

**ASX Announcement** 28 July 2016

# Visible Lithium Mineralisation extended to depth by Diamond Drilling

- Wide zones of lithium-bearing pegmatite confirmed to depth with step out diamond drilling at the Goulamina Deposit
- Spectacular abundant spodumene (lithium) occurrences logged in wide continuous zones throughout the core
- Excellent geological continuity adjacent to recent Reverse Circulation (RC) drill holes
- RC drilling results continue to exceed expectations
- Ongoing diamond drilling progressing well
- JORC Resource definition and Scoping Study for completion before year-end

Birimian Limited (ASX:BGS; "Birimian" and "Company") is pleased to provide an update on progress from its diamond drilling program at the Company's 100%-owned Bougouni Lithium Project ("Project") in southern Mali.

The Project comprises a large license area spanning some 250 km<sup>2</sup>, and hosts the high-grade, potential bulk-tonnage Goulamina lithium deposit.

Diamond drilling is ongoing to evaluate the depth extent of high grade lithium mineralised pegmatite at Goulamina and augment recent high grade results from Reverse Circulation (RC) drilling (see ASX Announcement 12 July and 21 July). To date, five of eight planned diamond drill holes have been completed (Table 1).

### **Diamond Drilling**

Spectacular zones of densely crowded spodumene (lithium) have been intersected in three up-dip holes (GMDD001-003) drilled for resource estimation and metallurgical purposes adjacent to recent RC holes (Figure 1). Corresponding mineralised zones in the RC (25m up-dip) returned high grade intervals including  $18m \otimes 2.10 \% \text{ Li}_20$  (within  $50m \otimes 1.62 \% \text{ Li}_20$ ).

The drill core material from these holes will be utilised for additional processing test work, complementing previous test work undertaken by CSA Global consultants that indicated a high quality, chemical grade, lithium concentrate could be produced using conventional processing techniques.

ASX Code BGS ACN 113 931 105

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- ▲ GMDD001. Abundant crowded spodumene in pegmatite at upper contact with biotite-granite.
- ► GMDD002. Wide Spodumene Pegmatite zone (40.0 88.5m).
- ▼ GMRC027D. Abundant spodumene (from 102.8m) in deeper diamond drilling.









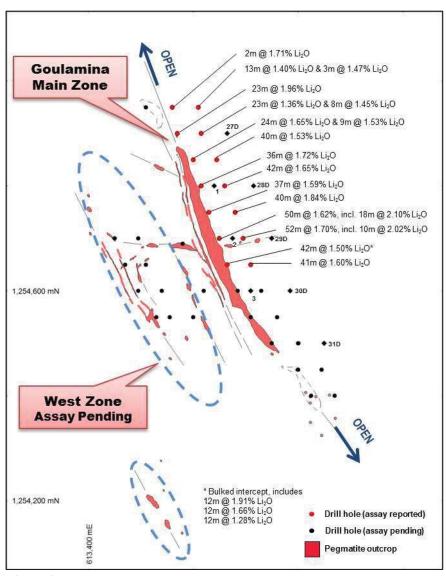
Figure 1. Diamond drill core from Goulamina.



Notably, geological and mineralogical observations from the new drill core confirm simple mineralogy and very low mica content, providing further confidence that **low-cost industry-standard processing would be readily achievable at Goulamina.** 

Deeper diamond drilling at the northern end of the currently defined mineralised zone has returned wide zones of visible spodumene (38m down hole width from 102.8m in hole GMRC027D) at depth beneath high-grade RC drilling (GMRC007 - 23m @ 1.96 %  $Li_2O$ ). The **deposit remains open along strike to the north** in this area and the Company believes there is good potential to continue to extend the bounds of the known mineralisation.

Additionally, a broad zone of spodumene-bearing pegmatite has been intersected in hole GMRC028D (34m down hole from 138.7m), which was drilled to a similar depth approximately 100m to the south of GMRC027D. These are highly encouraging observations which confirm **broad and continuous mineralisation to in excess of 150m down dip from surface** and will have a significant positive impact on the scale of the resource at Goulamina.



**Figure 2.** Goulamina Deposit. Lithium pegmatite outcrop map with drill hole locations and reported drill intersections.



Drilling is ongoing, with an additional three (3) step out holes planned to investigate depth extensions along the mineralised zone (Figure 2). Analytical results for diamond drilling will be reported as they come to hand over coming weeks.

# **RC Drilling Results**

The Company recently reported analytical results for the initial fourteen (14) RC holes at Goulamina, confirming wide and high-grade lithium mineralisation at shallow depths along the northern and central portions of the Goulamina Zone. Intersections included;

- 52m @ 1.70 % Li<sub>2</sub>0 from 66m
- 40m @ 1.84 % Li<sub>2</sub>0 from 10m
- 23m @ 1.96 % Li<sub>2</sub>0 from 20m
- 36m @ 1.72 % Li<sub>2</sub>0 from 12m
- 42m @1.65 % Li<sub>2</sub>0 from 66m
- 41m @ 1.60 % Li<sub>2</sub>0 from 55m
- 50m @ 1.62 % Li<sub>2</sub>O from 11m including 18m @ 2.10 % Li<sub>2</sub>O and 9m @ 2.00% Li<sub>2</sub>O

RC drilling results continue to exceed expectations of mineralised widths. Substantial, very high-grade zones (+2%) within the broader mineralised pegmatite are particularly encouraging.

# Analytical results are pending for the remaining 27 RC holes completed in the current program.

Geological logging has confirmed spodumene (lithium) bearing pegmatite over the 700 metre long surface expression of the Goulamina Main Zone. Logging suggests mineralisation is open along strike beneath shallow soil cover to the north and south of the current limits of drilling. The Company eagerly awaits results from subsequent batches of samples, which will be announced as they come to hand.

This first phase RC and diamond drilling program will provide the necessary geological and grade data to, if appropriate, estimate an initial JORC compliant resource at Goulamina, and is intended to provide inputs for a Scoping Study which will define the parameters of subsequent phases of detailed work on the deposit. These programmes are expected to be completed before year-end.







# **Goulamina Deposit**

Drilling activities remain focused at the Goulamina Lithium Deposit which possesses significant high-grade and bulk tonnage potential. The deposit is situated in close proximity to a sealed highway, grid power and abundant water, with the Selingue hydroelectric power station located some 45km to the north west.

An initial Exploration Target at Goulamina is estimated in the range of 15Mt to 18Mt at grades between 1.8% and 2.2% Li20 (see ASX release 2 March 2016)\*. Mineralisation remains open along strike in outcrop and geological evidence suggests strike extensions are likely beneath shallow soil cover. For perspective, hard-rock deposits which are currently under development host resources in the range of 16Mt at 1.1%  $\text{Li}_20$  (Mt Cattlin, Galaxy Resources) to 23Mt at 1.4%  $\text{Li}_20$  (Mt Marion, Neometals).

\* The Company notes that this Exploration Target is reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition). The potential quantity and grade of this Exploration Target is conceptual in nature. There has been insufficient work to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Processing test work has confirmed the viability of the pegmatite at Goulamina to produce a high quality chemical grade lithium concentrate. These test results demonstrated excellent spodumene (lithium) recoveries (84.7%) and high mass yield to produce a high quality, chemical grade (6.7%) spodumene concentrate. For reference, concentrate grades of 6% are typically demanded by global lithium carbonate producers.

# **Lithium**

Over the past years robust demand and constrained supply have led to higher lithium prices – up 50% since the start of 2015. Future demand for lithium looks likely to be even stronger, driven primarily by uptake of lithium batteries for electric cars and static storage. Significantly, lithium battery production capacity is set to triple by 2020.

Spodumene is the main lithium bearing mineral in most hard rock lithium deposits. Ores are typically upgraded at the mine site by crushing, screening, and dense media separation techniques to produce a spodumene concentrate. Chemical grade concentrate, typically containing 6% Li<sub>2</sub>O, is sold and converted into lithium carbonate and lithium hydroxide for use in battery manufacturing and other industrial applications. Recent lithium concentrate (grade 6%) prices are approximately US\$600/t.

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Table 1. Diamond drill hole locations at the Bougouni Project, Mali. Assay pending.

Hole_ID	North	East	Dip	Azm	Hole Depth	Comment
GMRC027D	1254900	613665	-60	265	180	
GMRC028D	1254800	613715	-60	265	193	
GMRC029D	1254700	613750	-60	265	In progress	RC precollar to 88m
GMRC030D	1254600	613785	-60	265	In progress	RC precollar to 110m
GMRC031D	1254500	613850	-60	265	In progress	RC precollar to 110m
GMDD001	1254800	613640	-60	265	100	
GMDD002	1254700	613675	-60	265	100.6	
GMDD003	1254600	613710	-60	265	100	

#### **Competent Persons Declaration**

The information in this announcement that relates to exploration results is based on information compiled by or under the supervision of Kevin Anthony Joyce. Mr Joyce is Managing Director of Birimian Limited and a Member of the Australian Institute of Geoscientists. Mr Joyce has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results. Mr Joyce consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Previous Reported Results**

There is information in this announcement relating to previous Exploration Results at the Bougouni Project. The Company confirms that it is not aware of any other new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

#### **Forward Looking Statements**

Statements regarding plans with respect to the Company's mineral properties are forward looking statements. There can be no assurance that the Company's plans for development of its mineral properties will proceed as expected. There can be no assurance that the Company will be able to confirm the presence of mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties.

#### **Basis of Exploration Target**

The Exploration Target at Goulamina is estimated in the range of 15Mt to 18Mt at grades between 1.8% and 2.2% Li20. The deposit outcrops, with surface expression of pegmatite along approximately 700m of strike and up to 55m across strike. The Exploration Target is estimated to a vertical depth of 200m below surface. This style of deposit typically displays excellent continuity and depth extensions can reasonably be expected to be defined by drilling. Upper grade estimates are inferred from bulk surface sampling undertaken by CSA-Global, which returned an average grade of approximately 2.2% Li20. The lower grade range of 1.8% Li20 allows for potential resource dilution. The Company notes that this Exploration Target is reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition). The potential quantity and grade of this Exploration Target is conceptual in nature. There has been insufficient work to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.