

10<sup>th</sup> April 2018

Australian Securities Exchange

### **JUMBO AND LARGE FLAKE GRAPHITE IDENTIFIED AT GOLDEN GATE PROJECT, QLD**

- **Petrological examination of graphite mineralisation from the Golden Gate Project has identified jumbo graphite flake (0.30-0.50 mm), large graphite flake (0.18-0.30 mm) and fine graphite (<0.18 mm).**
- **Average size of graphite flakes is large at around 0.25 mm**
- **Most of the large and jumbo graphite flakes are discrete and do not appear to be bound up with other minerals with the expectation that they may be easily liberated.**

Crater Gold Mining Limited (ASX: CGN) (“Crater Gold” or the “Company”) is pleased to announce that it has received the final report for the petrological examination undertaken on eight (8) polished sections of graphite mineralised core samples from the Golden Gate Graphite Project undertaken by Pterosaur Petrology, Townsville, Queensland. These core samples were from the two diamond core holes drilled by the Company late last year.

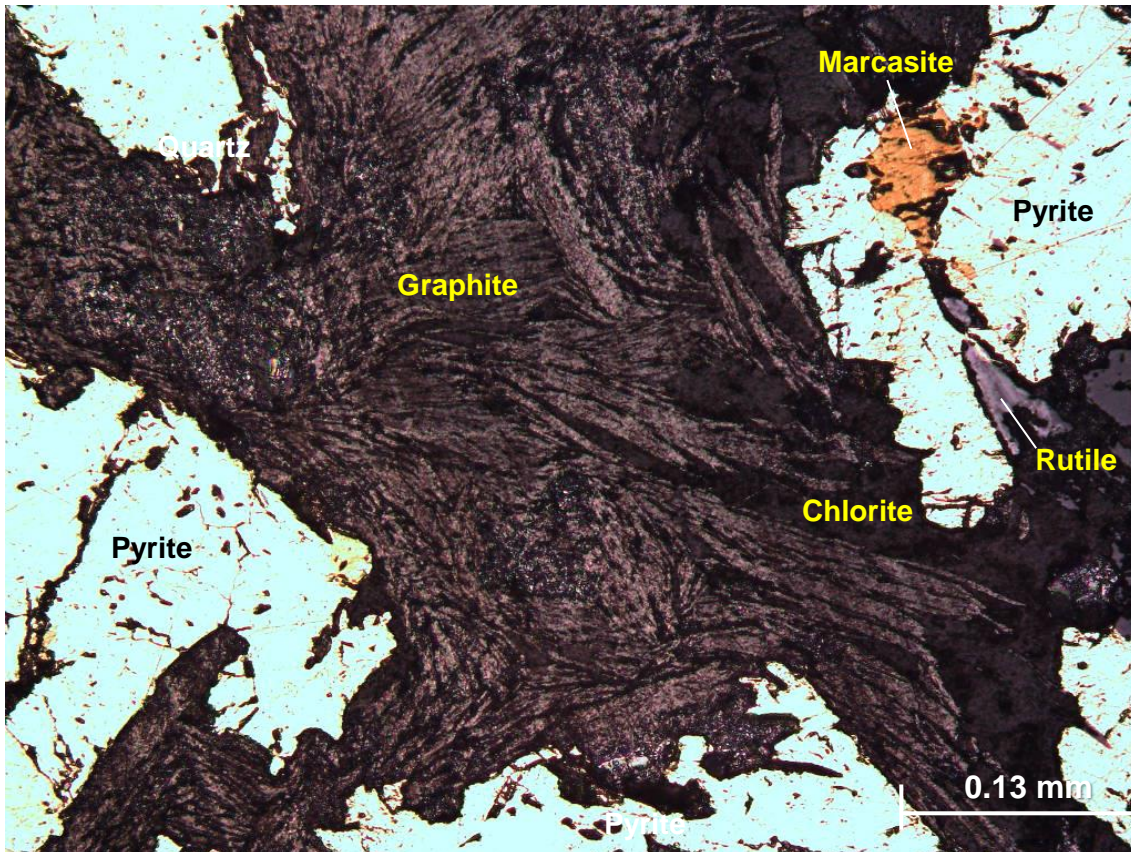
This work has identified the presence of significant graphite flake sizes of 0.05 to 0.50mm, with an average of around 0.25mm. Most of the large graphite flakes (0.18 to 0.30mm) and jumbo graphite flakes (0.30 to 0.50mm) appear to be largely independent from other mineral grains, which may render them relatively easy to liberate during processing (see polished section photographs 1 and 2). It should be noted, however, that the relative percentages of the flake sizes present cannot be determined at this stage as the petrological work has been undertaken on small samples which have been selected to investigate specific textural features and minerals present and as such are unlikely to be representative of the graphite mineralisation overall. More detailed investigation will be undertaken by the metallurgical scoping testwork that is currently in progress on a representative composited sample.

Managing Director Russ Parker stated:

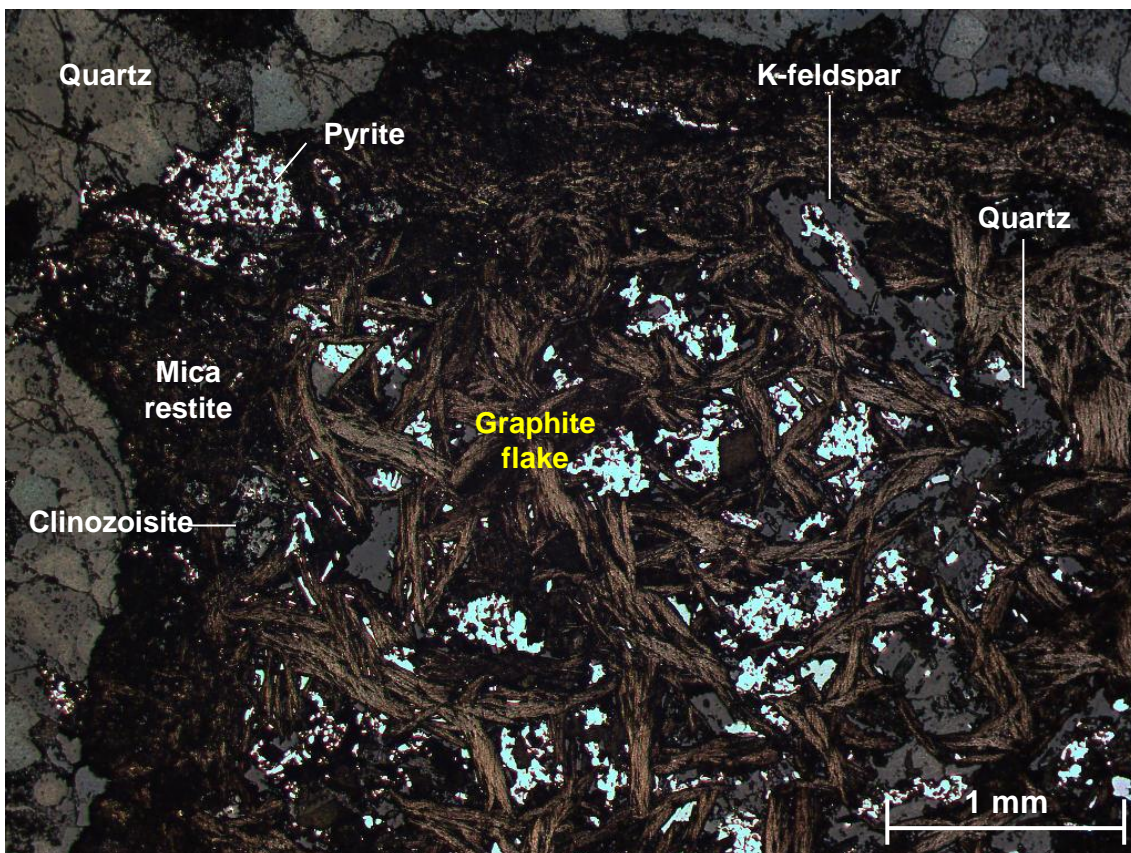
“The Company is particularly pleased by the identification of jumbo and large graphite flake sizes at Golden Gate from the drilling late last year. Previous historical testwork had been inconclusive on this matter with testing having been undertaken on grab samples from surface and oxidised ore. We are also encouraged by initial indications that the graphite may liberate well during processing.

We are now planning to undertake further drilling and testing of the graphite areas identified by the historical drilling over the balance of the year to continue to advance the project while also evaluating commercial possibilities. The project looks like it has the potential to offer a premium product sought by end users”.





Polished Section 1. Reflected light [200x Mag. F.O.V. 0.6 mm].  
**Compact body of discrete graphite flakes - (Brown in colour)**



Polished Section 2: Reflected light [25x Mag. F.O.V. 4.8 mm]  
**Coarse graphite flake - (Brown in colour)**



## **Background**

The Company previously announced on 7 February 2018, the following encouraging graphite intersections from drilling undertaken at the Golden Gate Project;

### **DRILL HOLE GGDDH 1701:**

62.7m (29.3 to 92.0m) @ 6.79% GC\* at a cut-off of 3.4% GC\*

*Including:* 7.0m (66.0 to 73.0m) @ 10.05% GC\* at a cut-off of 9.4% GC\*

### **DRILL HOLE GGDDH 1702:**

53.9m (69.1 to 123.0m) @ 6.79%GC at a cut-off of 3.1% GC\*

*Including:* 14.0m (101.0 to 115.0m) @ 8.41% GC\* at a cut-off of 5.9% GC\*

GC\* = graphitic carbon

The graphite intersections and grades for three historical drill holes drilled in 1989-90 and 1990 by Central Coast Exploration (CCE) were effectively confirmed, with the Company optimistic that if further drilling results match the historical drilling results, then it may be possible to have much of the remainder of the historical data accepted for use in a compliant resource estimation.

CCE has previously reported what is now a non-JORC compliant resource estimate of 20 million tonnes @ 5.5% graphite, including a zone of 6 million tonnes @ 10.0% graphite. The project also remains open to the NW and SE of the Golden Gate Project area with recorded graphite mineralisation which was not included in the historical resource estimate. This provides the Company with further optimism for the graphite potential of the region. However, it must be noted that it is uncertain if further drilling will demonstrate similar correlation with previously reported historical graphite drill intersections and grades and that even if such correlation is observed, it may not provide sufficient information to allow estimation of a resource estimate in accordance with the 2012 JORC Code.

For further information contact:

Mr Russ Parker  
Managing Director

*The information contained in this report that relates to Exploration Results at the Golden Gate Graphite Project near Croydon, Queensland, is based on information compiled by Ken Chapple, who is an Associate Member of The Australasian Institute of Mining and Metallurgy and a Fellow of the Australian Institute of Geoscientists. Mr Chapple has been assisting the Company as a technical consultant relating to his areas of expertise and was on site participating in, and overseeing, the entire program. Mr Chapple has sufficient experience relevant to the style of mineralisation and type of deposit involved to qualify as a Competent Person as defined in the 2012 JORC Code. Mr Chapple is an independent principal geological consultant with KCICD Pty Ltd and consents to the inclusion in the report of matters based on his information in the form and context in which it appears.*

*Forward Looking Statements: This Announcement contains certain forward looking statements. The words 'anticipate', 'believe', 'expect', 'optimism', 'project', 'forecast', 'estimate', 'likely', 'intend', 'should', 'could', 'may', 'target', 'plan' and other similar expressions are intended to identify forward looking statements. Forward-looking statements are subject to risk factors associated with the Company's business, many of which are beyond the control of the Company. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially from those expressed or implied in such statements. There can be no assurance that actual outcomes will not differ materially from these statements. You should not place undue reliance on forward-looking statements and neither Crater Gold Mining Limited nor any of its directors, employees, servants, advisers or agents assume any obligation to update such information.*

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>• See Table 1 in previous announcement on the results of diamond core drilling at the Golden Gate Project (7 February 2018) for details of the work undertaken and the results obtained. Information provided here constitutes an update relating only to the new information obtained from the petrological examination of drill core samples from the graphite mineralization intersected at the Golden Gate Project in late November/early December 2017. The work was undertaken by Pterosaur Petrology, Townsville, Qld.</li> <li>• Tenure held under EPM 18616, which is in good standing and current to 18 June 2018 when renewal would be required.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralization.</i></li> </ul>	<ul style="list-style-type: none"> <li>• From previous experience in the Croydon area and during the initial stages of the drilling and core logging at the Golden Gate Project the graphite mineralization was considered to be have formed from local granitic intrusion into carbonaceous sediments resulting in the development of graphitic mineralization within xenolithic fragments. However, after closer examination by the Competent Person overseeing the drilling program, it was noted that the xenoliths were dominated by granitic rock with sedimentary rock rarely seen. In subsequent examination of polished sections of the graphite and its host by Pterosaur Petrology of Townsville, restite rock was identified and found to be common throughout. It is now thought that the host granite, an S-type granite, formed from the migmatization (or in situ melting) of sediment which from the evidence of the graphite mineralisation must have been carbonaceous. Restite is interpreted to represent sediment that did not completely melt during formation to form the granite body. The area has then been subjected to later alteration (moderate to strong) and low temperature hydrothermal activity.</li> </ul>
<i>And not sedimentary</i>	<ul style="list-style-type: none"> <li>• <i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information</i></li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>for all Material drill holes:</p> <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> <ul style="list-style-type: none"> <li>● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul style="list-style-type: none"> <li>● In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>● Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>● The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>●</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>● These relationships are particularly important in the reporting of Exploration Results.</li> <li>● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>● If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>●</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>● Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>●</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>● Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>●</li> </ul>
Other substantive	<ul style="list-style-type: none"> <li>● Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density,</li> </ul>	<ul style="list-style-type: none"> <li>● Of particular additional interest resulting from the petrological work undertaken on core samples (polished sections) from the graphite mineralisation is the microscopic identification of the presence of significant graphite flake sizes ranging from 0.05mm to 0.50mm, with</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>exploration data</i>	<i>groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	<p>an average of around 0.25mm. The graphite flake sizes identified are as follows;</p> <p>Jumbo flakes 0.30 to 0.50mm            Large flakes 0.18 to 0.30mm            Fine graphite &lt;0.18mm</p> <p>The jumbo and large graphite flakes appear to be largely independent from other mineral grains, which may render them relatively easy to liberate during processing.</p>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical scoping testwork is currently in progress to further investigate and confirm the findings of the petrological work. In particular it will investigate graphite liberation potential, flake size, flake size distribution, recoverable flake size and graphite purity.</li> <li>Compilation and assessment of all the available previously documented exploration data from the region will be undertaken to identify all areas in which graphite mineralization has been identified.</li> <li>As electromagnetic surveying in the Golden Gate area and surrounds has previously been successful in identifying conductive graphite mineralization, consideration will be given to possibly undertaking an airborne survey of selected areas.</li> </ul>