Company Secretary

# **SHARE INFORMATION**

ASX Code: MNQ Issued Capital: 83,458,341 Fully Paid Shares 14,923,097 Unlisted Options

### **CONTACT INFORMATION**

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## The Marg Project – Mineral Resource Statement

# 1. Geology and Geological Interpretation

The Marg project consists of the main Marg deposit, a volcanogenic hosted massive sulphide (VHMS) deposit hosted in the metasedimentary and metavolcanic rocks of the Devono-Mississipian Earn Group. The project also contains an additional 15km long belt of the same felsic metavolcanic and metasedimentary rocks that host the Marg Deposit. Within this belt, soil geochemical sampling has outlined several very promising anomalies that have yet to be properly drill tested.

The Marg deposit consists of three continuous units that contain the majority of the total defined Mineral Resource. The deposit is strongly attenuated and contains an additional eight smaller stacked sulphide lenses. The deposit can be traced in the sub-surface for over 1400m along strike. The deposit is open in both directions along strike and at depth. The main economic mineral species are chalcopyrite, sphalerite and galena associated with pyrite occurring as massive to semi-massive lenses up to 20m thick (averaging 3m to 4m).

A simple evaluation of the deposit in terms of the mining potential shows that the higher grade resource is associated with the thicker zones and tends to be clustered in the central area of the deposit, plunging to the east. Of the 11.7Mt (at a 0.5% Cu cut-off), approximately 8.0Mt are thicker than 3.5m true thickness at grades greater than 2.0% CuEq. The deposit also dips from 45 degree to 70 degrees. These factors present a very positive scenario for the development of mining activities in the future.

# 2. Drilling Technique

All of the drilling was completed using diamond drilling methods including HQ and NQ core diameters drilled with imperial drill rods and converted to meters. Drilling from 1988 to 2007 was carried out by Caron Diamond Drilling using a Longyear 38 diamond drill. Drilling in 2008 was by Orofino Drilling using a JKS 300 hydraulichelicopter-portable drill. Drill core was not oriented.

# 3. Sampling, Sub Sampling and Analytical Techniques

The buried VMS mineralization of the Marg deposit was sampled by surface diamond drilling. Three companies, Marg JV, NDU Resources and Yukon Gold Corp. Ltd. completed 119 holes over 33, 876.3 m of continuous NQ and HQ diamond drilling in



1988 to 1997 (5 seasons) and 2005 to 2008 (4 seasons). Drill holes varied from 54m to 499m in length.

Within the diamond drill core, zones of volcanic massive sulphide mineralization were logged, cut in half by manual or diamond saw and sampled on site. The sampling lengths were 0.3 to 3.1m of mineralized core. The 1.5 m to 3.1 m intervals were largely during the 1988 program. Sampling of mineralisation was mostly in the 0.3 to 1.5m interval range. Sample breaks were made at change of lithology and VMS horizons. A split sample of 0.5 m or longer was taken from underlying and overlying wall rock units of each mineralized zone of visible mineralization Drilling was completed over 1400m of strike length and about 700 m of down dip on drill lines perpendicular to strike and dip of VMS horizons.

The diamond drill core was split in half length-wise using a manual core splitter or diamond saw. One-half of the mineralized core was sent for assay. Certain sections of drill core (one-half of the remaining core) were sent for metallurgical studies. In 2008 one-quarter of the mineralized core was sent for metallurgical testing. Quality control procedures was appropriate for the industry standard at the time. During the 2005 through 2008 drilling seasons extensive QA/QC was done in accordance with Canadian NI 43-101 standards. The samples were split, double bagged and securely stored prior to direct shipping to ALS Chemex Labs of North Vancouver, BC. The samples were weighed, dried and crushed to 70% minus 2 mm, before a 250 g split was taken and pulverized to better than 85% minus 75 microns. A 50 g split of the pulverized fraction was dissolved in aqua regia and analysed for 50 elements by a combination of ICPMS and ICPAES techniques. Atomic absorption was also used. A 30 gram split was analysed for gold with a fire assay preparation and AAS finish. Over limit copper, lead, zinc, and silver values were determined using atomic absorption spectroscopy (AAS) methods. Duplicate samples were prepared and analysed at Acme laboratories using methods similar to ALS Pulps and coarse rejects were sent as check samples to Acme laboratories. There was a continuous chain of command for the drill core samples. From 2005 to 2008, duplicate, blank and standard analyses were conducted and did not revel any discrepancies beyond normally expected analytical variability.

#### 4. Resource Criteria and Assumptions

The Marg Mineral Resource estimate was classified in 2013 under the Canadian National Instrument (NI) 43-101 and falls within the Australian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012).

The geological interpretation was used a guide to create the ore wireframes. The ore zones were selected on the basis of the lithological description of massive sulphides and the presence of assay verified sulphide mineralisation carried out by Giroux Consultants Ltd. The mineralised zone has been defined over a 1400 meter strike



distance, a down-dip distance of 700 meters and across a stratigraphic thickness of approximately 100 meters over 11 individual lenses.

The drilling has defined a total Mineral Resource at the Marg Deposit of 11.74Mt at 1.27% Cu, 3.23% Zn, 1.55% Pb, 0.61g/t Au and 39.78g/t Ag utilising a 0.5% Cu cut-off, which has been classified under the JORC Code (2012) as set out below.

Classification	Tonnes (Mt)	Cu %	Pb (%)	Zn (%)	Ag (g/t)	Au (g/t)	CuEq* (%)
Indicated	3.96	1.57	1.92	3.90	49.40	0.79	4.45
Inferred	7.78	1.12	1.36	2.89	34.88	0.52	3.18
Total	11.74	1.27	1.55	3.23	39.78	0.61	3.61

<sup>\*</sup>The basis of the CuEq calculation is defined in Section 8

The Marg Mineral Resource estimate was based on a number of factors and assumptions:

- A review of the QA/QC data was completed and considered satisfactory to define a Mineral Resource
- Mineralisation was defined by zones identified from downhole lithology and analytical results
- Assays within the mineralized lenses were capped at 5.1% Cu, 6.4% Pb, 11 % Zn, 20o g/t Ag and 5 g/t Au.
- Uniform 1.5 m down hole composites were produced to honour the boundaries of the mineralized solids.
- Pairwise relative semivariograms were used for each variable within the largest D1 Lens. This model was used for all other lenses. The semivariogram parameters were used to orient and dimension the search ellipses for each lens.
- Ordinary kriging was used to interpolate grades into blocks 10 m (E-W), 5 m (N-S) and 2.5 m (vertical).
- A total of 117 specific gravity measurements have been made on the Marg project using the Archimedes methodology on drill core.
- The estimated blocks were compared to drill hole composites on sections and level plans and found to be reasonable.
- This resource was completed in 2011 and updated in 2013.

## 5. Resource Classification and Drill Hole Spacing

Geologic continuity has been established through diamond drilling over a number of drill campaigns with the mineralized lenses interpreted from reasonably spaced drill fences. Grade continuity can be quantified by semivariogram analysis for each



variable. The estimation process was completed in a series of 4 passes with the search ellipse dimensions tied to the semivariogram ranges. The first pass used dimensions equal to 1/4 of the semivariogram range. A minimum of 3 composites were required within the search ellipsoid to estimate a block. For blocks not estimated in pass 1 a second using 1/2 the semivariogram range was completed. A third pass using the full range and a fourth pass using twice the range completed the kriging exercise. For this resource estimate the density of drilling, number of intersections within each lens and the small number of blocks estimated in the first pass using ½ of the semivariogram range has precluded classifying any of the resource as measured. Blocks estimated in Passes 1 and 2 were classed indicated with all other blocks classed inferred.

#### 6. Cut-off Grades

The resource model is constrained by assumptions about economic cut-off grades. The resource was reported at a Cu cut off of 0.5% which was determined to be reasonable given the multi-commodity nature of the deposit and that any potential future production may be a combination of open pit and underground mining methods.

#### 7. Mining and Metallurgical Parameters and Assumptions

MinQuest and subsequent holders of the Marg Project have not completed any mining analysis. Various metallurgical studies have been conducted in 1998 and from 2008 to 2010. The results of these studies are variable and the most recent test work was left incomplete as it was noted the samples being tested had significantly oxidised from being in storage. This has put in doubt the results from a series of the earlier testing.

MinQuest plans on conducting updated metallurgical test work after completing new drilling on the Marg Project in the northern hemisphere summer of 2015.

## 8. Copper Equivalent Assumptions and Statements

The Copper Equivalent (CuEq) values are calculated based on the metrics in Table 3, such that CuEq = Cu Grade + ((Zn Grade x Zn Recovery x Zn Price) + (Pb Grade x Pb Recovery x Pb Price) + (Ag Grade x Ag Recovery x Ag Price) + (Au Grade x Au Recovery x Au Price)) / (Cu Recovery x Cu Price)



Table 3 – Values used to calculate copper equivalence (USD)

Туре	Value	Unit
Cu price	\$2.60	\$/lb
Zn price	\$0.93	\$/lb
Pb price	\$0.81	\$/lb
Au price	\$1200	\$/troy oz
Ag price	16.30	\$/troy oz
Cu recovery	70	%
Zn recovery	75	%
Pb recovery	50	%
Au recovery	70	%
Ag recovery	70	%

It is the company's opinion that the metals used to calculate the copper equivalent grade have a reasonable chance of being recovered and sold.



#### Competent Person Statement - Mineral Resource

This Mineral Resource estimate and technical information related to the estimate in this news release on the Marg Mineral Resources is based on information compiled by Mr. A.A. Burgoyne (P.Eng), who is a member of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) and Mr. G.H. Giroux (P.Eng), who is a member of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC). Mr. Burgoyne and Mr. Giroux provided information to MinQuest Ltd. as paid consulting work in their capacity as Competent Persons and the results or conclusions reported were not contingent on payments. They are professionally and financially independent of MinQuest and of the Marg Project. They have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken, to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code) and "Qualified Person" as this term is defined in Canadian National Instrument 43-101 ("NI 43-101"). Mr. Burgoyne and Mr. Giroux consent to the inclusion in this news release the information in the form and context in which it appears. The technical report can be found under Redtail Metals Corp. on SEDAR (www.sedar.com).

The information in this report that relates to exploration results is based upon information reviewed by Mr Chris Doornbos BSc (Hons) who is a Member of the Australasian Institute of Mining and Metallurgy and a Professional Member of the Association of Professional Engineers and Geoscientists of Alberta. Mr Doornbos is a full time employee of MinQuest Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Doornbos consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Mr Doornbos is the Exploration Manager of MinQuest and currently owns 1,278,788 Fully Paid Ordinary Shares and has the entitlement to a further 606,060 deferred consideration shares subject to relevant milestone events being achieved.

## **Forward Looking Statements**

This announcement contains "forward-looking statements". Such forward-looking statements include, without limitation: estimates of future earnings, the sensitivity of earnings to commodity prices and foreign exchange rate movements; estimates of future production and sales; estimates of future cash flows, the sensitivity of cash flows to commodity prices and foreign exchange rate movements; statements regarding future debt repayments; estimates of future capital expenditures; estimates of resources and statements regarding future exploration results; and where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to commodity price volatility, currency fluctuations, increased production costs and variances in resource or reserve rates from those assumed in the company's plans, as well as political and operational risks in the countries and states in which we operate or sell product to, and governmental regulation and judicial outcomes. For a more detailed discussion of such risks



and other factors, see the Company's Annual Reports, as well as the Company's other filings. The Company does not undertake any obligation to release publicly any revisions to any "forward looking statement" to reflect events or circumstances after the date of this release, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.