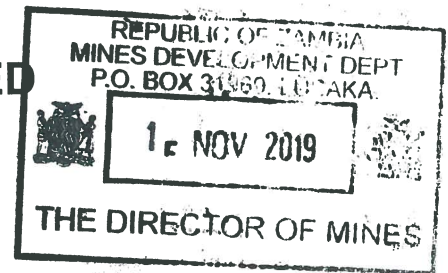


# QUARTERLY REPORT FOR JANUARY 2019 – MARCH 2019

LICENSE NO.23383-HQ-LEL  
FOR  
BLAZE METALS LIMITED

By G. Siame (Geologist)



MARCH 2019

Registered Office:  
Blaze Metals Limited  
Plot No 6811 Chiwalamabwe Road  
Olympia Extension  
Lusaka



## General Summary

Blaze Metals Limited holds a large scale prospecting license 23383-HQ-LELin Lufwanyama/Mpongwe in Copperbelt part of Zambia. The LEL is for Al, Co, Cu, Fe, Mg, Mn, Ni, Pb, Sn, Ti, Zn.

## Licence

23383-HQ-LEL was obtained on 6/9/2018 and will run till 5/9/2022.

## Location

The licence is located in Lufwanyama/Mpongwe Districts of the Copperbelt Province of Zambia (Fig 1). The area can be reached via the Luanshya-Kalulushi-Lufwanyama/Lumpuma road. It is 82km from Luanshya and 32km from Mpongwe across the Kafue River. It is 18km from Lumpuma through Lubanje. The Prospecting licence occupies an area of 20936.4411ha. A 4x4 vehicle is required to navigate the predominantly bushy landscape area. The prospect lies in topographic sheet SD-35-7 Lufwanyama/Mpongwe.

## Grid Reference<sup>4</sup>

It is found at grid reference 13d 19m 15.2s 27d 56m 11.7s.

The figure shows the location of the plot.

### Location Map Lufwanyama/Mpongwe Districts

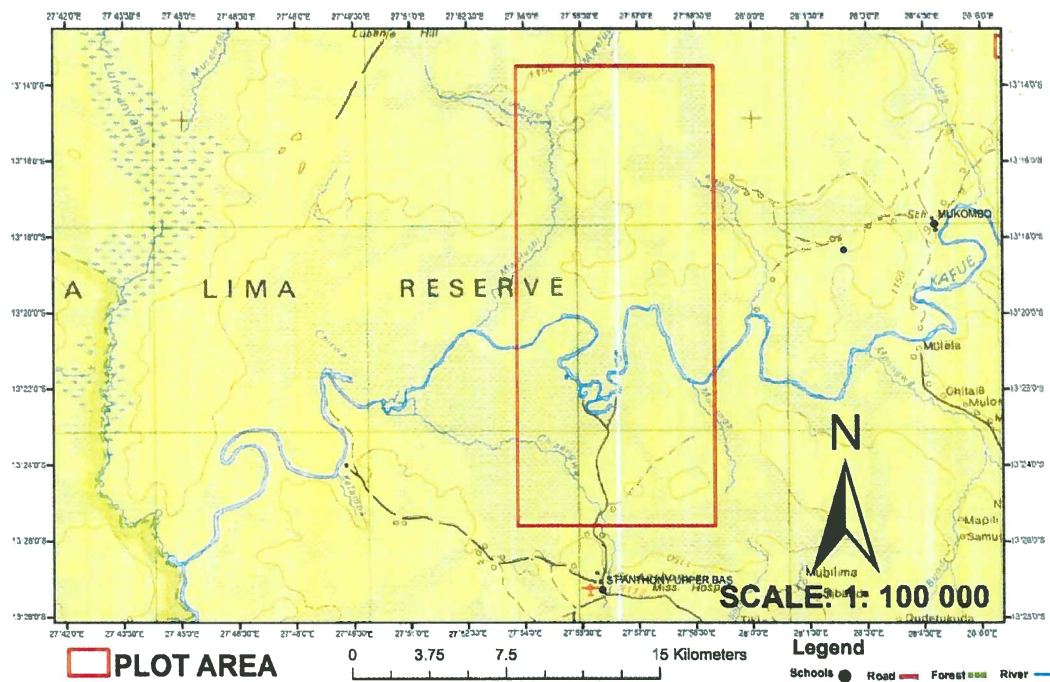


Fig. 1. Location of 23383-HQ-LEL

## Topography

The topographic altitude stands between 1000m to 1150m above sea level. The highest point lies in the western region whereas the lowest altitude lies in the central-eastern area towards the Mwelushi River (Fig 1).

## Climate Vegetation and Soils

The area has a tropical climate with heavy rains starting from late October till April. Temperatures vary from 30°C (maximum 35°C) to 20°C during the rainy season. The cool season stretches from late May to late July with temperatures varying between 10°C and 22°C.

Miombo woodland is a 15 to 20 m high, two storied woodland with an open or partly closed canopy of semi-evergreen trees including species of *Brachystegia*, *Isoberlinia*, *Julbernadia* and *Marquesiamacaroura* with *Erythrophleum africanum*, *Parinaricuratellifolia* and *Pericopsis angolensis* associates (Edmonds, *op. cit.*). Grasslands associated with the drainage lines are divided into dambo (headwater valley) grassland, riverine grassland and floodplain grasslands (Edmonds, *ibid*). The termitaria vegetation and bush groups include *Miombotermitaria*, *Kalahari termitaria*, *Mopanetermitaria*, *Mungatermitaria*, *Riparian termitaria* and bush groups.

The soils are Ferralsols; well drained, deep to very deep, strong brown to yellowish red, friable, gravelly clayey soils with a high silt, clay ratio; fairly uniform texture throughout (chromi-haplic FERRALSOLS, petroferric and skeletal phase).

The other soils are Gleysols; well drained, deep to very deep, yellowish red to strong brown, friable, fine loamy to clayey soils having a clear clay increase with depth; with inclusions (20%) of moderately well drained to imperfectly drained, deep to moderately shallow, gravelly clay.

## Regional Geology

The geology of the area is hosted by Katanga rocks. Copper mineralization occurs in gently northward-dipping dolomites and dolomitic limestones underlying a sequence of phyllites and calcarenites.

## Previous Work

The Lufwanyama/Mpongwe South licence is situated on the northwesterly trending **Kafue Dome which is an antiformal inlier composed of Mesoproterozoic foliated granites, orthogneisses, schists, quartzites, amphibolites and metadolerites** surrounded by Neoproterozoic Katangan sediments which unconformably overlie the basement rocks.

Within the Lufwanyama/Mpongwe South licence the Katangan units are divided into two Groups, the Mine Series Group and the Kundelungu Group. The Mine Series comprises the basal Lower Roan Formation (LR) and the Upper Roan Formation (UR). The LR is composed of conglomerates, quartzites and shales. This formation hosts the largest proportion of the mineralisation in the Copperbelt. The LR is overlain by the UR carbonates and arenites which are in turn overlain by the **Mwashia Formation carbonaceous shales and sandstones**. The Kundelungu Group unconformably overlies the Mine Series Group and is divided into the Lower Kundelungu - basal tillite (Grand conglomerate) overlain by shale and limestone, and the Upper Kundelungu - basal conglomerate tillite (Petit conglomerate) overlain by shales, limestones and quartzites. The probable structural evolution and development of the Katangan sequences and mineralisation is outlined by Williams (November, 1997).

### Local Geology

The prospect overlies Kundelungu sequences of the Katanga Group of banded gneiss, porphyroblastic granite-gneiss, granulite gneiss, amphibolite and other meta basic **rocks and quartz-mica schist with coarse sugary quartzite**. **Muva quartz-muscovite** and quartz-sericite schists and Kalonga Formation phyllite, cleaved metasiltstone, shale and thin sugary, gritty, and pebbly quartzite units are also encountered on the prospect. The Lower Roan, Footwall Formation comprises feldspathic quartzite (with hematite on bedding foresets), arkose and conglomerate.

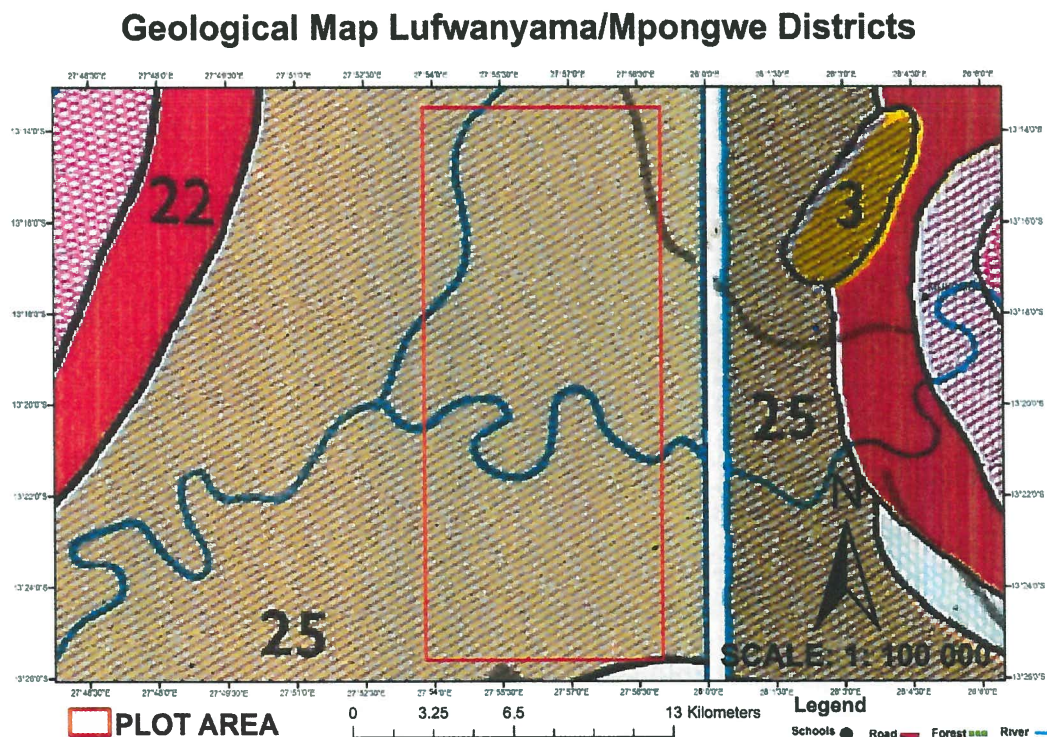


Fig. 2. 23383-HQ-LEL Geological map.

*Kundelungu undifferentiated; may include some Mine 'Series' in the north-west.  
Predominantly Shales, siltstones, sandstones and mixtures*

Fig. 2. 23383-HQ-LEL Geological Legend.

### **Current Work**

During the quarter to March 2019, work completed by Blaze Metals Limited included:

- Review of regional geological mapping, exploration activities and data sets of the licence and surrounding areas
- Desktop structural and geological interpretation leading to generation of exploration target areas.
- Preparation to conduct Environmental Project Brief (EPB) to identify impacts that would be associated with exploration activities in the area.
- Field traversing and pitting for sample collection
- Collection of 20kg rock samples
- Collection of 80 soil samples in 500ml polythene plastic bags
- Submission of samples to Geological Survey department for analysis.
- Quarterly reports to the Ministry of Mines and Minerals development.

### **Future Work**

The future work in 2019 will involve:

- Conduct an Environmental Project Brief study
- Conduct geological exploration works involving traverses, sampling, trenching.
- Data compilation and interpretation and target generation
- Reporting and planning

### **Business with Zambian Companies**

Blaze Metals Limited will stick to conducting business with Zambian companies.

### **Staff**

Blaze Metals Limited has embarked on employing many Zambian nationals as possible emphasizing local recruitment to assist in exploration.

One geologist has been employed to write quarterly reports

## Expenditure

Details	Total US\$
Administration	5.320
Government Fees	1,320
Salaries/Wages	
Vehicles	
Geochemistry	2,000
Geophysics	
Geological consultant	10,000
Consumables	310
Analyses	420
Other	210
<b>Total</b>	<b>20,580</b>

## Conclusions

For the quarter January 2019 to March 2019 the quarterly report has been written.

The copper is found as green malachite. Quartz veins permeate the rock. Fe-ore occurs as brown oxide.

The mineralization dips almost vertically and trends 032° for 900m along strike. The mineralization is in the dolomite and the vein is 5 m thick.

## Licence Coordinates

Order	Latitude Degrees	Latitude Minutes	Latitude Seconds	Longitude Degrees	Longitude Minutes	Longitude Seconds
1	13	13	30	27	53	48
2	13	13	36	27	59	00
3	13	25	36	27	59	00
4	13	25	36	27	59	48

## Future Work

Available data collection and desktop study of available data to know the potentiality of the area, type of deposit & Mineralisation. Follow up for pegging certificate and Environmental Project Brief (EPB). After getting pegging certificate & Environmental Project Brief EPB, Regional geological traverses and complete Exploration survey will be planned. Collection of random samples to know the trend of deposit.

### **Historical Drilled Sampled Results for Lufwanyama/Mpongwe (ZCCM 1995)**

Forty-five boreholes have been completed, the majority very shallow. Minor inconsistent mineralisation was intersected in an area 1,500m by 500 m. Three holes intersected mineralisation above 1.0% TCu. The highest values of 5.7m at 1.97%TCu at a depth of 155m.

### **Work in Progress**

Collection of data and desktop study of available data to know the potentiality of the area, type of deposit & Mineralisation. Follow up for pegging certificate and EPB. After getting pegging certificate & EPB, Regional geological traverses and complete Exploration survey will be planned. Samples collection to know the trend of mineral deposit.

### **Grab Sampled Results**

In different pits the exposed rocks are Quartzitic Sandstones and Laterite. **Total 12 Nos of Soil and Rock chips samples were collected for analysis.**

SR NO	SAMPLE NO	Unit	T/Cu	Cu +/-	As/Cu%
1	MW-1	%	0.0056	0.0007	0.0055
2	MW-2	%	0.0031	0.0005	0.0032
3	MW-3	%	0.1880	0.0026	0.1787
4	MW-4	%	0.0045	0.0003	0.0044
5	MW-5	%	0.0067	0.0004	0.0064
6	MW-6	%	0.0085	0.0004	0.0080
7	MW-7	%	0.0065	0.0005	0.0065
8	MW-8	%	0.0085	0.0005	0.0081
9	MW-9	%	0.0033	0.0005	0.0032
10	MW-10	%	0.0041	0.0007	0.0041
11	MW-11	%	0.0067	0.0005	0.0065
12	MW-12	%	0.0033	0.0005	0.0030