

ACN: 062 284 084 ASX Code: SYS

# ANNOUNCEMENT TO THE AUSTRALIAN SECURITIES EXCHANGE

17 October 2019

# TERM SHEET FOR ACQUISITION OF JUMBUCK GOLD PROJECT

Syngas Limited (ACN 062 284 084) (Syngas or Buyer) is pleased to confirm that it has entered into a term sheet (Term Sheet) for the proposed acquisition of all of the rights, title and interest of Tyranna Resources Limited (ACN 124 990 405) (Vendor or Tyranna) in all of the issued shares of Half Moon Pty Ltd (ACN 159 579 138) (HMP), the owner of the majority and controlling joint venture interest in the Western Gawler Craton Joint Venture (WGCJV or JV) and all tenements located around the WGCJV owned 100% by HMP and Trafford Resources Pty Ltd (ACN 112 257 299) (Trafford), collectively referred to as the "Jumbuck Gold Project" (Acquisition).

Details of the Jumbuck Gold Project and the proposed terms of the Acquisition are set out below.

### **Regulatory Statement**

The Company notes that:

- (a) the Acquisition ultimately requires Shareholder approval under the Listing Rules and therefore may not proceed if that approval is not forthcoming;
- (b) ASX has absolute discretion in deciding whether or not to re-admit the Company to the Official List and to quote its securities following the Acquisition and associated re-compliance with Chapters 1 and 2 of the ASX listing rules, and therefore the transaction may not proceed if ASX exercises that discretion; and
- (c) investors should take account of these uncertainties in deciding whether or not to buy or sell the Company's securities when offered.

Furthermore, the Company:

- (a) notes that ASX has not considered the suitability of the transaction for the purposes of ASX listing rule 1.1 condition 1 and the Company is yet to engage fully with ASX in this regard. For this reason, ASX takes no responsibility for the contents of this announcement; and
- (b) confirms that it is in compliance with its continuous disclosure obligations under Listing Rule 3.1.

# Term Sheet

The key commercial terms set out in the Term Sheet are summarised below:

Syngas is granted an Option by Tyranna to acquire 100% of the shares of HMP and all the tenements held by Trafford as listed in Appendix 1, collectively referred to as the Jumbuck Gold Project for \$950,000 cash (**Option**). It should be noted that this payment is a payment to which ASX listing rule 1.1 condition 11 may apply and this payment is yet to be considered by ASX in the context of this rule, and whether it represents a re-imbursement of expenditure incurred in developing the asset. ASX has not yet assessed this proposed payment for its suitability under this listing rule;

- 2) The exercise period for the Option is a period of 7 months from signing of the Term Sheet where Syngas may do all things required to complete the Acquisition and to seek official quotation and re-instatement of its securities to trading on the ASX. The Option can be further automatically extended by 3 months by the payment of \$25,000 by Syngas to Tyranna;
- Syngas has 30 days from signing of the Term Sheet to conduct a due diligence on the Jumbuck Gold Project (**Due Diligence Period**) and seek the preliminary approval of the ASX on the restructuring of Syngas;
- 4) A non refundable of Option fee of \$50,000 (**Option Fee**) is payable in the following manner:
  - a) \$10,000 of the Option Fee will be paid in cash, without shareholder approval, within 3 business days of the date of execution of the Term Sheet. This amount has been paid.
  - b) The balance of the Option Fee of \$40,000 shall be paid upon successful completion of the due diligence (**Due Diligence**) by Syngas during the Due Diligence Period and the receipt of ASX preliminary approval to the restructuring of Syngas and at this stage the term sheet will be binding.

It should be noted that this option payment is a payment to which ASX listing rule 1.1 condition 11 may apply and this payment is yet to be considered by ASX in the context of this rule, and whether it represents a re-imbursement of expenditure incurred in developing the asset. ASX has not yet assessed this proposed payment for its suitability under this listing rule;

- 5) Upon completion of the Due Diligence, Syngas and Tyranna shall enter into a definitive share purchase agreement (**Purchase Agreement**) and any other agreement that may be necessary or desirable to effect the Acquisition which will set out in detail the terms and conditions of the Acquisition including:
  - a) Syngas to pay \$950,000 to Tyranna as consideration for the acquisition of all the issued capital in HMP and all the tenements listed in Appendix 1 upon completion of the Acquisition and approval for the re-instatement of the shares of Syngas to trading on the ASX.
  - b) Tyranna will ensure that the ownership transfer (transfer of title) of the Western Gawler Craton JV tenements in accordance with the Terms of Resolution Dispute between the parties to the Western Gawler Craton JV is completed within the timeframe as per the Deed of Covenant signed on 27 July 2019 and third party agreements are signed for Syngas to assume all obligations and liabilities from settlement.
- 6) Mr Bruno Seneque to join the board of Syngas on completion of the Acquisition.

The Acquisition is part of the proposed restructuring of Syngas to re-comply with Chapters 1 and 2 of the ASX Listing Rules for the requotation of the shares of the Company on the ASX. Syngas will seek shareholder approval for the Acquisition and issue a Prospectus for the re-compliance and the capital raising as set out in this announcement, assuming the Acquisition proceeds.

The proposed restructuring of Syngas will entail amongst others, the following:

# (a) Consolidation of the Shares of Syngas

Syngas currently has 611,440,288 shares on issue. The proposed consolidation of the shares of Syngas involves consolidating 10 existing Syngas shares into 1 Syngas shares giving rise to 61,144,029 shares.

#### (b) Balance Sheet Repair

The Company is also proposing, as part of its proposed restructure, to issue 93.75 million shares at \$0.02 each to creditors of the Company to extinguish debt totalling approximately \$1.875 million. The debt is mainly owed to entities associated with director, Datuk Siak Wei Low.

### (c) Capital Raising and Acquisition of Jumbuck Gold Project

Syngas intends to issue new shares at \$0.02 to raise a minimum of \$5 million to fund the acquisition of the Jumbuck Gold Project and its exploration expediture as well as working capital. The final amount will be determined and will be sufficient to ensure that Syngas will satisfy the net asset test as part of its re-instatement to quotation on ASX.

The Proposed Restructuring is still currently being finalised and a full announcement will be made in due course after the signing of the Purchase Agreement. This will include a more detailed timeline of each activity in the re-compliance process.

A proforma effect of the Proposed Restructuring on the share capital and net tangible assets of the Company is set out below:

# Pro Forma Share Capital

	No. of shares
Existing	611,440,288
Post consolidation	61,144,029
Capitalisation of loans	93,750,000
Capital Raising	250,000,000
	404.894.029

Pro Forma Short Form Balance Sheet		
	Unaudited	Proforma
	30-Jun-19	30-Jun-19
	\$	\$
Current Assets		
Cash and cash equivalents	50,478	4,550,478
Total Current Assets	50,478	4,550,478
Non-Current Assets		
Exploration assets	0	1,000,000
Total Non-Current Assets	0	1,000,000
Total Assets	50,478	5,550,478
Current Liabilities		
Trade and other payables	630.094	78.427
Borrowings	1,513,636	0
Total Current Liabilities	2,143,730	78,427
Total Liabilities	2,143,730	78,427
Net Assets/(Liabilities)	(2,093,252)	5,472,051
Equity		
Contributed equity	35,166,571	42,451,873
Accumulated losses	(37,259,823)	(36,979,822)
Total Equity	(2,093,252)	5,472,051
The actual financial position of the Company position illustrated in the pro forma capital s the period from 30 June 2019 and the da depending on the number of shares issued t	y on the completion of the tructure and pro forma b ate of completion of the under the Capital Raising	e Proposed Restructuring will differ from the alance sheet due to net expenditure during Proposed Restructuring. It will also differ g.
	Current Assets Cash and cash equivalents Total Current Assets Exploration assets Total Non-Current Assets Total Non-Current Assets Total Assets Current Liabilities Trade and other payables Borrowings Total Current Liabilities Total Current Liabilities Net Assets/(Liabilities) Equity Contributed equity Accumulated losses Total Equity The actual financial position of the Company position illustrated in the pro forma capital s the period from 30 June 2019 and the da depending on the number of shares issued of	Unaudited30-Jun-19\$Current AssetsCash and cash equivalentsTotal Current AssetsExploration assets0Total Non-Current AssetsExploration assets0Total Assets50,478Current LiabilitiesTrade and other payablesBorrowings1,513,636Total Current Liabilities2,143,730Total Liabilities2,143,730Net Assets/(Liabilities)(2,093,252)EquityContributed equityAccumulated losses(37,259,823)The actual financial position of the Company on the completion of the position illustrated in the pro forma capital structure and pro forma b the period from 30 June 2019 and the date of completion of the capital Raising

#### **Jumbuck Gold Project**

A summary of the Jumbuck Gold Project is set out below (extracted from the 2018 Annual Report of Tyranna).

The Jumbuck project is in central South Australia, within the Gawler Craton. The project is 730km northwest of Adelaide and 250km north of Ceduna.



Figure 1: Location of the Jumbuck Gold Project.

The Jumbuck Gold Project comprises 7,279 km<sup>2</sup> surrounding the Challenger Gold Mine, which has produced >1M ounces of gold @6g/t, in the Northern Gawler Block of South Australia and is held under the Western Gawler Craton Joint Venture with WPG Resources ASX: WPG (currently in receivership) and Coombedown Resources Pty Ltd.



Figure 2: The Jumbuck gold project is located in central South Australia, within the Gawler Craton (see Figure 4).

The Jumbuck Gold Project is still at an early stage of development and contains no historic production. Since the discovery of the Challenger gold deposit in 1995 and up to exploration work by Tyranna Resources, relatively little regional exploration work was carried out by previous explorers at Jumbuck with near mine and mill feed exploration taking a higher priority at the Challenger gold mine. Tyranna has reinvigorated exploration activity in the area with the aim to discover "Challenger style" economic gold mineralisation and to increase gold resources.

Tyranna has delineated more than 300,000oz Au of relatively shallow Mineral Resources at Jumbuck. The early stage of this discovery and delineation phase is indicated by the shallow average depth of drilling illustrated in Table 2. The average depth of RC drilling into the deposits is only 80m and in addition there have only been 10 diamond drill holes completed.

Tyranna has commenced initial, internal economic analysis of the deposits based on these updated Mineral Resources. Optimisation of the resource block models indicates potential economic viability. The next stage of this process is to engage with Joint Venture partner, WPG Resources, to determine accessibility to nearby processing facilities at the Challenger Gold Operations. Those discussions and consequent arrangements will then lead the Joint Venture to conduct targeted, infill drilling programs to seek to upgrade sufficient resources to Indicated status. (ASX:TYX – 30 May 2018 Announcement, "Gold Resources increase by 100,000 oz to 319,00 oz at Jumbuck")

The joint venture partner, WPG Resources Ltd (**WPG**) (Subject to a Deed of Company Arrangement) as it relates to the Western Gawler Craton JV (Tyranna 78% / WPG 22%) is currently under administration and receivership.

For more information on the status of WPG, please refer to announcements made by WPG to the ASX.

Key highlights from the upgrade included:

- All deposits are interpreted to be open at depth and have excellent potential for resource increases with future drilling.
- The deeper underground continuity of the mineralisation is yet to be tested.
- All deposits located within trucking distance of the Challenger gold mine previously operated by joint venture partner WPG Resources Ltd, prior to going into receivership.
- All reported resources are within 100m from surface and therefore potentially exploitable by open cut mining.

Table 1(a) and (b) below is a summary of all the mineral resource estimates for the Jumbuck deposits.

 Table 1(a).
 Jumbuck Project Mineral Resource Estimates May 2018 - 0.5g/t cut-off grade

(ASX:TYX – 30 May 2018 Announcement, "Gold Resources increase by 100,000 oz to 319,00 oz at Jumbuck")

Deposit	Indicated Resources		Infe	Inferred Resources			Total Mineral Resources		
0.5 g/t cut-off grade	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz
Golf Bore	0.57	1.0	18	3.22	1.0	100	3.79	1.0	119
Campfire Bore	-	-	-	2.78	1.2	109	2.78	1.2	109
Greenewood	0.14	1.4	7	0.75	1.6	39	0.90	1.6	46
Monsoon	-	-	-	0.61	0.8	17	0.61	0.8	17
Typhoon	-	-	-	0.27	1.9	16	0.27	1.9	16
Mainwood	-	-	-	0.35	1.1	12	0.35	1.1	12
Total	0.74	1.1	25	7.99	1.1	294	8.70	1.1	319

\*The figures in these tables are rounded to reflect the precision of the estimates and include rounding errors

Table 1(b).         Jumbuck Project Mineral Resource Estimates May 2018 - 0.8	g/t cut-off grade
---	-------------------

Deposit	Indica	ated Reso	urces	Infer	red Resou	rces	Total I	lineral Re	sources
0.8 g/t cut-off grade	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz	Mt	Au g/t	Au koz
Golf Bore	0.29	1.4	13	1.47	1.4	65	1.77	1.4	79
Campfire Bore	-	-	-	1.99	1.5	93	1.99	1.5	93
Greenewood	0.11	1.6	6	0.64	1.8	37	0.75	1.8	43
Monsoon	-	-	-	0.25	1.2	10	0.25	1.2	10
Typhoon	-	-	-	0.20	2.3	15	0.20	2.3	15
Mainwood	-	-	-	0.15	1.7	8	0.15	1.7	8
Total	0.41	1.4	19	4.71	1.5	229	5.12	1.5	248

(ASX:TYX -	30 May 2018	Announcement.	"Gold Resources	increase by	/ 100.000 07	z to 319.00 oz ;	at Jumbuck")
(AOAIIIA	00 may 2010	Announcement,		moreace by	, 100,000 01		at ournouter,

\*The figures in these tables are rounded to reflect the precision of the estimates and include rounding errors

The resource upgrade is a result of the work program carried out by Tyranna since the previous Mineral Resources Estimate was announced on 24 January 2017. This work program was carried out between late 2017 and early 2018 and included a total of:

- 131 RC holes for 9,923.5m
- 5 Diamond Core holes for 777.9m

#### Table 2. Drilling Summary for Jumbuck Deposits

#### (ASX:TYX - 30 May 2018 Announcement, "Gold Resources increase by 100,000 oz to 319,00 oz at Jumbuck"))

_	Deposit	Air	core Drillir	ng	F	RAB Drilling	3	F	RC Drilling		Diamo	ond Core D	rilling
-	$\supset$	No. of holes	Total (m)	Av. depth									
_	Golf Bore	165	6,724	40.8	227	8,920	39.3	243	21,088	86.8	2	286	143.0
1	Campfire				183	7,946	43.4	95	7,825	82.4	3	396	132.0
IJ	Bore	13	924	71.0									
	Greenewood	-	-	-	3	79	26.3	121	7,933	65.6	5	794	158.8
	Monsoon	97	5,170	53.3	269	15,598	60.0	52	4,100	78.9	-	-	-
1	Typhoon	27	1,579	58.5	188	10,530	56.0	45	4,066	90.4	-	-	-
	Mainwood	24	1,171	48.8	143	6,718	47.0	39	2,791	71.6	-	-	-
-	Total	326	15,568	47.8	1,013	49,791	49.2	595	47,803	80.3	10	1,476	147.6

#### **Material Information Summary**

# **Geology and Geological Interpretation**

The Jumbuck project is located in the north-western portion of the Gawler Craton within the Christie-Mulgathing Mobile belt. Archaean rocks of the Gawler Craton are contained within the Mulgathing and Sleaford complexes. These complexes are typically perceived as multiple deformed granulite–granitoid terrains. They contain a diverse and relatively complicated stratigraphy. This stratigraphy consists of granulite facies metamorphosed presumed protolith of mafic to ultramafic volcanics including komatiitic flows, along with felsic volcanic, clastic and chemical sediments, including banded iron formations, carbonates and chert.

#### Sampling Techniques, Sub-sampling Techniques and Sample Preparation

RC drilling was sampled on 1m intervals as the hole was drilled. A sub-sample of approximately 3kg was collected through a cyclone and splitter on the rig. Sample recovery is generally very good. Diamond core was sawn in half with a core saw and half core submitted for assay. Diamond core was HQ size (63.5mm). Core recovery in fresh rock is very high.

#### **Drilling Techniques**

The majority of drilling used in the estimation of Mineral Resources was RC drilling. Some RAB/Aircore is used in Inferred Resources in Campfire Bore, Mainwood, Typhoon and Monsoon. No RAB or Aircore drilling was used in Golf Bore or Greenewood estimations. The Diamond Drilling was HQ size core.

#### Classification

Mineral Resources are generally classified as Inferred except when drilling density is such that continuity of mineralisation can be assumed. Indicated resources have been estimated at Golf Bore and Greenewood where drilling density is at 25m spacing and at least three holes and 5 samples have been used for the estimation. Drilling is generally spaced at 50m and in these cases the resource category is Inferred.

#### **Sample Analysis Method**

Samples were submitted for assay at Bureau Veritas laboratories in Adelaide. Samples were fire assayed with a 40g charge and finished by AAS.

#### **Estimation Methodology**

Three dimensional geological interpretations were constructed using Vulcan software. These included mineralised shapes, topography and weathering boundaries. Search directions were oriented along the strike of mineralisation and search distances were based on drill spacing. Where appropriate a two pass search was conducted to aid in classifying resources. Inverse distance squared grade interpolation was used.

#### **Cut-off Parameters**

All resources have been reported using a cut-off grade of 0.5g/t. The reported Mineral Resources are generally all within 100m of the natural surface and are therefore potentially exploitable by open cut mining methods. A cut-off grade of 0.5g/t is considered appropriate for such mining methods.

#### **Mining and Metallurgical Factors or Assumptions**

At this stage no mining or metallurgical assumptions or factors have been considered except for the application of a cut-off grade of 0.5g/t when reporting the Mineral Resources.



Figure 3: The Jumbuck gold project tenements and key prospects. (source: Tyranna)

# Location and Tenure

- Jumbuck, (formerly the Western Gawler Gold Project) is located in north-western South Australia, on the western edge of the Gawler Craton. The tenement package of 7,279 km<sup>2</sup> comprises two groups – those held 100% by Tyranna, and a number of tenements held in the WGCJV, in which Tyranna currently holds 78% of gold and 100% of other mineral rights. (See Figure 3)
- Tenements are held as 100%, 78% JV and 70% JV. (See Figure 3)
- 21 granted exploration licences ("EL"),
  - 7 EL's in JV
- Although not included in the original JV, Tyranna now has 100% of the rights to all minerals other than gold – this was a result of negotiations that resolved a dispute regarding overlapping claims that arose from the granting of ML6457 to WPG, that covered the down plunge mineralisation at Challenger, but was also within the northern part of the WGCJV tenement EL5661.
- Under the terms of the settlement, Tyranna dropped its claim to the northern part of EL5661, and in return received the rights to 100% of all other minerals and is currently in the process of transferring ownership of the WGCJV tenements from Challenger Gold Operations.

Given that the project is located over the Woomera Prohibited Area ("WPA"), Tyranna has a Deed of Access ("DoA") with the Department of Defence ("DoD"), which regulates periods of access and exclusion within the DoA area.

## Previous Exploration

- Exploration in the region has been carried out since the late 1960s, with the first systematic work carried out by CRA Exploration in 1990, however, results of this earlier work were generally regarded as disappointing.
- Work by the South Australian Department of Mines and Energy in 1991 identified significant basement gold anomalism, which led to Dominion Mining Ltd (**Dominion**) taking a tenement position in the region.
- Following an orientation survey, Dominion undertook regional calcrete sampling on a nominal 1,600m x 1,600m spacing in the mid-1990s, which identified over 300 anomalies, including the Challenger discovery, in addition to Golf Bore and others.
- Challenger was discovered by the follow up of a high order (180ppb Au) calcrete sample anomaly. Work over the project area included drilling of over 6,300 RAB, 230 aircore, 500 reverse circulation and 45 diamond drillholes.
- Dominion joint ventured the tenements to various companies in the mid-2000s, including Mithril Resources (ASX: MTH) for nickel (terminated in 2009) and Deep Yellow for uranium (terminated in 2008). Work by Mithril intersected mafic intrusive and magmatic sulphides at the Aristarchus prospect.
- Work by Southern Gold included additional regional and infill geochemical sampling, drilling, and airborne and ground geophysical surveying over a number of prospects. The initial resource estimation for Golf Bore was also completed by Southern Gold.

# **Regional Geology**

- The tenements are largely located over high grade Archaean metamorphics of the Mulgathing Complex, a subset of the Christie Domain, comprising some of the oldest units within the Gawler Craton.
  - Lithologies are generally poorly understood, but include gneisses, migmatites (units that have undergone partial melting) calc-silicates and banded iron formations ("BIFs") the area has variable younger cover and very limited outcrop, and weathering generally down to 20-50m.
  - It is interpreted that the precursors to the high grade metamorphics included a wide range of sedimentary and volcanic units, including mafic/ultramafic sequences virtually identical to the nickel hosting Archaean komatiites of the Yilgarn Craton and Superior Province of Canada.
- The region is intensely deformed and metamorphosed, with structural work at Challenger indicating that the latest main shortening direction is from the northwest and southeast, resulting in tight to isoclinal folds, associated with extensive faulting and shearing.

Major structure includes the arcuate Karari Fault Zone separating the Christie Domain from the Coober Pedy Domain in the north, and second order structures including the NNE trending Talacootra and Coorabie Fault zones, lying to the west and east of Challenger respectively. Key geophysical features include regional scale NE to NNE trending gravity highs, largely in the central to eastern part of the project area – these have never been drilled, however, are interpreted as possibly representing large volumes of mafic intrusives underplating and/or intruding the cratonic crust, and related to a Proterozoic mobile belt, considered similar to the Fraser Orogen in Western Australia.



Figure 4: Gawler Craton tectonic elements

On behalf of the Board.

David Low Executive Director Phone: +613 8648 6431 Email: reception@syngas.com.au

#### **Competent Persons statement:**

The information in this announcement that relates to Mineral Resource estimates, Exploration Results and general project comments is based on information compiled by Nicholas Revell, a Competent Person who is a Member of The Australian Institute of Geoscientists. Mr. Revell is a geologist consultant to Tyranna. Mr. Revell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to 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, Mineral Resources and Ore Reserves'. Mr. Revell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

### Appendix 1

### Mining Tenements as at 30 June 2019

Exploration Licence No	Tenement Name	Registered Holder	Interest
6002	Irra Outstation (Jumbuck)	Trafford Resources Pty Ltd	100%
6003	Garford Outstation West	Trafford Resources Pty Ltd	100%
6004	Garford Outstation East	Trafford Resources Pty Ltd	100%
6097	Wildingi Claypen	Trafford Resources Pty Ltd	100%
6171	Indooroopilly	Trafford Resources Pty Ltd	100%
6214	Hilga Crutching Shed	Trafford Resources Pty Ltd	100%
6215	Mt Christie	Trafford Resources Pty Ltd	100%
6216	Commonwealth Hill	Trafford Resources Pty Ltd	100%
5460	Mt Christie Siding	Trafford Resources Pty Ltd	100%
5680	Isthmus	Half Moon Pty. Ltd.	100%
5510	Mathews Tank	Trafford Resources Pty Ltd	100%
5551	Brickies - Wynbring	Trafford Resources Pty Ltd	100%
5526	Galaxy Tank	Trafford Resources Pty Ltd	100%
6005	Eagle Hawk	Trafford Resources Pty Ltd	100%
6098	Deep Leads	Trafford Resources Pty Ltd	100%
5817	Sandstone	Half Moon Pty. Ltd.	100%
5818	Lake Anthony	Half Moon Pty. Ltd.	100%
5819	Irra	Half Moon Pty. Ltd.	100%
5820	Barton Area	Half Moon Pty. Ltd.	100%

Exploration Licence No	Tenement Name	Registered Holder	Interest
ELA2012/291	Barton Siding	Trafford Resources Pty Ltd	100%
5772	Warrior Outstation	Half Moon Pty. Ltd.	100%
5998	Campfire Bore	Challenger Gold Operations Pty Ltd, Coombedown Resources Pty Ltd	70% rights to the gold
5298	Mulgathing	Challenger Gold Operations Pty Ltd	78% rights to the gold
5732	Sandstone JV	Challenger Gold Operations Pty Ltd, Coombedown Resources Pty Ltd	70% rights to the gold
5661	Jumbuck	Challenger Gold Operations Pty Ltd	78% rights to the gold
5720	Mobella	Challenger Gold Operations Pty Ltd	78% rights to the gold
5767	Sandstone	Challenger Gold Operations Pty Ltd	78% rights to the gold
6012	Blowout	Challenger Gold Operations Pty Ltd	78% rights to the gold

# 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>Reverse Circulation (RC)         <ul> <li>used high pressure air and a cyclone with a cone splitter</li> <li>Sampling was taken on continuous 1m intervals</li> <li>4m composite samples was completed by the contract laboratory</li> <li>Samples were transported to the laboratory in plastic bags</li> </ul> </li> <li>Diamond Drilling (DDH) diamond core was marked up on site and then delivered to Adelaide.</li> </ul>
Drilling techniques	• 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).	<ul> <li>Drilling was carried out using a multipurpose RC / Diamond drill rig, with oriented HQ Diamond core collected.</li> <li>Drilling was also done with aircore and RAB drilling techniques</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>RC split samples were recovered from a cyclone and cone splitter. The sample recovery were recorded</li> <li>Sample recovery of the diamond core is recorded on core blocks after each run and recorded in logging.</li> </ul>
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies	All drill holes were geologically and geotechnically logged.

Criteria	JORC Code explanation	Commentary
	<ul> <li>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>	
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/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples from RC drilling and Diamond pre-collars have been collected by rig mounted cyclone at 1m intervals throughout with compositing of the first 16-20m occurring at the lab. Samples from the Diamond core were collected as 1m samples in un-mineralised ground with various intervals between 0.4m -1.5m lengths, based on lithology, sampled through the mineralised zones. Slithers representing 1/3rd of the core volume were submitted for geochemical analysis</li> <li>Aircore and RAB drilling was sampled with 4m composites with 1m sampling in mineralized and/or zones of interest</li> </ul>
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>Samples were submitted to Bureau Veritas laboratory in Adelaide</li> <li>Analysis was by fire assay method FA001</li> <li>This method is considered appropriate for this style of mineralisation</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, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The results are considered acceptable and reviewed by geologists.</li> <li>No adjustments to assay data have been undertaken.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> </ul>	<ul> <li>Drill hole collar surveys and topographic surveys were carried out using a handheld GPS</li> <li>The grid system is MGA94, zone 53</li> </ul>

Criteria	JORC Code explanation	Commentary
	Quality and adequacy of topographic control.	Topographic control at is considered adequate.
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>The drillholes are generally on drill lines spaced between 50-100m line spacing with holes at ~25m spacing's along lines.</li> <li>Some drilling is on 25m spaced lines at Golfbore and Greenewood</li> <li>Most drillholes are drilled perpendicular to the dip direction of the gold mineralisation</li> <li>The drill spacing and density is considered appropriate for the estimation and classification of these Mineral Resources.</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>	• The orientation of sampling is appropriate to the orientation of the mineralisation, though at this stage is not confirmed if the angle shows the exact true width
Sample security	The measures taken to ensure sample security.	Samples were stored on site and transported to the laboratory in Adelaide
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No audits or review has been conducted as yet

# 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>The project comprises granted tenements EL4577, EL5526 and EL5183. These tenements are held in a JV between Tyranna (75%) and WPG Resources (25%)</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The area has been a target for mineral exploration since the 1990's by multiple companies. All of the known work has been appraised by Tyranna and has formed an important component of the company's assessment of the project.
Geology	• Deposit type, geological setting and style of mineralisation.	• Jumbuck is considered to be geologically analogous to the Challenger gold deposit, which is an orogenic, structurally controlled gold deposit within highly deformed terrain. Gold is hosted within gneiss and is generally found in economic quantities

Criteria	JORC Code explanation	Commentary
		along regional fold hinges
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 why this is the case.</li> </ul>	No individual drill hole results are reported in this announcement.
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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No individual drill hole results are reported in this announcement.
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>No individual drill hole results are reported in this announcement</li> <li>Drilling has generally been oriented perpendicular to the main strike. There may however be localized, high grade, plunging shoots that have not been adequately drilled to enable their orientation to be determined. These potential higher grade ore zones have not been modelled individually but have been incorporated into the overall mineralized zone.</li> </ul>
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.	Appropriate maps are included in main body of the report.
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 Exploration Results.	No individual drill hole results are reported in this announcement.

Criteria	JORC Code explanation	Commentary
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>	All relevant geological and geochemical data collected so far have been reported.
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> <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>	<ul> <li>Further work is required which includes mapping and other exploration programs such as RC and Diamond drilling.</li> </ul>

# Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul> <li>Tyranna geologists and database administrators routinely validate database entries with reference to original data.</li> <li>Independent checking of database validity included: Comparison of assays between nearby holes, checking for internal consistency between, and within database tables and comparing database assay entries with laboratory source files. These checks showed no significant discrepancies in the database used for resource estimation.</li> </ul>
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul> <li>Mr Revell has visited the project many times and has had direct involvement in drilling and sampling programs conducted by Tyranna Resources. Mr Maddocks has not visited the project site but has collaborated with Mr Revell in the preparation of the Mineral Resources.</li> </ul>
Geological interpretati on	<ul> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul> <li>Assessment of the Jumbuck project is at a comparatively early stage and high grade mineralisation controls have not yet been established in detail. Mineralisation is interpreted to be hosted within northeast trending, moderately dipping to vertical zones of sheared and altered quartz-feldspar-biotite gneiss units.</li> <li>Mineralisation is overlain by generally around 25 m of barren highly weathered material with commonly around 15 m of variably weathered transitional material. The transitional zone commonly shows apparent supergene enrichment of gold grades, including local dispersion of mineralisation outside the mineralised zones as interpreted for fresh mineralisation.</li> <li>Geological setting and mineral controls have been established with sufficient confidence for the current</li> </ul>

Criteria	JORC Code explanation	Commentary												
		estimates. Some areas, particularly the flat dipping supergene horizons, display continuity of mineralisation over several drill sections												
Dimensions	• The extent and variability of the Mineral Resource expressed as	Mineralised extents used for the current block model estimates have the following dimensions:												
	length (along strike or otherwise), plan width, and depth below	Origin			1	Extents			Block Size Max			Ble	Block Size Min	
	surface to the upper and lower limits of the Mineral Resource.		East	North	RL	East m	North m	RLm	x	у	z	x	у	z
		Campfire Bore	381000	6722400	-50	850	2500	250	10	25	10	5	5	5
		Golf Bore	404330	6726200	- 150	1900	1600	350	10	10	10	-	-	-
		Greenewood	377150	6721200	-100	750	750	300	2.5	2.5	2.5	5est	5est	5est
		Mainwood	376000	6720380	- 150	1200	1000	380	10	10	10	-	-	-
		Typhoon	348420	6657530	55	500	430	150	2.5	2.5	2.5	5est	5est	5est
		Monsoon	349800	6656500	0	1300	1000	200	10	10	5	- Min	- Max	
			Sear	Search Dimensions 1		Search Dimensions 2			Search Orientation			Samples	Samples	Top cut
			Major	Semi major	Minor	Major	major	Minor	Major	Semi major	Minor			
		Campfire Bore	150	150	50	-	-	-	45	0	-90	2	15	20
		Golf Bore	40	25	40	150	40	150	48	0	-30	5(2)	25(15)	20
		Greenewood	40	20	40	100	20	100	50	0	-20	2	15	15
		Mainwood	75	25	75	-	-	-	40	0	-30	2	7	20
		Typhoon	50	15	25	-	-	-	64	0	-50	2	10	15
		Monsoon	50	30	5	-	-	-	50	0	0	3	15	10
Estimation and modelling techniques	• The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	<ul> <li>Resources w</li> <li>Vulcan softw</li> <li>The search o</li> <li>The estimat</li> </ul>	vere estim ware was direction a ion techn	nated usin used for and exter ique is ap	ng Inver data con nts and ppropria	rse Dista mpilatic top cuts ite for tl	ince Squ in, doma applied he mine	iared (ID ain wire- I are tab ralisatio	<sup>2</sup> ). framing ulated a n style.	and for bove	resour	ce estin	nation.	
	<ul> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> </ul>	<ul> <li>There has be</li> <li>A previous e</li> <li>Inferred Res</li> </ul>	een no prestimate v sources	oduction vas anno	from th unced t	ne proje o the AS	ct. SX on 24	January	2017 ar	nd conta	ained a	total of	219,00	0oz of
	• The assumptions made regarding recovery of by-products	Estimated re	esources r	make no	assump	tions ab	out reco	overy of	by-prod	ucts.				
	<ul> <li>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</li> </ul>	The resourc	e models	include e	stimate	es for go	ld only.	No dele	terious e	element	s were	estimat	ed	

Criteria	JORC Code explanation	Commentary		
	• In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	<ul> <li>Block sizes are generally 10 x 10 x 10m. Greenewood and Typhoon have used 2.5 x 2.5m to better define narrow orezones. Some zones of supergene mineralisation were also modeled with 2.5m z direction blocks. Blocks, other than those in supergene zones, have been estimated using a parent size of 10x10x10m. Campfire bore used 25m long blocks along strike to reflect the dominant 50m spaced drilling</li> </ul>		
	Any assumptions behind modelling of selective mining units.	Selective Mining Units were not considered in the resource estimation.		
	Any assumptions about correlation between variables	The modeling did not include specific assumptions about correlation between variables.		
	• Description of how the geological interpretation was used to control the resource estimates.	The mineralised domains used for resource estimation are consistent with geological interpretation of mineralisation controls.		
	• Discussion of basis for using or not using grade cutting or capping.	• Top cuts were applied to be composites before modelling. Top cuts of 15g/t and 20 g/t were applied.		
	<ul> <li>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</li> </ul>	Model validation included visual comparison of model estimates and composite grades. There has been no production from the project for comparison.		
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	<ul> <li>Tonnages are estimated on a dry tonnage basis, with densities derived from immersion density measurements of air dried core samples. Where no measurements were available estimates have been made based on similar rock types and weathering. Generally oxide material is assigned 1.8t/m<sup>3</sup>, transitional 2.2 or 2.3t/m<sup>3</sup> and fresh rock 2.7t/m<sup>3</sup>.</li> </ul>		
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	• Economic evaluation of the project is at an early stage, and metallurgical and mining parameters for potential mining have not yet been established. The cut-off grades applied to the estimates reflect Tyranna's interpretation of potential open pit mining methods, gold prices, costs and recoveries.		
Mining factors or assumption s	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul> <li>It is envisaged that any potential extraction of these Mineral Resources will be via open pit mining methods. The resources are reported at a cut-off grade of 0.5g/t which is considered appropriate for open pit mining. The depth of modelled mineralisation is considered to have potential for eventual economic extraction via open pit mining.</li> </ul>		
Metallurgic al factors or	<ul> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction</li> </ul>	Detailed metallurgical test work has yet to be carried out for any of the prospects in regards to this report.		

Criteria	JORC Code explanation	Commentary
assumption s	to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmen tal factors or assumption s	<ul> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	• Evaluation of the deposits included in this report is at an early stage, and environmental considerations for potential mining have not yet been evaluated in detail. Information available to Tyranna indicates that there are unlikely to be any specific environmental issues that would preclude potential eventual economic extraction.
Bulk density	<ul> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	• Estimated resources include densities of 1.8, 2.3 and 2.7 t/bcm for oxide, transitional and fresh mineralisation respectively. These estimates are based on 26 immersion density measurements of air dried diamond core including 4 samples of transitional material and 22 samples of fresh material. The samples were not sealed to prevent water absorption. Uncertainties over the reliability and representivity of the density measurements are not significant for the current Inferred resources. Where no measurements were available estimates have been made based on similar rock types and weathering.
Classificatio n	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's</li> </ul>	<ul> <li>The current Mineral Resource estimates are all classified as Indicated or Inferred.</li> <li>Indicated resources have been determined by drill density and number of drillholes and samples utilized in grade estimation.</li> <li>25m spaced drilling with at least 3 drillholes and 5 samples has been used as the criteria for Indicated Resources at Greenewood and Golf Bore.</li> <li>The resource classification accounts for all relevant factors and reflects the competent person's views of the deposit.</li> </ul>

Criteria	JORC Code explanation	Commentary
	view of the deposit.	
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No formal audits have been undertaken in regards to this report. The estimates have been reviewed by Tyranna geologists, and are considered to appropriately reflect the mineralisation and drilling data.
Discussion of relative accuracy/ confidence	<ul> <li>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</li> <li>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</li> <li>These statements of relative accuracy and confidence of the estimate as a compared with production data, where available.</li> </ul>	<ul> <li>Confidence in the relative accuracy of the estimate is reflected by the categorization of most of the resources as Inferred.</li> <li>There is no clear understanding of geological controls over the distribution of high grades in primary material. This is due to paucity of drilling at depth.</li> <li>Additional closer spaced drilling into the primary zone will aid in determining the distribution and orientation of high grade ore zones. The current understanding is based on the Challenger gold deposit located nearby where mining has been progressing underground for several years on a narrow, steeply plunging high grade ore shoot.</li> <li>High grade shoots have not been delineated or modelled in this estimate. This estimate represents a 'bulk mining' approach. Additional geological and structural work combined with targeted drilling may well enable high grade ore zones to be delineated within the currently modelled lower grade domains.</li> </ul>