



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

High grade titanium in rock chip samples from the May Queen South Bauxite Project

Highlights

- **Field investigation and surface rock chip sampling has identified high grades of up to 17.55% TiO₂.**
- **The May Queen South Bauxite Project (EL 16260 and EPM 16261) has a JORC (2012) Inferred Mineral Resource Estimate of 54.9Mt at 37.5% total Al₂O₃ and 5.2% TiO₂ and 7.9% Rx SiO₂.**
- **The high-grade titanium zone will be further evaluated with shallow drilling.**
- **The project is located <55km from existing rail infrastructure with connections to the Port of Bundaberg.**

Australasian Metals Limited (**ASX: A8G, Australasian** or the **Company**) is pleased to advise that the Company has completed an initial field program at the May Queen South Bauxite project (the **Project**) Figure 1. The program consisted primarily of mapping and surface rock chip sampling. The geological fertility of the Project for bauxite and titanium was confirmed by the identification of several high grade surface samples with TiO₂ of between 3.36 % to 17.55%.

A8G Managing Director Dr Qingtao Zeng commented:

“The high Titanium grades at surface on EPM16261 exceeded our expectations within the defined bauxite resources of the Project. Given the shallow setting of the mineralisation it is anticipated that future exploration to expand the resource will be lower cost. The timing is right for the development of the Project as the market is seeing surging demand for TiO₂ from industrial users in China, Japan, and South Korea”.

The May Queen South Bauxite project is located in central Queensland, within a short trucking distance of a rail system leading north to the Port of Bundaberg. It is



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

also located within close proximity of the main Queensland Rail network heading south towards the Port of Brisbane.

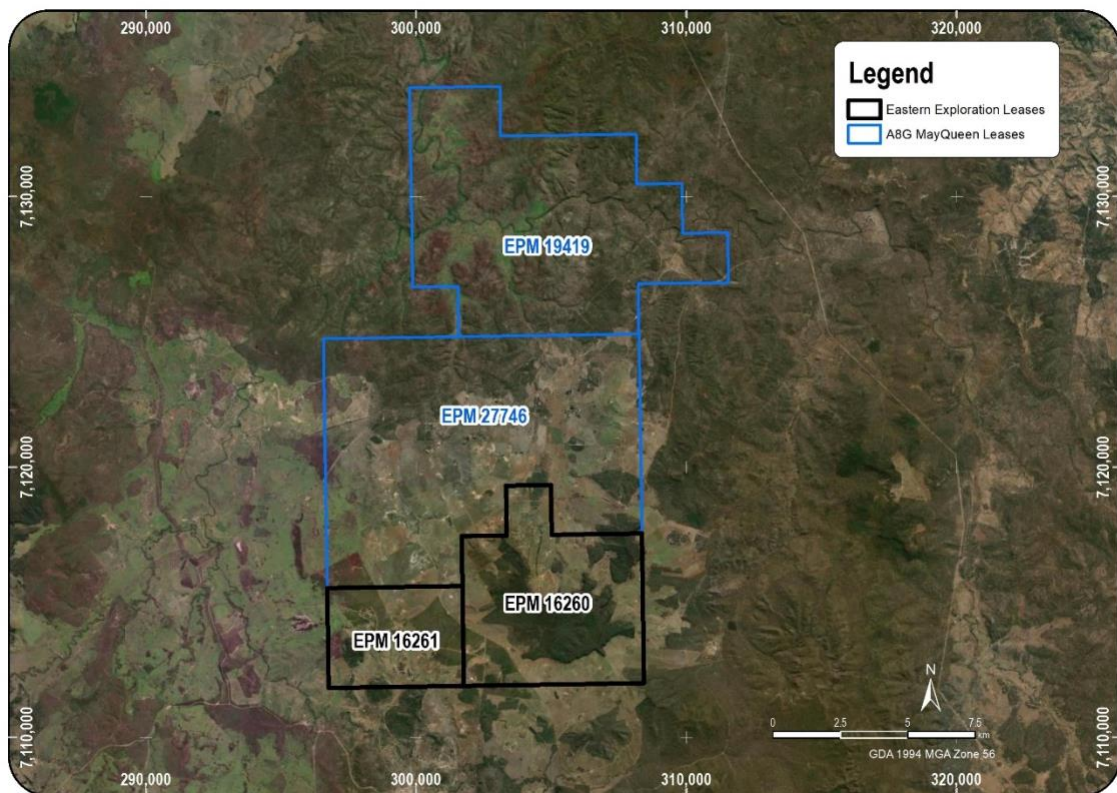


Figure 1. Location of Tenements 16260 and 16261 shown together with the Company's existing May Queen gold tenements (EPM19419 and EPM27746)

The Project has a JORC 2012 Inferred Mineral Resource estimate of **54.9Mt at 37.5% total Al_2O_3 and 5.2% TiO_2 and 7.9% Rx SiO_2^1** (refer to announcement dated 30 May 2023). The Company completed a field visit to the project area and has confirmed the presence of the reported bauxite mineralised plateaus and zones as defined in the mineral resource estimate.

1 IronRidge Resources RNS dated 24 November 2017, 'High-Grade Bauxite Discovered at Koko. Monogorilby Bauxite and May Queen Gold Project Update, Queensland, Australia'.
https://www.rns-pdf.londonstockexchange.com/rns/4144X_-2017-11-24.pdf



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

The field investigation and surface sampling by A8G has identified a zone **outside** the existing resource area with high grades of TiO₂% where analytical results range from 3.36 % to 17.55% (Figure 2 and Table 1).

SAMPLE ID	mE	mN	TiO ₂ (%)	Comments
Q23763	307246	7113815	5.67	ROCK
Q23764	308235	7113713	6.56	ROCK
Q23765	306420	7113508	5.6	SOIL / GRAVEL
Q23766	306909	7113482	4.57	ROCK
Q23767	299680	7114297	17.55	ROCK
Q23768	299671	7114316	3.36	SOIL
Q23770	299505	7114378	4.4	SOIL / GRAVEL
Q23771	299756	7114330	8.91	ROCK
Q23772	299753	7114356	5.12	SOIL
Q23774	299164	7114458	5.14	ROCK
Q23775	299299	7114400	5.14	RUBBLE/SOIL
Q23776	298556	7113826	3.88	SOIL

Table 1. Rock chip and soil sampling results for Titanium oxide results

A8G has acquired all recent historical data for the Project which includes preliminary metallurgical test-work. Size reduction, scrubbing and sizing was completed at Core Resources laboratory in Brisbane, Australia on representative 25 to 50kg bulk samples of the surface duricrust and bauxite resource. This work was carried out to test whether a 'premium quality' DSO product could be easily beneficiated through simple crushing, scrubbing and screening. The Company is looking at engaging metallurgical specialists to investigate the high-grade titanium ore processing pathway and potential applications.



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

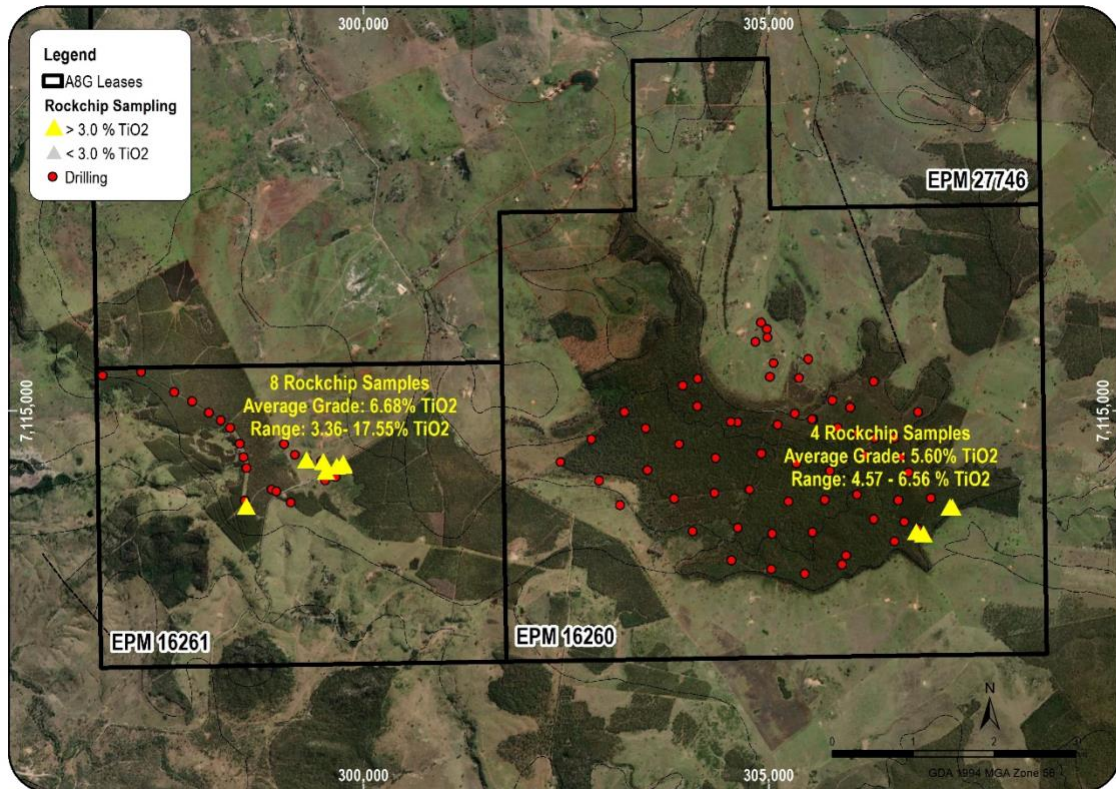


Figure 2. Basic geology of EPM16260 and EPM 16261 with recent rock samples and RC drilling locations marked

A review by the Company of the historical database of drilling results highlights high-grade titanium results within the resource envelope with the review showing some 10% of drilling assays reported between 3.8% to 13.2% TiO₂. During the recent field visit the Company focused on areas where the historical drilling reported higher TiO₂. In these areas ilmenite can be readily observed in the soil and runoff locations (Photo 1). The highest TiO₂ grade was returned from sample Q23767 (17.55% TiO₂) which is a brittle piece of lateritic rock (Photo 2). In addition several samples of the residual soil were collected (table 1) confirming occurrence of detrital ilmenite or rutile (Photo 1).

Previous mineralogical work has identified rutile and ilmenite as the main titanium minerals within the bauxite profile. Downhole grades from the resource drilling indicates a surface enriched titanium zone that progressively reduces in grade with



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

depth in the bauxite profile but this initial sampling program has indicated that there is potential to increase the footprint of a TiO_2 resource.



Photo 1. Ilmenite particles in soil and run off location



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023



Photo 2. Brittle nature of the bauxite rock as sample Q23767 (17.55% TiO₂)



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

Next Steps

The Company is currently working to have EPM16260 and EPM16261 titles transferred to its subsidiary company and expects this to be completed within the next few weeks. Once the transfer is complete we will submit the required work program application to commence a shallow drill program which will focus on expanding the TiO₂ mineral resource.

The Company has a strong network in the downstream processing and product offtake space in Asia and it is actively reaching out to potential customers.

This announcement is approved for release by the Board of Directors.

ENDS

For Further Information

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Competent Person Statement

The information in this report that relates to Exploration Results is based on, and fairly represents, information and supporting documentation prepared by Ian Cooper, a consultant geologist of Australasian Metals Limited. Mr Cooper is a Fellow of the Australasian Institute of Mining and Metallurgy, and he has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which has been undertaken 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 Cooper consents to the inclusion in this release of the matters based on the information in the form and context in which they appear.



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

Report compliant with the JORC Code (2012).

Section 1: Sampling Techniques and Data

Criteria	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> The deposit was primarily sampled via representative drill chip samples based on geological considerations from Reverse Circulation (RC) drill holes drilled on a 400m x 400m up to a 200m x 200m pattern through the deposit The holes were orientated to ensure drill intersections were approximately perpendicular to the dip and strike of the ore lenses and overall geological package. Reverse circulation drill samples were crushed and assayed for Al₂O₃, SiO₂, Fe₂O₃, TiO₂, V₂O₅, LOI, via Fusion XRF and Loss On Ignition (LOI) by Thermogravimetric Analyser (TGA). Avl_Al₂O₃ and RxSiO₂ were tested by ICP-AES. Rock Chip and Rubble/soil Samples During recent field review consultant geologist Ian Cooper collected rock samples and rubble/soil samples of 1.5 to 3kg in weight for each sample. Samples were under supervision of the geologist until submitted to the laboratory. Sample location, descriptions and sample photos were recorded in the field using purpose software from Konect. Samples were submitted to the ALS laboratory located in Brisbane Australia with sample preparation method as per the following laboratory code: LOG-22_CRU-21_PREP-22 (CRUSH/PULVERISE EACH SAMPLE)
<i>Drilling techniques</i>	<ul style="list-style-type: none"> A total of 94 drill holes have been drilled into the May Queen South Bauxite project area, of these a total of 32 were used for the resource estimate. All holes were drilled using Reverse Circulation (RC) method. The drill hole diameters were 140mm for phase 1 drilling and 114mm for phase 2. All holes were drilled at -90 degree.
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> The RC chip recovery was monitored onsite by IronRidge or contract geologists and field staff. RC chip recovery and assaying was recorded by sample requisition sheets. The resource is based on RC drilling, the deposit predominately consists of available Al₂O₃ in Bauxite (as the mineral gibbsite), there are no concerns regarding loss of fine material during the chip sampling process for this deposit.
<i>Logging</i>	<ul style="list-style-type: none"> No specific geological or geotechnical logging was undertaken. The Avl_Al₂O₃ assay results were determined to be bauxite mineralisation. This result enables a resource constraint i.e. 'hard boundary' and was sufficient enough to enable creation of resource boundary that supports this resource estimate. Rock Chip and Rubble/soil Samples Sample location, descriptions and sample photos were recorded in the field using purpose software from Konect.
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> The RC samples were speared sampled by IronRidge or contract geologists/field staff. Samples were circulated from the drill face through a cyclone and then into a large plastic bag (UV). All UV bags were labelled according to drill depth; these details were recorded on a sample requisition sheet. Speared samples were placed into pre-labelled calico bags and cross checked with sample requisition sheets. The sample requisition sheets were checked off prior to dispatch to lab. A ticketing book system was also used during the sample requisition for cross checking. The sample sizes for lab dispatch were on average between 1 and 2kgs. The sample sizes are appropriate given the relatively homogenous distribution of bauxite within the deposit.



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

Criteria	Commentary
	<ul style="list-style-type: none"> • Rock Chip and Rubble/soil Samples • Samples were submitted to the ALS laboratory located in Brisbane Australia with sample preparation method as per the following laboratory code: LOG-22_CRU-21_PREP-22 (CRUSH/PULVERISE EACH SAMPLE)
<i>Quality of assay data and laboratory tests</i>	<p>ALS laboratory completed internal standard and duplicate samples. The results of these samples indicate that there are no known material biases in the original May Queen South Bauxite project assay dataset.</p> <ul style="list-style-type: none"> • 14 re-assays of drill chip sample pulps were submitted to ALS laboratory from holes along the Monogorliby area of mineralisation, the results of these re-assayed showed an acceptable correlation with the original assay data. • Rock Chip and Rubble/soil Samples • Samples were submitted to the ALS laboratory located in Brisbane Australia with sample analysis method as per the following laboratory code: ME-XRF21u
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> • Close spaced RC holes exist in the dataset. The correlation between these holes for bauxite assays is high. • Data was entered into a central database and then validated by a series of validation checks to ensure erroneous data was not saved into the resource database.
<i>Location of data points</i>	<ul style="list-style-type: none"> • MGA94 GDA zn 56 datum and projection was used as the grid reference system for the May Queen south bauxite deposit. All holes were surveyed using Single Point GPS system. Elevation data was generation form government high resolution DTM data. • The topography surface is represented by a DTM wireframe file that was generated by government high resolution Ortho-DEM data, this data has not been edited in any way. The surface covers the complete deposit area. The surface is considered no better than 1m accuracy and is an acceptable representation of the actual topographic surface at the site for this resource calculation. • Rock Chip and Rubble/soil Samples • Sample location, descriptions and sample photos were recorded in the field using purpose software from Konect.
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> • The May Queen South bauxite deposit has been drilled on an average spacing of 250m x 250m within a plateau area around 7km². This drill spacing provides sufficient evidence of mineralised zone continuity for the purposes of this resource estimation. • No sampling compositing was necessary for the resource estimation process.
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> • All RC holes were orientated at -90o to provide an approximate perpendicular intersection angle with the main mineralised zones. • No sampling bias has been assessed caused by this drilling orientation.
<i>Sample security</i>	<ul style="list-style-type: none"> • Samples were supervised by drilling contractors, field assistants or geologist at all times. Given the nature of the deposit sample security was not assessed as a significant risk. • Rock Chip and Rubble/soil Samples • Rock Chip Samples: During recent field review consultant geologist Ian Cooper collected rock samples of 1.5 to 3kg in weight for each sample. Samples were under supervision of the geologist until submitted to the laboratory. • Rubble/soil Samples: During recent field review consultant geologist Ian Cooper collected rubble/soil samples of 1.5 to 3kg in weight for each sample. Samples were under supervision of the geologist until submitted to the laboratory.



AUSTRALASIAN METALS

ASX Announcement | ASX: A8G | 10 July 2023

Criteria	Commentary
<i>Audits reviews</i>	or• A due diligence review of the assays data and the resource estimation was completed by Mining One Consultants in January 2016.

Section 2: Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	• No joint ventures exist over the property. The standard Queensland government royalty. The renewal application for EPM16260 and 16261 were submitted by UTM Global on the 23 rd of May 2023. There are some delay in processes of application in Queensland.
<i>Exploration done by other parties</i>	• Eastern Exploration Pty Ltd (a subsidiary of Iron Ridge Resources LTD) staff and contractors drilled the deposit in two drill phases between 2011 and 2015.
<i>Geology</i>	• The deposit consists of lateritised Tertiary volcanics and pyroclastics and is concentrated in a topographic high. • The mineralised zones occur within the lateritised Tertiary volcanics and pyroclastics (Main Range Volcanics). The zones are considered relatively homogenous for this resource estimation and are on average 5-10m thick below 1-2m of silcrete/duricrusts.
<i>Drill hole Information</i>	• The detailed drilling hole information has been published by Ironridge in their JORC report completed by Mining One Consultants in 2016
<i>Data aggregation methods</i>	• The exploration results reported for the May Queen South Bauxite deposit were included as weighted average assay intervals for Al ₂ O ₃ _Avl, Tot_Al ₂ O ₃ , RxSiO ₂ , TotSiO ₂ , Fe ₂ O ₃ , TiO ₂ , V and LOI. No cutting of high grades was completed when reporting as exploration results
<i>Relationship between mineralisation widths and intercept lengths</i>	• All drill sample intervals are 1m in length, the average thickness of the mineralised zone is <10m, there are no issues with reporting the results based on this. • The drill holes intercepted the mineralised lenses at an approximately perpendicular angle. All exploration results were reported as downhole thicknesses.
<i>Diagrams</i>	• The detailed drilling hole information has been published by Ironridge in their JORC report completed by Mining One Consultants in 2016
<i>Balanced reporting</i>	• The full data can be accessed through company website, including the full report of Mining One Consultants on this project
<i>Other substantive exploration data</i>	• Not applicable
<i>Further work</i>	• Follow up work programmes will include further infill drilling and MET testing works.