

# Encouraging Start to Cap Burn NZ Gold Drilling Program

## **ASX ANNOUNCEMENT**

18 DECEMBER 2020

**ASX Code: NPM** 

Shares on Issue 4.67 Billion

Cash on Hand \$1.95m

Market Capitalisation A\$14m

#### **Directors**

Nick Mather (Non-Executive Chairman)
David Mason (Managing Director, CEO)
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## **HIGHLIGHTS**

- At the Otago Cap Burn Gold Project in New Zealand, 5 diamond drill holes have been completed on schedule. The program will pause for Christmas and drilling will recommence in January.
- Multiple anomalous arsenic (>100ppm) zones with values ranging up to 4,202ppm, identified in diamond drill core using a portable XRF, indicates potential for strong Gold mineralisation similar to other deposits in the region.
- The maiden drilling program is designed to test Gold potential associated with a broad 1,000 by 1,000 metre surface soil goldarsenic anomaly.

NewPeak Metals Limited, (Company, NewPeak, ASX:NPM) is pleased to provide an encouraging update on the progress of the maiden drilling program for the Cap Burn Gold Project in the Otago District of New Zealand. To date 5 diamond drill holes for 522m have been completed with strong anomalous arsenic zones intersected. The program aims to test the main large, mineralised surface anomaly within the Cap Burn East area.

Commenting on the progress of drilling, NewPeak Managing Director David Mason said; "We are excited to have encountered elevated levels of arsenic at depth given that is a common feature of Gold deposits along the Otago Schist Belt. This, coupled with the size of the surface anomaly (1000m by 1000m), gives us cause to be optimistic at this early stage, particularly as the drilling to date has been along the margins of the surface anomaly. We look forward to completing the program involving the planned holes throughout the anomaly early in the New Year."

### Cap Burn East Block Drilling Program

The presence of many of the key characteristics of orogenic Gold deposits of the Otago Schist Belt, in the recent drilling at Cap Burn, is encouraging and gives support to the current geological interpretation and mineralisation model. This model points to the Cap Burn Gold Project as having significant potential for the discovery of a large Gold system, similar to others in the region.



Drilling at Cap Burn commenced on the most eastern line of the planned holes in Target 1, due to access restrictions (See **Figure 1**). Holes were drilled vertically to intersect the low angle, north-east dipping foliation, mapped at surface. Detailed logging and processing of the diamond core is ongoing with sampling due for completion prior to Christmas. Samples will be sent to the SGS laboratory, Westport, New Zealand for Gold assaying with first results expected at the end of January.

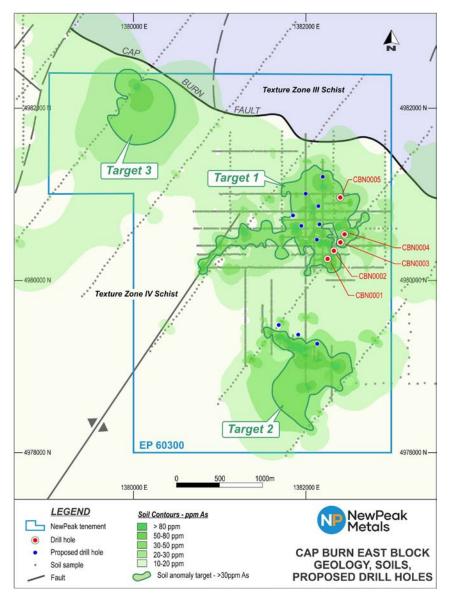


Figure 1: Cap Burn East Block showing the 5 completed drill holes and arsenic anomalies defining Targets 1, 2 and 3.

Analysis of the core using an Olympus Vanta M Portable XRF, at regular 0.5m locations down the hole has identified multiple anomalous (>100ppm) arsenic intervals within the core tested to date. Anomalous values range from 100pmm to over 4,000ppm over drill intersections of up to 10m in thickness. These intervals are often associated with structural zones (breccias and shear zones), quartz, weak silica alteration, and sulphides. Figure 2 shows brecciated and sheared zones with associated elevated arsenic. This material is oxidised at a depth of over 60m as structures have allowed oxidation to penetrate deeper. The piece of core shown in Figure 3 represents a mineralised specimen of the Otago Schist intersected in CBN0005 with bands of silica-carbonate-pyrite +/- arsenopyrite +/- sericite alteration over a 30m interval from 80m depth. In the photo on the left, a fracture surface exposes sulphide mineralisation such as pyrite and probable



arsenopyrite which can be seen throughout the rock. Pale silica carbonate alteration is also visible. In the second photo the outside of the core shows strong foliation and micro folding associated with local shearing which has allowed the mineralising fluids to move through the schist.

Whilst only indicative in nature the XRF results confirm the link between the surface Gold and arsenic results, with the underlying geology. The orogenic Gold deposits of the Otago Schist Belt contain arsenic, predominantly as arsenopyrite, which is consistently associated with Gold. Arsenic to Gold, at a ratio of 1,000:1 (i.e. 1,000ppm As suggests a possible grade of 1g/t Au) is typical of many of the Otago Schist Belt deposits<sup>1</sup>. This correlation has been confirmed at Cap Burn following analysis of Gold and arsenic results from surface rock chip sampling. Occurrences of graphite have also been identified within a number of shear zones in the recent drilling. The presence of graphite in the main Hyde-Macraes Shear Zone is a feature of note at OceanaGold's Macraes Mine and is the result of hydrothermal processes that accompanied Gold mineralisation<sup>2</sup>. The Macraes Mine, owned by OceanaGold, has a current JORC Measured and Indicated resource of 3.5 million ounces Gold<sup>3</sup>.

Drilling will continue in January following the normal Christmas break with focus moving to the centre of the soil anomaly.



Figure 2: Drillhole CBN0003, showing regular portable XRF analysis at 0.5m locations with consistently elevated arsenic levels, ranging from 475ppm up to 2539ppm across this 2m section of core. The core is oxidised, brecciated and sheared.

<sup>&</sup>lt;sup>1</sup> Craw D, Mortensen J, Mackenzie D, Pitcairn I, "Contrasting geochemistry of orogenic gold deposits in Yukon, Canada and Otago, New Zealand", 2014 Geochemistry: Exploration, Environment, Analysis Vol 15 pp150-166.

 $<sup>^2 \ \</sup>underline{\text{https://www.otago.ac.nz/geology/research/gold/geology-and-gold/graphite-and-gold.html}} \ \text{(viewed, 15}^{th} \ \underline{\text{December 2020}})$ 

<sup>&</sup>lt;sup>3</sup> http://www.oceanagold.com Resources as of the 30<sup>th</sup> June 2020, (Measured 0.9 Moz Au, Indicated 2.6Moz Au)





Figure 3: Drillhole CBN0005 at 88.1m, showing visible silica-carbonate-pyrite +/-arsenopyrite +/-sericite alteration. In the photo on the left, a fracture surface exposes sulphide mineralisation with pyrite and probable arsenopyrite which can be seen throughout the rock. Pale silica carbonate alteration is also visible. In the second photo the outside of the core shows strong foliation and micro folding associated with local shearing which has allowed the mineralising fluids to move through the schist.

This Announcement has been authorised by the Board of Directors Mr Karl Schlobohm Company Secretary

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#### COMPETENT PERSON'S STATEMENT

The information herein that relates to Exploration Targets and Exploration Results is based information compiled by Mr Jason McNamara, who is a Fellow of The Australasian Institute of Mining and Metallurgy. Mr McNamara is a permanent employee of NewPeak Metals.

Mr McNamara has more than twenty-five years' experience which is relevant to the style of mineralisation and types of deposits being reported and the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves" (the JORC Code). This public report is issued with the prior written consent of the Competent Person(s) as to the form and context in which it appears.



Table 1 – Cap Burn Exploration Drill Collars

Hole ID	Northing	Easting	Dip	Azi	Max Depth (m)
CBN0001	4980250	1382250	-90	0	35.8
CBN0002	4980340	1382330	-90	0	50.7
CBN0003	4980440	1382400	-90	0	99.2
CBN0004	4980530	1382450	-90	0	171.1
CBN0005	4980960	1382400	-90	0	164.7
				TOTAL	521.5



## JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse Gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>No historical drilling has previously been undertaken on the Cap Burn project</li> <li>A total of 5 drill holes utilising Diamond (DD) drilling methods have been completed to date, for a total of 521.5m at Cap Burn.</li> <li>Holes have been drilled vertically to intersect the low angle, north-east dipping foliation, mapped at surface. Mineralisation is believed to be broadly parallel to foliation.</li> <li>Field procedures include routine multi-element measurement of the diamond core at regular 0.5m locations downhole, using an Olympus Vanta M portable XRF tool (model: VMR-CCC-G3-A). The portable XRF tool is routinely serviced, calibrated and checked against blanks/standards. These readings are indicative only and are used to aid the selection of samples for primary assaying in conjunction with geological logging and neighbouring results</li> <li>Drill core processing is ongoing and sampling has not yet been undertaken</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>All drilling to date has been undertaken using diamond drilling at PQ and HQ sizes.</li> <li>Diamond drilling has been undertaken using both PQ and HQ triple tube methods to maximise recovery, with PQ being used predominantly through the weathered horizon</li> <li>To date no orientated core has been collected</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core recoveries are recorded by the drillers in the field at the time of drilling by measuring the actual distance drilled for a drill run against the actual core recovered. This measurement is checked by a geologist or technician</li> <li>When poor sample recovery is encountered during drilling, the geologist and driller have endeavoured to rectify the problem to ensure maximum sample recovery</li> <li>No assessment has yet been undertaken on recovery and grade as core processing is ongoing</li> </ul>



Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>All drill core is qualitatively geologically and quantitatively geotechnically, geochemically and structurally logged from surface to the bottom of each individual hole to a level of detail to support future Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>All logging of diamond core includes the recording of lithology, alteration, mineralisation, structure, weathering, colour and other features of the interval important for defining the location of the drillhole within the mineralised system.</li> <li>All drill core is photographed as both wet and dry.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/secondhalf sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	Core processing is ongoing and sampling has not yet been undertaken
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	<ul> <li>Core processing is ongoing and laboratory analysis has not yet been undertaken</li> <li>Assaying of samples in the field was by portable XRF instruments: Olympus Vanta M portable XRF Analyser (model: VMR-CCC-G3-A). Using the Geochem3 Extra method with a reading time of 10 &amp; 20 seconds per reading with 2 readings per sample.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification,</li> </ul>	<ul> <li>As this is the maiden drilling program, which is ongoing, no external or independent reviews have been undertaken.</li> <li>All logging is reviewed by a senior geologist</li> <li>Logging is undertaken directly into MX Deposit, a SQL cloud-based database</li> </ul>



Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	system via a mobile logging app. Validation rules are present in the mobile logging app to check data during the input process.  Core processing is ongoing and no assays results are yet available  A Garmin hand-held GPS is used to define the location of the planned drill collars providing an accuracy of +/-5m. On completion of the program hole collars will be surveyed using a DGPS  Down-hole surveys are conducted by the drill contractor using a REFLEX EZTRAC™ downhole survey tool which provides the hole inclination and azimuth relative to magnetic north. Measurements are taken every 30m to track drillhole progress.  Drill hole collar locations are reported in New Zealand Transverse Mercator 2000 (NZTM2000)  The topography has been generated from the NZ 8m Digital Elevation Model
		(2012), <a href="https://data.linz.govt.nz/layer/51768-nz-8m-digital-elevation-model-2012/">https://data.linz.govt.nz/layer/51768-nz-8m-digital-elevation-model-2012/</a> and is considered to be of suitable accuracy and provide suitable control for this stage of exploration
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drillhole spacing for the full program ranges from 120m to 300m between holes. This hole spacing is considered appropriate for this stage of early exploration</li> <li>Sampling of the core is ongoing</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>yet well understood</li> <li>Drill holes have been drilled vertically to intersect the low angle, north-east dipping foliation, mapped at surface. Mineralisation is believed to be broadly</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>The chain of custody is managed by company personnel.</li> <li>All drill core is brought to a secure core processing facility on a daily basis.</li> <li>Core processing is still in progress at the processing facility</li> </ul>



Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	At this early stage no formal external audit has yet been conducted.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>NewPeak has an Earn-in Agreement with the owners of the Mineral Rangahau Joint Venture, who hold the Cap Burn Project within granted Exploration Permit EP60300.</li> <li>The tenement is in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>No drilling has previously been undertaken on the Cap Burn project by other parties</li> <li>Aurora Minerals Limited carried out 1,264 soil samples</li> <li>Glass Earth Limited carried out 1,038 soil samples</li> <li>Mineral Rangahau JV has undertaken 2,020 soil samples, rock sampling as well as surface mapping over the lease.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Cap Burn project features two types of orogenic gold mineralization.         Mineralization similar to that found at Macraes Mine occurs on the eastern         block, while fracture veins similar to those found elsewhere in the Otago         Schist occur on the western block.</li> </ul>
Drill hole Information	<ul> <li>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:         <ul> <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> </li> <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</li> </ul>	Refer to Table in the body of text.



Criteria	JORC Code explanation	Commentary
	why this is the case.	
Data aggregation methods	<ul> <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> <li>Core processing is ongoing and as such no laboratory assay results are available</li> <li>XRF results reported in this report are indicative and represent the analysis at a specific location on the core. No top-cuts or cut-offs have been applied to these results</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <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> <li>Core logging and processing are still ongoing. An assessment of the appropriateness of this drilling orientation will be undertaken after collection of all of the data has been finalised.</li> <li>Multiple styles of mineralisation appear to be present with some steeply dipping structures identified. Drill holes have been drilled vertically to intersect the low angle, north-east dipping foliation, mapped at surface. At this stage mineralisation is believed to be broadly parallel to foliation.</li> </ul>
Diagrams	<ul> <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> <li>Refer to Figure in the body of text for drill hole locations.</li> <li>Sectional views are not yet possible as drill core logging and processing is ongoing</li> </ul>
Balanced reporting	<ul> <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> <li>Core processing is ongoing and as such no laboratory assay results are available</li> <li>XRF results reported in this report are indicative and represent the analysis at a specific location on the core.</li> </ul>
Other substantive exploration data	<ul> <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, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	Surface mapping has been undertaken over the lease area
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul> <li>Completion of the current drilling program is the primary focus with follow- up drilling planned pending results</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	