

Crater Gold Mining Limited ABN 75 067 519 779

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# Bonanza Gold Grades intersected at High Grade Zone Crater Mountain, PNG

- Underground development has intersected bonanza grade gold mineralisation up to **847g/t** (27.2 oz/t) Au over 0.2m of mineralised vein
- Abundant coarse visible free gold
- High grade gold in numerous narrow structures within broad 10 15m wide zone
- Drive development is underway to determine the strike extent and overall grade of mineralisation
- Drilling programme to commence shortly.

Crater Gold Mining Limited ("CGN" or "the Company") is pleased to advise that it has intersected very high ("bonanza") grade gold in separate narrow mineralised structures underground in the High Grade Zone ("HGZ").

The relevant intersections are tabled below. All are true widths and uncapped gold grades: (Refer to Figure 1 for locations).

- 0.2m @ 847 g/t (27.2 oz/t) Au in No1 East Cross Cut left hand wall (Link structure)
- 1.0m @ 554 g/t (17.8 oz/t) Au in No1 East Cross Cut left hand wall (NS structure)
- 0.2m @ 525 g/t (16.9 oz/t) Au in No 1 East Cross Cut left hand wall (NS structure)
- 0.2m @ 523 g/t (16.9 oz/t) Au in No 1 East Cross Cut right hand wall (Link structure)
- 0.2m @ 233 g/t (7.5 oz/t) Au in Main Drive right hand wall (NS structure)
- 0.2m @ 166 g/t (5.3 oz/t) Au in No 1 East Cross Cut left hand wall (NS structure)
- 0.2m @ 109 g/t (3.5 oz/t) Au in No 1 East Cross Cut face (EW structure)
- 1.0m @ 63 g/t (2.0 oz/t) Au in Main Drive right hand wall (NS structure)
- 0.2m @ 77 g/t (2.5 oz/t) Au in Main Drive face (NS structure), and
- 0.2m @ 56 g/t (1.8 oz/t) Au in Main Drive right hand wall (EW structure)

The focus of the exploration development is to intersect these narrow mineralised structures and to individually evaluate them with channel sampling with a view to possible future underground mining. The veins of relevant interest are those recording significant grades and which might be extracted using small scale, highly selective, narrow vein mining techniques. Channel samples of individual structures are taken perpendicular to the structure, representing true width, along the sidewalls of the drive and cross cut development. Owing to the narrow nature of the structures, channel samples taken across the entire structure, but subject to a minimum sample width of 0.20m, represent the true width and grade of the structure.

Figure 1 shows the location of the significant structures intersected to date with their respective assay results and widths.

A broad 10 - 15 metre wide zone of intense brecciation and alteration trending north south has been identified in underground exploration development at the company's Crater Mountain HGZ project. This zone hosts numerous narrow (up to 30cm wide) auriferous structures of intense clay, limonite, hematite and pyrite alteration with quartz and frequent coarse visible free gold. Refer to Figure 1.

Within this zone there are several discrete well developed gold-bearing structures containing increased clay, hematite alteration with manganese traced over 5 - 10 metres strike in the development to date. Bonanza gold grades up to 847g/t (27.2 oz/t) Au have been recorded from channel samples taken where these structures cut through the walls of the adit and cross cut development.

The predominant trend is an overall approximate N-S trend for the broader 10 - 15m wide zone. There is also a number of steeply dipping cross cutting mineralised structures with an approximate EW orientation. Underground observations have also been made of relatively shallow dipping structures noted to be link structures between the NS and EW sets. All of these sets of structures have returned high gold values. The confluence of the steeply dipping NS and EW structures together with the occurrence of shallow dipping link structures is considered to play an important role in the control to mineralisation resulting in bonanza gold grades.

Drive development is underway to determine continuity and strike extent of overall gold mineralisation along two of the NS structures identified. Refer to Figure 1 for location of drives.

The intersection of these structures correlates very well with previous artisanal mining in shallow surface workings some 30m directly above the current exploration development. There is also good correlation with previous surface diamond drilling which intersected 2m at 98g/t Au approximately 70m below the development.



### Figure 1. HGZ Exploration Development showing mineralised structures and channel sampling results.

Commenting on the recent assay results Richard Johnson, Mining Engineer and CGN PNG Country Manager said "These results are very exciting and provide confirmation of reports of significant quantities of gold being extracted by local artisanal miners from shallow surface workings. Drive development and bulk sampling are underway and an underground diamond drilling programme will commence in December. This paves the way for the grant of a Mining Lease and early commencement of production."

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## **Diamond Drilling**

An underground diamond drill has been mobilised with drilling expected to commence in December 2013 from a drill platform situated at the end of the No1 West Cross Cut. Refer to Figure 1. A total of some ten diamond drill holes will be drilled from this site in three fans of holes providing potential drill coverage for 120m strike and 100 - 120m of dip extension of the projected mineralised zone.

Further diamond drilling will be carried out from additional drill platforms to be established as the Main Drive development progresses to the east.

### **Pre- Feasibility Study**

Following only 2 months of underground development in the HGZ, the Company has generated sufficient geological information to prepare a Pre-feasibility Study (PFS), a key report in the Mining Lease application process for the HGZ. Following the PFS a Mining Lease application will be made in December this year.

The geological information is in line with expectations outlined by respected Independent Geological Consultants, Mining Associates Limited ("MA") following a site visit in mid-September 2013 by MA principal Mr Andrew Vigar. MA conclude that the target for the HGZ prospect based on selective underground mining may be stated as:

HGZ Target – 50 to 250 kt @ 13 to 30 g/t Au for 60 to 100k Oz of contained Au

MA does caution that the potential quantity and grade is conceptual in nature, that there has been insufficient exploration to define a Mineral Resource and that it is uncertain if further exploration will result in the determination of a Mineral Resource. MA has also observed that the HGZ target zone is currently under active exploration development by the Company with surface mapping and sampling, adit development and both surface and underground close spaced drilling which would be expected to generate sufficient data for a resource estimate to be completed in the near future.

MA also concluded that mineralisation is likely controlled by a number of key structures allowing mineralising fluids to be introduced adjacent to them. The host breccia zones are controlled by a combination of structures running north-south, north-east and north-west.

MA stated "It is likely that similar independent high grade gold deposits may be repeated at several places as splays off key structures over a potential area of at least 1400m by 700m."

### **HGZ Mining**

The method of underground mining will likely be by conventional rail-bound mucking and hauling equipment and hand held rock drills from adits accessing the mineralised zone.

Simple gravity methods are considered to be sufficient to recover a significant proportion of the gold from the HGZ. Bulk samples up to several cubic metres in size will be taken from various mineralised structures for trial processing on site. This processing is likely to include washing and screening, hand sorting and crushing of high grade oversize and recovery of a gravity concentrate which can be directly smelted.

Mr Richard Johnson has extensive hands-on experience with underground narrow vein mining in Papua New Guinea. In particular he was Divisional Director of DRDGold responsible for Tolukuma Gold Mine in PNG's Central Province from 2002 to 2005. Tolukuma is an underground vein system gold mine similar to the Company's HGZ project.



**Figure 2.** High Grade Zone in Relation to Known Gold Mineralisation and Mixing Zone Red circle - HGZ Target; - yellow outline on right is Mixing Zone Resource limit; - area outlined in white is area of known gold mineralisation at Nevera;- blue circle is airborne magnetic anomaly (possible source intrusion for mineralisation)

For further information contact:

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### **Competent Person Statements**

The information contained in this report relating to Exploration Results at Crater Mountain PNG is based on information compiled by Mr R Johnson, PNG Country Manager of Crater Gold Mining Limited. Mr Johnson is a Fellow of The Australasian Institute of Mining and Metallurgy and has the relevant experience in relation to the mineralisation being reported upon to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Johnson consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

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