CRATER GOLD MINING

Crater Gold Mining Limited ABN 75 067 519 779

Level 2, 22 Mount Street
Perth, WA 6000
Australia

Ph (08) 6188 8181

20 June 2022

GRAPHITE METALLURGICAL TEST WORK, GOLDEN GATE GRAPHITE PROJECT, CROYDON, QLD.

- **Flotation recovery of 89.4% graphite obtained from an 850 micron sample at a concentrate grade of 76.9% carbon.**
- **Testing of varying grain size samples to be undertaken to determine the optimum one on which to base on-going metallurgical testing.**
- **On-going test work to focus on determining what range of graphite end products such as flake size, micronising and spheronisation might be possible.**

Crater Gold Mining Limited (**Crater**, **the Company**) (ASX:CGN) is pleased to announce further results from the ongoing metallurgical test work on graphite mineralisation from the Golden Gate Graphite Project at Croydon in North Queensland.

ALS Metallurgy Perth, have undertaken a flotation test on an 850 micron sample (composite 2) with an encouraging result obtained. A total of 89.4% of the graphite feed has reported to a rougher concentrate, with the concentrate being found to have a graphite grade of 76.9%. At this stage, no attempt has been made to purify the graphite product as previous caustic baking of a lower grade graphite rougher concentrate has provided an excellent graphite purity of 98.9%.

Testing of additional grain sizes will now be undertaken to determine the optimum grain size for on-going test work. An optimised flotation rougher concentrate of that selected grain size will then be prepared and screened to determine the graphite flake size distribution which will indicate its potential market value. Based on previous petrographic examination, it is anticipated that the mix of graphite sizes possibly present may include fine-flake, through to large, jumbo and perhaps super jumbo flake sizes. If favourable results were obtained, test work would then be undertaken to establish if high value-added micronisation and/or spheronisation graphite production might be economically achievable.

As previously announced to the ASX (*High Graphite Recovery and Purity Obtained from Metallurgical Test Work, Golden Gate Graphite Project*, 24 July 2019), the Company drilled two diamond core holes in the thick graphite mineralisation in the previously identified Golden Gate Graphite Project area in EPM 18616. The purpose of this was to obtain fresh graphite mineralisation for metallurgical testing and to verify the previously reported drill intersections at the sites selected. The results obtained were as follows;

- Hole GGDDH 1701 **62.7m @ 6.79% GC from 29.3m (cut off 3.4% GC**
  incl 7.0m @10.07 % graphitic carbon (cut off 9.4% GC)
- Hole GGDDH 1702 **53.9m @ 6.79% GC from 69.1m (cut off 3.1% GC)**
  incl 14.0m @ 8.79% graphitic carbon (cut off 6.1% GC)

As also announced to the ASX (*Jumbo and Large Flake Graphite identified at Golden Gate*, 12 April 2018), petrological examination of drill core samples from both drill holes identified the presence of significant graphite flake sizes of 0.05 to 0.50mm and some >0.5mm (fine, large, jumbo and some super jumbo flake size), with an average of around 0.25mm.

As composite sample (composite 1) of the graphite mineralisation from hole GGDDH 1701, had been consumed in previous test work, a new composite sample (composite 2) was prepared from hole GGDDH 1702 for the recent test work. This sample was taken from the top 18m of the graphite intersection which would perhaps approximate the first three benches of an open-cut mining operation.

Managing Director Russ Parker stated: *"We are very encouraged by this latest metalurgical testwork. It demonstrates high graphite recovery from the feed mineralisation into a flotation concentrate and achieving a high graphite concentrate. With further optimization we are hopeful that this may lead to assessment as to whether high value-added micronisation and /or spheronistaion might be economically feasible.*

Authorised for release by the Board of Crater Gold Mining.

For further information contact:
Russ Parker, Managing Director
E: info@cratergold.com.au
T: 08 6188 8181

COMPETENT PERSON STATEMENT

The information contained in this report relating to exploration activities at Croydon is based on and fairly represents information and supporting documentation prepared by Mr Ken Chapple or by appropriately qualified company and consultant personnel and reviewed by Mr 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 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 this 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', 'encouraging', 'significant' 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 at the time made 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 therefore not place undue reliance on forward-looking statements.

JORC Code, 2012 Edition – Table 1 report template

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• For details of the drilling and sampling on the Golden Gate Graphite Project, refer to Table 1s attached to previous ASX Announcements as follows; • 7 February 2018 – Graphite Mineralisation Intersected at Golden Gate Project (as part retracted and re-issued 12 February 2018) • 10 April 2018 – Jumbo and Large Flake Graphite Identified at Golden gate (as part retracted and re-issued 12 February 2018). • Also for earlier graphite metallurgical test work refer to 24 July 2019 – High Graphite Recovery and Purity Obtained From Metallurgical Test Work – Golden Gate Graphite Project. This announcement covers the flotation test work undertaken by Brisbane Metallurgy Laboratory on a composite 1 sample prepared from diamond drill core hole GGDDH 1701. The following Information provided here is specifically directed to describing the results from preliminary metallurgical testing being undertaken by ALS Metallurgy, Perth, on a composite 2 sample prepared from drill hole GGDDGH 1702 (ALS METALLURGY Report A23187, May 2022). Tenure for the Golden Gate Graphite Project is held under EPM 18616 which is in good standing and current to 18 June. The Golden Gate Graphite Project is interpreted to extend into adjacent EPM 8795 which is also in good standing and current to 06 September 2022.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	•
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The composite sample (composite 2) on which the new metallurgical test work was undertaken was taken from 18 one metre samples from diamond core drill hole GGDDH 1702, from a depth between 70.0

Criteria	JORC Code explanation	Commentary
		and 88.0m inclusive. At this location the graphite mineralisation is shallowly dipping to the NE and is up to 53.9m thick.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *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.*	
Data aggregation methods	• *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.* • *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.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	•
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *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').*	•
Diagrams	• *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.*	•
Balanced reporting	• *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*	•

Criteria	JORC Code explanation	Commentary
	Exploration Results.	
Other substantive exploration data	• *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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• The test procedure undertaken by ALS METALLURGY was as follows; - A composite sample (composite 2) was prepared from 18, one metre interval ½ diamond core, samples from drill hole GGDDH 1702. - A head grade of 7.71% carbon was obtained. As the graphite carbon grade was found to be very close to this at 7.68%, it was decided to use carbon assays in the test work to save on assay costs. - A 1kg sample split from Composite 2 was ground to 100% passing 850 microns using a stainless steel rod mill. The sample was then transferred to a *Denver 4 litre cell* with Perth tap water added. - Slurry and oxidation-reduction potential (ORP) was measured at each floatation stage. - pH was adjusted by addition of reagents as required. - Kerosene collector was added incrementally by syringe as required. Methyl isobutyl carbinol (MIBC) frother was added in drops from a Pasteur pipette as required. - Flotation air was introduced manually to achieve maximum froth. A scrapper using a set pattern of 6 strokes per minute was used to manually remove the froth. - The combined rougher concentrate was transferred to a stainless steel rod mill and reground for a certain time. The ground rougher concentrate was then transferred into a 4.0 litre Denever flotation cell in preparation for the first cleaner flotation Stage. Frother was added as required. - The above stage was repeated 6 more times to generate a 7-stage cleaner concentrate. - The final concentrate was low-temperature oven dried, weighed and submitted for assay. - Flotation tails (rougher tails and cleaner tails) were pressure-filtered prior to drying, weighing and splitting for assay. • The result of the 850 micron flotation test was that 89.4% of the graphite feed was recovered to the rougher concentrate with the

Criteria	JORC Code explanation	Commentary
		graphite content of the rougher concentrate was found to be 76.9%. This was a significant improvement on the previous test work on a 56 micron sample for composite 1. • The Company now awaits the results from other grain size samples to determine the optimum sample grain size on which to base future test work.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Once the optimum grain size for on-going future test work is established, screen sizing of the graphite will be undertaken to determine what range of graphite end products such as the mix of flake size and high value added micronising and spheronisation that might be possible.