

# **SEPTEMBER 2015 QUARTERLY ACTIVITIES REPORT**

## **HIGHLIGHTS**

- **Acquisition of Zambian limestone project completed**
- **New Head of Corporate Development appointed**
- **Sampling at White Lion confirms cement production potential**

**ASX Code:** SPI  
SPIOA

**Issued Capital:**  
471.8M Ordinary Shares

**Directors:**  
Executive Chairman:  
James Hamilton

Director/Secretary:  
Russell Hardwick

Non Executive Director:  
Ian Huitson

**Contact:**  
41 York Street Subiaco  
Perth, Western Australia 6008  
ABN:40 125 578 743

PO Box 8050  
Subiaco East, Western Australia  
6008

## **1. Completion of White Lion Limestone Project Purchase**

During the Quarter Spitfire Resources Limited (“Spitfire” or the “Company”) announced that it had completed the 100% acquisition of the White Lion limestone project in Zambia.

The White Lion limestone project is located approximately 100km north-west from the Zambian capital Lusaka. It sits on a granted Large Scale Mining Licence (14948-HQ-LML) and covers a total area of 245 square kilometres.

The upfront consideration for the acquisition was:

- a) 216,718,266 fully paid ordinary shares (which are subject to a 12 month restriction agreement)
- b) 100 performance shares (which convert upon achieving the relevant milestones into that number of shares which equates to a value of A\$4,200,000 on the terms approved at the General Meeting of shareholders on 17<sup>th</sup> August 2015).

The White Lion acquisition and the change in corporate strategy was overwhelmingly supported by shareholders at the August General Meeting.

## **2. Head of Corporate Development Appointed**

Spitfire has announced the appointment of Maximilian Vermorken as Head of Corporate Development. A seasoned transaction and construction materials expert Mr Vermorken was most recently a strategic advisor with the world’s biggest construction materials group LafargeHolcim.

Prior to working for LafargeHolcim Mr Vermorken worked with Luxembourg-headquartered Private Equity group Genii where he reported directly to its founding principals.

Mr Vermorken, who holds a PhD in Financial Economics and Bachelor and Master degrees in both Civil Engineering and Economics, will be based in London.

### 3. Sampling Program

Subsequent to the period Spitfire announced it had completed a large surface sampling program at the White Lion limestone project in Zambia with the results showing an extensive high-grade limestone exposure with calcium grades of up to 55.3% CaO. *(Please see ASX Sampling Program Announcement on October 20 for complete reporting and assay data tables).*

The large-scale surface sampling program consisted of taking 198 rock chip and soil samples at a 500m x 500m spacing across approximately 60 square kilometres. The program was split into two parts and was designed to focus on the areas containing limestone as well as complimentary cement plant blend materials such as alumina, silica and iron.

#### *The Limestone Program*

The limestone section of the sampling program consisted of 109 samples and specifically targeted outcropping limestone. The assays returned excellent results showing a large expanse of high-grade calcium limestone covering an area of approximately 21 square kilometres.

While the majority of the samples were rock chips, some of the sample locations were covered by a shallow alluvial soil cover and here only a soil sample was recovered. However, due to the contiguous nature of the limestone deposition it was recognised that the limestone ran continuously under these areas.

To calculate an average limestone grade, Spitfire used a nominal >40% CaO cut off. The 53 samples grading above the cut off were used for the calculation. Key elements observed by the Company included:

- Calcium 51.05% CaO
- Silica 2.88% SiO<sub>2</sub>
- Alumina 0.39% Al<sub>2</sub>O<sub>3</sub>
- Iron 0.40% Fe
- Magnesium Oxide 2.28% MgO

These average results were benchmarked against typical industry standards (ASTM 150)\* for Portland cement which is outlined below.

- Calcium At least 40.2% CaO
- Silica not >16.2% SiO<sub>2</sub>
- Alumina not >4.8% Al<sub>2</sub>O<sub>3</sub>
- Iron not >1.6% Fe<sub>2</sub>O<sub>3</sub>
- Magnesium Oxide not >2.8% MgO

\* ASTM C150 / C150M-15, Standard Specification for Portland cement, ASTM International, 2015.

Consequently, from the work done to date it appears evident that the White Lion project contains high grade limestone potentially suitable for cement manufacturing. Greater knowledge of its chemical composition at depth will be further refined by the drilling program in early 2016.

Due to the excellent consistency of the calcium grade over such a big area Spitfire has set an initial Exploration Target of between 70 and 90 million tonnes with a grade of 45% to 47% CaO.\* This would conceptually be enough limestone to supply a large cement works.

*\* Exploration Disclaimer: The exploration target is based on previous sampling by the former owner in addition to the 198 new samples taken from the exploration area as detailed in the text. The exploration target is formulated by calculating a one square kilometre sampled area and conceptualises a limestone depth of 50m, multiplied by a 2.7sg (specific gravity) of the material. Because the potential quantity and grade of this Exploration Target is conceptual in nature, Spitfire notes in accordance with Clause 17 of the JORC Code 2012 that there has been insufficient exploration to define a Mineral Resource estimate. It is uncertain if further exploration will result in the determination of a Mineral Resource.*

#### *The Blend Materials Program*

Part two of the sampling program was tasked to locate suitable complimentary cement plant materials such as silica, alumina and iron. Assay results have indicated that these minerals are located within the tenement and will be pathfinders for the drilling program which will expand this knowledge.

From the work done to date, a sizeable area has been discovered which contains blend rock high in silica and aluminum but importantly low in magnesium oxide impurities. The sampling program has also revealed multiple areas on the tenement showing good iron grades.

#### *Next Round of Work*

Spitfire has begun planning work for a drilling program at White Lion to take place in early 2016 following the current wet season. With the sampling completed Spitfire is now well positioned to optimise its drilling program to target the best blend of materials for not just cement production but also for the downstream supply of aggregates, concrete and agricultural lime products. This program will target the highest grade limestone areas to allow for a JORC resource to be formulated. Drilling will consist of both reverse circulation and diamond techniques coupled with associated metallurgical testing.

#### **4. South Woodie Woodie Manganese Project**

No fieldwork was conducted at South Woodie Woodie during the Quarter. Spitfire has begun reducing its ground holding in light of its change of focus and to cut project holding costs.

#### **5. Cash Position**

The company had cash reserves of \$A2.37 million at the end of the Quarter.

**ENDS**

**For further information please contact:**

**Mr. James Hamilton**

**Executive Chairman**

**Tel: +61 (0)8 6382 3700**

**Fax: +61 (0)8 6382 3777**

**Email: [admin@spitfireresources.com](mailto:admin@spitfireresources.com)**

**Competent Person's Statement**

*The information in this report relating to exploration results and mineral resources is based on information compiled by Mr. Stuart Peterson, the Company's Consulting Exploration Manager, who is a Member of the Australian Institute of Mining and Metallurgy. Mr Peterson has sufficient experience relevant to the styles of mineralisation mentioned and to the type of activities described 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.'*

**SCHEDULE OF TENEMENTS**

<b>Country/state</b>	<b>Tenement Code</b>	<b>Beneficial Interest (%)</b>
<b>White Lion Limestone Project</b>		
Zambia	Large Scale Mining Licence (14948-HQ-LML)	100%
<b>South Woodie Woodie Manganese Project</b>		
Western Australia	E46/615	80%
Western Australia	E46/616	80%
Western Australia	E46/710	80%
Western Australia	E46/834	100%
Western Australia	E46/835	100%
Western Australia	E46/893	100%
Western Australia	E46/968	100%
Western Australia	E46/976	100%
Western Australia	E46/968	100%