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#### STRZELECKI METALS LTD ASX RELEASE

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### MYSZKOW MOLYBDENUM/COPPER DEPOSIT SOUTHERN POLAND

## INTRODUCTION

Strzelecki Metals Limited approached SMG Consultants in June 2008 to undertake a review of the geological data from its project at Myszkow in Southern Poland. A geological model was constructed and a drilling database that could be viewed and manipulated in 3D developed. A period of data validation and collection continued for 3 months with discussion between SMG and the project geologist at Myszkow.

In September 2008, Strzelecki requested the calculation of a resource estimate to be completed with all of the available drill hole data that had been collected to that date. This report includes all such data as well as that from Strzelecki's drill hole MM-1 which was completed late that year.

# LOCATION, PAST MINING & GEOLOGY

The Myszkow project is located in Southern Poland approximately 60km to the North-West of the city Krakow and is shown in Figure 1. The topography is described as generally flat open country or farmland. Exploration activities of the Mo-W-Cu deposit are quite close to the southern side of the town of Myszkow as shown on the locality map Figure 2. No known past mining has ever been attempted on the Myszkow mineralisation as it is covered with 200 metres of Triassic sediments.



Figure 1 Myszkow Regional Locality

Figure 2 Myszkow Township

## **REGIONAL GEOLOGY**

In southern Poland there are several areas of polymetallic (Cu-Mo-W) mineralisation within a deformation belt of Precambrian to Palaeozoic age. This belt is covered by gently deformed Mesozoic sediments, and its position has been mainly defined by extensive drilling programs that uncovered the presence of altered and mineralised rocks underneath. At Myszkow, this belt forms a 500m wide structural zone that corresponds to the Krakow-Lubliniec Tectonic Zone (TZ).

The Krakow-Lubliniec TZ separates two older tectonic blocks (Malopolska and Silesian) and has undergone several periods of reactivation, particularly between Cambrian and Permian. The Krakow-Lubliniec TZ also forms part of a major Precambrian structure, the Krakow-Hamburg Fault Zone (HKFZ), also associated with mineralisation. Regional metamorphism changed the Vendian to Devonian age sediments to phyllites, schists and metapsammites, whereas, contact metamorphism associated with granitoid intrusions produced hornfelses and minor skarns.

## **INTRUSIVE EVENTS**

Towards the end of the Carboniferous crustal granites were intruded along the Krakow-Lubliniec TZ. Mineralisation at Myszkow is associated with the intrusion of one of these granitoids, a  $312\pm17$ Ma granodiorite porphyry. The regional intrusive event took place as a result of a change in tectonic regime to regional extension during the waning stages of the Variscan Orogeny. All deep holes drilled in the Myszkow area have intersected granitoids, mostly of granodiorite composition and some rare granite. Figure 3 shows the regional geology at Myszkow with the cover rocks removed.



Figure 3 Regional geology at Myszkow - cover rocks removed.

## CHEMICAL ZONATION

The Myszkow mineralisation is a Mo-W-Cu porphyry mineralisation system with low concentrations of Au, Hg, As and Sb. Tungsten mineralisation is interpreted to be associated with the early hot stages of mineralisation and, in the core of the system, it appears to be associated with Mo.

The system also exhibits NW-SE trending anomalies in Ag, S, Te, and Si that appear to match magnetic and gravity patterns. Other elements displaying anomalous concentrations include Zn, K, Bi, Pb, Sb and Cd. Figure 4 displays the negative gravity anomaly elongated NW-SE, and also shows the location of Strzelecki drill holes MM-1, MM-2 and ZW-1.

Cu, Pb and Zn anomalies are not symmetrically zoned with respect to the intrusion and appear to be related to contact metasomatic zones.



Figure 4 Negative gravity anomaly elongated NW-SE over Myszkow

## DRILL HOLE DATA

The initial series of diamond drill holes were drilled with an essentially vertical orientation to depths of up to 1,500m and labelled with a prefix "Pz-". Twenty-four of these Pz- drill holes are within the Myszkow resource model area. The location of these drill holes is shown in Figure 5. The resource model developed in this study is largely derived from core assays of samples obtained from Pz- drill holes.

The drilling at Myszkow intercepted low grade metamorphic rocks of Precambrian (Vendian) to Early Cambrian age that included shales, siltstones, sandstones and greywacke rocks. Younger overlying sediments of Ordovician to Devonian age, include carbonates, shales, siltstones, sandstones and conglomerates; and are preserved in grabens controlled by NE trending faults. Permian rocks also appear to be preserved in graben-like structures beneath the flat-lying limestone and dolomite Triassic sediments. The Devonian (312+/-17Ma) granodiorite intrusion associated with mineralisation at Myszkow has been intercepted by all deep holes drilled.

In 2008, SKKGM completed the first new diamond drillhole at Myszkow drilled since 1990. Hole MM1 was drilled sub-vertically through the core of the mineralised system with PQ3 core to a depth of 1,200m (Figure 5).



Figure 5 Location of Drill Holes within Resource Model Boundary

## **GEOLOGICAL SECTIONS**

Figure 6 shows the orientation of sectional planes used to generate 6 vertical cross-sections of drill hole assays. Each cross-section displays the logged lithology and a line graph representing the assay values.

## PAST RESOURCE MODELLING

Following completion of the initial drilling program by Polish authorities there were several revisions of the resource estimate for Myszkow carried out in Poland to Polish standards and not necessarily in accordance with Australia's JORC requirements. Those estimates showed variation in response to historical changes in commodities prices, and also the cut-off grade assumed for economic recovery. The Myszkow resource model developed in this study is based on newly calculated Molybdenum equivalent (eMo) and Copper equivalent (eCu) values derived to accommodate the commodities prices current at the time of printing. It is also carried out to JORC standards.



Figure 6 Plan View of Drillhole Section Locations

## ESTIMATE OF EQUIVALENCE VALUE

Previous resource estimates for Myszkow based on eMo values differ in response to historical changes in commodity prices. Also in the case of Myszkow, the eMo equation combines elements such as Mo and Cu whose spatial distribution appear to be uncoupled within the zone of mineralisation.

eMo values were calculated in this study to take into account projected commodity prices from 2009 to 2013. These prices were provide by Strzelecki as the averages of prices projected by a number of financial institutions and are listed in Table 1

## Table 1 Projected Commodity Process used for eMo Calculations

Commodity	Projected Prices 2009-2013	Price Used to derive eMo in this study	Price per Gram	Ratio
Mo	11.18 USD/lb	11.2 USD/lb	0.025 USD	1.00
W	8 - 9 USD/lb	8.5 USD/lb	0.019 USD	0.76
Cu	2.18 USD/lb	2.2 USD/lb	0.005 USD	0.19
Ag	11 - 12 USD/Troy Oz	11.5 USD/Troy Oz	0.370 USD	15.00

The resulting eMo equation using projected values above is:

$$eMo ppm = Mo ppm + (0.76 x W ppm) + (0.19 x Cu ppm) + (15.00 x Ag ppm).$$

Metallurgical tests for Mo-Cu-W mineralisation were carried out in 2006 at the Institute of Mining Engineering, Wrocław, and also at the University of Science and Technology, Kraków. The tests were made on samples representing the two main lithological types (schist and granotoid) on the basis of the Mo, Cu or W. A concentrate of 94% Mo and 85% Cu has been obtained from the granite hosted mineralisation. A copper concentrate with the grade 16% Cu at the recovery 76% and a molybdenum concentrate with the grade 48% Mo at the recovery 62% were obtained from sample Pz-29. It is possible to float sulphides of Cu and Mo without a collector in the first stage of ore processing. Such a flotation, for instance in the case of the ore sample Pz-29, secures reporting 40-50% copper minerals and 80-90% tungsten minerals in the concentrate.

Initial flotation tests aimed at recovering the tungsten mineral scheelite, have produced a 41% scheelite concentrate with a grade of 28% W. A tungsten concentrate separated using gravity methods was 13% WO3 and it was obtained at the recovery about 25%. And after further magnetic separation and gravity separation in a heavy liquid had a grade of about 28% W (35% WO3). The experiments proved that the process of ore grinding significantly affects flotation and its results. Although no specific tests were performed on Ag recover, there is no reason to believe that its recovery would be different that that demonstrated for Mo and Cu. The metallurgical investigations presented are preliminary.

On the basis of the tonnages, grades and recoveries estimated for each of the metals referred to above and included in the eMo calculation, and taking into account prevailing economic conditions and other similar mining operations in the world, it is the opinion of the company (Strzelecki) that there is reasonable potential for each of these metals to be recovered through a mining operation.

Herein, eMo represents the derived "in-ground" equivalent value estimated on the basis of these average commodity prices. As the effect and relative contribution of metallurgical recovery has not been taken into account; further adjustment would need to be considered to estimate the "net" equivalent value of this mineralisation after completion of a feasibility analysis as well as an assessment of the Mo recovery.

## **3D BLOCK MODEL AND DATABASE**

3D block grade modelling involved:

- Creation of a regular 3D block model
- Setting up grade interpolation parameters
- Estimation of block grades from composited drill hole samples
- Static density value was used through the model
- Block resource classification

A regular Surpac block model was created to cover the full volume of the study area. Block parameters (origins, extents, sizes and rotation) were determined from the geometry and attitude of the mineralisation, the drill spacing and the grade continuity. The block model was then constrained using the unconformity surface, the -1000m RL and a limiting polygon through the peripheral drill holes. The parent block size was set at 100 x 100 x 20 metres with no sub blocking permitted.

## **RESOURCE REPORTING**

Resource reporting involved the following parameters:

- Density
- Cut-off
- Reporting parameters setup and definitions
- Classification
- Resource statements

A standard density of 2.65 was used throughout the model. Cut-off values for reporting the resource were discussed in consultation with geologists from Strzelecki and it was decided to use a cut-off of 850 ppm eMo (0.085%). Resources were reported above a series eMo cut-offs. The cut-offs were set at 850, 1,000 and 1,500 ppm eMo.

Resource classification was done into the inferred category only according to the terms and definitions contained in the JORC code. Mineralisation that was estimated below the -1,000 metre RL was not included in the resource as inferred material as this level represents the effective base of sampling. Also, any blocks outside the limiting resource polygon were not assigned a JORC classification. No blocks above the unconformity are JORC classified.

The following Table 2 summarise the global Myszkow inferred resource estimate at March 2009, using the 850, 1000, 1500 ppm eMo cut-off.

Cut-off of 850 ppm eMo									
		eMo	eCu	eMo	eCu	Mo		_	
eMo ppm	MTonnes	ppm	ppm	Percent	Percent	ppm	W ppm	Cu ppm	Ag ppm
850 -> 1000	219	926	4646	0.09	0.46	491	273	1013	2.28
1000-> 1500	405	1205	6084	0.12	0.61	644	417	1112	2.17
>1500	102	1677	8523	0.17	0.85	779	631	2022	2.29
Grand Total	726	1187	5994	0.12	0.60	617	404	1210	2.22

Table 2 Total Resource Estimate using 850, 1,000 and 1,500 ppm eMo Cut-off

#### Cut-off of 1,000 ppm eMo

		eMo	eCu	eMo	eCu	Mo			
eMo ppm	MTonnes	ppm	ppm	Percent	Percent	ppm	W ppm	Cu ppm	Ag ppm
1000 -> 1500	405	1205	6084	0.12	0.61	644	417	1112	2.17
1500 -> 2000	100	1669	8481	0.17	0.85	777	630	1993	2.29
>2000	2	2060	10522	0.21	1.05	879	663	3379	2.3
Grand Total	507	1300	6576	0.13	0.66	671	460	1295	2.19

#### Cut-off of 1,500 ppm eMo

		eMo	eCu	eMo	eCu	Mo		Cu	
eMo ppm	MTonnes	ppm	ppm	Percent	Percent	ppm	W ppm	ppm	Ag ppm
1500 2000	100	1669	8481	0.17	0.85	777	630	1993	2.3
>2000	2	2060	10522	0.21	1.05	879	663	3379	2.3
Grand Total	102	1677	8523	0.17	0.85	779	631	2022	2.3



The grade tonnage curve is shown in Figure 7 with the source table for the curve in Table 3.

Figure 7 Grade Tonnage Curve, Myszkow Deposit

$\begin{array}{c c c c c c c c c c c c c c c c c c c $	eMo cutoff	MTonnes	eMo ppm
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	500	1,327	958
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	600	1,165	1015
800819114690065612211000508130011003921374120028714581300218152314001461608150010216771600671745170036182918002018981900101972200022060210012109	700	1,002	1074
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	800	819	1146
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	900	656	1221
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1000	508	1300
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1100	392	1374
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1200	287	1458
14001461608150010216771600671745170036182918002018981900101972200022060210012109	1300	218	1523
150010216771600671745170036182918002018981900101972200022060210012109	1400	146	1608
1600671745170036182918002018981900101972200022060210012109	1500	102	1677
170036182918002018981900101972200022060210012109	1600	67	1745
1800 20 1898   1900 10 1972   2000 2 2060   2100 1 2109	1700	36	1829
1900 10 1972   2000 2 2060   2100 1 2109	1800	20	1898
2000 2 2060   2100 1 2109	1900	10	1972
2100 1 2109	2000	2	2060
	2100	1	2109

Table 3 Source Table for Grade Tonnage Curve, Myszkow Deposit

## **BLOCK MODEL**

Figures 8a to 8d show the distribution of interpolated grades in model blocks, representing derived eMo grades categorised according to cut off values of 500ppm, 850ppm, 1000ppm and 1500ppm.



Figure 8a-8d Interpolated grades in model blocks cutoff 500ppm, 850ppm, 1,000ppm, 1,500ppm

Figures 9a to 9f (following) show the block model against the geology and demonstrate the consistency of the drilling data and the lithological model.



Figure 9a-9f Block Model against interpreted lithology

- a) Longitudinal Geological Cross Section A and B and Block Model
- b) Longitudinal Geological Cross Section C and Block Model
- c) Geological Cross Section D and Block Model
- d) Geological Cross Section E and Block Model
- e) Geological Cross Section F and Block Model
- f) Geological Cross Section F with Transparent Blocks

## **CLOSING REMARKS**

Cumulative uncertainties are inherited in this report from each phase of this valuation process, from sampling through to modelling, nonetheless from the block model generated in this report it becomes apparent that the distribution of molybdenum grade greater than 850ppm eMo is confined to the extent of the Devonian intrusion.

Drilling density only enables a relatively large minimum block model size of 100mx100mx20m to be employed.

Within the block model boundary, eMo grades greater than 1,500ppm are mostly confined to the central part of the mineralised system. The distribution of these higher eMo grades contrasts with that of eCu values, which seem to be confined to the periphery of the intrusion. Thus suggesting separate styles/events for Cu and Mo mineralisation.

The Myszkow Resource Estimate was based on information compiled on behalf of Strzelecki by Tony Marshall B.Sc. (Hons) Uni. Melb, a Member of the AusIMM (Member Number: 222163) and Prof. Adam Piestrzyński, a European Geologist Member of the European Federation of Geologists (Title Number: 751.) Tony Marshall is Principal Geologist with SMG Consulting and a full time employee of that company. Adam Piestrzyński is a Professor at the AGH-University of Science and Technology Krakow, Poland. They have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as a Competent Persons for the purposes of the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Tony Marshall and Adam Piestrzyński consent to the inclusion in the report of these matters based on the information in the form and context in which it appears.

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